

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

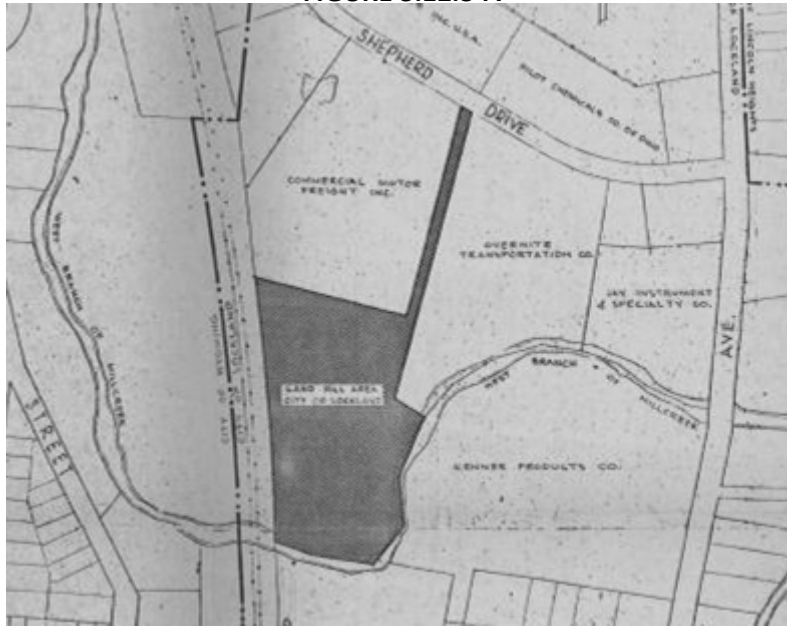
Operation (yrs): 1969 – 1983



FACILITY OVERVIEW

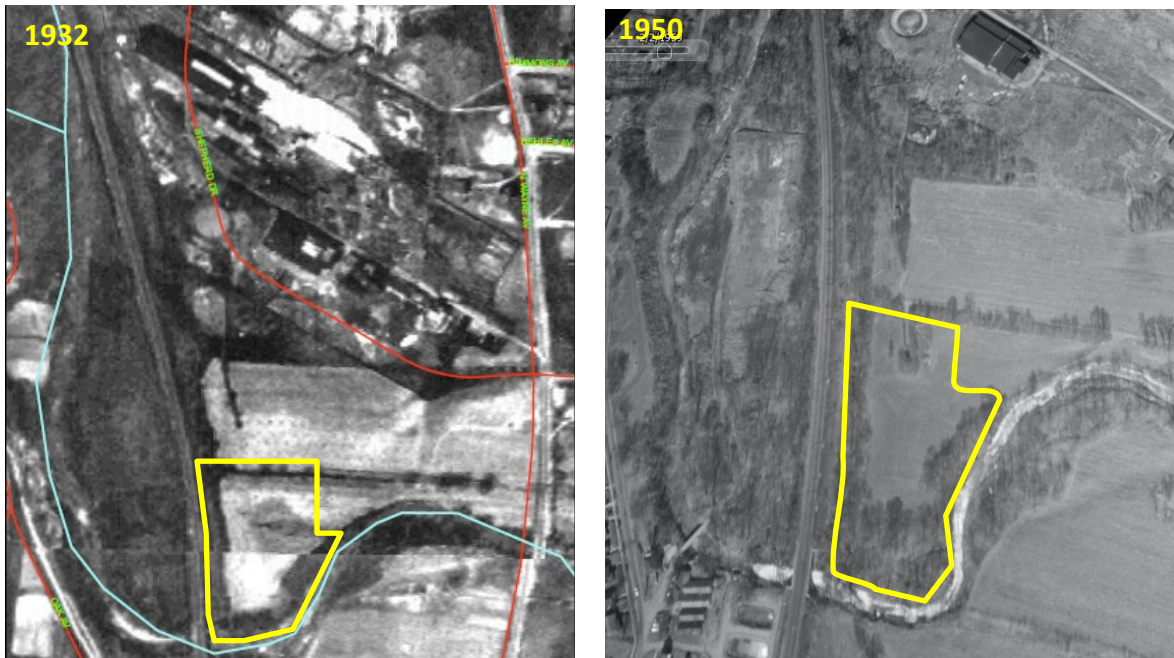
According to a study completed by the Ohio Department of Health, DuPont –Lockland Works operated a chemical manufacturing facility on the site and surrounding property from 1929 to 1951. The facility produced various chemicals such as sulfuric acid and muriatic acid.

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

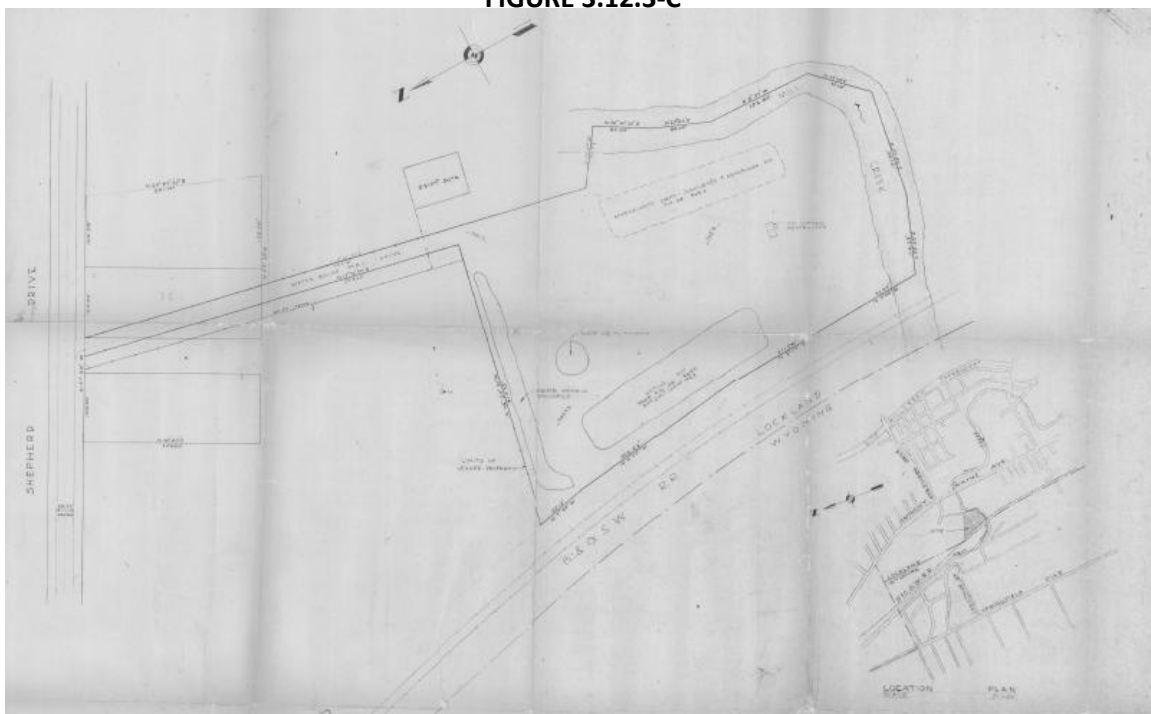


According to a solid waste disposal questionnaire completed in 1974 by the Ohio EPA the landfill was first licensed in 1969 by the Lockland City Health Department. The site received approximately 36 tons per week that consisted of 90% household and 10% commercial waste.

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

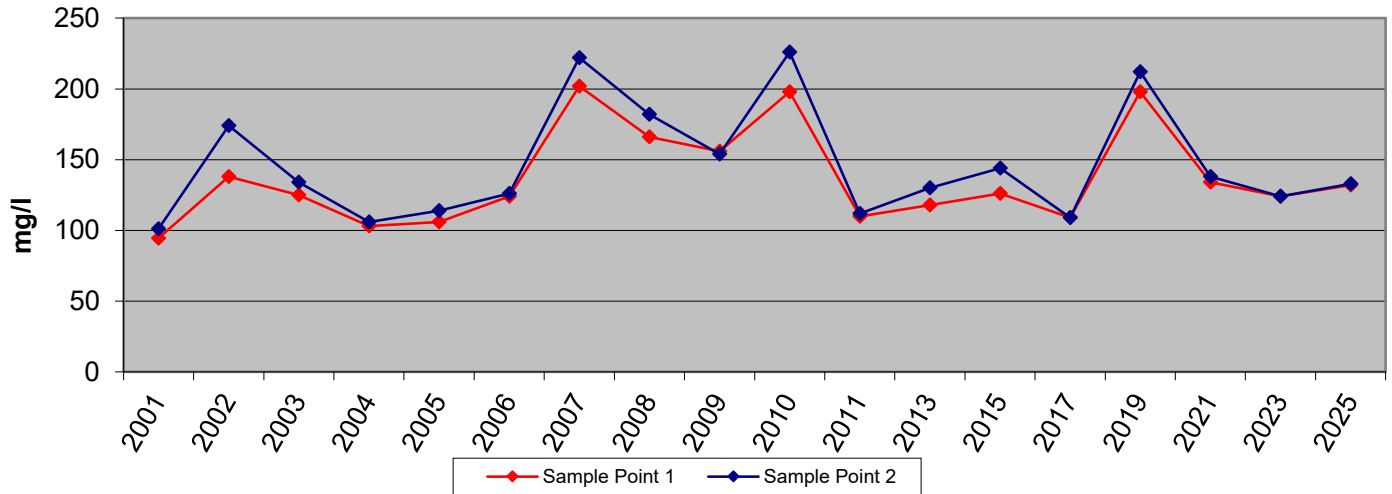


SAMPLING RESULTS

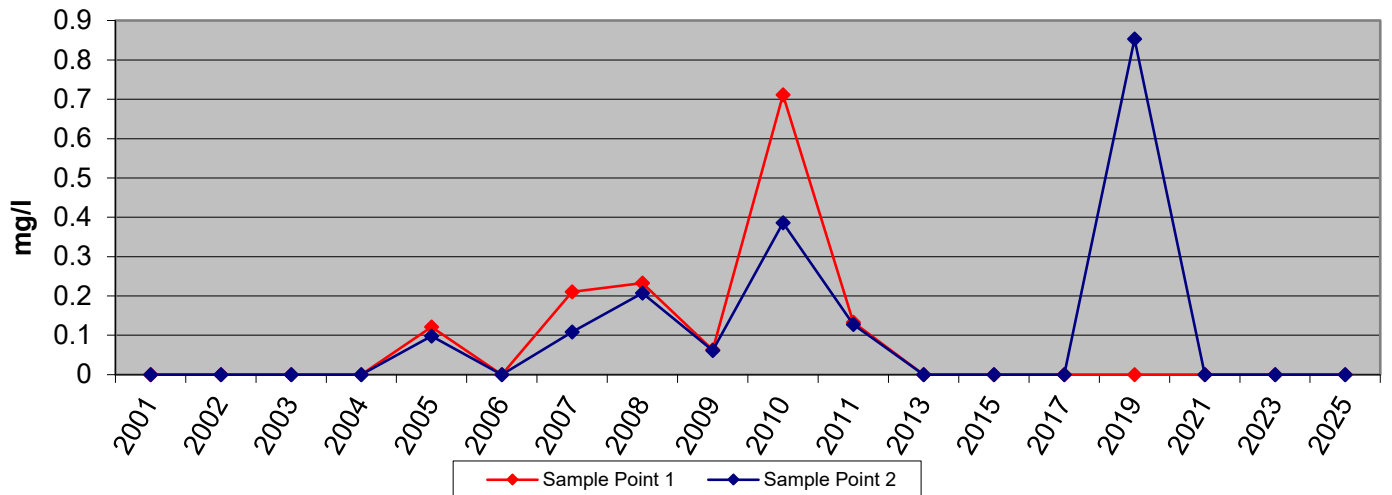
The West Fork of the Mill Creek flows along the south and east sides of the Lockland (Shepherd) Landfill. Stream samples are taken above (S-1) and below (S-2) the landfill. The Lockland landfill at Shepherd Lane is located adjacent and below the Wyoming landfill. Samples around Lockland Shepherd Lane Landfill were collected on October 20, 2025. The samples were collected during 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.

Chloride, sulfate and sodium have been relatively stable for the last three sampling events and all three parameters remained well below their respective SMCLs. Sample point 1 showed an increase in TDS during 2025 sampling but still remains below the SMCL of 500 mg/L. Ammonia concentrations have been below the detection limit for both locations during the last three sampling events. 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 both of the last two sampling events (2023 and 2025) the upstream location (S-1) has been slightly above the SMCL (0.3 mg/L) while the downstream location has been below the SMCL. Manganese exceeded the SMCL at both sampling points in 2025. 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 2025 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.

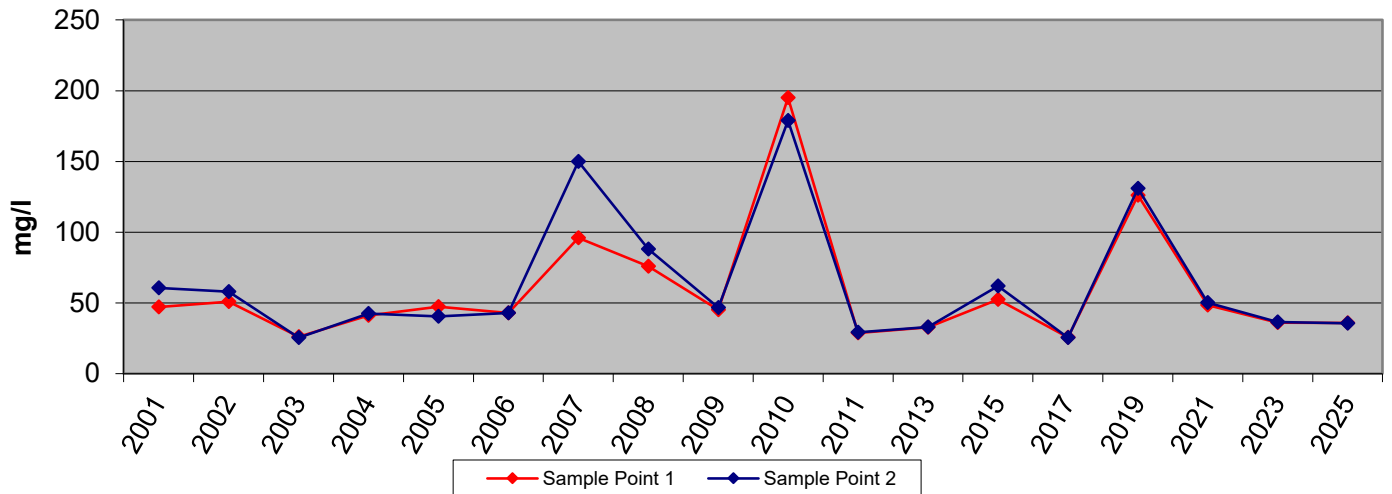
Lockland Shepherd Alkalinity

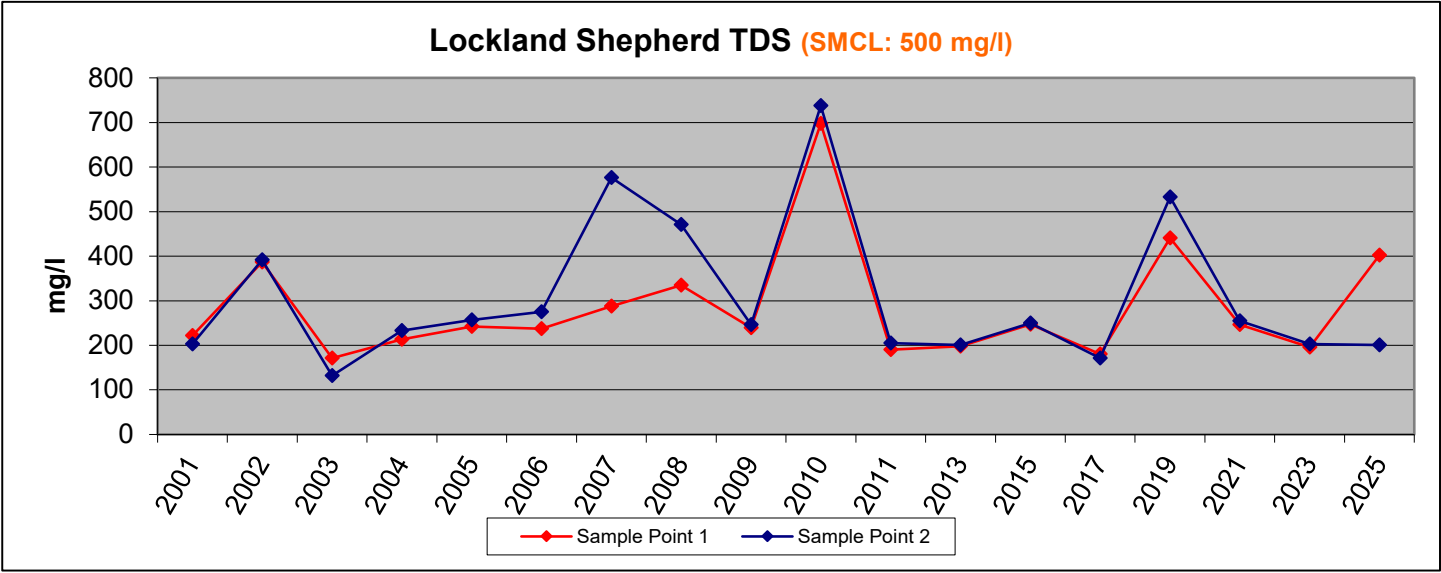
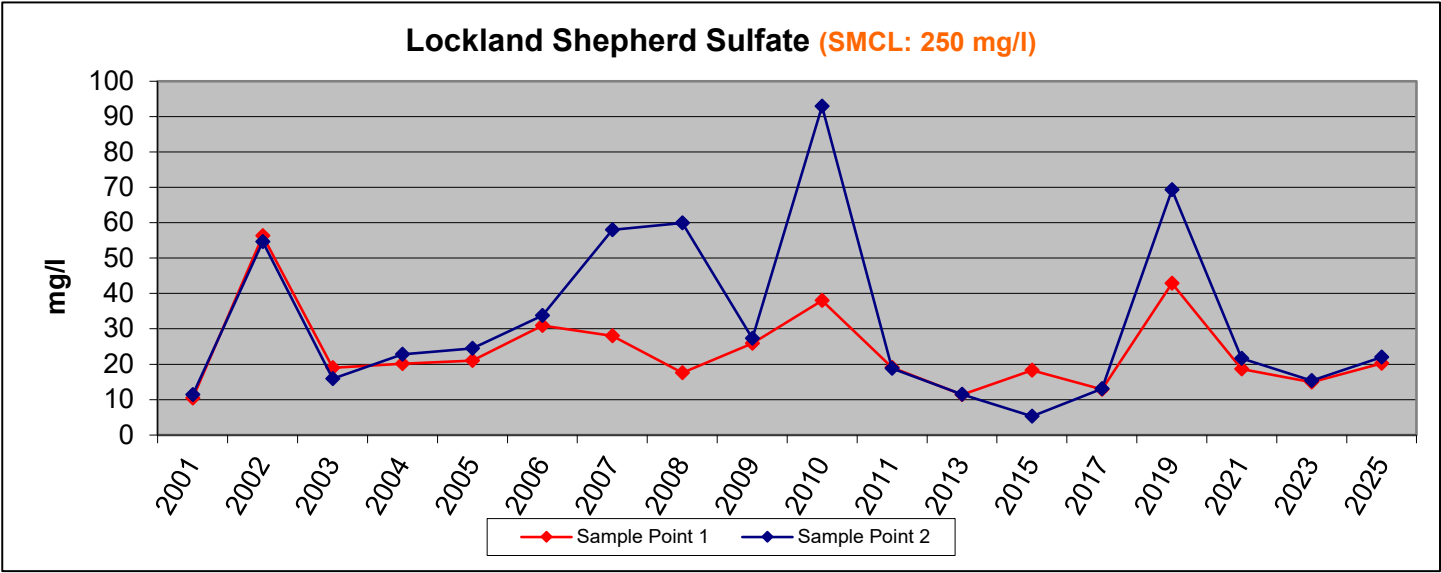
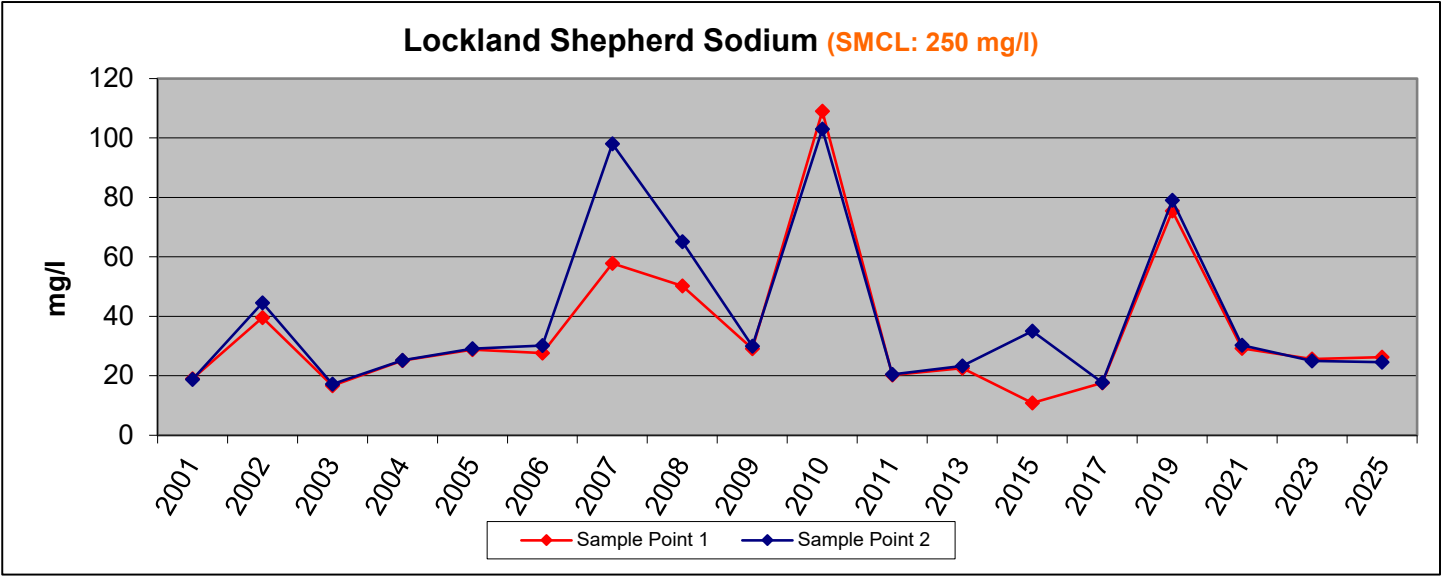


Lockland Shepherd Ammonia



Lockland Shepherd Chloride (SMCL: 250 mg/l)





During 2025 sampling, four organisms were found at S-1 while five organisms were found at S-2. The dominant organisms found at both locations were Caddisfly and Mayfly which are both indicative of high water quality. Additionally, the downstream location had a significant number of Water Penny observed which are also indicative of good water quality (Table 3.12.3-A). Similar types and number of organisms were found at the locations during the last several sampling events. The Health District staff will continue to monitor the biological water data in this area for any trends.

Table 3.12.3-A

	GROUP 1 (Higher Quality)														GROUP 2 (Moderate Quality)														GROUP 3 (Lower Quality)														Non-indicative												
	Micropterus	Notropis	Etheostoma	Amphibia	Gastropoda	Gastropoda	Coleoptera	Coleoptera	Coleoptera	Coleoptera	Trichoptera	Ephemeroptera	Plecoptera	Plecoptera	Chelydra	Pimephales	Amphibia	Pelecypoda	Pelecypoda	Pelecypoda	Diptera	Diptera	Diptera	Hemiptera	Odonata	Odonata	Odonata	Odonata	Isopoda	Amphipoda	Decapoda	Turbellaria	Nematoda	Annelida	Annelida	Gastropoda	Diptera	Diptera	Diptera	Diptera	Diptera	Diptera	Diptera	Diptera	Hemiptera	Hemiptera	Hemiptera	Hemiptera							
	Bass	Shiner	Darter	Plethodontinae (Salamander)	Lymnea (Snail)	Planorbidae (Snail)	Dytiscidae (Crawling Water Beetle)	Hydrophilidae (Beetle Larva)	Psephenidae (Water Penny)	Elmidae (Adult Riffle)	Caddis Fly	Mayfly	Stonely Nymph	Stonely Adult	Snapping Turtle	Minnow	Ranidae (Frogs)	Mussel	Fingernail Clam	Other Clams	Crane Fly Larvae	Crane Fly Adult	Phychopteridae (Phantom Crane Fly)	Sialidae (Alderfly)	Dragonfly Nymph	Dragonfly Adult	Damselfly Nymph	Damselfly Adult	Sow Bug	Scud	Crayfish	Flat Worm	Round Worm	Oligochaeta (Aquatic Worm)	Hirudinea (Leech)	Physa (Pouch Snail)	Simuliidae (Blackfly)	Tendipedidae Tendipes (Midge)	Tendipedidae Psychoda (Northfly)	Culex (Mosquito Larva)	Culex (Mosquito)	Tubifera (Rat-Tailed Maggot)	Unknown Larva	Gerridae (Water Strider)	Notonectidae (Back Swimmer)	Corixidae (Water Boatman)	Belostomatidae (Giant Water Bug)								
Location S-1										9*	27*	17*				*				4								9*			*	5*						6							*										
9/15/2005											1	36	23						1								4	*				*	2		*	*		3	4							*	1	*							
10/9/2006											4	6	4			3				3									2																	1*									
10/11/2007																6*			8	2							4		13	6	*	7		*	4	11	3																		
10/23/2008								1			3																	4		2			2																						
11/5/2009										1	8	1																2		6			2																						
9/23/2010													20			3																25						3																	
11/1/2011											2	50							5								1	5	1				5																						
9/3/2013									2*							1	2			5								1*	1*	2	>100		>100																						
10/13/2015											5	50																																											
9/21/2017											10	5																26	3				38			1																			
10/23/2019											11	43				*													2				16																						
10/13/2021									3		46	28							1		1						9				5	3																							
11/6/2023			2		1						10	14																	5							1																			
10/20/2025											24	77																	8				16																						
Location S-2																																																							
9/15/2005				1					2	8	4*					2*				1								5				8*																1*							
10/9/2006								1			2	12						4		5											1	*	2		*																				
10/11/2007										2		9				3				1						7		5	4																				1*						
10/23/2008												4				1			*								7		18	3	*	3*					2				*														
11/5/2009											1	12																	4									4	2																
9/23/2010												2				3											4					1																							
11/1/2011											5	50								5							1	5	1				5																						
9/3/2013												2*				>100															1*		50*			2*																			
10/13/2015											2	35					*														1	*							1																
9/21/2017								2		39	21																					30																							
10/23/2019								7		7	>100																						31				1																		
10/13/2021											34	38				*			1								17				5																								

* - Observed while sampling

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

