### 3.5.3 EVANS LANDFILL

Facility Name: Evans

A.K.A.: N/A

Location: 4229 Round Bottom Road

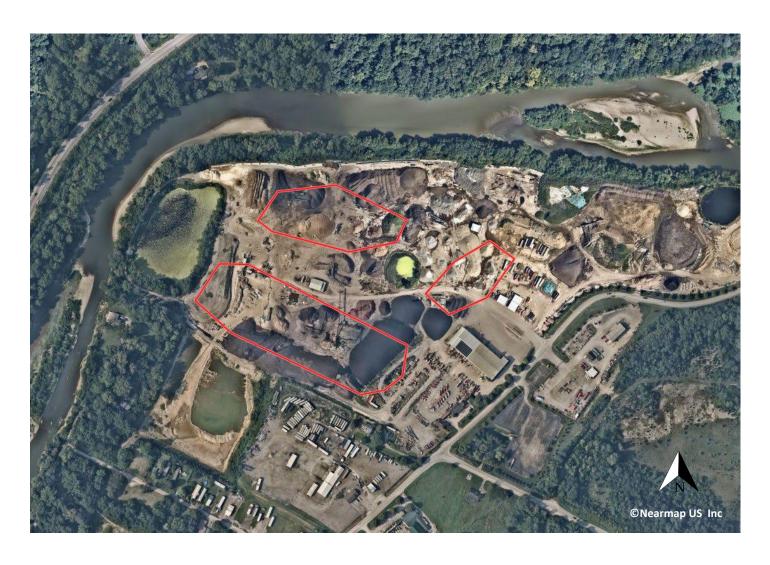
Parcel(s): 50001700016

Lat, Long: 39.144653 -84.331813

Region: Anderson Township, OH

Owner: BEE Holdings Limited Partnership

Operation (yrs): unknown

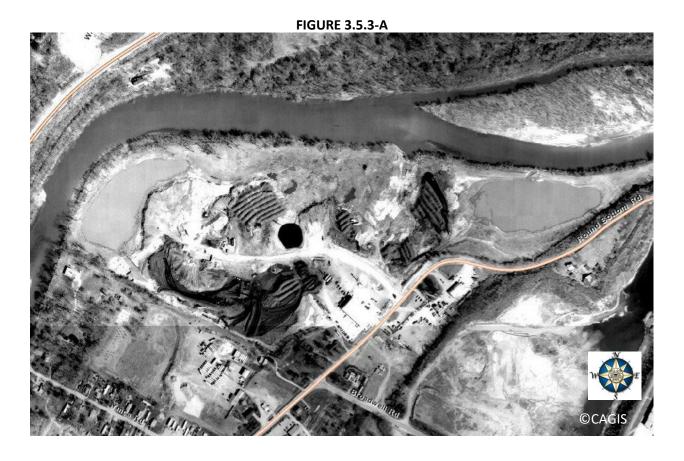


### **FACILITY OVERVIEW**

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:

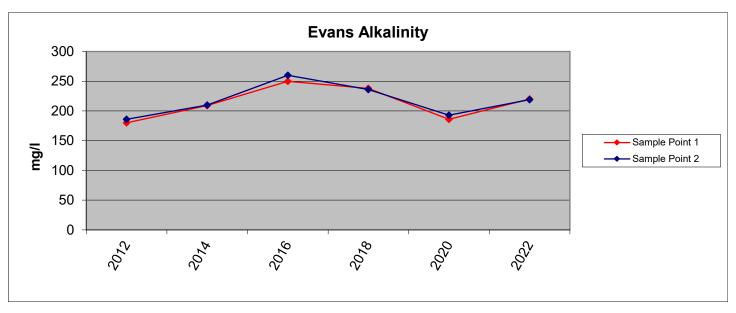


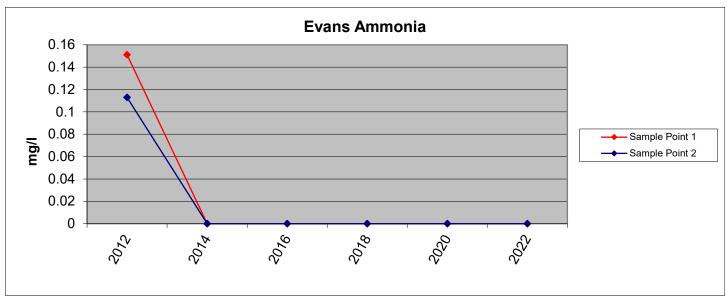
Concerns with the illegal acceptance of construction and demolition debris caused the Health District to require a hydrogeological investigation be performed by Evans Landscaping in 1999. The hydrogeological investigation report was submitted in March 2000. Five borings were completed and four of the 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. The plan includes semiannual sampling of the wells, monitoring of water quality of the Little Miami River upstream and downstream from the site, along with several additional activities. Ground water data results are in the files at Hamilton County Public Health.

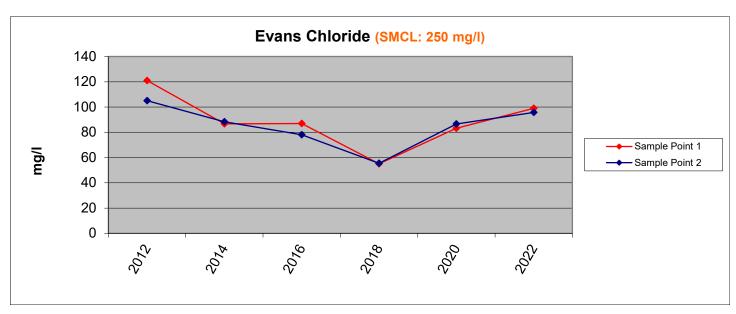
#### SAMPLING RESULTS

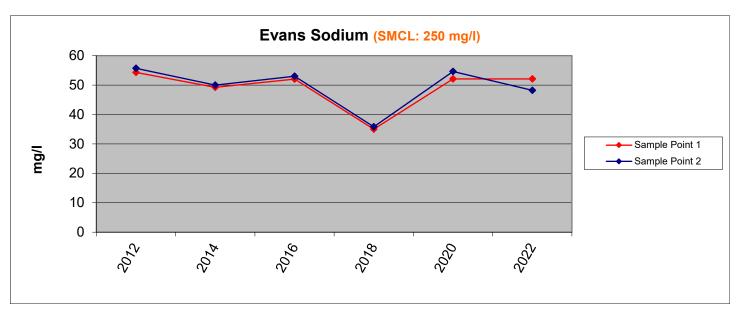
The Little Miami River runs along the north and west sides of the Evans Landfill. Sampling was completed on October 11, 2022 (Appendix A). Samples were taken above and below the landfill. The upstream sample was in a shallow (1'), gravelly, rocky riffle area of the river. The shallow area had rapid flow 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.

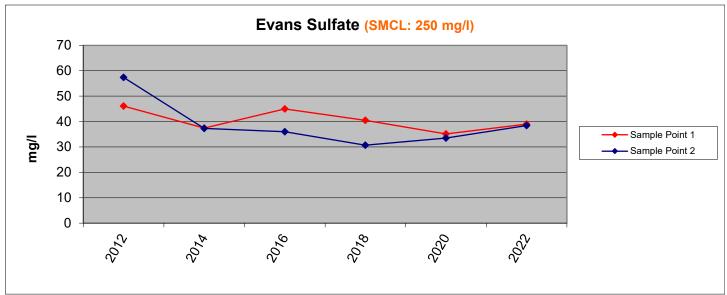
The two sampling locations have been monitored six times since initial sampling was completed in 2012. Alkalinity has been relatively consistent with upstream and downstream concentrations between 180 and 260 mg/L during all sampling events. Similarly, ammonia has been less than 0.2 mg/L at both sample points during each sampling. Chloride, sodium, and sulfate have been well below their respective SMCL's consistently over the six sampling events. TDS equaled the SMCL of 500 mg/L at sample point 2 during sampling in 2016. Concentrations during the three subsequent sampling events have been between 365 and 427 mg/L at both sampling locations. 2022 Iron concentrations were below the SMCL of 0.3 mg/L at both sampling locations after exceeding the SMCL at both locations during 2020 sampling. Manganese concentrations dropped back below the SMCL of 0.05 mg/L at both S-1 (0.0325 mg/L) and S-2 (0.0436 mg/L) after exceeding the SMCL at both locations in 2020. All other parameters sampled for in 2022 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.

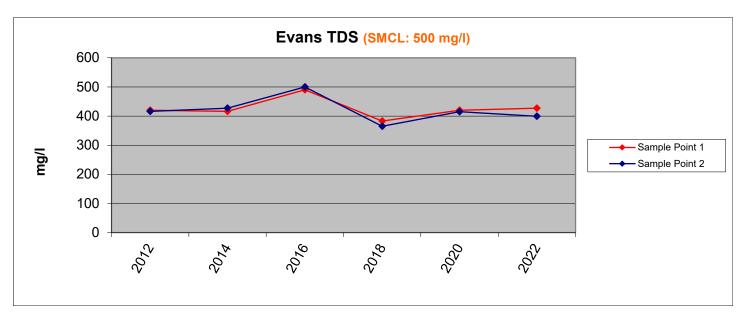












Mayfly, caddisfly, flatworms, water penny, and snails have been the dominant organisms encountered at both of the locations during the six sampling events (Table 3.5.3-A). For 2022 sampling the number of types of organisms observed at the upstream sample (S-1) and the downstream sample (S-2) were 11 organisms and 7 organisms respectively. In 2020 the number of types of organisms observed were 6 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 2 (Moderate Quality) GROUP 3 (Lower Quality) Non-indicative Ephemeroptera Megaloptera Trichoptera Gastropoda Gastropoda Pelecypoda Pelecypoda Gastropoda Pimephales Pelecypoda Amphipoda Coleoptera Coleoptera Coleoptera Hemiptera Plecoptera Turbellaria Chelydra Hemiptera Hemiptera Hemiptera Amphibia Amphibia Odonata Odonata Odonata Odonata Annelida Annelida Isopoda Diptera Diptera Diptera Diptera Diptera Crane Fly) Dytiscidae (Crawling Water Beetle) Fendipedidae Psychoda (Northfly) Belostomatidae (Giant Water Bug) Fendipedidae Tendipes (Midge) Notonectidae (Back Swimmer) Plethodontinae (Salamander) Psephenidae (Water Penny) Oligochaeta (Aquatic Worm) Corixidae (Water Boatman) Ptychopteridae (Phantom Gerridae (Water Strider) Culex (Mosquito Larva) Elmidae (Adult Riffle) Physa (Pouch Snail) Simuliidae (Blackfly) Planorbidae (Snail) Hirudinea (Leech) Sialidae (Alderfly) Dragonfly Nymph Damselfly Nymph Crane Fly Larvae Dobsonfly Larva Stonefly Nymph Snapping Turtle Ranidae (Frogs) Fingernail Clam Crane Fly Adult Damselfly Adult Jnknown Larva **Dragonfly Adult** -ymnea (Snail) Stonefly Adult Round Worm Other Clams Flat Worm Caddis Fly Sow Bug Mayfly Location S-1 2010 Not Sampled 2011 Not Sampled 9/26/2012 >100 12 2 >100 8 >100 10/28/2014 >100 >100 >100 5 2 10/17/2016 >100 10 >100 >100 10/17/2018 5 >100 29 20 10/14/2020 >100 >100 22 >100 10/11/2022 >100 3 >100 39 35 25 Location S-2 2010 Not Sampled 2011 Not Sampled 9/26/2012 3 20 10/28/2014 >100 >100 50 10/17/2016 11 15 >100 >100 5 10/17/2018 5 28 20 3 10/14/2020 2 15 16 41 2 >100 10/11/2022 >100 30 21

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<sup>\* -</sup> 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.







# **Figure 3.5.3-B**

Evans Landscaping 4229 Round Bottom Road

= Surface Water Sampling Location

= Approximate Limits of Waste

= Ground Water Sampling Location

