

### **3.15.3 OLD NEWTOWN LANDFILL**

Facility Name: Old Newtown Landfill

A.K.A.: N/A

Location: North/Northeast of Broadwell Road, East of Round Bottom Road

Parcel(s): 50001630001

Lat, Long: 39.142076 -84.325561

Region: Anderson Township

Owner: Martin Marietta Materials Inc.

Operation (yrs): 1980's and 1990's



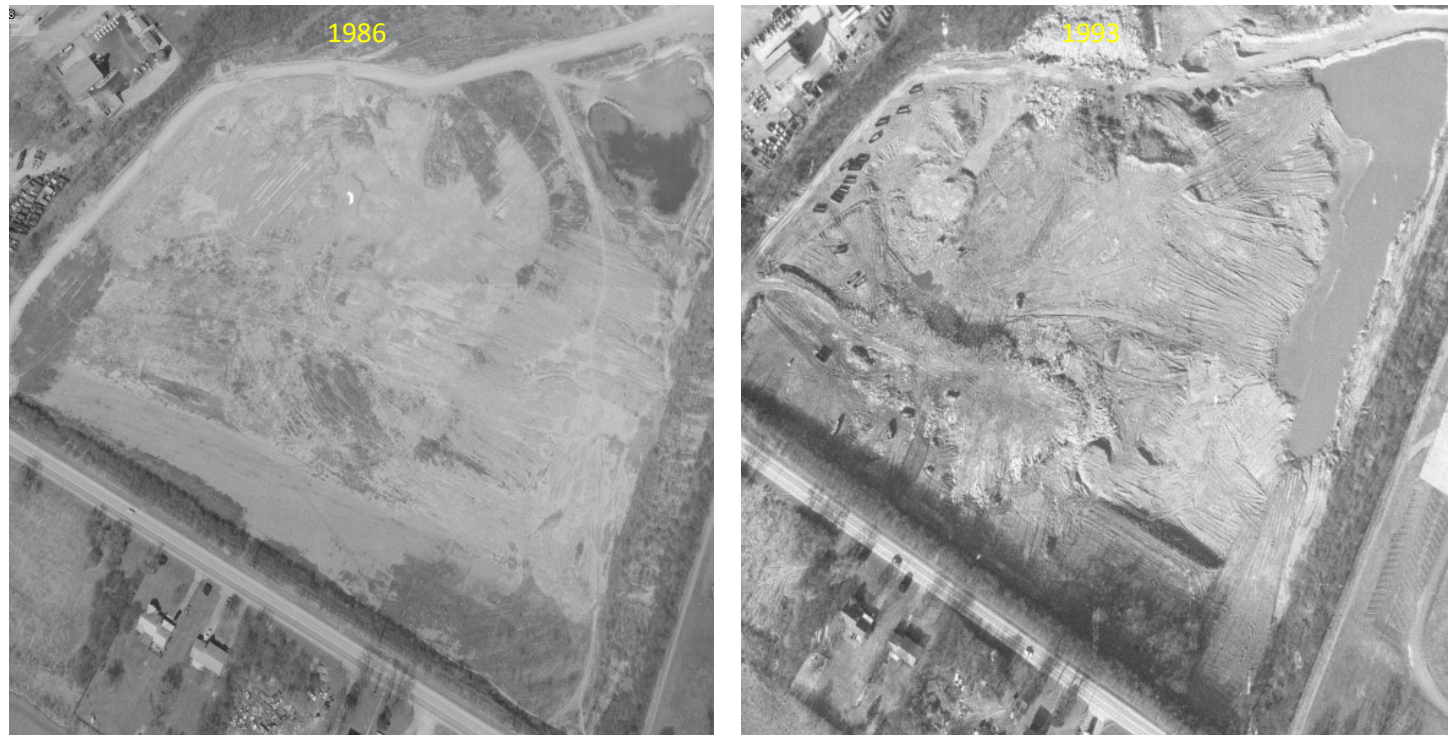
#### **FACILITY OVERVIEW**

The landfill borders Broadwell Road to the south/southwest. A parking lot and staging area for Evans Landscaping is situated between the landfill and Round Bottom Road to the west and a wooded area is situated between the landfill and Round Bottom Road to the north. A pond (former gravel pit operation) borders the property to the east. Access to the landfill can be obtained off Broadwell Road, on the far southwestern corner of the site.



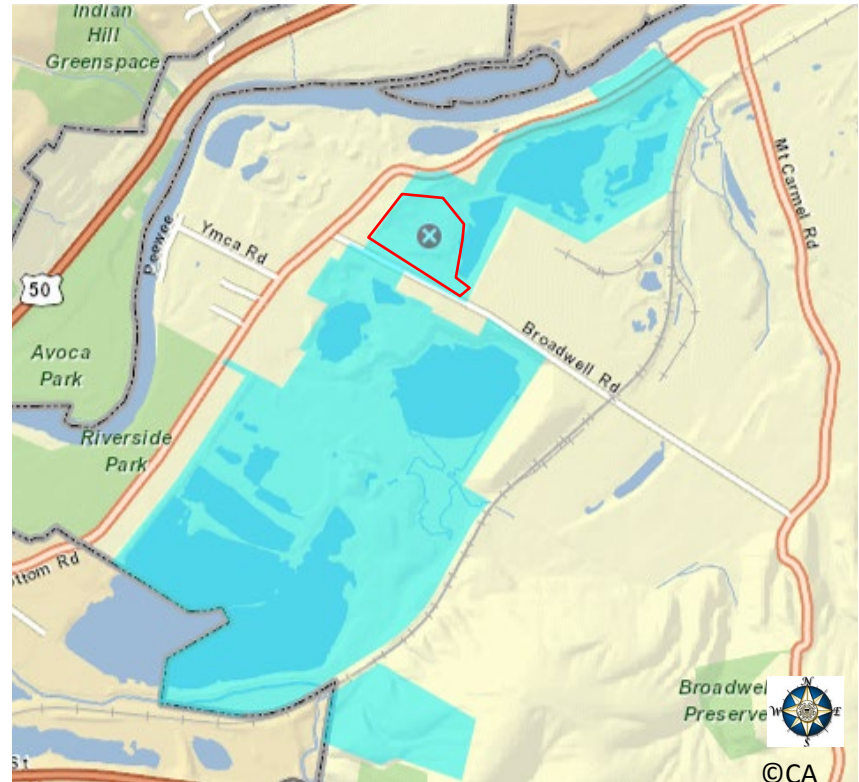
From review of aerals, it appears the gravel pit was mined in the 1970's. Filling of the former gravel pit began in the1980's. Aerials from the 80's appear to show filling with soil. However, aerials from the 1990's appears to show filling with C&DD (Figure 3.15.3-A). An inspection completed by HCPH in 1995 described the facility as a closed C&DD landfill.

**FIGURE 3.15.3-A**



During the 2006 purchase of the property by Martin Marietta Materials Inc., a combination plat was created from a group of parcels surrounding the landfill. The created parcel, Parcel #50001630001, encompasses approximately 488 acres. Figure 3.15.3-B illustrates the location of the landfill within Parcel #50001630001:

**FIGURE 3.15.3-B**



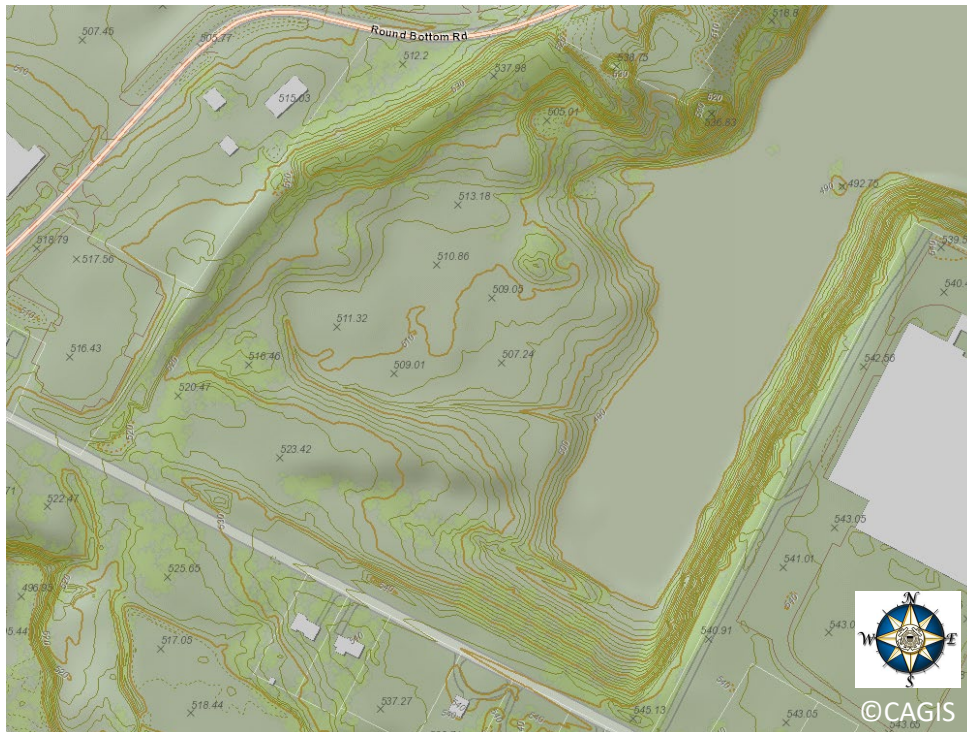
Based on records obtained from the Hamilton County Auditor website, the following ownership/transaction history of the property was obtained:

<b>1987 – 2006:</b>	Dravo Corporation
<b>2006 – Present:</b>	Martin Marietta Materials Inc.

The creation of Parcel #50001630001, during the 2006 purchase, may be the reason the transaction history only goes back as far as 1987. Further investigation would have to be conducted to determine pre-1987 ownership. Internet research notes that Martin Marietta Materials Inc. purchased Dravo Corporation in 1995. Dravo Corporation utilized the property as a surface sand and gravel mining operation. Exact details of landfill activities could not be found.

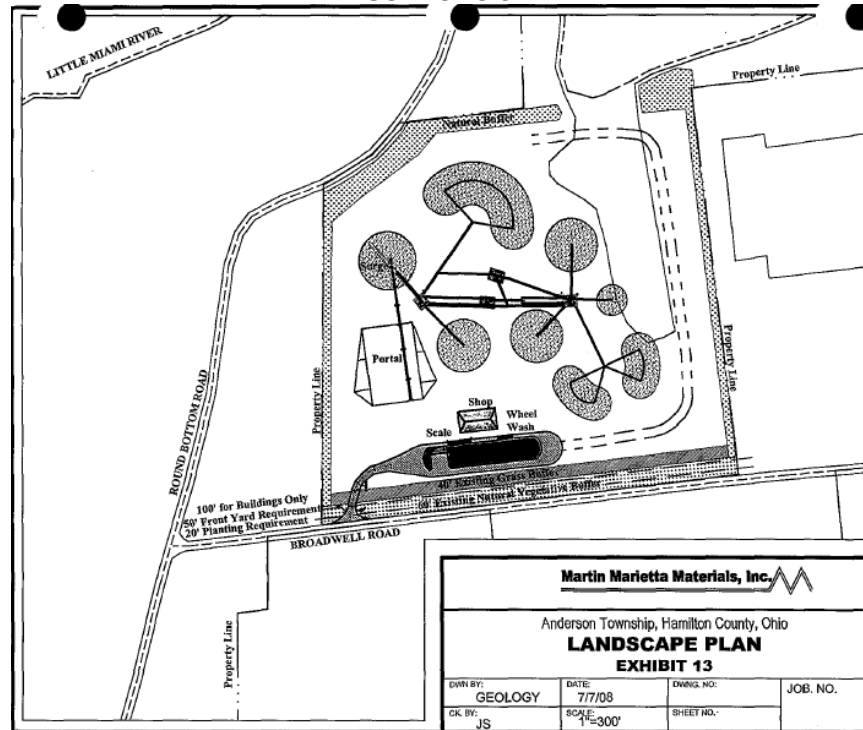
Topography of the landfill area consists of an elevation change of approximately 20', increasing from the East/Northeast bordering pond to the Southwestern corner of the site. Figure 3.15.3-C illustrating the topography of the site follows:

**FIGURE 3.15.3-C**



The current owner, Martin Marietta Materials Inc., has applied to Anderson Township to utilize Parcel #050001630001 as a mining operation. Detailed plans were submitted in July 2008. Based on the plans, the former landfill area would be utilized for the portal or tunnel entrance to the underground mine. The underground mine would be located south of Broadwell Road approximately 400 to 800 feet below the surface. The majority of the crushing would occur underground and associated processing and shipping of the material would occur on the former landfill area. The attached map (Figure 3.15.3-D) illustrates the staging area, scales and portal entrance location if the plans were approved as is on the landfill site.

FIGURE 3.15.3-D



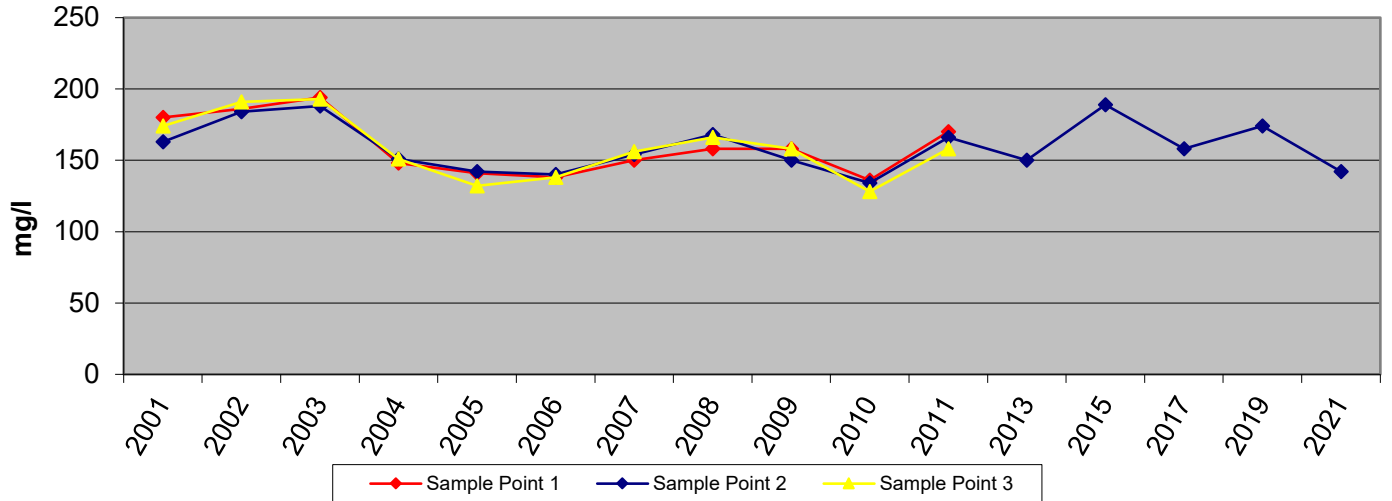
In 2010 the zoning board approved the request. In response township residents, business owners, and various municipalities appealed the decision to Hamilton County Common Pleas Court. Blasting and truck traffic were some of the concerns in the community. The local court determined that the Board of Zoning and Appeals acted illegally and reversed the board's decision. However, the case was then appealed to the First District Court of appeals where the lower court's decision was reversed and the zoning decision was reaffirmed. The Ohio Supreme Court declined jurisdiction on the case in March 2016.

### SAMPLING RESULTS

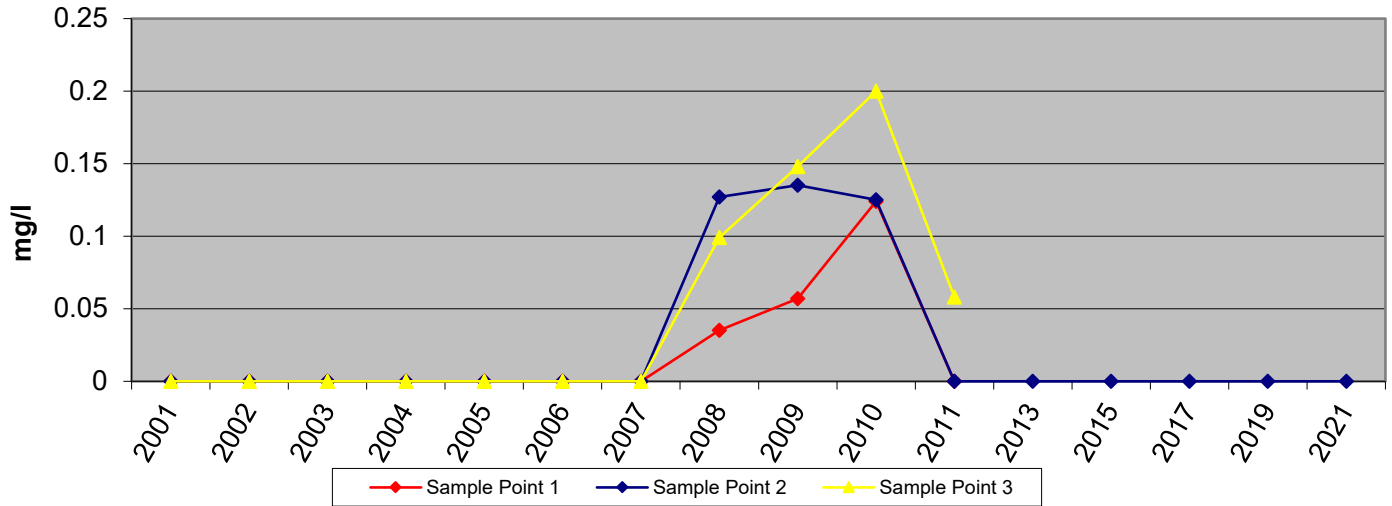
There is a large quarry pond located on the eastside of the Old Newtown Landfill. The pond was historically sampled in three locations. Given the steady findings at all three locations, sample sites S-1 and S-3 were removed from the sampling protocol in 2013. Samples around Old Newtown Landfill were collected on November 1, 2021. The samples were collected when pond levels were average. The area had received approximately 1.3 inches of rain during the previous 7 days. The S-2 pond sample location has a rocky/gravelly bottom with aquatic vegetation. The samples were collected in shallow water less than one foot deep. The referenced locations are shown on Figure 3.15.3-F.

Results for all parameters (Appendix A) sampled in 2021 indicate acceptable water quality, where no MCLs, SMCL's, or action levels were exceeded. Sodium has been trending upwards over the last 2 sampling events but remains well below the SMCL of 250 mg/L. Similarly, sulfate increased when comparing 2019 results to 2021 results, but concentrations remain well below the SMCL of 250 mg/L. During 2015 sampling alkalinity results were the highest ever recorded at sampling point 2. Subsequent results have shown alkalinity returning within the range previously observed at the site. All other parameters were within the ranges previously observed at the site. Surface water chemical data is illustrated for Old Newtown Landfill in the graphs on the subsequent pages.

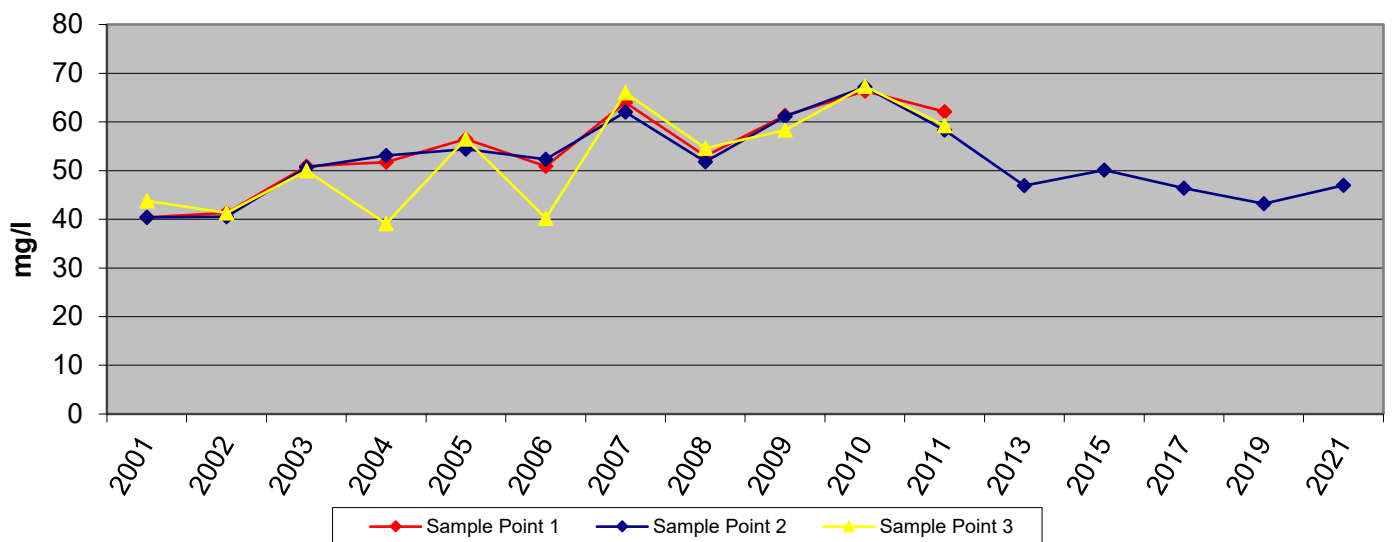
**Old Newtown Alkalinity**



**Old Newtown Ammonia**

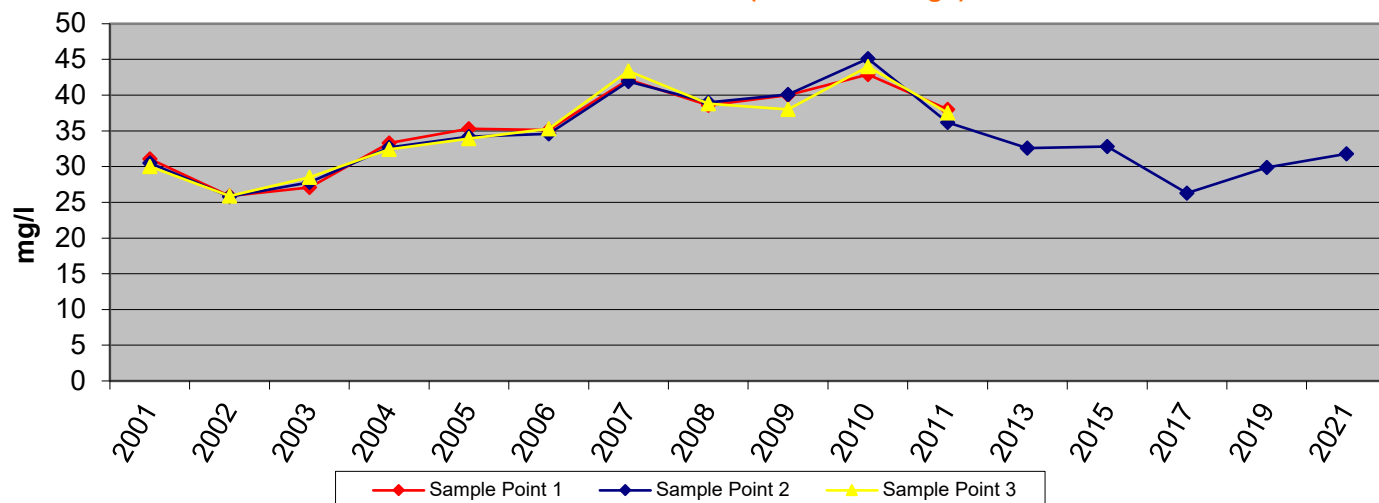


**Old Newtown Chloride (SMCL: 250 mg/l)**

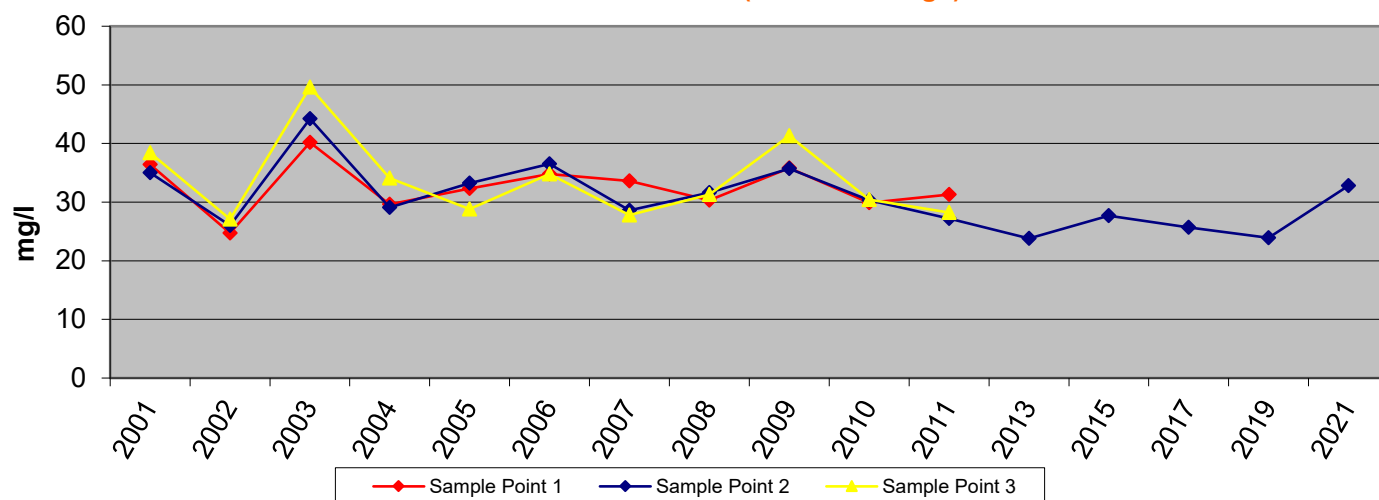




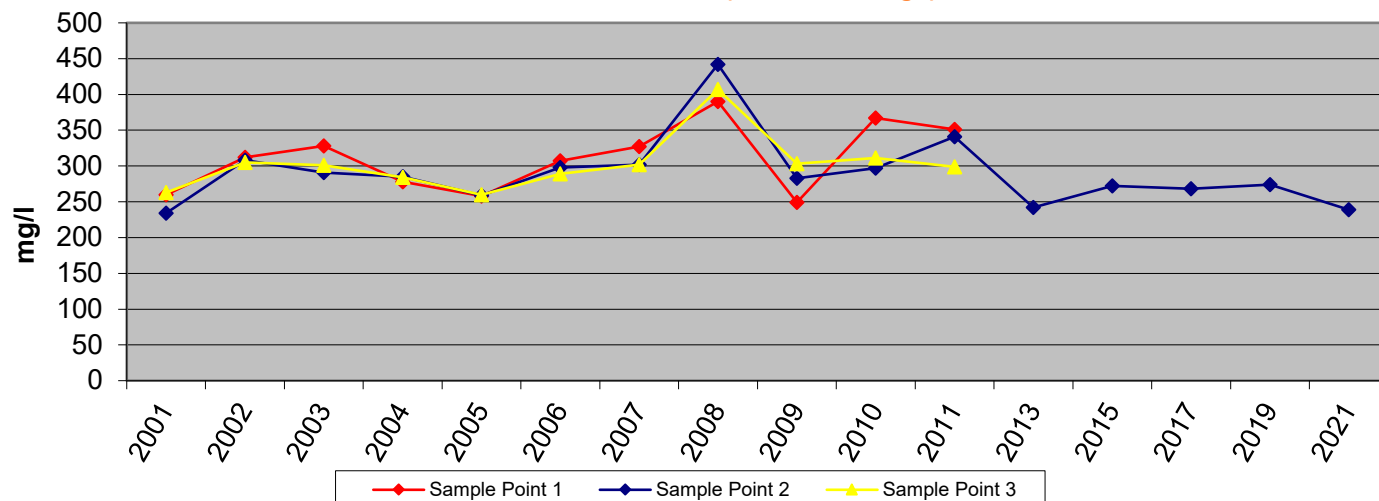
**Old Newtown Sodium (SMCL: 250 mg/l)**



**Old Newtown Sulfate (SMCL: 250 mg/l)**



**Old Newtown TDS (SMCL: 500 mg/l)**





Gas monitoring was conducted on November 1, 2021 (Table 3.15.3-B) primarily along the southern perimeter of Old Newtown Landfill along Broadwell Road, where the closest (<200 feet) occupied structures are located. Methane was detected in one sample point (7) at 2% LEL. Methane was detected at sample point 6 in 2015 and at sample point 10 in 2014. Both locations are along the southern perimeter of the landfill similar to the area of sample point 7.

In 2020 methane was detected at sample point 21 at 3% LEL. In 2019 methane was detected at sample points 1 and 2 at 2% and 4% LEL respectively. During several past sampling events methane has been encountered, in low concentrations, at sampling points 1, 2, 3, and 21 which are located on interior portions of the landfill (Figure 3.15.3-F).

There were 4 detections of carbon monoxide during the 2021 gas monitoring. The detections at sample points 22-25 were at levels of 2 or 3 ppm. This continues a pattern of detecting low levels of CO at various sample points since 2010. There was one detection of carbon monoxide during 2020 monitoring at sample point 22. There were 6 detections of carbon monoxide during the 2019 monitoring ranging from 1 to 5 ppm. During 2018 monitoring, there were 3 detections of carbon monoxide ranging from 4 to 48 ppm. In 2017 there were 3 detections of carbon monoxide all at low levels (3 to 5 ppm). All concentrations observed have been below levels of concern. Sampling was not conducted toward the northern perimeter of the landfill because it appears that wastes were not deposited within 500 feet of any occupied structures. *(Sampling data for this landfill is in the files at Hamilton County Public Health)*

**Table 3.15.3-B (11/1/2021)**

Sample Number	Time	Hydrogen Sulfide (ppm)	Carbon Monoxide (ppm)	LEL (%)	Methane (%)	Oxygen (%)
1	10:07 AM	0	0	0	0	20.8
2	10:09 AM	0	0	0	0	20.9
3	10:11 AM	0	0	0	0	20.5
4	10:13 AM	0	0	0	0	20.9
5	10:15 AM	0	0	0	0	20.8
6	10:17 AM	0	0	0	0	20.2
7	10:19 AM	0	0	2	0.1	19
8	10:22 AM	0	0	0	0	20.1
9	10:24 AM	0	0	0	0	19.7
10	10:26 AM	0	0	0	0	20.9
11	10:28 AM	0	0	0	0	20.6
12	10:30 AM	0	0	0	0	20.8
13	10:32 AM	0	0	0	0	20.4
14	10:35 AM	0	0	0	0	20.9
15	10:36 AM	0	0	0	0	20.8
16	10:38 AM	0	0	0	0	21
17	10:40 AM	0	0	0	0	20.9
18	10:42 AM	0	0	0	0	20.8
19	10:44 AM	0	0	0	0	20.9
20	10:46 AM	0	0	0	0	20.9
21	10:05 AM	0	0	0	0	20.6
22	10:03 AM	0	2	0	0	20.8
23	10:01 AM	0	2	0	0	20.7
24	9:59 AM	0	3	0	0	20.2
25	9:57 AM	0	2	0	0	20.8

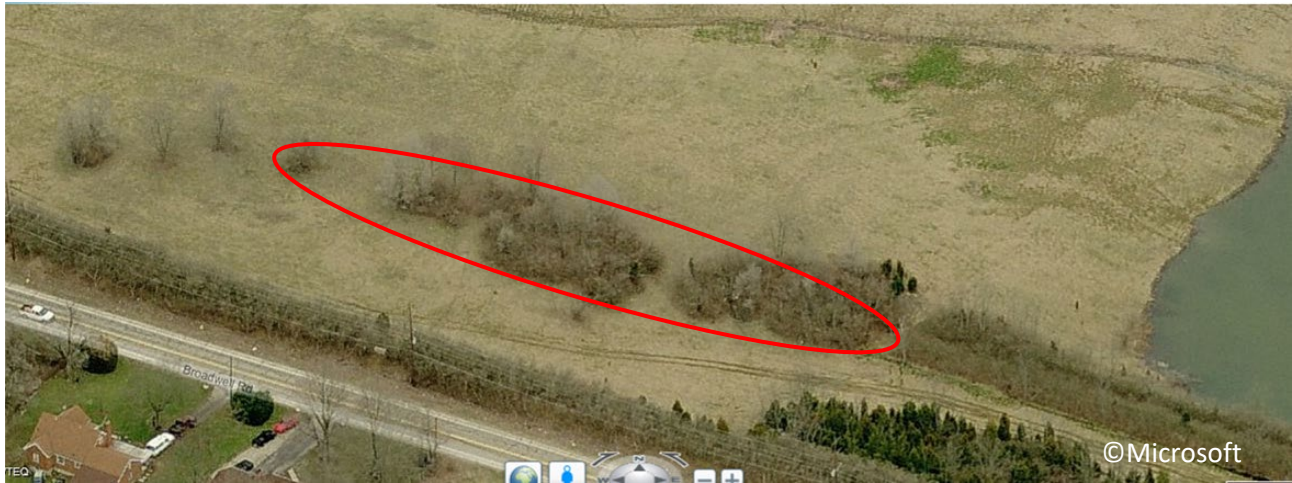
## SITE INSPECTIONS

The site was inspected by HCPH on November 1, 2021. The south end of the property has become increasingly overgrown with honeysuckle, trees, and grass over the last 10 years making it more difficult to access and inspect. Areas of exposed waste which have been identified during previous inspections are still present. Some of the materials appear to be exposed from former landfill activities and other materials may be a result of past open dumping. The areas of exposed waste are completely covered with trees and Honeysuckle. Seeps have also been identified in the same general area during previous inspections but were not present at the time.



Whether the seeps are naturally occurring or related to former landfill activities is unclear. The debris and seeps are located in the wooded areas on the Southern portion of the site as depicted in Figure 3.15.3-E.

**FIGURE 3.15.3-E**



**Seeps - 3/24/2010**



**Exposed waste/open dumping – 12/14/2018**



#### **SITE PRESENT DAY**

Today, the landfill area sits vacant with little to no activity at the site. The former landfill is covered with established grass, honeysuckle, and trees.





**Figure 3.15.3-F**  
**Old Newtown Closed Landfill**  
**Broadwell Road**

- ◆ = Surface Water Sampling Location
- = Approximate Limits of Waste
- ▲ = Gas Monitoring Location

