



**HIGH ACRES LANDFILL &  
RECYCLING CENTER**  
A WASTE MANAGEMENT  
COMPANY

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August 13, 2021

**RECEIVED**

**AUG 13 2021**

**TOWN OF PERINTON**

Chairperson Ken Rainis  
Town of Perinton Conservation Board  
1350 Turk Hill Road  
Fairport, NY 14450

Re: High Acres Landfill & Recycling Center  
Special Use Permit Renewal Comment Response

Dear Chairperson Rainis:

We have received the comments sent to Waste Management of New York, LLC (WM) on July 29, 2021 and August 9, 2021 and during the August 3, 2021 meeting regarding the Conservation Board's consideration of the special use permit renewal for the High Acres Landfill & Recycling Center ("HALRC" or "High Acres"). Our responses to these comments are in bold below:

**HALRC Special Use Permit Renewal Comments**

**Perinton Conservation Board's Comments**

Comment No. 1 Are there any studies available on the effectiveness of the vapor/water neutralizer system?

Response No. 1 **High Acres has a very robust odor neutralizing program. The infrastructure includes multiple application technologies that allow for year-round operation, and the various products utilized each serve a specific purpose. The technologies and products used were selected based a review of products used across the industry, pilot testing at High Acres and other sites, and interviews with other sites and specialists from around the country. A report titled "Comprehensive Landfill Odor Control Plan, Evaluation and Design Basis" was prepared in January 2019 which details the products selected and technologies implemented at High Acres (refer to Attachment 1 for cover page and Table of Contents of report). The following section provides the categories and types of technologies that are commercially available and can be deployed at High Acres and available for deployment when needed.**

While the type of delivery mechanism used must be dynamic and able to respond to changing levels of odor emissions and weather conditions, the odor control product used also plays a critical role, as effectiveness can vary from product to product and from the use of products at one facility to another. Odor control products have become increasingly effective, and the majority of products on the market today consist of a combination of odor neutralizers working in concert with binding agents, reactants, and oxidizers such that they change the chemical nature of odor generating compounds to make them less noxious.

Odor control products fall into a series of general categories that include: masking agents, odor neutralizers, odor inhibitors, binding agents, odor scavengers, and topical foams.

1. Masking agents are odorants designed to overpower, improve, or dilute malodor with another fragrance that is more pleasant. This is the oldest method of odor control, as perfumes and natural oil extracts have been used for centuries to remedy everything from body odor to foul smelling waste. While masking agents used to be the most common form of odor control, simply masking an odor is no longer widely used, as it generally increases the overall odor concentration and has been determined to be inadequate on an industrial scale.
2. Odor neutralizers interact directly with malodors in the open air to reduce or completely eliminate detectable odor. Neutralizers, also commonly referred to as deodorizers, are either evaporated or delivered as a fine mist intended to travel on ambient air currents with malodorous air. Malodors are absorbed into the neutralizer, where dissolution and/or reactions change the chemical structure of the malodorous molecules. These agents have been found to be the most effective control for the majority of industrial odor emissions, treating the smell on a molecular level by removing the odor-causing element. These chemical additives are available as biodegradable formulations that are completely safe to plants, animals and humans.
3. Odor inhibitors are designed to prevent microorganisms from producing malodors. Some forms of odor inhibitors stop microbial digestion by killing the microorganisms (biocides), while others, referred to as bioaugmentors, modify the way microbes digest organic material so that the byproducts are less offensive (creating carbon dioxide and water, for example, instead of hydrogen sulfide). While targeted use of bioaugmentors on certain malodorous waste streams may be applicable at solid waste facilities, odor inhibitors typically do not have wide scale use at landfill facilities.



4. Odor binding agents are designed to absorb malodors that already exist in the solid or liquid state and prevent them volatilizing off as gases into the air. There are two common types of binding agents, solvents and encapsulators. Solvents dissolve malodors after absorption, and encapsulators trap malodors and keep them in solution so that they cannot be volatilized. Binding agents are used in conjunction with neutralizers in several odor control products. Activated carbon is a widely used and well known binding agent used in a variety of applications.
5. Odor scavengers are designed to prevent malodors that already exist in the solid or liquid state from volatilizing off as gases into the air. There are two common types of scavengers, reactants and oxidizers. Reactants chemically bond with malodors to change the chemical structure of the malodorous molecules. Oxidizers serve two purposes; they oxidize malodors, serving a scavenger role, yet they also typically kill the microbes, serving an inhibitor role. Depending on the pH of the specific malodor involved, the scavenger may neutralize the odor through "redox", or an oxidation/reduction reaction with the basic or acidic molecule, rendering the malodor to a neutral state. Oxidization has large-scale application to several industrial activities such as wastewater treatment or preventing the formation of odorous biofilm in liquid impounds at waste facilities.
6. Topical foams are a biodegradable chemical treatment for organic compounds that is distributed from a chemical tank by hose with a foam-aerating nozzle. It traps gas emissions by forming a protective coating. The benefit of foam is that the operator can visually confirm full coverage. The method is most economical for open truck or train transport or storage piles that experience little disruption, as odor emissions can escape once the foam's physical barrier is broken.

The majority of products used at solid waste facilities are neutralizers made from plant extracts, essential oils and a variety of nontoxic materials such as alcohols and aldehydes, esters, ethers, ketones, lactones, and surfactants. The primary treatment methods employed include adsorption, absorption, chemical oxidation and biological oxidation, as the neutralizers are chemically attracted to the odor compounds. Many products are highly concentrated and then mixed with potable water as these products are formulated with surfactants to create an emulsion (a mix of two or more liquids that are normally unmixable), that allows for use with high pressure water atomization and misting systems. The products work through a combination of adsorption (adhesion of the malodorous molecules to the surface of the neutralizing agent) and absorption (disappearance of the malodorous substance into the neutralizing agent, such that the absorbed



malodorous substance loses its identifying characteristics while the absorbing substance retains most of its original physical aspect), reducing the opportunity for these malodorous compounds to reach receptors. These industrial products utilize some of the same substances used in home deodorizers and flavor enhancers.

As the main basis for many of these products, essential oils work using three different approaches to eliminate odors in the air: (1) modifying the shape and size of the odorous molecule, (2) changing the number of odorous molecules getting to the receptors, and (3) changing the perception of the odor. To reach these objectives, odors are eliminated without harmful byproducts and hazardous chemicals through identification of each essential oils unique characteristics and the optimization of simple reactions upon contact with the malodor.

Odor perception is also a factor in odor control, and several products include a combination of odor neutralizers with odor modifiers, which change the perception of malodor. Some products use scent pairing, which neutralizes the offensive odor by pairing it with a counteracting odor. These complex odor counteractants are akin to noise-cancelling headphones for the nose. Other products are based on a person's odor perception being partly dependent on the solubility of the odor molecule in the mucous membranes of their nasal passages. These odor control products solubilize the malodor, keeping it in solution, and thus rendering fewer odor particles available for passage along the airways and deposition onto the receptors, as the odor molecules are trapped in the solution and not accessible for transmission to the mucous membranes.

This complexity is also why an odor control product successfully used at one facility, may have limited effect at another. Similarly, some manufacturers even change their formulations throughout the year, as the manufacturer has developed formulas to account for various seasonal changes in odor experienced at solid waste facilities (with formulations specially used in the spring, summer, during the fall harvest season, and throughout winter conditions).

Odor control products should be used when necessary and when weather conditions allow the product to have the most impact on odor reduction. Varying combinations of ingredients are used depending on weather patterns, outdoor temperatures, and the type of odor experienced.

Comment No. 2

What percent of industrial waste is accepted vs. MSW?

Response No. 2

HALRC is a non-hazardous waste landfill that accepts approved industrial waste from industrial waste operations. The following table provides the waste composition accepted at the HALRC in percent by weight.



Year Filled	MSW	C&D	Yard Waste	Contaminated Soils	Residual*	Sludge	Ash	Other	Total Waste Intake (Tons)
2007	59.45%	10.00%	0.85%	13.64%	7.57%	4.84%	1.69%	1.96%	1,104,699
2008	65.60%	9.18%	1.73%	5.91%	11.09%	5.96%	0.09%	0.53%	904,307
2009	62.95%	7.56%	1.81%	8.95%	10.39%	7.56%	0.00%	0.77%	678,791
2010	56.22%	7.16%	0.00%	10.43%	14.97%	9.11%	0.00%	2.12%	571,093
2011	45.02%	9.29%	0.00%	14.47%	12.14%	7.52%	9.32%	2.24%	630,885
2012	44.83%	7.39%	0.00%	8.44%	10.54%	9.61%	16.16%	3.03%	682,344
2013	43.97%	7.54%	0.00%	3.32%	22.39%	6.79%	15.09%	0.91%	524,766
2014	40.60%	9.69%	0.00%	9.28%	17.70%	7.11%	15.21%	0.41%	520,533
2015	61.42%	7.66%	0.00%	10.57%	5.63%	4.57%	8.80%	1.36%	773,920
2016	70.22%	8.26%	0.00%	8.64%	2.52%	4.40%	4.37%	1.58%	1,071,057
2017	68.08%	11.59%	0.00%	6.58%	0.84%	4.07%	5.79%	3.06%	1,169,372
2018	73.87%	10.58%	0.00%	4.62%	2.23%	4.23%	3.52%	0.95%	1,135,594
2019	59.92%	16.96%	0.00%	4.81%	7.54%	4.68%	5.18%	0.91%	1,146,234
2020	58.74%	13.89%	0.00%	9.89%	7.81%	4.40%	4.93%	0.34%	1,222,164

\* Includes Industrial Wastes

Comment No. 3 Provide more details on the waste characterization study.

**Response No. 3** GHD completed an extensive two part evaluation conducted to determine the extent and nature of potential odor sources from materials disposed of at the HALRC, to determine if wastes from certain regions are more odorous than others and if the mode of transportation to HALRC has an effect on the odor. This evaluation was conducted in response to a request from the New York State Department of Environmental Conservation (NYSDEC), and was completed in accordance with a previously prepared December 2018 Work Plan Evaluation of Odors from Various Waste Sources, a scope of work negotiated with the Town of Perinton.

- The extensive data collected as well as field observations made during both cold weather and warm weather conditions indicates there is no discernable difference in the odor intensity of MSW waste based on the geographic region of origin, mode of transportation, or use of a transfer station.

Work covered in the evaluation included:

- Review of the types and volumes of incoming waste;
- An evaluation of time versus temperature during the transport of waste;
- Visual and olfactory characterizations of incoming waste streams; and
- Collection of a series of air samples from waste containers and during waste placement.

GHD conducted the initial phase of field testing for the study during the months of December 2018 and January 2019, to evaluate potential odor sources during cold weather conditions. Field testing associated with the second phase of the study was conducted in June and July 2019 during warm weather conditions, and the following observations were noted:

- Based on the visual observations made at the working face, no significant differences were identified related to waste composition from the various incoming municipal solid waste (MSW) waste streams based on the geographic region of origin, mode of transportation, or whether or not the waste was routed through a transfer station.
- Similar to the cold weather evaluation, during the summer observation period, there was no discernable difference in the odor intensity of MSW waste streams based on the geographic region of origin, mode of transportation, or use of a transfer station. Certain waste streams were noted to generate odors of a much higher intensity than MSW. These include biosolids/sewage sludge (including that generated in Monroe County) and those associated with on-site composting operations.
- While there was some variability in the temperature for waste collected from different locations, more temperature variation was noted based on modes of transportation i.e. transfer trailers and rail containers during the summer event. Based on the data collected, the temperature increases observed during the summer sampling event followed distinct patterns based on the mode of transportation utilized. However, the general temperature increase was less than may have anticipated, and based on the subsequent odor intensity monitoring conducted, the variation in temperature based on mode of transportation did not appear to have an impact on the overall odor observed at the working face of High Acres.
- A review of the results of the chemical analysis did not indicate a common odor causing compound or waste stream as containing particularly odorous compounds; this was similar to what was noted during the sampling conducted during the winter sampling event. It was noted that the results from the sampling done during warm weather conditions yielded concentrations notably higher than those collected under cold weather conditions. However, the results were still variable, and likely indicative of the composition of the individual



sample, rather than the region of which the waste was generated, waste age, or mode of transport.

The purpose of the overall study was to determine if wastes from certain regions are more odorous than waste from others and if the mode of transportation to HALRC has an effect on the odor of the waste as it was disposed of at the working face. The evaluation included the collection of data and field observations to satisfy a series of objectives, which consisted of collecting information on the wastes transported to HALRC and the mode of transportation during both cold weather and warm weather conditions to factor in seasonal variation related to odor. The findings from the completed two phase evaluation are presented, and include the following:

- Based on the waste characterization information reviewed and visual observations made at the working face, no significant differences were identified for waste composition from the various incoming MSW waste streams based on the geographic region of origin, mode of transportation, or whether or not the waste was routed through a transfer station.
- Due to the different collection timeframes/frequency of pickup, the age of residential MSW waste upon arrival at HALRC is not markedly different based on the geographic region of origin or mode of transportation. This is based on the fact that MSW collection frequencies, and transportation time frames (which are also impacted by transfer station requirements), in New York City (NYC) differ from other parts of New York. For example, it was determined that curbside pick-up of MSW in NYC is more frequent than it is in other locations from which MSW is disposed of at HALRC.
- Based on the data collected and field observations made during both cold weather and warm weather conditions, there was no discernable difference in the odor intensity of MSW waste streams based on the geographic region of origin, mode of transportation, or use of a transfer station.
  - There are isolated incoming waste loads that may periodically present an increased odor intensity, but the relative odor intensity is based more on the individual waste contained within the load rather than the geographic region of origin or mode of transportation utilized.
  - There are also certain waste streams at HALRC that generate odors of a higher intensity than typical MSW, the most notable being biosolids/sewage sludge from the local Monroe County Department of Environmental Services (MCDES).

- Some waste streams, such as food waste and the overall composting operations, appear to have variable odor intensity depending on the season.
- During the warm weather data collection period, a fairly clear difference was noted in the temperature profiles of transfer trailers and rail containers. The temperature of waste in the transfer trailers was much more subject to increase based on the overall ambient air temperature, whereas the waste in the rail containers gradually increased over time. This is contrasted with the data collected during the winter data collection period which showed some variability in temperature data collected from the various locations, yet no real trends indicating a temperature increase during transport were identified. While the difference between the seasons is notable, based on the subsequent odor intensity monitoring conducted, the variation in temperature profiles does not appear to have a significant impact on the overall odor intensities observed during this study period.
- While the concentrations of common odor causing compounds were notably higher during the warm weather conditions than those observed during cold weather conditions, a review of the results of the chemical analysis did not indicate a common odor causing compound or waste stream as containing particularly odorous compounds. The results were variable, and likely indicative of the composition of the individual waste associated with the individual samples, rather than the region of which the waste was generated, or mode of transport.
- The EPI cover system performed well during the initial trial period conducted, which was on going during the winter observation period. This alternative cover system has continued to result in increased odor control at the working face as it eliminates the need for cover stripping in the morning. HALRC requested and received approval from the NYSDEC to continue use of the material, and as indicated, its use has been incorporated as part of normal operations.

The purpose of the evaluation was to determine if particular incoming wastes are more odorous than others, especially as they relate to the geographic region of origin and mode of transport to HALRC. Based on the research conducted, sampling performed and field observations over the course of the evaluation, GHD found little difference in the odor produced by waste based on the composition of the typical MSW delivered to HALRC when compared by either geographic region of origin or method of delivery to the facility.

GHD also noted that some waste streams do exhibit an increase in odor over others, however, the increased odor is likely more indicative of the actual composition of the incoming individual waste streams or loads, rather than the region from which the waste was generated, or mode of



transport to the site. For instance, the highest odor intensities observed were associated with the biosolid/sludge generated at the MCDES and not MSW. Additionally, individual materials within discrete MSW loads could also have an impact as to the overall odor associated with a specific load, which is believed to account for the variety in odor observed in loads of what appears to be typical MSW. Specific testing as to the source of odor within the general MSW waste stream was not conducted as is considered outside the purview of this evaluation.

Attachment 2 provides plots of internal rail container temperature over time from departure from the transfer station to arrival at the HALRC (waste deposition).

**Comment No. 4** What was the average n-butanol scale (level of intensity of odor) during the olfactory study portion of the waste characterization study?

**Response No. 4**

## Olfactory Monitoring of Incoming Waste

### ASTM-based standard (ASTM Method E544-10)

- Conducted on same loads as visual observations and air samples collected
- Included potentially odorous loads

#### Winter

- varied from 0.5 to 4.0 (biosolids)
- average was 0.8

#### Summer

- varied from 0.5 to 2.5 (tie: biosolid & waste load)
- average was 1.3

The average reading of odor intensity for the rail containers was as follows:

- Winter portion of study = 0.8 (considered "faint" as below 1.5 on the referenced scale)
- Summer portion of study = 1.4 (also considered "faint" see above)

**Comment No. 5**

Provide the Board with the rationale for the use of the N-Butanol standard to determine whether odors are considered a public nuisance.

**Response No. 5**

According to the Odor Evaluation in the Area Surrounding the High Acres Landfill (May-June 2018) prepared by Odor Science & Engineering, Inc., in this country, n-butanol is used as the reference odorant as described in ASTM Method E544-10, "Recommended Standard Practices for Referencing Suprathreshold Odor Intensity". The now widely used n-butanol odor intensity scale is based on n-butanol vapor as the odorant at eight concentrations. The concentration increases by a factor of 2 at each



**Intensity step starting with approximately 15 ppm at step 1 and ending with approximately 2000 ppm at step 8.**

**OS&E has developed a field kit which uses aqueous solutions of n-butanol to produce the standard vapor concentrations in the head space of the eight individual containers. This is the field kit utilized by Towpath and has also been provided to Town staff for their use. In comparing intensities of various odors the differences in odor character are ignored as in comparing the intensities of lights of different colors. Numerous field investigations, as well as laboratory evaluations, have established that odors generally become objectionable when their intensity reaches 3 on the n-butanol scale. This has been verified in many OS&E field studies conducted across the country and internationally has been found to be essentially a universal standard except in areas where the population has become sensitized to odors because of very frequent exposure to relatively high intensities of ambient odors. In these cases, such "sensitized individuals" may complain about odors of much lower intensities than 3.0 on the n-butanol scale.**

**WM did a preliminary survey of jurisdictions that use odor intensity scales. Many jurisdictions utilize the n-butanol scale while others use the so-called dilutions to threshold standard ("D/T"). In general, under the D/T standard, odor concentration is measured by how many times an odor needs to be diluted to be reduced to the threshold level at which only 50% of the normal human population is able to detect the odor. Ultimately in consultation with the DEC, OS&E and the Town of Perinton, the ASTM approved n-butanol odor intensity scale was selected as the preferred method of determining an odor's intensity.**

**Comment No. 6**                      **Send a copy of the September 25, 2020; October 20, 2020 letter to the PCB.**

**Response No. 6**                      **See Attachment 3. In addition, we have provided DEC's response to the FAFE Petition.**

**Comment No. 7**                      **A technical summary of hydrogen sulfide monitoring data since inception at/around the landfill; how these H<sub>2</sub>S levels compare to air quality standards 6 NYCRR 257-10.3; (0.01 ppm<sub>v</sub> / 10 ppb<sub>v</sub>).**

**A technical summary of hydrogen sulfide monitoring data since inception at the Dudley/Northside Elementary School Campus Since Inception; how these H<sub>2</sub>S levels compare to air quality standards 6 NYCRR 257-10.3; (0.01 ppm<sub>v</sub> / 10 ppb<sub>v</sub>).**

**A technical summary of quarterly methane surface scan data at the lowered threshold of 200 ppm; a comparison of this standard to current NYS solid waste requirements.**



Provide a technical summary of how High Acres Staff evaluate the efficiency of the gas collection system for the landfill and describe whether the incorporation of lower methane monitoring thresholds associated with the surface scanning of the landfill cover has affected fugitive emissions at the landfill (6 NYCRR Part 208 & CFR Part 60 Subpart Cf)? Also, please provide the most current federal SEM recertification report.

**Response No. 7**

Since March 6, 2018, GHD has instituted an ambient hydrogen sulfide (H<sub>2</sub>S) monitoring program which consists of five monitoring location (4 perimeter stations and 1 location on the roof of the Dudley School. An AcruLog PPB instrument samples and collects readings at a frequency of every 10 minutes while in operation. Of more than 500,000 readings that have been collected since March 6, 2018 (as of June 28, 2021), approximately 99.8% of all readings have been non-detect for H<sub>2</sub>S. In addition, there have been no exceedances of the 1-hour air quality standard for H<sub>2</sub>S attributable to the landfill.

A summary of H<sub>2</sub>S detections by monitoring location is provided in the table below:

Station Name	# Readings Collected	% Non-Detections (% of Total Readings)
West Monitoring Station (WMS)	78,100	99.9
North Monitoring Station (NMS)	130,351	99.8
East Monitoring Station (EMS)	76,328	99.7
South Monitoring Station (SMS)	76,407	99.9
School Monitoring Station (School)	151,915	99.7
<b>Grand Totals</b>	<b>513,101</b>	<b>99.8</b>

**Quarterly Landfill Surface Monitoring Program**

An evaluation of surface monitoring data shows that out of 12,904 readings recorded since the 1st quarter of 2018, less than 2 percent have been greater than the more stringent limit of 200 ppm. However, in all cases, corrective actions were initiated and completed as required, and in many



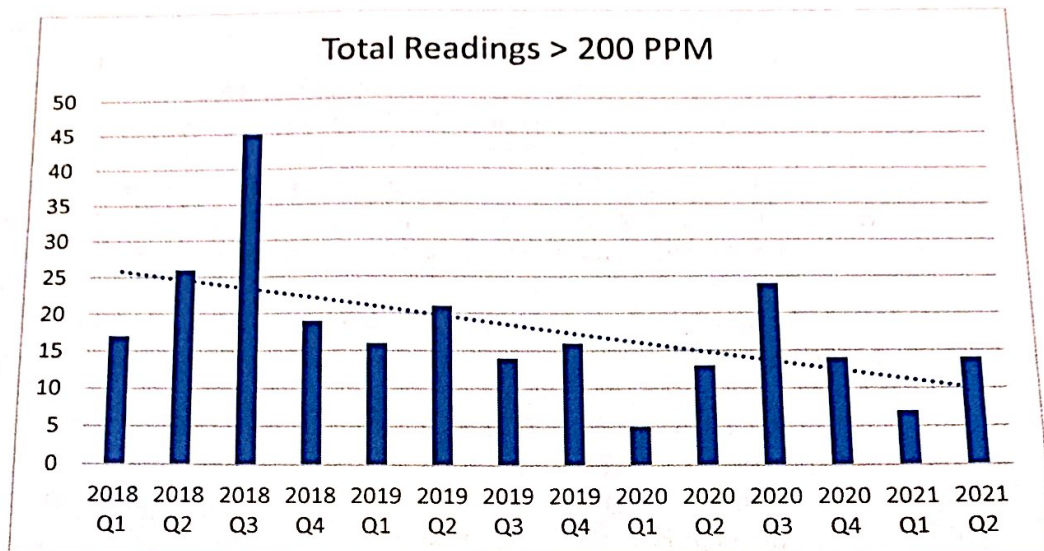
Annual Comment Response to PCB

Readings were detected much earlier than required and often within the same sampling event. Follow-up readings demonstrated successful remedies within 30 days. All follow-up actions were completed within 30 days of the initial reading above 200 ppm and there were no instances that exceeded the 120-day corrective action period which is indicative of a successful surface monitoring program.

The following is a summary of surface monitoring readings above 200 ppm presented in the table below

Monitoring Period	# Readings Logged	Detections over 200 ppm	% of Total Readings
2018 Q1	898	17	1.9
2018 Q2	891	26	2.9
2018 Q3	930	45	4.8
2018 Q4	917	19	2.1
2019 Q1	889	16	1.8
2019 Q2	900	21	2.3
2019 Q3	778	14	1.8
2019 Q4	882	16	1.8
2020 Q1	952	5	0.5
2020 Q2	891	13	1.5
2020 Q3	932	24	2.6
2020 Q4	939	14	1.5
2021 Q1	1,074	7	0.7
2021 Q2	1,031	14	1.4
<b>Grand Totals</b>	<b>12,904</b>	<b>251</b>	<b>1.9</b>





#### **Efficiency of Landfill Gas Collection System**

The purpose of the landfill surface emissions monitoring program is to provide an ongoing corrective action/ remedy program to control emissions at the landfill surface. The Facility also conducts a monthly wellfield monitoring program to confirm that the collection system is operating as intended. Since 2018, both of the programs cited have been implemented so as to comply with a significantly more stringent level than what is required by NSPS regulations. As long as corrective actions are implemented and follow-up monitoring confirms restoration of locations at detections above 200 ppm to less than the applicable limits, the facility is in compliance with Work Plan (local), Title V Permit (state) and NSPS rules (federal). The successful implementation of both programs since 2018 demonstrates that the collection system is operating in an efficient manner by minimizing the amount of fugitive emissions from the surface of the landfill and in any event meeting or in most cases surpassing regulatory requirements.

Of the 251 locations that had initial readings over 200 ppm during the initial quarterly surface scan events since 2018, 75 readings were between 200 ppm and 500 ppm. All locations were successfully corrected within the required timeframes. These 75 locations were not required to be corrected under NSPS or permit rules but all were restored to less than 200 ppm upon corrective actions. Therefore, there is some ongoing reduction in fugitive emissions at the landfill surface as a result of the enhanced monitoring.

The calculation of collection efficiency is useful for the purposes of permitting and design, but is not the preferred method for actually

determining the effectiveness of a gas collection and control system as there are many variables that such calculations cannot account for, such as cover oxidation and enhanced collection and maintenance. The best method, consistence with Federal NSPS regulations, is the operational monitoring of individual collectors and surface emissions monitoring as described herein and those results have consistently demonstrated that HALRC's collection system is operating so as to eliminate fugitive emissions that not only meets, but in many cases surpasses regulatory standards.

We are also providing hard copies of the following documents as supplemental information:

- H<sub>2</sub>S data summary reports for the period of March 6, 2018 through March 31, 2021 (Attachment 5)
- Quarterly surface monitoring reports for the period of 2018Q1 through 2021Q2. (Attachment 5)

Comment No. 8

Existing Community Services: Although covered in your presentation could you please provide a comprehensive list (and description) of all beneficial community services provided? (Specifically, the fire protection / training service was omitted).

Response No. 8

Our team at High Acres is proud of the long history of community partnerships and environmental excellence since 1972. Our modern operation is focused on sustainability through several community assets including organics composting, wildlife habitat management and other community services. In addition, year-after-year, High Acres financially supports over hundreds of local organizations and charities. Our community assets are highlighted in further details below:

#### High Acres Sports Complex:

High Acres owns the sports complex adjacent to the landfill where over 5,000 local families and children can enjoy a variety of youth sports, including softball, baseball, lacrosse, soccer, and football. Recently in 2020, High Acres partnered with the Fairport Football Alumni Association (FFAA) to manage and utilize this first-class sports facility on an annual basis. This service is provided by WMNY at no-cost and fulfils a need for youth sports in our community.

#### Perinton Joint Training Facility:

The Perinton Joint Training Facility, constructed in 2010, consists of collaboration of local fire departments including Egypt and Fairport Fire Districts. The space provides a variety of training including fire, search and rescue, ladder operations and vehicle extraction. This service is provided by



**WMNY at no-cost and fulfils a need for our emergency services in our community.**

**Fairport and Macedon Police Training Range Complex:**

**The Police Training Range Complex, constructed in 2016, provides a safe and convenient area for the Fairport and Macedon Police Departments to practice rifle target practice and other important police training tactics. This service is provided by WMNY at no-cost and fulfils a need for our emergency services in our community.**

**Residential Drop-off Facility:**

**As part of a benefits program, we offer residents of the Towns of Perinton and Macedon a drop off area for their solid waste and recyclables at a discounted price, as an alternative to private home pickup. To obtain the special resident pricing, a disposal permit must be obtained at the Town Clerk's office. Proof of residency and license plate number are required. The permit decal sticker is free of charge. Anyone using the Resident Drop-off facility without a permit will not receive the resident discount and will be charged the non-resident rate, regardless of residency. Only residents of the Town of Perinton and Macedon are eligible for the discounted rate. For recyclable materials, the facility is free to all users, regardless of their residence. After the holidays, the facility also accepts Christmas trees for upcycling into mulch. The facility offers a convenient and free service to help increase recycling in the community, while diverting valuable materials from the landfill.**

**Falcons:**

**Seagulls are a nuisance to our neighbors and cause property damage to community facilities and grounds. After several years of experimenting with deterrence measures such as propane cannons and spray products, in 2010, we retained the services of a falconry based bird abatement company. A few years ago, we welcomed some new tenants to the High Acres facility, a team full of falcons and falconers. An environmentally friendly gull control system that keeps the scavenger birds from invading the landfill. The presences of these trained, natural predators on site have proven to be an effective way to deter gulls from invading the site.**

**Community Open House:**

**High Acres sets a high standard for commitment to sustainability and the communities we partner with and serve. Our vision is to be a trusted and valued partner, working together with the communities where we operate. As a testament to High Acre's community relations program, the annual WM Open House is attended by over 1,000 neighbors. Education around**

waste management, sustainability, and conservation is provided through information exhibits, children games, and site tours. Our guests also get to enjoy free food, soft drinks, and ice cream all generously served by our community partners such as the Fairport Lions Club and Macedon Town Ambulance who help make the event a huge success.

**Comment No. 9** Stormwater Prevention Plan: Has there been an update to the Plan (within the last SUP period (2016-2021). If so, please provide a summary.

**Response No. 9** The Stormwater Pollution Prevention Plan (SWPPP) is frequently updated as site drainage patterns change with associated construction. The current SWPPP, dated August 2021, includes modifications to the site drainage areas. Former outfall (stormwater discharge location) #010 was removed, as it no longer received drainage based on current site topography.

**Comment No. 10** Recycling Activities – composting: Could you provide a brief summary of composting activities. Specifically, volumes of yard debris (wood, brush, leaves) that are composted (since last SUP); description of food composting streams and volume for the same time period.

**Response No. 10** High Acres is home to an organics and yard waste composting diversion facility. On average 1,000,000 lbs. / year of food waste from three local universities, St. John Fisher, Nazareth College, and University of Rochester is collected from their dining halls and brought to High Acres for composting. In addition, in 2017, High Acres had 15,000 bags of the food waste compost bagged for distribution to residents in the community to enjoy for their own home gardening applications.

About 30,000,000 lbs. / year of yard waste is diverted from the landfill for composting or upcycling into mulch. The finished compost is given back to residents of the Town of Perinton, as well as other municipalities within the community. The wood chips are useful to build trails or use in landscape applications. The leaf and brush are turned into a finished product that results in a nice soil enhancement material to promote vegetative growth. The finished products are given back to the town for a variety of landscaping applications. A summary of the tons received at HALRC is provided in the table below.

Year	SSO Composted (Tons)	Yard Waste Composted (Tons)	Total Composted (Tons)
2016	322	13,393	13,715
2017	381	14,862	15,243
2018	439	16,331	16,912
2019	501	16,473	16,974
2020	234	13,285	13,519

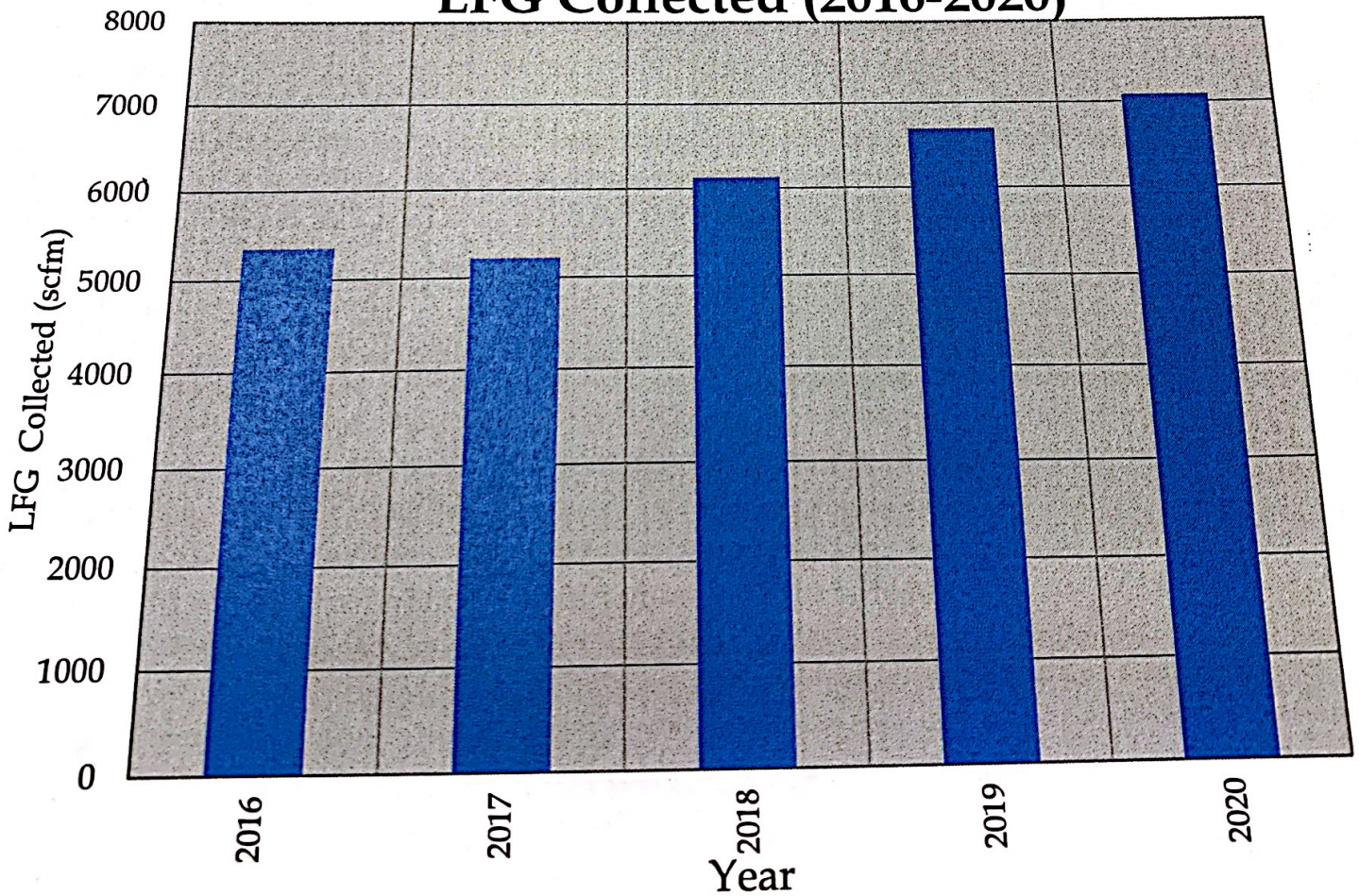


**Comment No. 11** Air Emission Sources: Could you provide a summary table indicating permit type, permit level, and emissions (2016-2021 to date).

**Response No. 11** **Permit Type:** Title V Air Permit  
**Permit Level:** Facility

The Title V permit is based on maximum projected emissions over the life of the landfill from all landfill areas (those currently constructed and those yet to be built). High Acres remains in compliance with permitted emissions limits. The figure below illustrates the volume of landfill gas collected from 2016-2020.

**High Acres Landfill  
LFG Collected (2016-2020)**





**Comment No. 12**      **Endangered/threatened Animal:** Is the Pied Billed Grebe an example of a “positive” impact? Can you briefly summarize HANA (landfill) impact on diversity?

**Response No. 2**      **The High Acres Nature Area (HANA)** is adjacent to and owned by Waste Management’s High Acres Landfill and Recycling Center. The 250- acre nature area, with 4-miles of hiking trails that are connected to the Town of Perinton’s Crescent Trail Network, is being preserved as part of Waste Management’s overall corporate commitment to sustainable environmental solutions and positive impact on avian diversity. The mission of HANA is to develop natural communities appropriate to the area as an educational and passive recreation resource for the community. HANA also provides an oasis for local bird watchers and nature enthusiasts.

Managed by WM for conservation, community trails, and outdoor education, High Acres has been Gold Certified, the highest level of achievement, through the Wildlife Habitat Council, a non-profit accreditor of programs that create wildlife habitats on corporate lands across the globe since 2006.

Over the years, HANA has earned several awards and recognition for their efforts through the Wildlife Habitat Council including multiple “Corporate Habitat of the Year” awards in honor of outstanding commitment to the enhancement of wildlife and biodiversity, and several “Corporate Lands For Learning of the Year” in honor of an outstanding certified environmental education program.

HANA would not be possible without our dedicated volunteer team with expertise in biology and avian studies, who have facilitated a truly remarkable education program. Since 2011, HANA has partnered with the Rochester Institute of Technology’s Environmental Science Department, supporting over 70 student internships on site at HANA and the program continues to grow and flourish. The continuous investigation and research by RIT students and faculty have proven that successful wetlands management has been determined as critical to maintaining ecosystem and avian health, including the Pied Billed Grebe.



**Mr. Daigler's Comments**

**Mr. Daigler's letter states his professional opinions without providing any pertinent facts or performance data based on actual conditions to support these opinions. In contrast we have provided quantitative data, facts, reports and studies to support our responses, compiled by a host of subject matter experts. In addition, we are not aware that Mr. Daigler has been to the site to confirm his observations. We offer the following responses to his letter to provide facts versus opinion.**

**Comment No. 13**      In my professional opinion, a positive declaration must be made pursuant to the State Environmental Quality Review Act ("SEQRA") establishing the need for an environmental impact statement to assess potential significant adverse impacts associated with the renewal of the Permit because of ongoing issues associated with the operation of the Landfill. In addition, in my professional opinion, the Landfill does not comply with the solid waste facility permit requirements of Section 208-21(D) of the Town Code because, based on the operational history of the Landfill since the prior renewal of the Permit and WMNY'S landfill gas management practices at the Landfill, among other reasons, the Zoning Board of Appeals ("ZBA") cannot reasonably find that the Landfill does not unduly interfere with the quiet enjoyment of adjacent property in compliance with Town Code §208-21(D)(2)(b).

**Response No. 13**      WM as the applicant acknowledges that the status or category of the application under applicable law, including the New York State Environmental Quality Review Act (SEQRA) is the responsibility of the Town and not the applicant. It is our understanding that prior permit renewals have been treated by the Town as Type II actions under SEQRA per 6 NYCRR Part 617.5, Section 617.5, subpart (c). In addition, please refer to the Memorandum sent to the Perinton Zoning Board of Appeals from the Perinton Public Works Department dated August 9, 2021 in regards to the Town's SEQR determination.

**This Special Use Permit ("SUP") Renewal will allow for the continuation of the Facility's existing state-of-the-art solid waste management operations. It is important to note that no changes to the permitted waste acceptance rate, origin and type of materials managed, or current hours of operation are proposed and as such we support the Town's decision to treat the renewal of the Special Use Permit as a Type II Action. Moreover, for the reasons identified in High Acres' application to renew the SUP as well as the materials associated with our responses to various comments, High Acres operational history demonstrates the landfill meets or surpasses all applicable operational requirements, including permit conditions.**

**Comment No. 14** I have reviewed the NYSDEC solid waste management facility and air permits for the Landfill and related design plans, odor control studies, operations and maintenance plans, compliance reports, and as-built construction plans. Based on my review of those documents, it is clear WMNY's design, monitoring, reporting and operation of the Landfill are insufficient to implement effective nuisance controls at this exceptionally large MSW landfill, or meet the requirements of the Town Code.

**Response No. 14** The HALRC Facility is in compliance with all its required Federal, State, and local permits and authorizations. The following is a summary of these requirements:

- 6 NYCRR Part 360 – Solid Waste Management Facilities (DEC)
- 6 NYCRR Part 200 – Prevention and Control of Air Contamination and Air Pollution (DEC)
- 6 NYCRR Part 612, 613, 614 – Petroleum Storage and Handling (DEC)
- 40 CFR Part 61 – National Emissions Standards for Hazardous Air Pollutants (DEC)
- Town of Perinton Special Use Permit
- Town of Macedon Special Use Permit
- State Pollutant Discharge Elimination System Permit (SPDES) (DEC)
- Sewer Use Permit (Monroe County Department of Environmental Services – Division of Pure Waters)
- Air Permits 6 NYCRR Part 201 and USEPA Title V
- Freshwater Wetlands Permit and 401 Water Quality Certification (DEC)
- Section 404 Wetland Permit (U.S. Army Corps of Engineers)
- Full Time NYSDEC on-site monitor who oversees the operation and provides a daily inspection report. Daily reports submitted to Towns).

**Comment No. 15** To issue the Permit, Town Code §208-21(D)(2)(b) requires that the ZBA must make a factual finding based on evidence that WMNY has produced: "Adequate plans...to show that the solid waste facility does not create a public hazard, the solid waste facility does not unduly interfere with the quiet enjoyment of adjacent properties; and that sufficient precautions are to be taken to prevent fires or the creation and spread of smoke, odor, dust, fumes or noises liable to become a nuisance." Based on my review of WMNY's landfill design, operations and monitoring programs as well as NYSDEC reporting for this facility, the persistent occurrences of odors reported in the surrounding community, and my professional judgment, the ZBA cannot reasonably find that the Landfill does not create a nuisance, unduly interfere with the quiet enjoyment of adjacent properties, or meet the cover requirements of the Town Code.



**Response No. 15** See **Response No. 13.**

**Comment No. 16** WMNY's landfill cover management and monitoring practices appear to contribute significantly to the persistent nuisance odors of landfill gas emanating from the Landfill and are not compliant with the cover requirements of the Town Code. Landfill gas, consisting of methane, carbon dioxide, non-methane organic compounds, and odorous reduced sulfur compounds, is emitted from the Landfill as the deposited waste decomposes.

**Response No. 16** Please refer to **Response No. 7** as it details the landfill's comprehensive monitoring practices.

The following table outlines the landfill cover requirements as defined in Town Code 208-21 D2b and HALRC's NYCRR Part 360 permit, which are being met. HALRC meets or exceeds the cover requirements for all types of cover that apply to High Acres.

Landfill Cover Requirements			
Type of Cover	Thickness	Material	Application
Daily Cover	6"	Clean soil or NYSDEC-approved AOC	-Placed at the end of every operational day. -In place 29 days or less.
Intermediate Cover	12"	Clean soil	-Placed on outside slopes, every 20 vertical feet of rise in the waste mass; and -Placed in areas not receiving waste for >30 days. -In place 30+ days or permanently (outside slopes). -Intermediate cover is removed from areas receiving additional waste; it is not removed prior to final cover installation (outside slopes).
Final Cover	48"+	Top – 6" topsoil, 24" barrier protection (common fill), 60 ml HDPE textured geomembrane, 18" low permeability soil (clay)  Sideslopes - 6" topsoil, 24" barrier protection (common fill), 24" low permeability soil (clay)	-Within 5 years of a cell reaching final waste elevations; or -Within 1 year of final waste receipt for the entire landfill.

The Town Code specifically references when the operation is completed, the fill material or disturbed area will be covered with at least six inches of clean nondeleterious topsoil within a reasonable time thereafter and seeded with a permanent pasture mixture or other fast-growing surface vegetation and that such reseeded is continued until growth has been established. Final waste grade has not been reached anywhere onsite so this provision does not yet apply, but those cover requirements that do are being met or surpassed by the level of cover on site. There are approximately 8.5MM cubic yards of available airspace in the Town of Perinton. See Attachment 4.

Comment No. 17

WMNY is required to operate an active landfill gas collection system that controls off-site migration of landfill gas in all areas of the landfill where landfill gas is generated. As part of the collection system, WMNY is supposed to collect and pipe landfill gas to pollution control equipment that burns the landfill gas by utilizing two flares and eight internal combustion engines. However, not all of the landfill gas is captured by the collection system so that it can be treated by the air pollution control system, instead a substantial portion leaks out as "fugitive emissions" to the surrounding environment through the landfill cover.

Response No. 17

To clarify, there are actually three flares that operate at the HALRC. There are two enclosed flares that operate next to the Renewable Energy Facility (the "Plant") that serve as a backup to the internal combustion engines and also combust the excess landfill gas from the Plant. WMNY received approval from NYSDEC (in the form of an Operational Flexibility request) to operate a third flare (utility flare) next to the active filling area. The utility flare is different from the enclosed flares in that it serves to combust landfill gas from the newer portions of the landfill (this landfill gas is typically higher in oxygen content and lower in methane content due to pulling higher vacuum from newer areas in an effort to minimize odors). To date, this third flare has been very successful in further minimizing odors from the working face areas.

While it is not required under applicable regulations or possible collect 100% of all landfill gas generated at any landfill site, an evaluation of actual data collected at the HALRC dating back to 2018 shows that the gas collection system has met or surpassed regulatory requirements for gas collection and has been very effective in minimizing fugitive emissions from the landfill based on the following:

- An evaluation of the monthly wellfield data going back to 2018 shows that approximately 99.9% of readings were negative pressure. This demonstrates that there is more than sufficient vacuum (i.e., negative pressure) being applied to the entire landfill waste mass (including newer waste in Cells 12 which are not yet



required to operate under NSPS regulations). We should also note that each well is monitored for specific operational parameters a minimum of twice per month which is more stringent than the NSPS requirement of once per month.

- An evaluation of the wellfield data shows that amount of NSPS wellfield exceedances of temperature (> 131 degrees F) and pressure (positive pressure) are vastly less than the amount of oxygen exceedances observed (> 5%) since 2018. The large number of oxygen readings above the 5% threshold show that the landfill is actually maintaining a vacuum on the landfill (in effect the gas collection system is pulling in some ambient air from the landfill surface which results in some air infiltration which helps to minimize odors and fugitive emissions from the landfill, but not enough to create adverse affects).
- An evaluation of operating data at the Facility shows that since 2018, the collection system uptime has surpassed 99.9% which demonstrates that it is very rare for the collection system to be down (defined as blowers being not in operationsimultaneously).
- Dating back to 2018, the surface monitoring program uses a threshold that is 2.5 times more stringent than the federal NSPS limit (200 ppm is used at the threshold versus the federal 500 ppm limit). This has resulted in more locations being corrected and repaired than what would typically be required. We are not aware of any other landfill in New York State being subject to such a stringent limit. We should also note that NYSDEC personnel have accompanied GHD technicians on multiple quarterly events since 2018 in order to observe field and calibration procedures and NYSDEC has not indicated any problems with the efforts being undertaken by WM at the landfill.
- An evaluation of surface monitoring data shows that out of 12,904 readings recorded since the 1<sup>st</sup> quarter of 2018, less than 2 percent have been above the more stringent threshold of 200 ppm. However, in all cases, corrective actions as contemplated by the regulations were initiated (much earlier than required and often within the same day) and follow-up readings demonstrated successful remedies within the required timeframes. All follow-up actions were completed within 1 month or sooner of the initial reading above 200 ppm noted and there were no instances that required an extended 120-day corrective action period which is indicative of a very successful surface monitoring program.
- While the surface monitoring occurs quarterly, the Facility also has a monthly cover integrity program which requires the technicians to inspect the cover at a minimum of once per month and implement corrective actions as required. These monthly checks

are documented on a form and records are kept at the Site. These monthly checks act as a bridge for additional monitoring that occurs in between the quarterly surface monitoring events.

- Since March 6, 2018, GHD has instituted an ambient hydrogen sulfide (H<sub>2</sub>S) monitoring program which consists of five monitoring location (4 perimeter stations and 1 location on the roof of the Dudley School. As discussed, H<sub>2</sub>S is being monitored because it is more easily identified and analyzed than other emissions associated with the landfill, and we also know that if there is a reading above a relevant threshold of H<sub>2</sub>S other landfill gases may have been emitted. On the other hand, if H<sub>2</sub>S is not being detected above the relevant threshold, other landfill emissions are not being emitted at levels of concern. An Acrollog PPB instrument samples and collects readings at a frequency of every 10 minutes while in operation. Of more than 500,000 readings that have been collected since March 6, 2018 (as of June 28, 2021), approximately 99.8% of all readings have been non-detect for H<sub>2</sub>S. In addition, there have been no exceedances of the 1-hour air quality standard for H<sub>2</sub>S attributable to the landfill.

All of this supporting data and real information demonstrates that the gas collection system at HALRC has been very effective in minimizing fugitive emissions from the landfill above and beyond what is required by applicable regulations

Comment No. 18

In accordance with Town Code §208-21(D)(2)(b) WMNY must provide an adequate plan, including an interim and final cover material management plan prepared in accordance with New York state's solid waste management facility regulations, that will help control fugitive odor. An effectively constructed and maintained geosynthetic final cover system is essential to minimizing fugitive emissions and is a critical part of controlling odor from any landfill. Effective final cover and landfill gas collection systems, those installed in areas where a landfill has reached its final elevation and will no longer be filled, can reduce fugitive landfill gas emissions to virtually zero.

Response No. 18

See Response No. 16.

Comment No. 19

Despite ongoing odor complaints, it appears large portions of the Landfill that have reached final elevation do not contain a geosynthetic based final cover system and the Landfill cover monitoring and repair procedures intended to ensure cover integrity are woefully inadequate to minimize odors. While WMNY trumpets its "quarterly Surface Emission Monitoring scans of the entire Facility to identify any landfill gas/methane readings [emphasis added]."



This statement is misleading because substantial portions of the Landfill surface are excluded from the surface emission monitoring scans, including areas most prone to leakage of fugitive emissions of landfill gas, such as:

- Steeper sloped areas of the Landfill, with slopes greater than 3:1: These slopes are prone to leakage because it is more difficult to maintain effective cover, yet they are unmonitored because WMNY claims they are too dangerous to monitor.
- Areas of the Landfill with snow or ice cover: Fugitive landfill gas emissions are easily spotted due to snowmelt, but remain unmonitored during winter months.
- Areas with heavy vegetation: Fugitive landfill gas emissions are more readily detectable in heavily vegetated areas where leakage may be more prominent and persistent winds will not quickly disperse fugitive gas during monitoring events, yet WMNY largely ignores them.
- Areas of the Landfill undergoing construction or final cover activities: these activities go on for months at a time and have the potential for substantial fugitive emissions but will go on unmonitored for extended periods.

As a result, WMNY does not monitor the facility in the most odor prone portions of the Landfill, and has not proposed to use other technically feasible alternatives to manual surface scanning, such as remote and optical scanning for methane leaks in these areas.

The failure of WMNY to monitor substantial portions of the Landfill, including those portions most likely to emit substantial fugitive emissions of landfill gas, is likely a significant contributor to the ongoing nuisance odors impacting adjacent properties. In addition, even for those areas that are monitored, infrequent quarterly monitoring is wholly insufficient to timely repair breaches causing the off-site odors as evidenced by each monitoring event routinely identifying excessive emissions requiring corrective action, often by several orders of magnitude above the allowable threshold. For a robust monitoring program, WMNY must monitor the landfill surface more frequently, and then integrate and analyze the monitoring data to timely complete repairs in areas prone to landfill gas breaches.

#### Response No. 19

- **These statements misleadingly imply that all areas with steep slopes were excluded from surface monitoring. While steep slope areas meeting applicable criteria need not be monitored under the NYSDEC approved work plan and under federal NSPS rules, WM**

insures most areas with steep slopes are monitored. The only areas that were not monitored were steep slopes that also contained exposed membrane cover (and such exposed membrane areas also typically contain excess moisture) which provides a slip/trip/fall hazard to the technicians. The foregoing areas need not be monitored under applicable regulations, but as indicated are nonetheless often monitored if the technician deems it safe to do so. However, if it is determined such an area is not safe to monitor, then the monitor notes the area and makes every effort to monitor it at the next monitoring period. Again, this is specifically authorized under the approved Work Plan and federal NSPS regulations.

- There have been no instances where an area with snow or ice cover was avoided and to imply otherwise is completely misleading and irresponsible. GHD attempts to schedule the 1<sup>st</sup> quarter and 4<sup>th</sup> quarter events in a manner that avoids snowy and ice conditions at the landfill (i.e., later in the 1<sup>st</sup> quarter and earlier in the 4<sup>th</sup> quarter in a calendar year).
- There was 1 single quarter out of 14 quarters where a few discrete areas of the landfill were not scanned due to high vegetation. We should note that since that quarterly event, WM has instituted a mowing program at the Facility that ensures that the vegetation at the landfill is at an adequate height conducive to surface monitoring activities.
- It is also worth noting that areas undergoing cover construction cannot be accessed as the technicians are required to maintain a certain safe distance between themselves and any large equipment such as dozers, loaders, articulating trucks, etc. Again, if an area is determined not to be safe, the technician will avoid such locations, and monitor them at the next monitoring period as conditions allow. As discussed, this protocol is specifically approved by the Landfill's Work Plan and federal NSPS regulations.

The expert's statement that WM should "use other technically feasible alternatives to manual surface scanning, such as remote and optical scanning for methane leaks in these areas" is incorrect. While remote and optical scanning of landfills for methane is a practice that is currently developing, it is not yet approved by USEPA to be done in accordance with Method 21, therefore, these unapproved alternatives cannot be utilized at the current time for NSPS compliance.

With regard to corrective action and follow-up timelines pertaining to quarterly surface emissions monitoring, following each initial quarterly event, the NSPS regulations require a 1-month timeframe to correct each detection above 200 ppm (in some cases, a 120-day timeline may apply if a



location cannot be addressed within 30 days, but we should note that since 2018, all locations of detections above 200 ppm were able to be successfully restored within 1 month). In addition, the cold weather months of January, February, November and December make monitoring difficult since the manufacturer of the TVA FID lists a temperature operating range of 32 °F to 122 °F which means FID measurements taken under freezing conditions are not as reliable. Therefore, GHD attempts to schedule quarterly events late in the 1<sup>st</sup> quarter and early in the 4<sup>th</sup> quarter of a calendar year. As a result of this and the corrective action timelines previously discussed, quarterly monitoring is the most frequent that such monitoring can be reasonably conducted. We should note again that the Facility also has a monthly cover integrity program which requires the technicians to inspect the cover at a minimum of once per month and implement corrective actions as required. These monthly checks are documented on a form and records are kept at the Site. Further, such monthly checks act as a bridge for additional monitoring that occurs in between the quarterly surface monitoring events.

**Comment No. 20**

In addition, it appears WMNY has made no commitment or submitted a phasing plan to construct either intermediate or final cover on the (unmonitored) steep side slopes of the Landfill to control landfill gas emissions. The steep-sloped northern, western, and southern perimeter of the Landfill appear to have largely reached their final elevation years ago, yet the cover system on these side slopes do not comply with NYSDEC requirements for intermediate or final cover such as the installation of a geomembrane liner for the final cover system. As a result, it is likely, in my professional opinion, that these unmonitored, non-compliant side slope areas are a significant source of ongoing nuisance odors impacting adjacent properties. While WMNY, almost as an aside and not as an actual commitment, casually mentions in the Application that it will "remain committed to the continued evaluation and deployment of additional mitigation and control measures, including installation of temporary geomembrane liner on intermediate outside slopes," it makes no concrete promises to do so to any particular extent, and certainly not to the full extent necessary to control fugitive emissions to eliminate the off-site odors that continue to occur.

**Response No. 20**

**Final waste grade has not been exceeded anywhere onsite. There are approximately 8.5MM cubic yards of available airspace in the Town of Perinton. See Attachment 4.**

**WM proactively deploys exposed geomembrane cover (EGC) to control fugitive emissions. As part of our Part 360 Permit we may be required to deploy EGC. EGC has been in use at the site since 2014 on exposed side slopes. As of December 2020, 8 acres of EGC is remaining plus an additional 8 acres was deployed in the first quarter of 2021.**

**Comment No. 21** In my professional opinion, based on WMNY's lack of an adequate construction and maintenance plan for monitoring and ensuring the integrity of the Landfill cover systems, insufficient final cover on side slopes, and the ongoing issues of nuisance odors impacting adjacent properties, the ZBA cannot approve the Application because it cannot rationally make the required finding of Town Code §208-21(D)(2)(b) that the Landfill does not unduly interfere with the quiet enjoyment of adjacent properties, and that sufficient precautions are being taken to prevent odors.

**Response No. 21** The HALRC cover systems meet or exceed all State and Town Codes. In addition to the previous responses provided above; High Acres operating record shows it is not creating ongoing nuisance odors, but rather has and continues to implement appropriate gas collection and other odor control measures that are state of the art for the industry and which are effective in controlling odor as much as feasible and in accord with High Acres' permit conditions (also see WM's October 20, 2020 letter to the NYSDEC Commissioner further documenting such measures attached as Attachment 4).

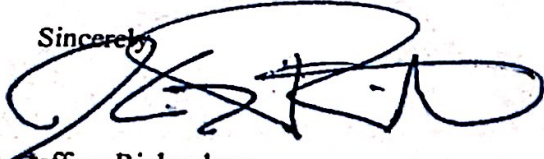
**Comment No. 22** It is further my professional opinion as a professional engineer with extensive experience related to the processing of applications under SEQRA and environmental analyses associated with MSW landfills, the substantial ongoing nuisance odors related to the Landfill represent changes regarding issues of significant and substantive environmental concern occurring subsequent to the prior approval of the Permit in 2016, and as a minimum warrant a positive declaration and. public scoping of a DEIS pursuant to SEQRA.

**Response No. 22** See Response Nos. 13, 14 and 21.



If you have any questions, please contact me at 585-223-6132.

Sincerely,



Jeffrey Richardson  
Sr. District Manager  
Waste Management of New York, LLC

cc: Luann Meyer, Barton & Loguidice  
Town of Perinton Zoning Board of Appeals

- Attachment 1**      **Comprehensive Landfill Odor Control Plan, Evaluation and Design Basis (January 2019) (Cover page and table of contents; entire plan can be made available upon request)**
- Attachment 2**      **Temperature Probe Curves from Waste Characterization Study**
- Attachment 3**      **DEC Letter dated September 25, 2020**  
**WM Response Letter dated October 20, 2020**  
**DEC's Response to the Fresh Air for the Eastside 6 NYCRR Part 612.13(b) Petition dated March 14, 2019**
- Attachment 4**      **Remaining Waste Fill within the Town of Perinton**
- Attachment 5**      **One copy provided (not included in all responses due to the sheer volume of the documents):**  
**H<sub>2</sub>S data summary reports for the period of March 6, 2018 through March 31, 2021**  
**Quarterly surface monitoring reports for the period of 2018Q1 through 2021Q2.**