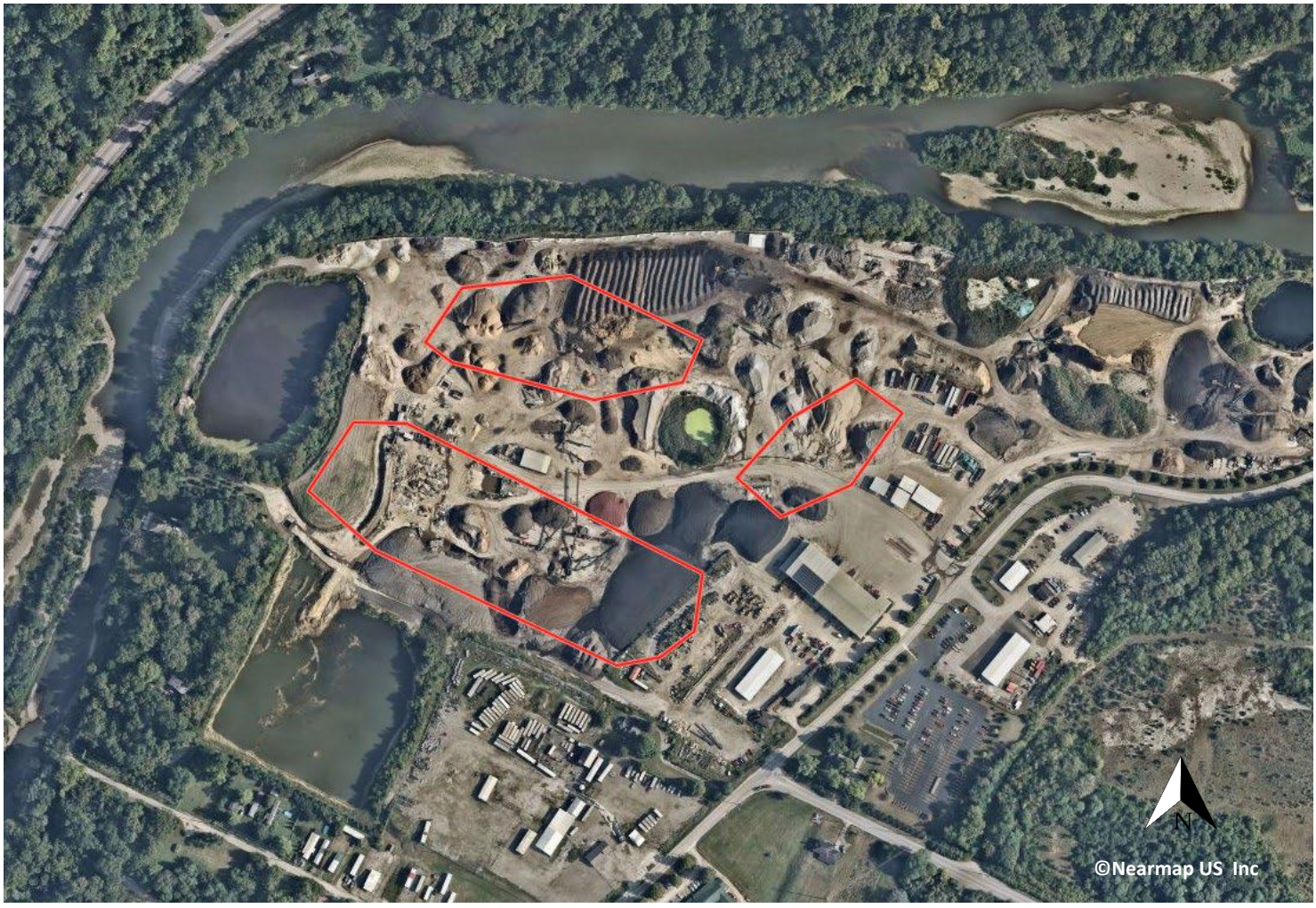
3.5.3 EVANS LANDFILL

Facility Name:	Evans
A.K.A.:	N/A
Location:	4229 Round Bottom Road
Parcel(s):	50001700016
Lat, Long:	39.144653 -84.331813
Region:	Anderson Township, OH
Owner:	BEE Holdings Limited Partnership
Operation (yrs):	unknown



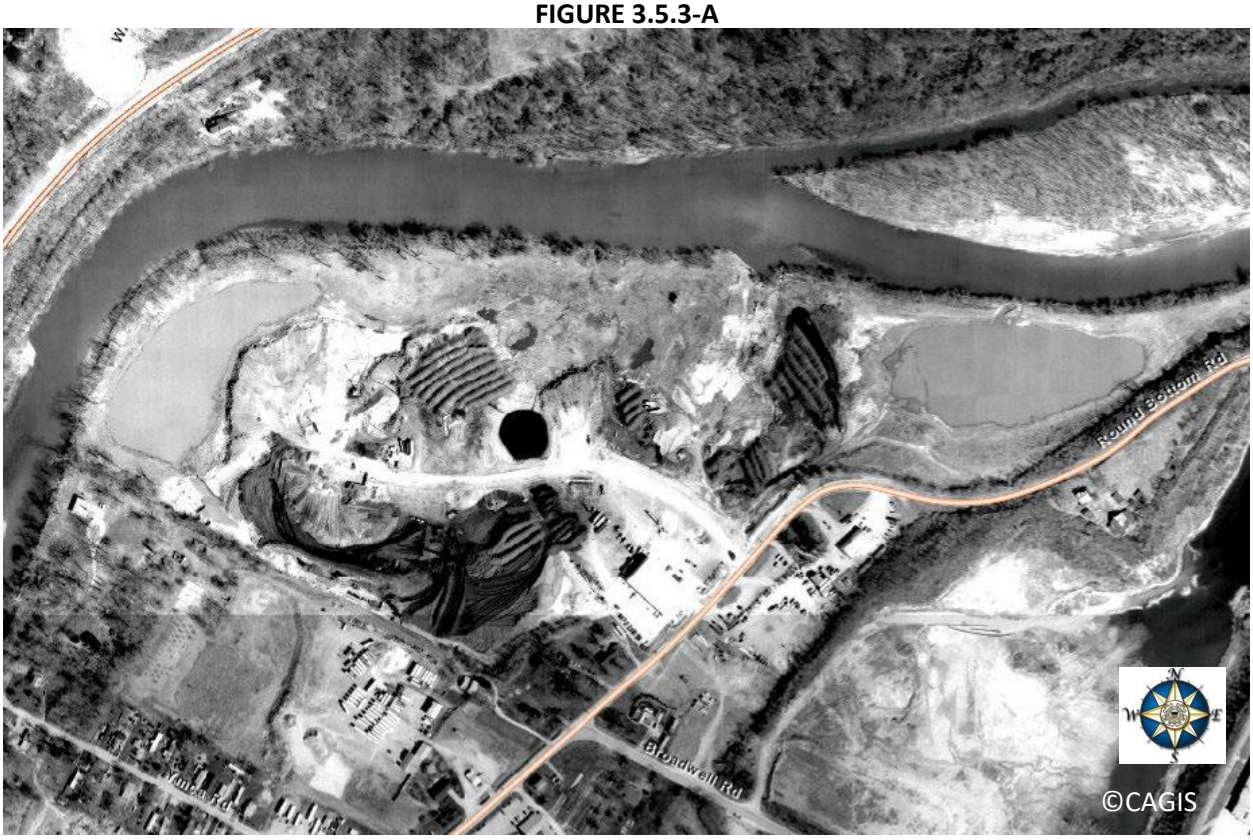
FACILITY OVERVIEW

The site is located west of Roundbottom Road and south and east of the Little Miami River. The site is located on a former sand and gravel pit that has been filled and re-graded. The property was used for sand and gravel mining from approximately 1964 to 1993. The Brewer Company was the property owner from 1978 – 1992 when the property was purchased by Douglas Evans. In 1998 the property was transferred to the current owner, BEE

Holdings Limited Partnership, which Mr. Evans is a partner of. This location is currently used for the operation of Evans Landscaping and includes a class IV composting facility registered with the Ohio EPA.

The 1996 aerial below (Figure 3.5.3-A) shows the suspected landfill area while in operation as a gravel pit and landscaping buisiness:

FIGURE 3.5.3-A

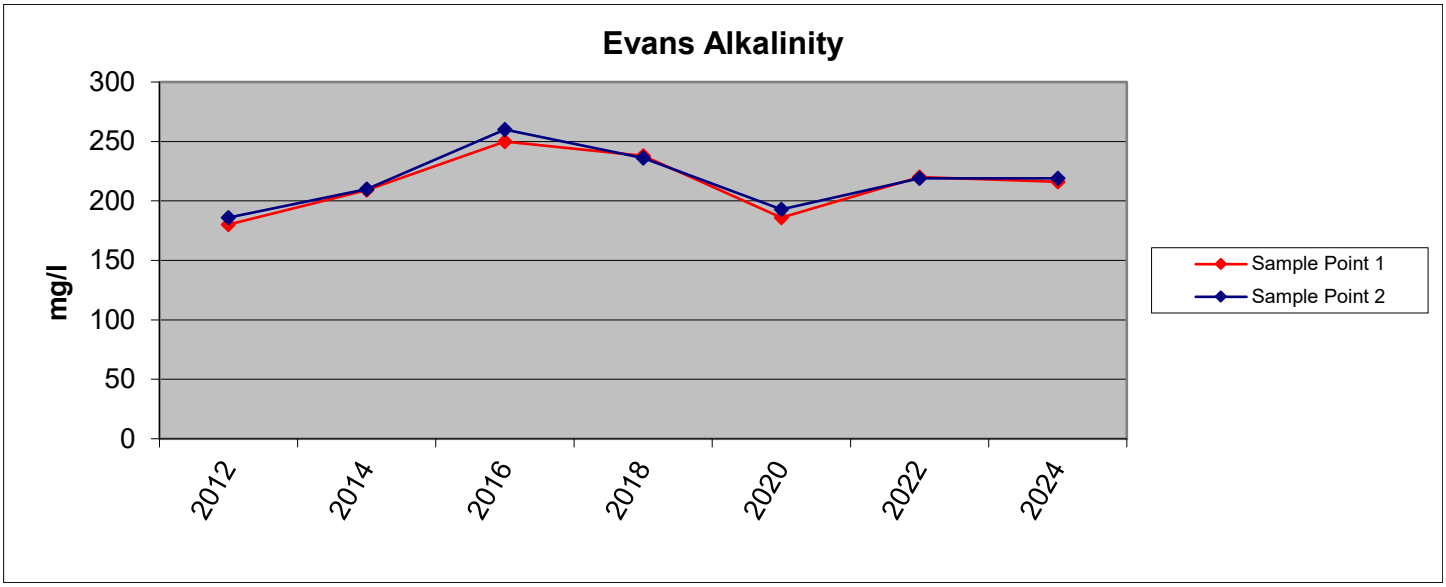


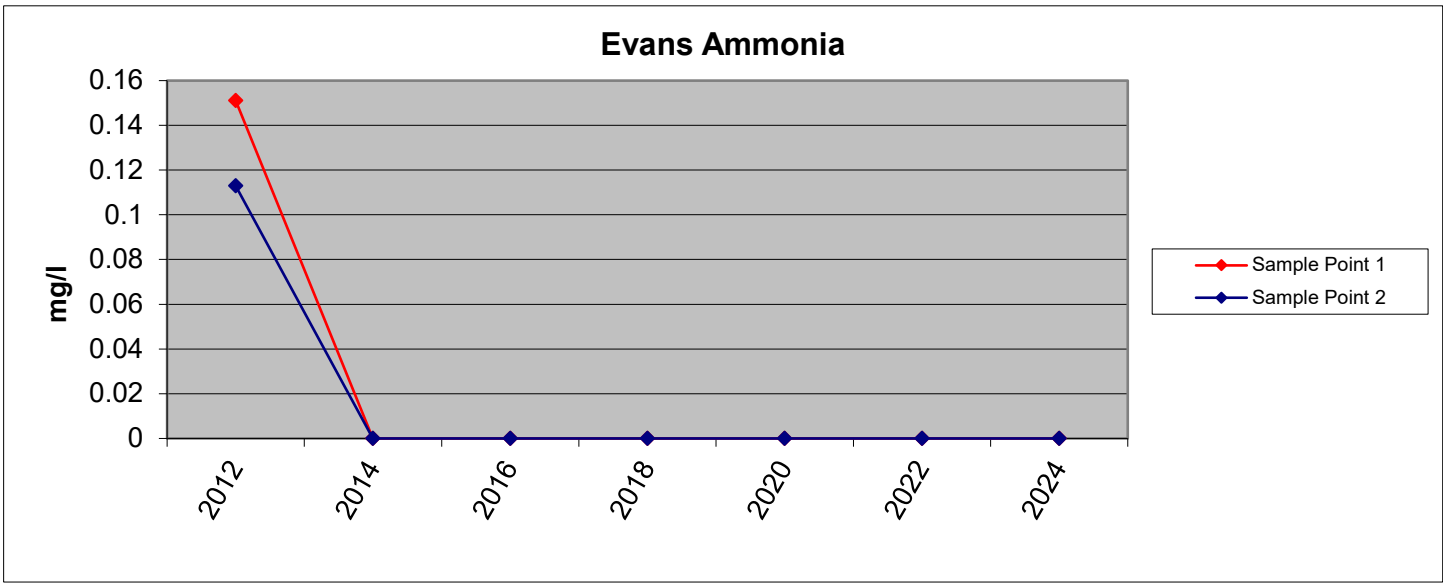
Concerns with the illegal acceptance of construction and demolition debris caused the Health District to require a hydrogeological investigation be performed by Evans Landscaping in 1999. The hydrogeological investigation report was submitted in March 2000. Five borings were completed and four of the five borings had monitoring wells installed. Four rounds of "background" sampling were completed in 1999 and 2000. Since that time sampling has been completed in 2001, 2002, 2004, 2006, 2008, and 2010. Sampling was completed in 2013 and a preliminary report was submitted but never finalized. Two replacement wells (MW-4R and MW-5R) were installed in 2022. Two monitoring events were completed in January and July of 2023. Samples were collected from two original wells (MW-2 & MW-3) and the two wells installed in 2022 (MW-4R & MW-5R). Increasing trends were observed for alkalinity, arsenic, barium, boron, calcium, chloride, magnesium, manganese, potassium, sodium, sulfate and total dissolved solids. Based on the results of the 2023 monitoring events a Ground Water Groundwater Quality Assessment Plan was required to determine whether the increasing trends in the groundwater are a result of the site or another source. Findings of the assessment were presented in 2025 findings report. The conclusion of the report was "*changes in groundwater quality and the elevated concentrations of arsenic and iron are due to the mulching operations and on-site salt storage and not from the disposal of C&DD*". Additionally, the report recommended the site no longer perform groundwater monitoring. Ground water data results are in the files at Hamilton County Public Health.

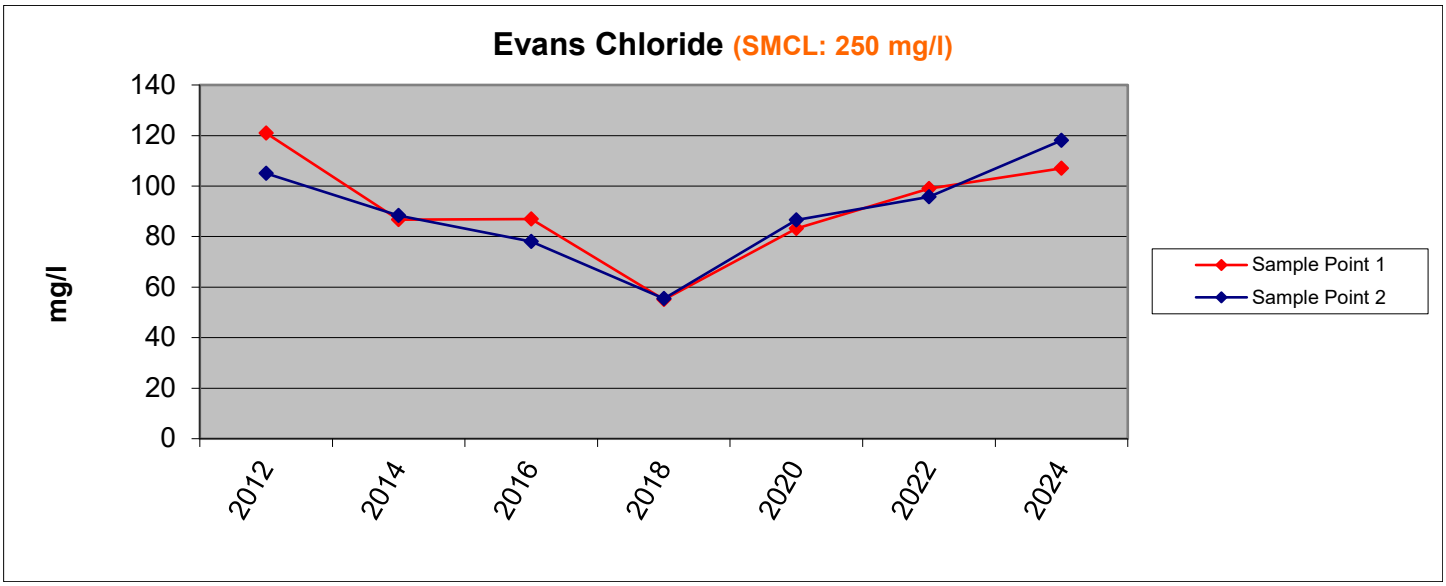
SAMPLING RESULTS

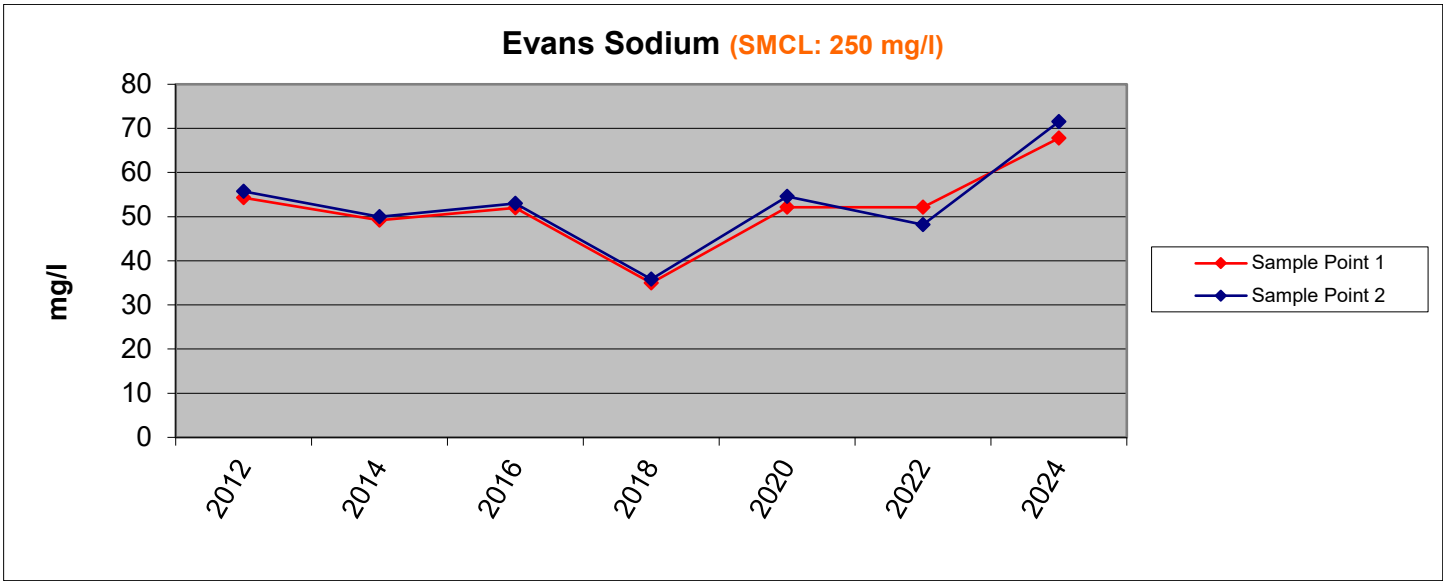
The Little Miami River runs along the north and west sides of the Evans Landfill. Sampling was completed on October 23, 2024 (Appendix A). Samples were taken above and below the landfill and the river had below average flow on the day of sampling. The upstream sample was in a shallow (1'), gravelly, rocky riffle area of the river. The shallow area had rapid flow across the rocks. The downstream sample was taken in slightly deeper water about 1 to 2 feet deep with a rocky bottom. The referenced locations are shown on Figure 3.5.3-B.

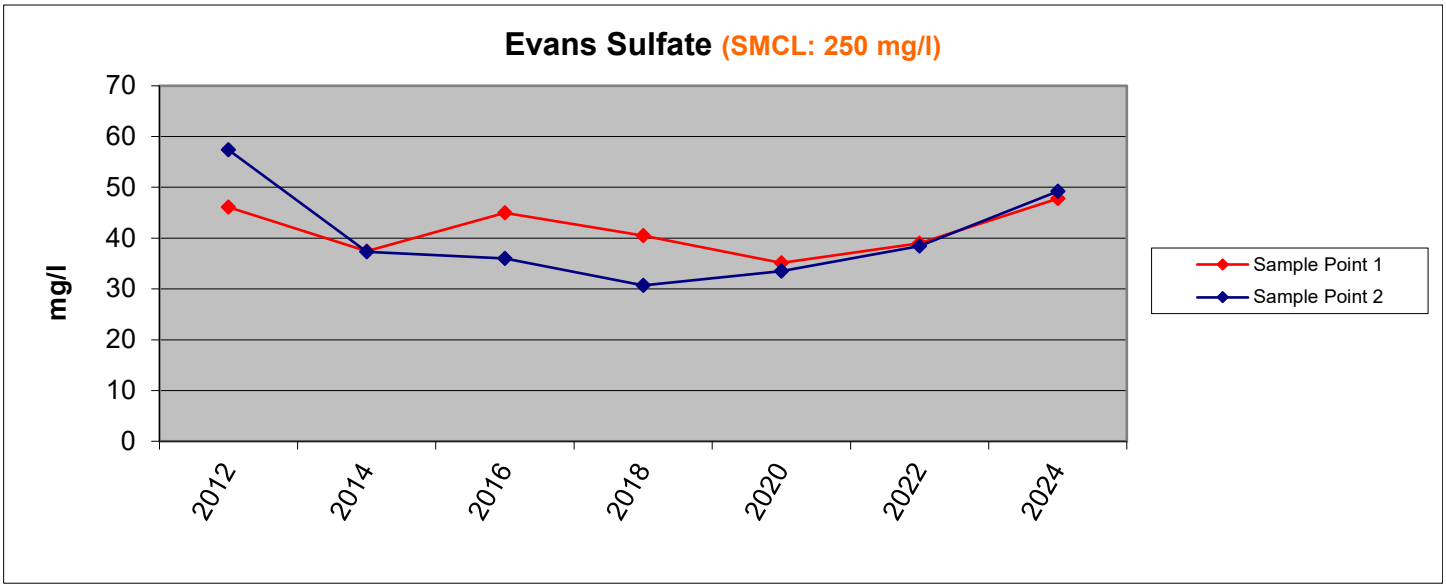
The two sampling locations have been monitored seven times since initial sampling was completed in 2012. Alkalinity has been relatively consistent with upstream and downstream concentrations between 180 and 260 mg/L during all sampling events. Similarly, ammonia has been less than 0.2 mg/L at both sample points during each sampling. Chloride, sodium, and sulfate have been well below their respective SMCL's consistently over the seven sampling events. TDS equaled the SMCL of 500 mg/L at sample point 2 during sampling in 2016. Concentrations during each of the four subsequent sampling events have been between 365 and 451 mg/L at both sampling locations. In 2020 iron concentrations were above the SMCL of 0.3 mg/L at both sampling locations. During both 2022 and 2024 sampling concentrations returned to levels below the SMCL at both sampling locations. Manganese concentrations have been below the SMCL of 0.05 mg/L at both S-1 and S-2 during the last two sampling events. All other parameters sampled for in 2024 were below their respective Maximum Contaminant level (MCL) or Secondary Maximum Contaminant Level (SMCL). No significant differences were observed between the upstream and downstream water quality. Data is illustrated for Evans Landfill in the graphs on the subsequent pages.

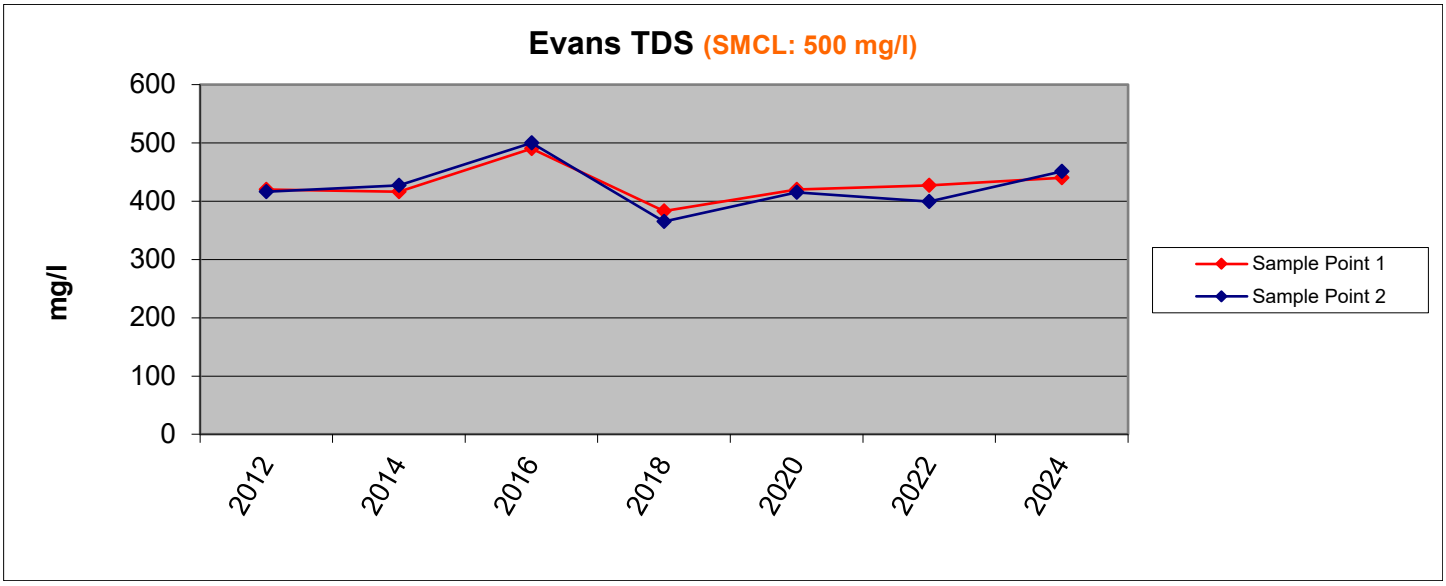

Evans Alkalinity
mg/l
300
250
200
150
100
50
0
2012
2014
2016
2018
2020
2022
2024
Sample Point 1
Sample Point 2


Evans Ammonia
mg/l
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
2012
2014
2016
2018
2020
2022
2024
Sample Point 1
Sample Point 2


Evans Chloride (SMCL: 250 mg/l)
mg/l
140
120
100
80
60
40
20
0
2012
2014
2016
2018
2020
2022
2024
Sample Point 1
Sample Point 2


Evans Sodium (SMCL: 250 mg/l)
mg/l
80
70
60
50
40
30
20
10
0
2012
2014
2016
2018
2020
2022
2024
Sample Point 1
Sample Point 2


Evans Sulfate (SMCL: 250 mg/l)
mg/l
70
60
50
40
30
20
10
0
2012
2014
2016
2018
2020
2022
2024
Sample Point 1
Sample Point 2


Evans TDS (SMCL: 500 mg/l)
mg/l
600
500
400
300
200
100
0
2012
2014
2016
2018
2020
2022
2024
Sample Point 1
Sample Point 2

Mayfly, caddisfly, flatworms, water penny, and snails have historically been the dominant organisms encountered at both of the sampling locations (Table 3.5.3-A). For 2024 sampling the number of types of organisms observed at the upstream sample (S-1) and the downstream sample (S-2) were 8 organisms and 9 organisms respectively. In 2022 the number of types of organisms observed were 11 organisms and 7 organisms respectively. At both sample locations the majority of the observed organisms were from the High or Moderate water quality indicator groups. Generally, the results indicate good environmental conditions were present and agreed with water quality results.

TABLE 3.5.3-A

	GROUP 1 (Higher Quality)														*GROUP 2 (Moderate Quality)*															*GROUP 3 (Lower Quality)*										*Non-indicative*			
	Micropterus	**Notropis**	**Etheostoma**	**Amphibia**	**Gastropoda**	**Gastropoda**	**Coleoptera**	**Coleoptera**	**Coleoptera**	**Megaloptera**	**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**	**Hemiptera**	**Hemiptera**	**Hemiptera**	**Hemiptera**
	Bass	Shiner	Darter	Plethodontinae (Salamander)	Lymnea (Snail)	Planorbidae (Snail)	Dytiscidae (Crawling Water Beetle)	Psephenidae (Water Penny)	Elmidae (Adult Riffle)	Dobsonfly Larva	Caddis Fly	Mayfly	Stonefly Nymph	Stonefly Adult	Snapping Turtle	Minnow	Ranidae (Frogs)	Mussel	Fingernail Clam	Other Clams	Crane Fly Larvae	Crane Fly Adult	Ptychopteridae (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)	Unknown Larva	Gerridae (Water Strider)	Notonectidae (Back Swimmer)	Corixidae (Water Boatman)	Belostomatidae (Giant Water Bug)
Location S-1																																											
2010				Not Sampled																																							
2011				Not Sampled																																							
9/26/2012					>100		12	2				>100				*											8				>100		1								*			
10/28/2014	*				>100			5			>100	>100																			2													
10/17/2016					>100			10			>100	>100				*	*														*										*			
10/17/2018					5						>100	29				*															20				1									
10/14/2020					>100			4			>100	22				*															>100													
10/11/2022					>100			3	1		>100	39	35			*	*										1				25										*			
10/23/2024					>100			10	3		2	>100				*	*														5													
Location S-2																																											
2010				Not Sampled																																							
2011				Not Sampled																																							
9/26/2012					12			3	20			5													1		7				8										*			
10/28/2014					>100							>100					*														50													
10/17/2016					11			15			>100	>100															1				5													
10/17/2018								7			5	28																			20				3									
10/14/2020					16			2			15	41															1				>100				2									
10/11/2022					33					1	>100	30	38																		21										*			
10/23/2024					>100			5		1	20	>100				*	*										4				43													

* - Observed while sampling

FACILITY INSPECTIONS

The landfill was inspected by HCPH on December 27, 2023. No violations or nuisance conditions related to the former landfill were observed on the site.

SITE PRESENT DAY

The site is currently used by Evans landscaping to store bulk materials. The former landfill area is now paved and used for storage and processing of the facility's mulch, compost, and recycling operations. The site is regularly inspected by HCPH.

HAMILTON COUNTY
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PREVENT. PROMOTE. PROTECT.

Figure 3.5.3-B

Evans Landscaping
4229 Round Bottom Road

◆ = Surface Water Sampling Location

= Approximate Limits of Waste

\+ = Ground Water Sampling Location