

3.12.3 LOCKLAND SHEPHERD LANE LANDFILL

Facility Name: Lockland Shepherd Lane
A.K.A.:
Location: 611 Shepherd Lane
Parcel(s): 64100020002
Lat/Long: 39.233958 -84.463529
Region: City of Lockland
Owner: Eagle Materials LLC
Operation (yrs): 1969 – 1983



FACILITY OVERVIEW

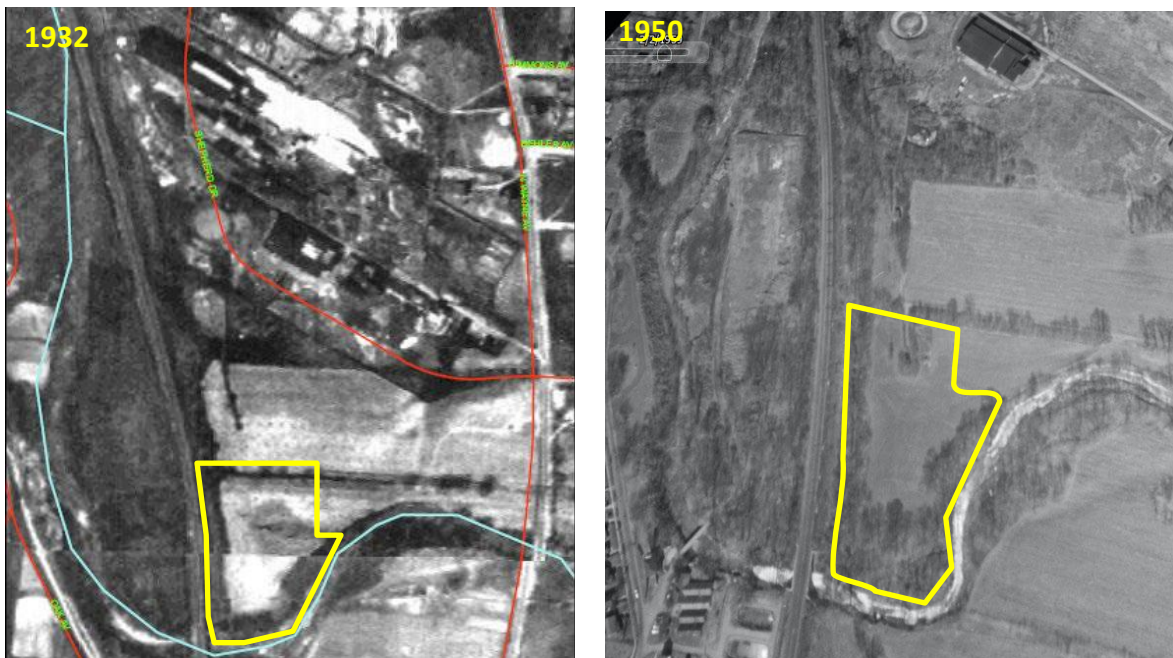
According to a study completed by the Ohio Department of Health, DuPont –Lockland Works operated a chemical manufacturing facility on the site and surrounding property from 1929 to 1951. The facility produced various chemicals such as sulfuric acid and muriatic acid.

FIGURE 3.12.3-A



Some waste from these processes was buried on site in shallow unlined pits, but the location of these pits is unknown. After the closure of DuPont-Lockland works in 1951, the site sat vacant until 1958 when a developer bought the site and turned it into an industrial park. In aerial pictures from 1932 and 1950 (figure 3.12.3-B) it appears that the landfill area is untouched and the plant is contained to the area north of the future landfill.

FIGURE 3.12.3-B

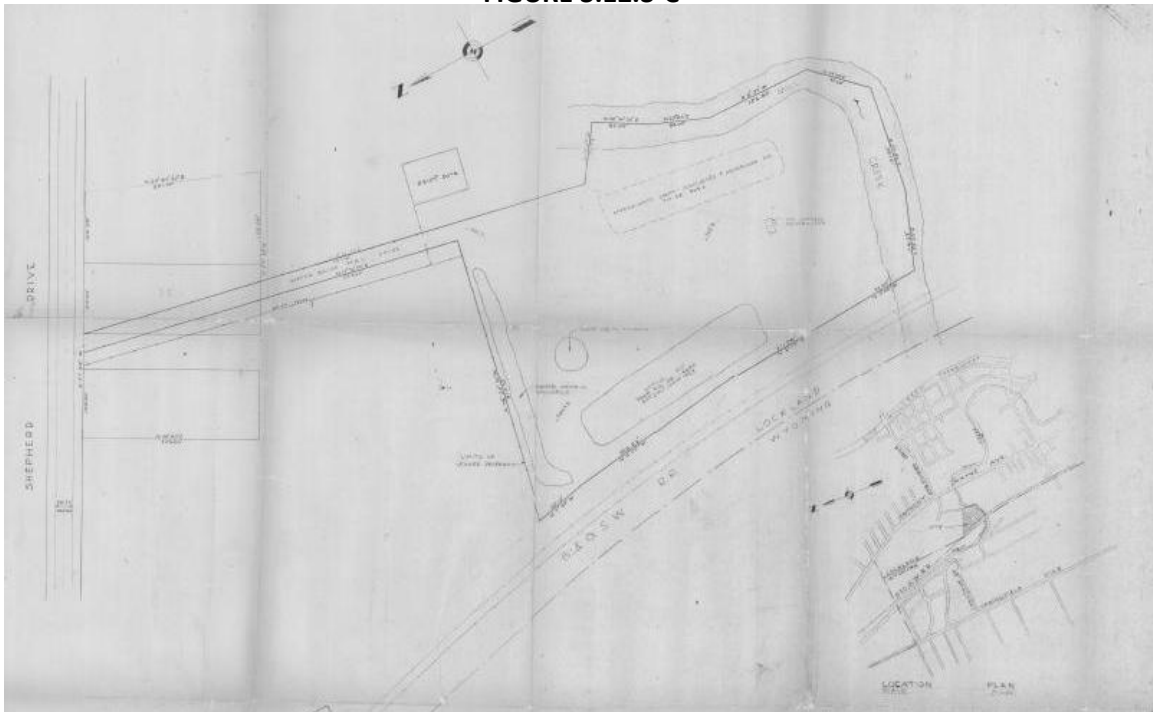


According to a solid waste disposal questionnaire completed in 1974 by the Ohio EPA the landfill was first licensed in 1969 by the Lockland City Health Department. The site received approximately 36 tons per week that consisted of 90% household and 10% commercial waste.

This site map below (Figure 3.12.3-C) was originally submitted in 1969 by Lockland, but this version is dated 1976 and shows the location of a completed pit and an active pit. The site was operated by Lockland until December 31, 1983, when the village's lease with the property owner expired. In February of 1984 the village

indicated they had an opportunity to buy the site and inquired about obtaining a license. The village was informed that the site would not meet the hydro geological requirements of the solid waste rules, but that the site could be used to dispose of clean fill including construction and demolition materials. At the time this type of operation required no license.

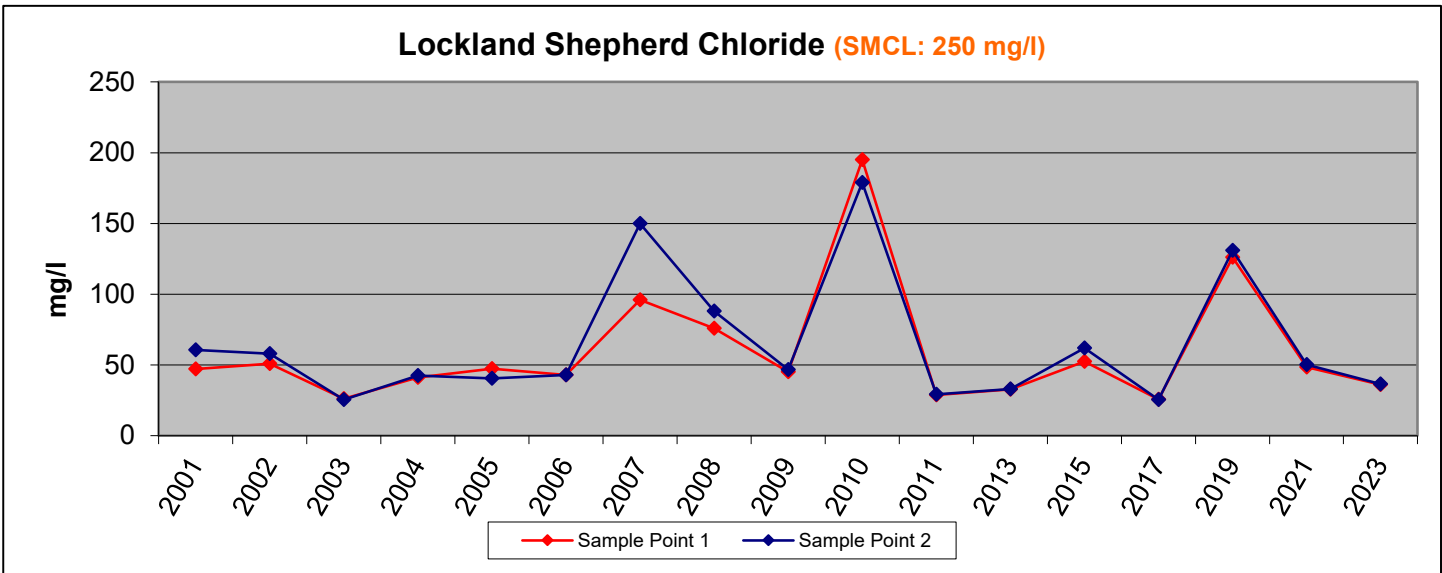
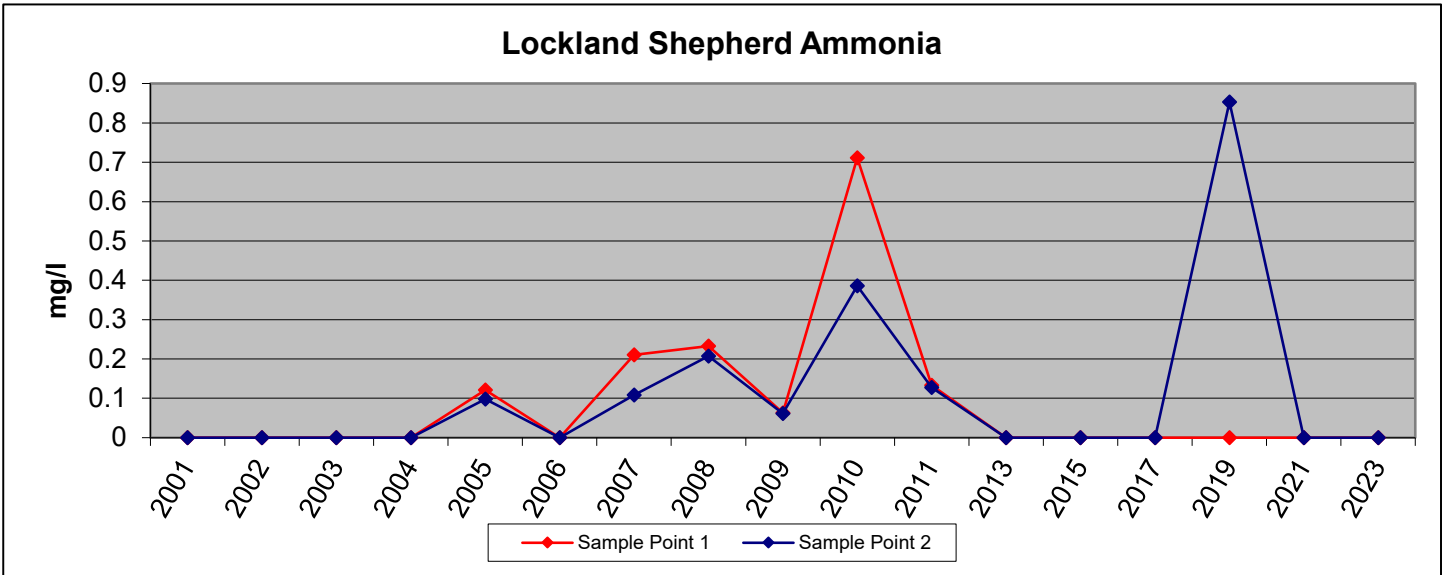
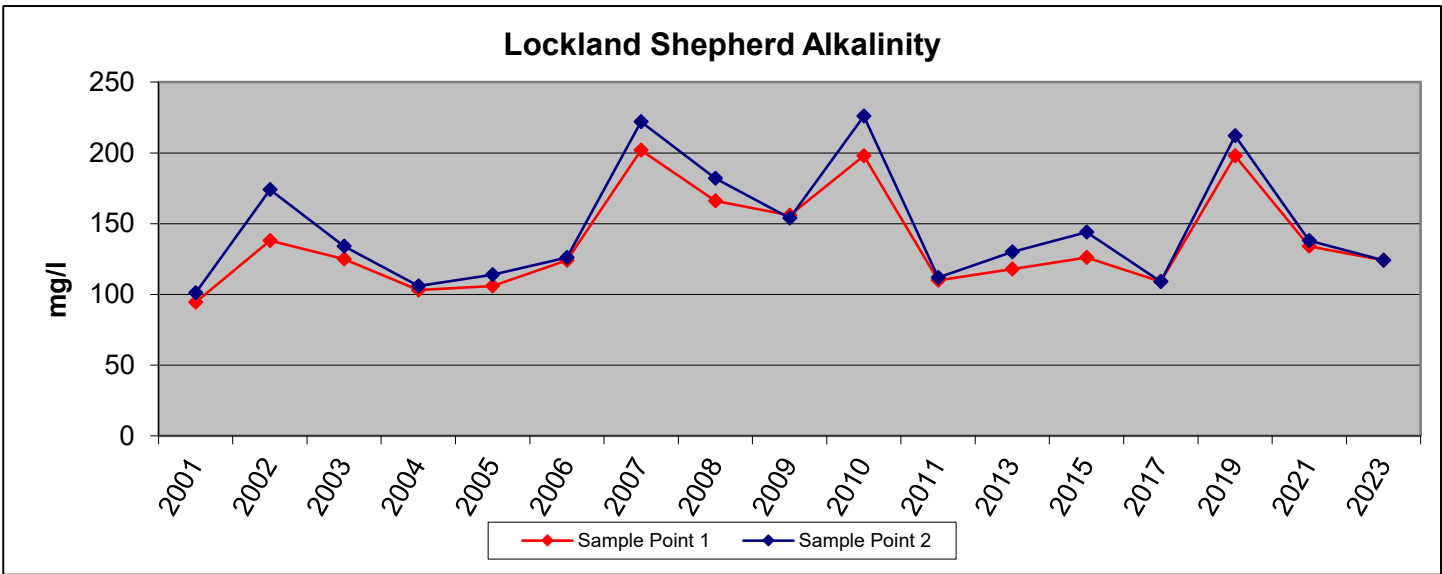
FIGURE 3.12.3-C

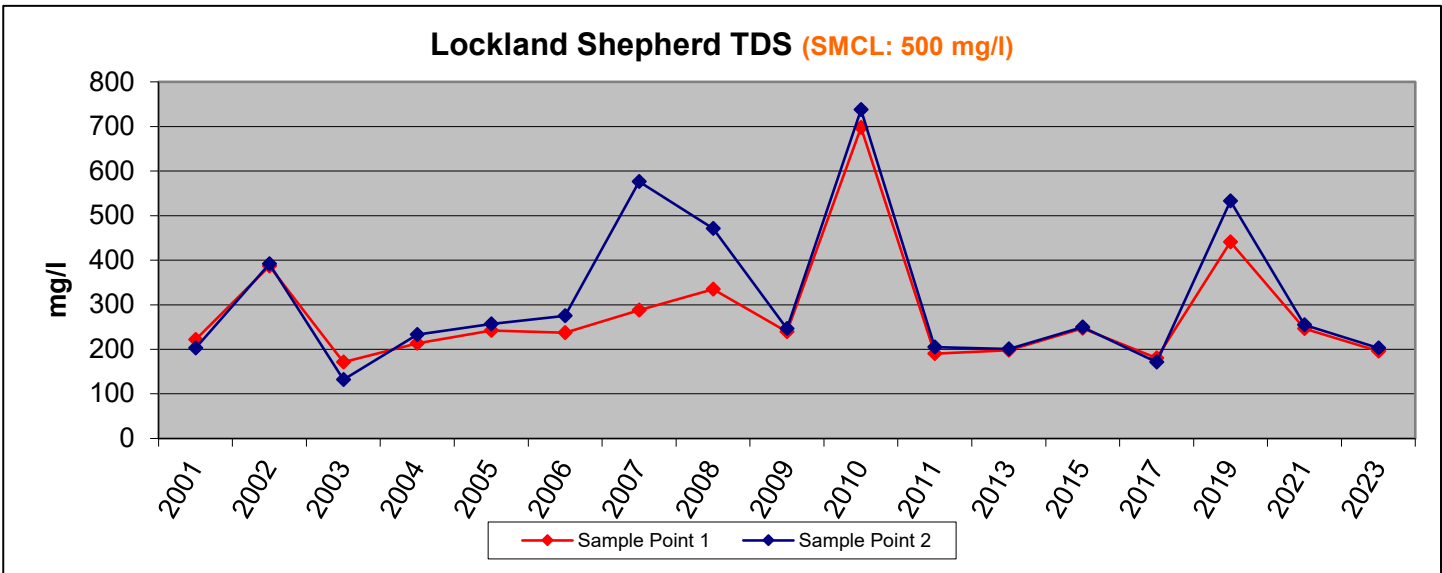
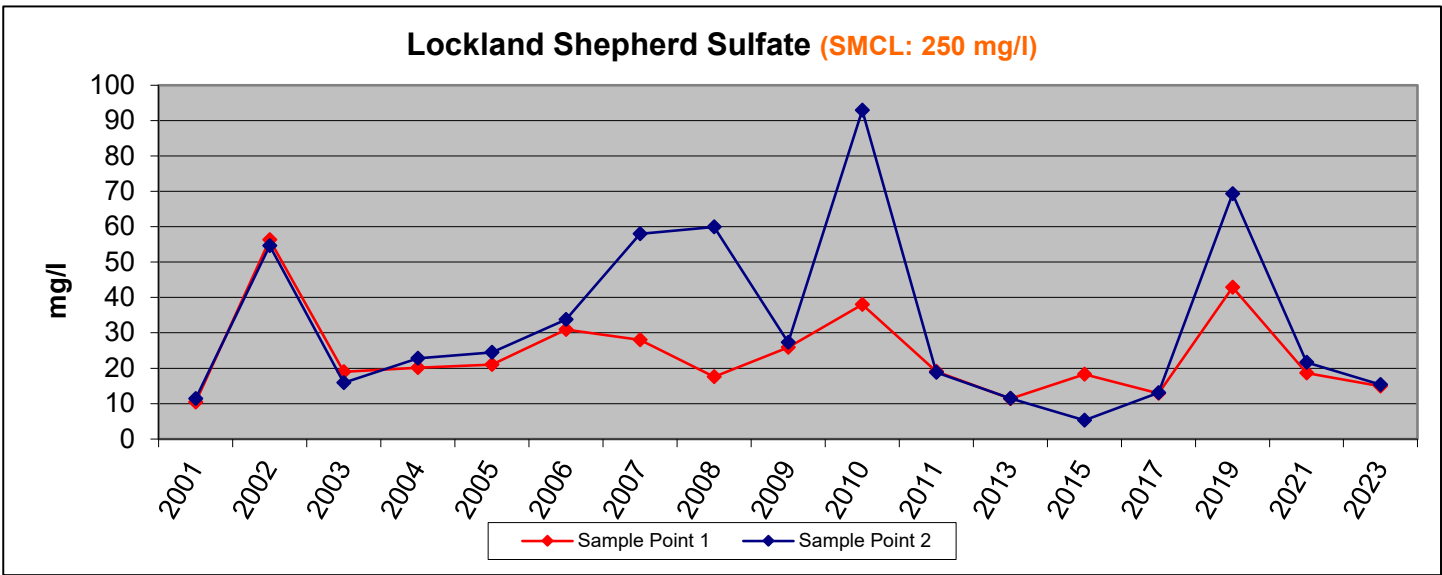
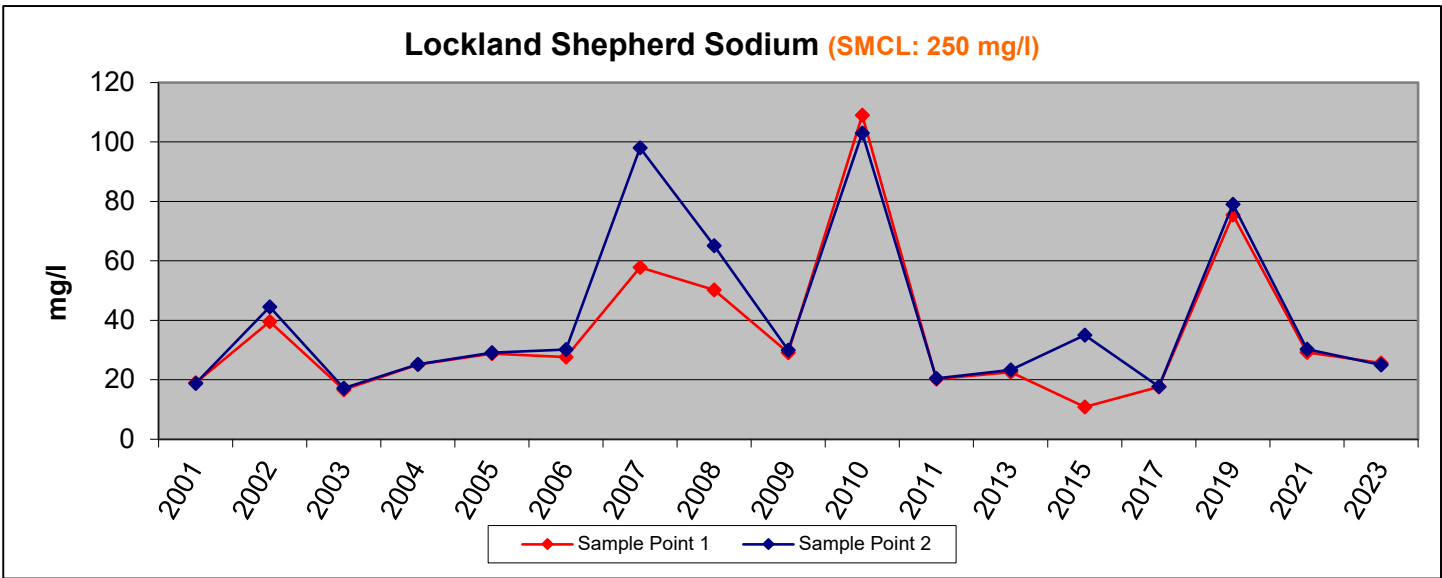


SAMPLING RESULTS

The West Fork of the Mill Creek flows along the south and east sides of the Lockland (Shepherd) Landfill. Stream samples are taken above (S-1) and below (S-2) the landfill. The Lockland landfill at Shepherd Lane is located adjacent and below the Wyoming landfill. Samples around Lockland Shepherd Lane Landfill were collected on November 6, 2023. The samples were collected during above average flow. Both S-1 and S-2 sample locations consists of pools and riffles with a gravel and rocky bottom. The referenced locations are shown on Figure 3.12.3-D.

In 2010, alkalinity, chloride, sodium, sulfate, TDS, ammonia, and conductivity all exhibited highest levels since sampling began for both upstream and downstream samples (Appendix A). During subsequent sampling events in 2011, 2013, 2015, and 2017 concentrations of the above-mentioned compounds returned to previously observed levels. In 2019 sampling results again increased to concentrations approaching those observed during 2010. For 2021 and 2023 monitoring, concentrations have trended downward and generally returned within ranges historically observed. Alkalinity, chloride, sodium, and sulfate all continued a decreasing trend when comparing 2019 to 2021 and 2023. Additionally, all remained below their respective SMCL's. During 2019 sampling, ammonia concentrations at sample point 2 were 0.853 mg/L. During subsequent sampling (2021 & 2023), ammonia concentrations have been below the detection limit for both locations. Iron has occasionally been above the SMCL (0.3 mg/L) at both sampling locations since it was added to the parameter list in 2010. During 2023 monitoring the upstream location was slightly above the SMCL with a concentration of 0.325 mg/L while the downstream location was below the SMCL. Manganese exceeded the SMCL at both sampling points in 2023. Manganese has exceeded the SMCL at both sampling locations during every sampling event since it was added as a parameter in 2010 and the concentrations observed in 2023 were within the elevated levels annually observed across the watershed. All other compounds remained below their respective MCL, secondary MCL, or action level at all sampling locations. Surface water chemical data is illustrated for Lockland Shepherd Lane Landfill in the graphs on the subsequent pages.





No gas sampling is performed at this landfill. Lockland Landfill is bordered to the south and east by the West Fork of the Mill Creek and to the west by the B&O Railroad. To the north are various businesses and a majority of the area is paved.

SITE INSPECTIONS

The site was last inspected by HCPH on December 28, 2023. No violations or nuisance conditions were observed on the site.

SITE PRESENT DAY

Currently a concrete company operates a plant on the site with equipment and material storage on top of the former landfill area.





Figure 3.12.3-D Wyoming and Lockland Shepherd Closed Landfills

- ◆ = Surface Water Sampling Location
- = Approximate Limits of Waste

