

Rumpke Sanitary Landfill Odor Complaint Summary/Analysis 2025

**Hamilton County Public Health
Department of Environmental Health Services
Waste Management Division**



**HAMILTON COUNTY
PUBLIC HEALTH**

PREVENT. PROMOTE. PROTECT.

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Introduction

The following report summarizes odor complaints received, and odor surveillance activities conducted during 2025 related to Rumpke Sanitary Landfill, located at 10795 Hughes Road in Colerain Township.

Beginning in 2007, Hamilton County Public Health (HCPH) collaborated with Southwest Ohio Air Quality Agency (Air Quality) to respond to citizen odor complaints 24/7. In 2013, HCPH began using mobile devices to capture complaint investigation data. Utilizing the GPS-enabled mobile devices, geospatial data can be collected concurrent with qualitative observations, improving the accuracy for odor complaint and surveillance mapping. Every complaint continues to be investigated, and HCPH compiles complaint data into periodic reports to summarize and analyze the complex issue of odors and odor complaints at the Rumpke Sanitary Landfill facility and surrounding area.

In addition to complaint response, HCPH conducts odor surveillance monitoring of the facility. Odor intensity is recorded in accordance with an odor scale adapted from Ohio EPA's 2012 Internal Operating Procedure (Figure 1). A surveillance loop has been established which includes major roadways surrounding the facility through residential areas (see Map B1 in Appendix B). An assessment of odor is made at all points along this loop, however, only incidences of landfill-related odor and complaint locations are recorded. Periodic joint inspections with Ohio EPA are conducted to "calibrate" assessment of odor and ensure consistency in applying the odor scale from Figure 1. The assumption can be made that if the surveillance loop was performed, no landfill-related odors were noted at any points along that route except where noted. Each record in the dataset is either a complaint location, a location where landfill-related odor was noted by the investigator, or a record that no odor was noted along the surveillance route.

Figure 1

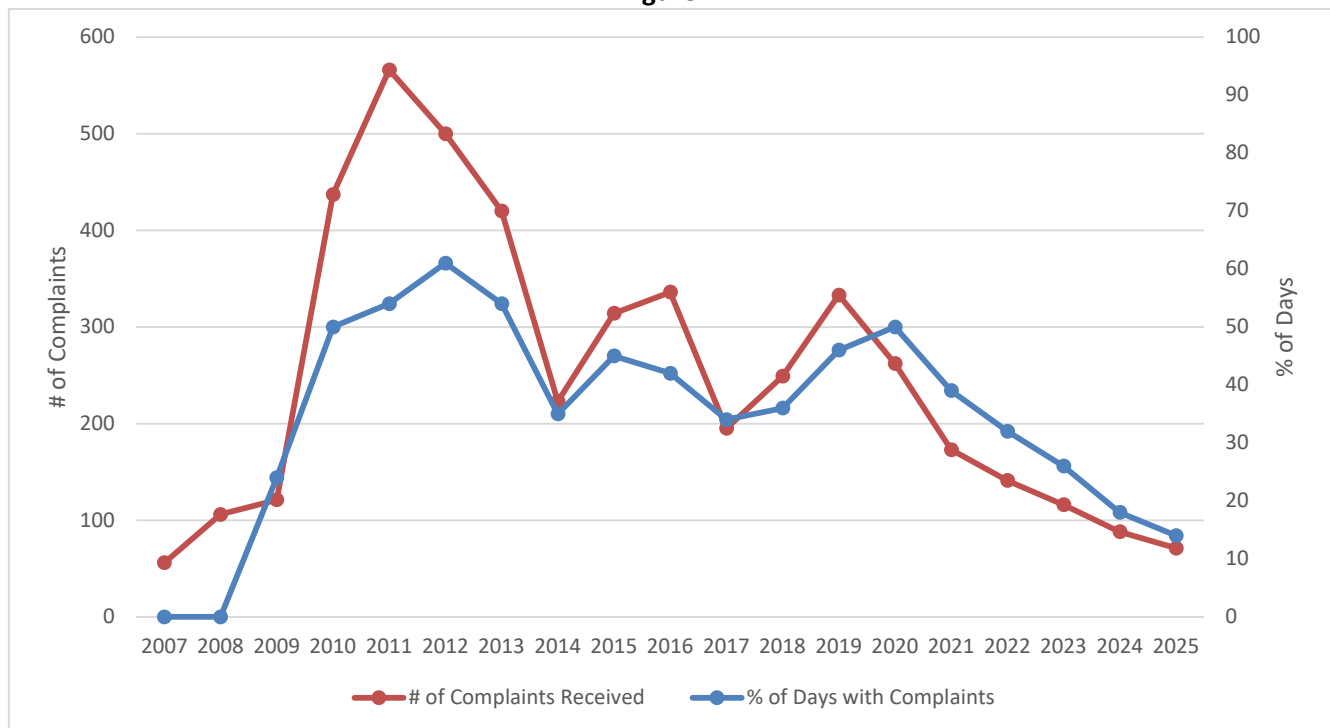
<u>Odor Scale from Ohio EPA Internal Operating Procedure</u>	
No Odor	Odor Not Detectable
Slight	Odor present in the air, which activates the sense of smell and the characteristics may or may not be distinguishable and/or definite, but not objectionable in short durations. This is characterized by occasional "whiffs" of odor, but is not persistent.
Moderate	Odor present in the air, which easily activates the sense of smell, is very distinct and clearly distinguishable, tends to be objectionable and/or irritating, and is persistent in the community.
Strong	Odor present in the air, which is objectionable and causes a person to attempt to avoid it completely.
Over-Powering	Odor present in the air, which is so strong that it is overpowering and intolerable for any length of time.
*Increments have been added to allow description of odor between the criteria described above (No Odor to Slight, Slight to Moderate, etc.).	

Results

In 2025, 71 complaints were received regarding odors from Rumpke Sanitary Landfill. This is a decrease from 88 complaints received in 2024 and 116 complaints received in 2023. There has been a six-year decreasing trend after a recent high of 333 complaints were received in 2019 (Figure 2). The most complaints received in a single year is 566 complaints in 2011. The locations of odor complaints received in 2025 are shown on Map B2 found in Appendix B. During 2025 a large number of the complaints received did not include a location provided by the complainant. In accordance with HCPH's operating procedures these complaints were mapped near the corner of Old Colerain and Struble.

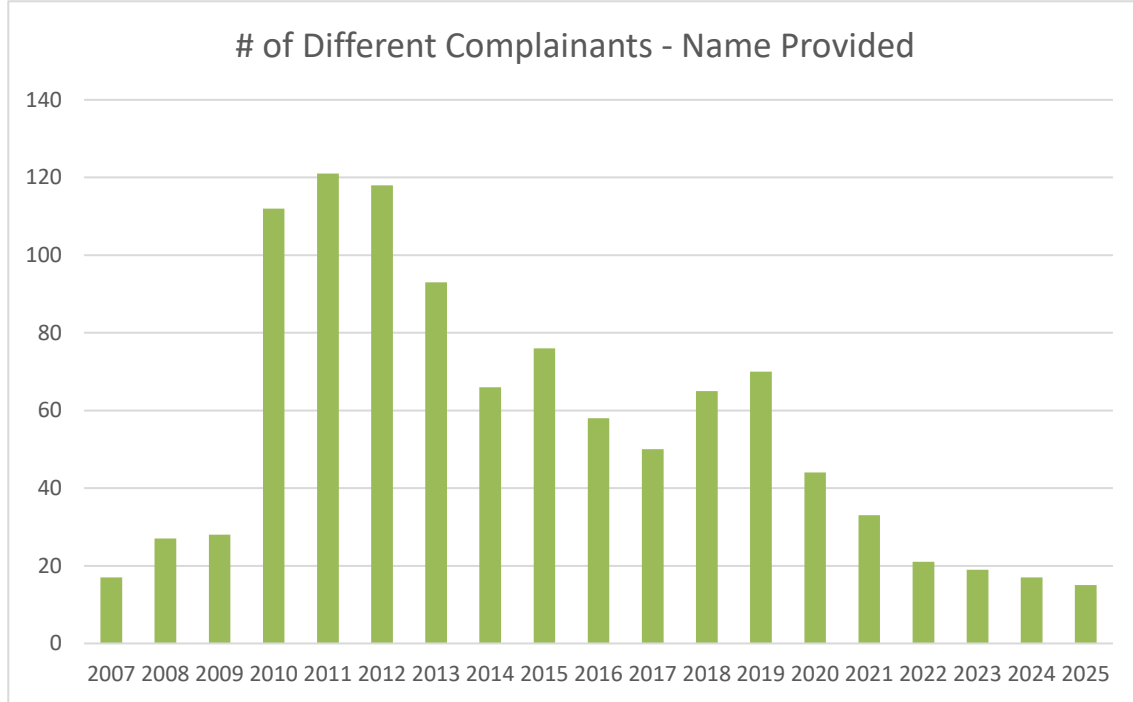
Complaints were received on 50 unique days of 2025, or 14 percent of the days in the year. This is a decrease from 67 unique days with odor complaints in 2024. The number of days which odor complaints were received has been on a 5-year decreasing trend since 2020 when complaints were received on 50 percent of the days in the year. Figure 2 shows historical complaint numbers and percentage of days with complaints. A summary table of historical Rumpke odor complaint data can be found in Figure A1 located in Appendix A.

Figure 2



There were 15 named complainants in 2025, down from 17 a year ago and 19 in 2023 (Figure 3). A peak of 121 unique complainants occurred in 2011. Fourteen percent of the complaints were made anonymously during 2025. This is a drastic decrease from last year when Fifty-eight percent of the complaints were made anonymously, which was the highest percentage of anonymous complaints received during any year. In 2025, 5.6 percent of all complaints were confirmed at the complaints' location. This is the lowest percentage of complaints that have been confirmed at the complaint location since tracking began in 2008.

Figure 3

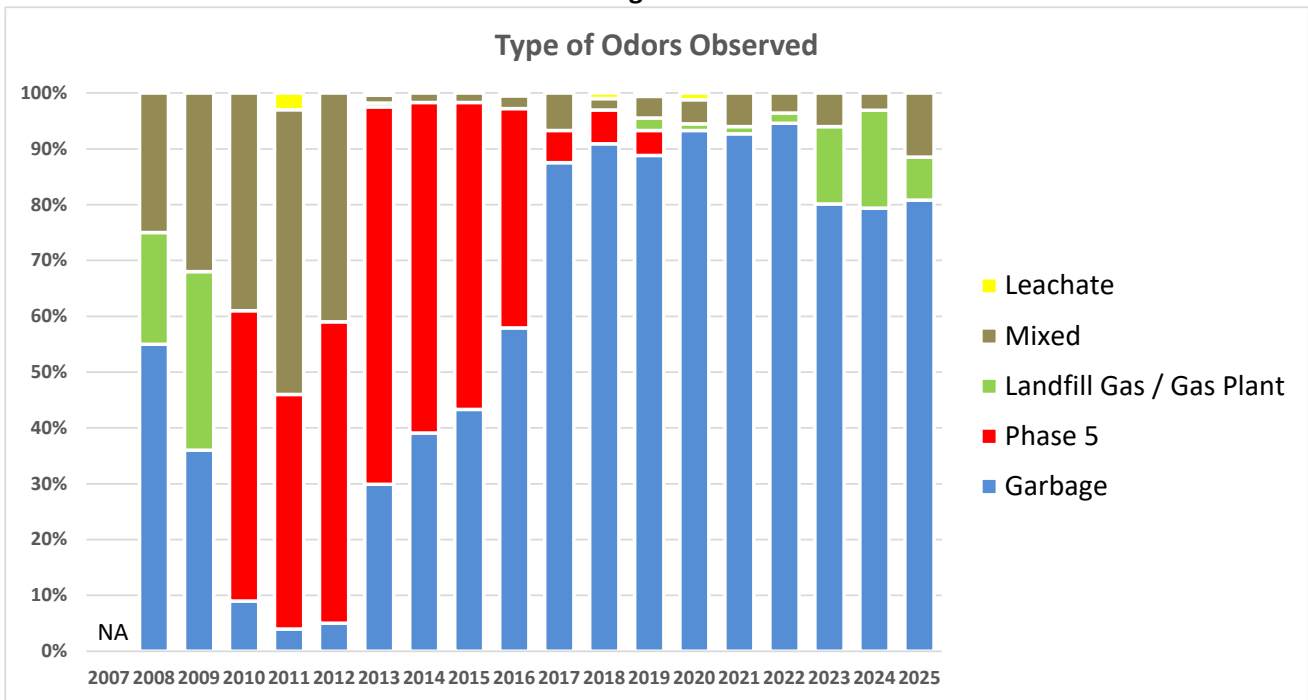


In 2025, complaints were responded to within one hour 35 percent of the time. This percentage is similar to the previous year when 31 percent of the complaints were responded to within one hour. Sixty-one percent of the complaints were responded to within four hours and 85 percent of the complaints were responded to within 24 hours of receiving the complaint during 2025. These are both slight increases compared to 2024 when 52 percent of the complaints were responded to within four hours and 76 percent of the complaints were responded to within 24 hours of receiving the complaint. (see Figure A1 in Appendix A).

Odor was evaluated 35 percent (129) of the days in 2025 compared to 39 percent (141) of the days in 2024. The percentage of observed days in 2025 with odor noted was 53 percent. This is a slight decrease compared to 2024 (57 percent) and is the lowest percentage of days odor was noted since 2018 (49 percent).

Figure 4 shows the majority, or more than 80 percent, of confirmed off-site odors in 2025 were again garbage related, consistent with previous years since 2017. During the last three years there has been a slight decrease in the percentage of odors that were attributed to garbage when compared to the previous 6 years when garbage was responsible for at least 87 percent of the observed offsite odors each year. This can be attributed to an increase in landfill gas/gas plant odors which increased to just under 14% of the odors noted off-site during 2023 and again increased to 17.5% during 2024. In 2025 there was a slight shift from landfill gas to “mixed” odors. There were no days in 2025 where odor described as “greater than slight” was observed. The location of confirmed odors for 2025 is shown on Map B3 in Appendix B.

Figure 4



The observation dataset for 2025 contains 191 total records (Figure 5). Seventy-one records are in response to complaints while 120 were made at non-complaint locations. Of the 120 non-complaint locations, 74 were instances where landfill odors were observed along the surveillance route, while 46 were to document completion of the odor loop during which no odors were noted.

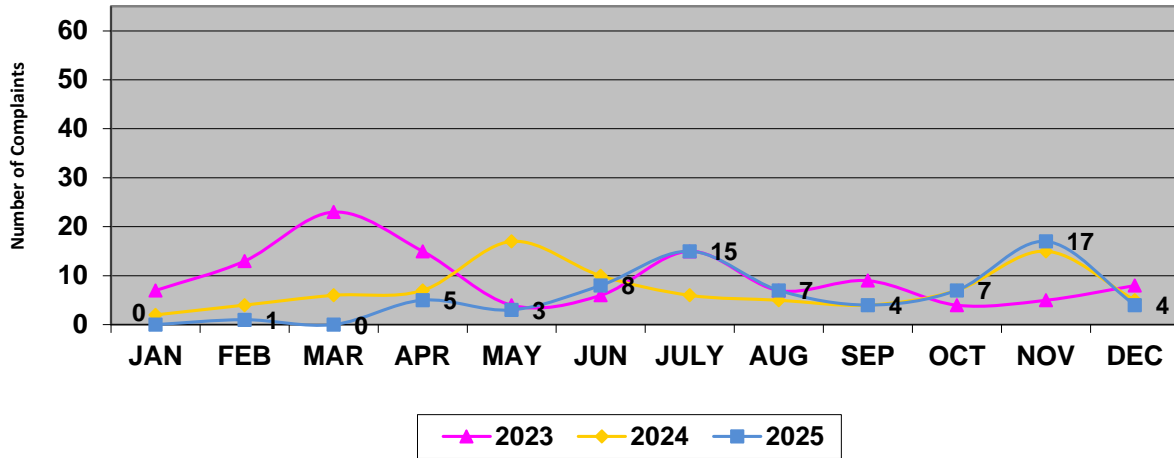
Figure 5

Complaint Location	Odor Intensity						Total	Percent
	No Odor	No Odor to Slight	Slight	Slight to Moderate	Moderate	Strong		
No	46	59	15	0	0	0	120	63%
Yes	67	3	1	0	0	0	71	37%
Grand Total	113	62	16	0	0	0	191	100%

Rumpke utilizes deodorizer as part of their odor control plan. In the past complaints have been received specifically concerning the deodorizer. No complaints were received in 2025 regarding the deodorizer. Additionally, deodorizer wasn't noted by HCPH during any observations made in the 2025 calendar year. During previous years HCPH observed deodorizer, generally accompanied by landfill odors. Observations of deodorizer were noted during 2% of observations in 2024, 5% of observations in 2023, and between 15% and 19% of observations from 2020 through 2022.

Figure 6 shows the past three years of complaints plotted monthly. Only monthly complaint totals for 2025 are labeled on the chart. Compared to previous years, monthly complaint totals were low during the first quarter of 2025 followed by totals comparable to previous years during quarters two through four. A low of 0 complaints was received in January and March of 2025 while a high of 17 complaints was received in November.

Figure 6



Summary:

The number of complaints received, percent of days with complaints, and number of different complainants have decreased between 2024 and 2025. After increasing in 2022, the percentage of observed days with odor noted has decreased each year from 2023 through 2025. For the tenth year in a row, garbage odors were the dominant odor observed. However, there was a noticeable increase in landfill gas/gas plant odors and/or mixed odors noted the last three years (2023 – 2025).

The sub-surface event occurring in the north end of the landfill contributed to off-site odors beginning as early as September 2009. From 2009-2016, gas odors from the sub-surface event were the predominant observed odor. Installation of the odor control blanket and collection of gases seems to have controlled these odors.

Additional efforts and odor control technologies continue to be evaluated to improve mitigation of identified odor sources. Unannounced inspections and odor surveillance continues as the primary methods to monitor odor from the facility. Periodic joint inspections between agencies are conducted to “calibrate” assessment of odor and ensure consistency in applying the odor scale from Figure 1. The 24-Hour Landfill Odor Complaint Hotline (513-946-7760) and complaint response continue to allow for the rapid investigation of odor complaints associated with Rumpke Sanitary Landfill.

Appendix A - Figures

Figure A1 – Rumpke Odor Data 2013 – 2025

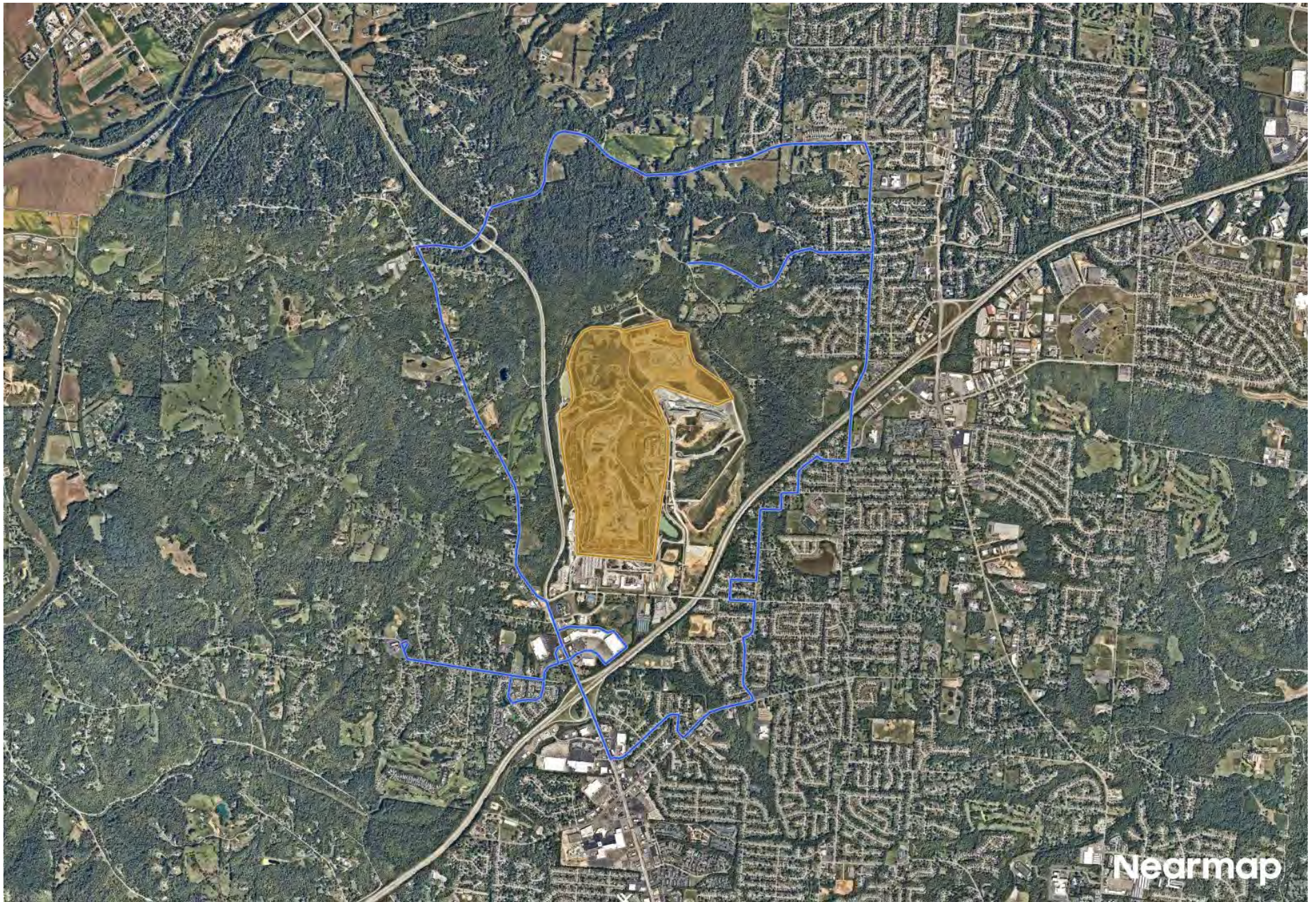
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Complaints	# of Complaints Received	420	223	314	336	195	249	333	262	173	141	116	88	71
	% of Days with Complaints	54	35	45	42	34	36	46	50	39	32	26	18	14
	# of Different Complainants - Name Provided	93	66	76	58	50	65	70	44	33	21	19	17	15
	% Anonymous Complaints	11	7	15	21	22	18	13	34	31	24	31	58	14
	% Confirmed By Responder at Complaint Location	16	21	18	13	18	8	15	11	14	14	20	6.8	5.6
Responder Observations	% of Days Observations Made	55	60	53	55	45	43	51	52	54	57	52	39	35
	% of Observed Days with No Odor Noted	30	35	24	14	56	51	39	37	38	29	40	43	47
	% Observed Days with Odor Noted	70	65	76	86	44	49	61	63	62	71	60	57	53
	% Observed Days w/ Intensity Greater than Slight	3	1	3.7	3.5	3.1	1.3	2.7	0	0.5	0	0	0	0
	% Observed Days with Garbage Odor noted	30	21	31	47	41	44	57	60	60	68	50	47	44
Response Time	% Less than one Hour	20	22	22	23	19	14	22	19	17	13	17	31	35
	% Less than four Hours	39	52	40	45	45	38	45	38	35	33	40	52	61
	% Less than 24 Hrs	75	78	78	80	79	76	73	79	80	76	74	76	85

Figure A2 – Rumpke Odor Data 2007 – 2012

		2007	2008	2009	2010	2011	2012
Complaints	# of Complaints Received	56	106	121	437	566	500
	% of Days with Complaints			24	50	54	61
	# of Different Complainants - Name Provided	17	27	28	112	121	118
	% Anonymous Complaints	0	44	45	37	41	13
	% Confirmed By Responder at Complaint Location	-	24	28	33	45	27
Responder Observations	% of Days Observations Made	-	-	-	-	-	-
	% of Observed Days with No Odor Noted	-	-	-	-	-	-
	% Observed Days with Odor Noted	-	-	-	-	-	-
	% Observed Days w/ Intensity Greater than Slight	-	-	-	-	-	-
	% Observed Days with Garbage Odor noted	-	-	-	-	-	-
Response Time	% Less than one Hour	-	84	76	84	92	94
	% Less than four Hours	-	-	-	-	-	-
	% Less than 24 Hrs	-	-	-	-	-	-

Appendix B - Maps

Map B1 – Odor Surveillance Loop



Map B3 – 2025 Confirmed Odor Locations

