

**DES Waste Management Division  
29 Hazen Drive; PO Box 95  
Concord, NH 03302-0095**

**Annual Post-Closure Report 2021  
Rye Municipal Landfill  
Breakfast Hill Road  
Rye, NH 03870**

**NHDES Site #: 123456789  
Project Type: LAND/UNLN  
Project Number: 0000225**

Prepared For:  
Town of Rye  
10 Central Road  
Rye, NH 03870  
Phone Number (603) 964-5523  
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Date of Report: March 22, 2022



# Instructions for Completing the ANNUAL POST-CLOSURE REPORT For Inactive (Closed) Solid Waste Landfills Reporting Year 2021



Complete all five pages of the Post-Closure Report (PCR) form for the **2021 calendar year (January 1 - December 31)**. Write only in the fields provided. If more space is needed to complete a section, attach additional pages and note at the bottom of the form how many additional pages are attached. Detailed section by section instructions are provided below. Submit the completed signed report to NHDES no later than **March 31, 2022**. Keep a copy of the completed report in the landfill's closure record.

You may obtain a copy of the NH Solid Waste Rules, [Env-Sw 100 et seq.](#), via [www.des.nh.gov](http://www.des.nh.gov) or by contacting the NHDES Public Information Office at (603) 271-8876.

For additional assistance in completing your PCR, contact the NHDES Solid Waste Management Bureau at (603) 271-2925 or [solidwasteinfo@des.nh.gov](mailto:solidwasteinfo@des.nh.gov).

## **SECTION 1 (Page 1) - Facility Identification**

**Facility Name:** The name of the landfill as listed on the solid waste permit.

**Physical Street Address:** The physical location of the landfill. Do NOT provide a PO Box address.

**Municipality:** The city, town, village, etc. in New Hampshire where the landfill is physically located.

**Solid Waste Facility Permit Number:** The solid waste permit number that is listed on the solid waste permit. This number typically starts with "DES" or "DPHS". Do not confuse this permit number with the permit number of your Groundwater Monitoring or Release Detection Permit.

## **SECTION 2 (Page 1) - Permittee Information**

**Permittee:** The individual or entity (e.g., Town) to whom the permit is issued.

**Mailing Address, Town/City, State, Zip Code:** The address that the permittee uses to receive mail.

**Email Address:** A current and frequently checked email address of the permittee. This is optional, but highly recommended as the best way to ensure you receive timely information from NHDES.

**Daytime Phone Number:** The daytime telephone number of the permittee, with area code.

## **SECTION 3 (Page 1) - Contact Person**

**Name:** The name of the person NHDES should contact concerning post-closure activities at the landfill. This person may be different than the person who is signing in Section 8. The name you provide will be entered in our database as the contact person for this landfill until you notify us otherwise.

**Job Title:** The job or position title of the contact person.

**Affiliation:** The name of the company, municipality or other entity for which the contact person works.

**Email Address:** A current and frequently checked email address of the contact person. This is optional, but highly recommended as the best way to ensure you receive timely information from NHDES.

**Daytime Phone Number:** The daytime telephone number of the contact person, with area code.

## **SECTION 4 (Page 1-4) - Inspections**

Provide each date that the landfill was inspected during the reporting year. Closed landfills must be inspected at least twice per year (see [Env-Sw 807.05\(g\)](#)) and more frequently when specified in the landfill's approved post-closure inspection, monitoring, and maintenance plan. NHDES recommends that the twice yearly inspections occur in the spring and fall. Inspection reports are due to NHDES within 30 days of completing the inspection (see [Env-Sw 807.05\(h\)](#)). **Summarize** the inspection findings from throughout the year using pages 2-4 of the PCR form, and attach supporting documentation as appropriate.

## **SECTION 5 (Page 4) - Action Items Summary**

This Section is your "To-Do List". Reportable "Action Items" are conditions at the landfill requiring maintenance, repair, or other corrective action to ensure the short and long-term integrity and proper performance of the landfill's various closure systems. Landfill closure systems include the capping system (or cover materials if there is no engineered capping system); the stormwater management system; the decomposition gas management system (e.g., probes, vents); the groundwater monitoring system; access

ways/roads; access control features (e.g., fences, gates, signs), and other landfill specific features (e.g., leachate collection and storage systems, tanks, vaults, pumps, alarms, etc.). Action Items are identified during the inspections you conduct, and as a result of the assessment of environmental monitoring. To identify Action Items to be reported in this PCR:

- (1) First: Look back at **last year's** PCR and list in column #1, all Action Items from that report that **were not completed during that year**, but **were completed during this reporting year**, note in column #2 that the item has been carried forward from a prior reporting year, and provide in column #3 the date the work was completed during this reporting year.

**(Why? Because Action Items occurring in but not completed during prior years, are still Action Items that require your attention. Only after an Action Item is completed and reported as completed, should you then stop reporting it. In other words, all Action Items stay on your "To-Do List" until you complete them or take them off the list for other valid reasons. And, we need to know when you have "crossed it off" your To-Do List.)**

Attach proof of action item completion such as labeled and dated photographs, record drawings, and project completion documentation, or if previously submitted to NHDES during the reporting year, provide reference to the submittal by date.

- (2) Next: List in column #1 all Action Items carried forward from the prior reporting year that **were not completed during this reporting year**, note them as such in column #2, and provide in column #5 the anticipated date they will be addressed. Attach additional information as appropriate to document the current status of/progress toward completing each incomplete Action Item carried forward from the prior reporting year(s).
- (3) Lastly: List in column #1 any other conditions at the landfill identified **during this reporting year** requiring maintenance, repair, or other corrective action to ensure the integrity of the landfill's various closure systems. Skip column #2, which is not relevant. In column #3, identify the date that each required corrective action was completed or in column #4 provide the date by which the work is anticipated to be completed. Attach additional information as appropriate to document the current status of/progress toward completing the Action Item.

**NOTE: Action items are the responsibility of the permittee to address, without prompting by NHDES. Your landfill is a containment system for waste. The waste may still pose a risk to public health, safety and the environment if not properly contained. Even very old waste can pose unknown risks. Climate change, including extreme weather events, emerging contaminants, including PFAS and 1,4 dioxane, aging infrastructure, and changes in surrounding land use, are all factors to consider when assessing needs at your closed landfill. Caretaking your landfill's various closure systems is important to ensuring the waste is properly contained. Regular maintenance of the landfill, and repairing small problems before they can become big problems, is also the best way to protect the investment you made to close and cap the landfill in order to protect public health, safety and the environment. Just as you need to maintain and repair the roof and gutter system on your home to keep it from leaking, you must likewise maintain and repair the capping and other closure systems at your landfill to ensure it continues to perform as a containment system. NHDES expects all permittees to independently address their Action Items in a timely manner and to report the same for record.**

#### **SECTION 6 (Page 5) - Summary and Assessment of Environmental Monitoring**

Assessing the post-closure performance of your landfill is important to determining when the frequency and scope of post-closure monitoring and maintenance requirements, as specified in your permit and the NH Solid Waste Rules, can be adjusted, so that the landfill eventually can be placed under a custodial level of care. The assessment is necessary to determine how well the facility is progressing toward meeting the ultimate post-closure performance standards stated in [Env-Sw 807.04](#), paraphrased as follows:

- (a) Is the facility still generating leachate? Typically evidenced by interpreting and assessing groundwater monitoring data and data trends, as well as leachate quality data and data trends (if the facility has a leachate collection system), and observations of leachate breakouts or seeps;
- (b) Is the facility still generating decomposition gases? Typically evidenced by interpreting and assessing

landfill gas monitoring data collected at vents, soil probes, and other monitoring points, such as inside nearby structures, and data trends, with due consideration of seasonal, atmospheric and other conditions noted when the data is collected;

- (c) Has the capping system achieved maximum settlement and retained its functional integrity? Typically evidenced by data from settlement surveys conducted over time, and data trends, with assessment of capping system tolerances, and visual observations of the landfill surface for differential settlement/depressions, ponding, protruding waste, apparent wrinkles in underlying synthetic capping materials, and other conditions attributable to settlement, displacement or loss of continuity of capping materials;
- (d) Is the facility having an adverse impact to air, groundwater or surface water quality? Typically evidenced by any number of inspection observations and data assessments; and
- (e) Does the facility otherwise pose a risk to human health or the environment? Typically, facilities that contain waste in a system that requires inspection, monitoring and maintenance pose some risk.

In this section of your PCR, provide a **summary** of all environmental monitoring performed at or for the landfill during the reporting year and an **assessment** of the information relevant to achieving or making progress toward achieving the above-referenced performance standards/expectations. Use multiple lines of evidence collected during inspections and monitoring events to support the assessment. Include a statement from a qualified professional **engineer** as to whether the landfill is achieving the post-closure performance standards and whether adjustments to the approved post-closure monitoring and maintenance period or provisions are justified and recommended. [See Env-Sw 1105.14\(f\)](#).

While not required, NHDES recommends that an updated site plan be provided with the summary and assessment, showing the locations and designations of environmental monitoring points (e.g., gas probes) and landfill systems.

#### ***SECTION 7 (Page 5) - Additional Information***

Use this section to provide additional information or explanation related to the landfill or information provided elsewhere in this report.

#### ***SECTION 8 (Page 5) - Signature***

While any individual may fill out the PCR, only the permittee may sign the form. The permittee is the individual or entity that holds the permit. Most permits are not issued to/held by individuals. Rather, they are held by lawfully established companies, associations, or political subdivisions such as cities, towns or districts. If the permittee is other than an individual, the PCR must be signed by an individual duly authorized to sign for the permittee. For example, if the permittee is a municipality, a municipal official or municipal employee who is authorized to sign for the municipality can typically sign the report. Accordingly, provide the signature and title/affiliation of the duly authorized signatory. If the permittee has granted signatory authority to an environmental or engineering consultant or contractor, please include a copy of the authorization. See [Env-Sw 303.04\(b\)](#).

While not required, NHDES recommends that the permittee keep a copy of the completed PCR.

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# ANNUAL POST-CLOSURE REPORT

## Inactive (Closed) Solid Waste Landfills

### Reporting Year 2021



Waste Management Division, SWMB

[RSA 149-M](#) / [Env-Sw 1105.07\(b\)\(2\)](#), [Env-Sw 1105.14](#), & [Env-Sw 807.05\(i\)](#)

Complete and return this form by **MARCH 31, 2022**.

#### 1. Facility Identification [[Env-Sw 1105.14\(a\)](#)]

|  |  |
|--|--|
| Facility Name<br>Rye Municipal Landfill      |  |
| Physical Street Address<br>Breakfast Hill Rd |  |
| Municipality<br>Rye                          | Solid Waste Facility Permit Number<br>None |

#### 2. Permittee Information [[Env-Sw 1105.14\(b\)](#)]

|                                  |                                     |                   |
|----------------------------------|-------------------------------------|-------------------|
| Permittee<br>Town of Rye         |                                     |                   |
| Mailing Address<br>10 Central Rd |                                     |                   |
| Town/City<br>Rye                 | State<br>NH                         | ZIP Code<br>03870 |
| Email Address                    | Daytime Phone Number<br>(    )    - |                   |

#### 3. Contact Person [[Env-Sw 1105.14\(d\)](#)] Check this box if this information has changed from last year.

|   |  |
|---|--|
| Name<br>Rebecca Bergeron                  | Job Title<br>Town Administrator        |
| Affiliation                               |  |
| Email Address<br>bbergeron@town.rye.nh.us | Daytime Phone Number<br>(603) 964-5523 |

#### 4. Inspections [[Env-Sw 807.05\(g\)](#)]

| Date of Inspection | Inspector                   | Date Inspection Report Submitted to NHDES* |
|--------------------|-----------------------------|--|
| 05/28/2021         | Jodie Bray Strickland, P.E. | / /  |
| 11/17/2021         | Jodie Bray Strickland, P.E. | / /  |
| / /2021            |                             | / /  |
| / /2021            |                             | / /  |

\* Inspection reports are due 30 days following the inspection. See [Env-Sw 807.05\(h\)](#). If you did not submit the inspection reports for this reporting year, attach them and check this box .

| SUMMARY OF INSPECTION FINDINGS   |                                     |                                     |                                     |                    |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------|
| A. General Site Condition  | Yes                                 | No                                  | N/A                                 | Describe Condition |
| 1. Is access to the landfill restricted by use of gates, fences or natural barriers? Ref <a href="#">Env-Sw 807.03(b)(11)</a>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |                    |
| 2. Are weather-resistant legible signs posted around the perimeter of the landfill in areas where fencing is not used? Ref <a href="#">Env-Sw 807.03(b)(11)</a>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                    |
| 3. Is the access road(s) properly graded and drained? Ref <a href="#">Env-Sw 806.08(c)</a>   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 4. Is any portion of the site used for activities other than post-closure monitoring and maintenance? If you answered "yes," list these activities in Section 7 (Additional Information). For each activity, indicate if it is on or off cap/cover. Ref <a href="#">Env-Sw 807.05(o)</a> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |                    |
| 5. Are all groundwater monitoring wells accessible and in good condition? Ref <a href="#">Env-Sw 807.03(b)(8)</a>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                    |
| 6. Is the surface water monitoring system functioning and maintained? Ref <a href="#">Env-Sw 807.03(b)(8)</a>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| B. Stormwater System Condition<br>[Ref <a href="#">Env-Sw 807.03(b)(5)</a> ]   | Yes                                 | No                                  | N/A                                 | Describe Condition |
| 1. Are the sedimentation/detention ponds maintained (e.g., sedimentation removed, no overgrown vegetation)?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 2. Are culverts intact and free of obstructions?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 3. Are perimeter drainage swales/ditches well maintained, unobstructed, and free flowing?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 4. Do all drainage swales have positive drainage?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 5. Are the methods used to control surface water well maintained (e.g., berms, benches)?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 6. Are runoff channels protected to prevent scour and erosion that creates sediment?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 7. Is there evidence of erosion (e.g., sedimentation in drainage ditches and ponds)?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 8. Are storm drains in good condition (e.g., frame, grate, wall joints, pumps, sumps, pipes, inlet and outlet stone)?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| C. Decomposition Gas Control System<br>[Ref <a href="#">Env-Sw 807.03(b)(9)</a> ]  | Yes                                 | No                                  | N/A                                 | Describe Condition |
| 1. Is the gas management system: <input checked="" type="checkbox"/> Passive OR <input type="checkbox"/> Active  |                                     |                                     | <input type="checkbox"/>            |                    |
| 2. If the facility has an active gas management system, are all components of the system in good working order (e.g., blower, flare)?<br>Date the system was last tested:  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 3. If the facility has a passive gas management system, are all gas vents in good condition and functional (e.g., vent cap, riser pipe)?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                    |
| 4. Are all soil gas probes in good condition and functional?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 5. Are all indoor air quality monitors in good condition and functional?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| 6. Are there any landfill odors?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |                    |
| 7. Is there evidence of stressed (e.g., damaged/weakened) vegetation?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |                    |

| C. Decomposition Gas Control System<br>[Ref <a href="#">Env-Sw 807.03(b)(9)</a> ]  | Yes                                 | No                                  | N/A                                 | Describe Condition |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------|
| 8. Is the permittee required to monitor methane generation from the landfill?<br><b>If “no,” provide an explanation in Section 7 (Additional Information).</b><br>If “yes,” answer the following questions in this section and attach a summary table of all methane data collected; include data from vents, soil probes, and indoor air quality monitors (as applicable). Evaluate any trends in Section 6 (Summary and Assessment). | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |                    |
| I. For this calendar reporting year, have methane levels exceeded 25% of the LEL inside any on or off-site structures?<br>Ref <a href="#">Env-Sw 806.07(b)(1)</a>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| II. For this calendar reporting year, have methane levels exceeded 50% of the LEL at the property line within the soil?<br>Ref <a href="#">Env-Sw 806.07(b)(2)</a>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                    |
| III. If “yes” to question I. or II. above, did the permittee implement contingency procedures to ensure protection of public health & safety; and notify NHDES immediately?  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |

| D. Cap (Cover) Condition<br>[Ref <a href="#">Env-Sw 807.03(b)(4)</a> ]  | Yes                                 | No                                  | N/A | Describe Condition |
|---|-------------------------------------|-------------------------------------|-----|--------------------|
| 1. Is cap settlement uniform? (i.e. <b>No</b> visual evidence of depressions, water ponding, cracking, and/or sloughing)  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |     |                    |
| 2. Is an instrument survey of the cap required? Ref <a href="#">Env-Sw 807.03(b)(10)</a><br>If “yes,” attach a summary table of all survey data collected, and provide an evaluation of any trends.<br>Date(s) of the survey conducted this reporting year: | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |     |                    |
| 3. Does cap slope promote runoff?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |     |                    |
| 4. Is the cap mowed on a regular basis?<br>NHDES recommends that landfills be mowed twice per year.<br>Date(s) the landfill was mowed for this reporting year: October  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |     |                    |
| 5. Is there evidence of erosion (e.g., erosion rills, exposed soil)?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |     |                    |
| 6. Is the vegetative layer in good condition?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |     |                    |
| 7. Is there evidence of damage due to unauthorized access?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |     |                    |
| 8. Is there evidence of damage due to burrowing animals?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |     |                    |



| <b>E. Leachate Collection and Leak Detection Systems</b><br>[Ref <a href="#">Env-Sw 807.03(b)(6)</a> & <a href="#">Env-Sw 807.03(b)(7)</a> ]        | Yes                      | No                                  | N/A                                 | Describe Condition |
|---|--------------------------|-------------------------------------|-------------------------------------|--------------------|
| 1. Are there any leachate breakouts or seeps, either on or off the landfill property?   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |                                     |                    |
| 2. Does the landfill have a leachate collection and/or leak detection system? If "yes," answer the following:                                       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                    |
| I. Are leachate collection and leak detection system appurtenances functioning properly?  | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| II. Is leachate stored on-site prior to disposal?<br>If "yes," what quantity of leachate is currently stored on-site?                               | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |
| III. Is leachate properly removed and disposed of on a periodic basis?<br>If "yes," what is the frequency of disposal and the disposal destination? | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                    |

**5. Action Items Summary**

| Action Item     | Carried Forward from 2019?   |  | Date Completed | Date to be Completed | Information Attached?               |
|-----------------|------------------------------|--|----------------|----------------------|-------------------------------------|
| Broken gas vent | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | 2021           |                      | <input checked="" type="checkbox"/> |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |
|                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No            |                |                      | <input type="checkbox"/>            |

**6. Summary and Assessment [Ref Env-Sw 807.05(i) & Env-Sw 1105.14(f)]** Use additional sheets if necessary.

See attached.

**7. Additional Information** Use additional sheets if necessary.

**8. Signature**

*By signing below, I affirm that the material and information submitted in this report is correct and complete to the best of my knowledge and belief, and that I am the permittee or a person duly authorized to sign for the permittee.*

Rebecca Bergeron  
Signature of Permittee or Duly Authorized Individual

3.22.2022  
Date

Rebecca Bergeron  
Printed Name of Signatory

Town Administrator  
Title / Permittee Affiliation

This report contains 5 attached pages.

**Form Submittal Instructions:**

Please submit the completed form in PDF via email to [solidwasteinfo@des.nh.gov](mailto:solidwasteinfo@des.nh.gov) or upload to [NHDES' OneStop Data Provider](#) portal using the universal solid waste management site code "123456789." If you are not registered as a Data Provider, you may complete a [registration form](#) to request a username, pin and password. **Please do not submit a paper copy of the completed form unless that is your only means to submit.** If you must submit the PCR in paper form, for tracking purposes please notify us by email, sent to [solidwasteinfo@des.nh.gov](mailto:solidwasteinfo@des.nh.gov), that you have submitted the PCR in paper form.

While not required, NHDES recommends that the permittee keep a copy of the completed PCR.

Rye Municipal Landfill  
Solid Waste Facility Permit # None  
Post Closure 2021 Report

**Section 5 – Action Items Summary**

**Photos 1 & 2** - A gas vent was damaged. It was repaired later in the year.



Photo #1 - Damaged gas vent in May 2021.



Photo #2 - Repaired gas vent in November 2021.

## **Section 6 - Summary and Assessment of Environmental Monitoring**

In accordance with NHDES guidance, the Rye Municipal Landfill was inspected twice in 2021, in May and November. The inspections included an assessment of monitoring wells, passive gas vents, and the capping surface and slope of the landfill.

The cap is properly shedding stormwater as designed. There are no signs of erosion or channeling. It is well vegetated and stable without evidence of differential settling.

Gas monitoring was conducted in April and November at seven gas monitoring wells and two passive gas vents. Methane was detected at MW-2S in November at 2.9%. Methane concentrations were below detection at all other locations in November and all locations in April. A gas summary table for the past 10 years is attached.

The cap was mowed in the fall in October. Vegetation is healthy with no sparse areas.

Groundwater is monitored annually in November. There were ambient groundwater quality exceedances (AGQS) of manganese (0.3 mg/L) at wells MW-4A (12 mg/L), MW-7B (3.1 mg/L) and MW-10 (3.1 mg/L). Per- and polyfluoroalkyl substances (PFAS) were analyzed at four landfill monitoring wells and two water supply wells. Detected concentrations of PFOA exceeded the AQGS (12 ng/L) at MW-4A (28.0 ng/L), MW-6A (90.1 ng/L) and MW-10 (39.9 ng/L). There was also an AGQS exceedance of PFOS (15 ng/L) at MW-4A (19.0 ng/L). There were no PFAS AGQS exceedances in the two water supply wells. Water quality summary tables have been submitted with the groundwater summary and are not provided herein.

The above monitoring summary is provided to show that the Rye Municipal Landfill is progressing toward achieving post closure standards with regard to the following:

- a) Since closure in 1987, groundwater quality has improved, as evidenced by decreasing concentrations of some inorganic compounds and virtual elimination of volatile organic compounds. There is still a groundwater impact, which is expected to continue but decline over many years. There is no evidence of leachate breakouts or seeps.
- b) The low permeability soil capping system has decreased infiltration of precipitation into the waste mass. This has probably reduced the moisture content in the waste mass. This has substantially reduced landfill gas production at all of the monitoring locations. While the landfill still generates decomposition gases, it is at a much lower rate.
- c) The low permeability soil capping system has decreased infiltration of precipitation into the waste mass. This has apparently slowed the decomposition of waste. Therefore, the settlement of the capping system is limited. The capping system retains its functional integrity. There is no evidence of differential settlement/depressions, ponding, protruding waste or apparent defects in the capping materials. Continued minor settlement can be anticipated for many years to come.
- d) The facility does not appear to have an adverse impact on air quality. Groundwater effects have been detailed in water quality submittals made under the permit GWP-198705029-R-005. A groundwater management zone (GMZ) has been established and maintained. Any groundwater impacts appear to be contained within the GMZ.
- e) The landfill currently poses minimal risk to human health and the environment.

We believe that the landfill is achieving post-closure performance standards and recommend no adjustments to the current post-closure monitoring and maintenance period.

We have attached an updated site plan that shows environmental monitoring points.

Rye Municipal Landfill  
Solid Waste Facility Permit # None  
Site Inspection Report  
Site Inspection May 28, 2021, by Jodie Bray Strickland, P.E.

General Site Conditions:

The perimeter fence and gate are in good, working condition and along with natural vegetation, bar the site from vehicular traffic. All groundwater monitoring wells are in good condition and accessible.

Stormwater System and Cap Condition:

The cap is properly shedding stormwater. There is no evidence of erosion or channeling. Cap settlement appears uniform. There is no visual evidence of depressions, water ponding, cracking and/or sloughing. The cap has not been mowed this year but vegetation is maintained.

Decomposition Gas Control System:

All gas monitoring wells are in good condition and appear to be functional. There is one gas vent that has been damaged and needs to be repaired. There are no landfill odors or evidence of stressed vegetation.

Leachate Collection and Leak Detection Systems:

There are no leachate breakout or seeps on or off the property.

Rye Municipal Landfill  
Solid Waste Facility Permit # None  
Site Inspection Report  
Site Inspection November 17, 2021, by Jodie Bray Strickland, P.E.

General Site Conditions:

The perimeter fence and gate are in good, working condition and along with natural vegetation, bar the site from vehicular traffic. All groundwater monitoring wells are in good condition and accessible.

Stormwater System and Cap Condition:

The cap is properly shedding stormwater. There is no evidence of erosion or channeling. Cap settlement appears uniform. There is no visual evidence of depressions, water ponding, cracking and/or sloughing. The cap was recently mowed and vegetation is maintained.

Decomposition Gas Control System:

All gas probes and gas vents are in good condition and appear to be functional. The gas vent that was previously noted as damaged has been repaired. There are no landfill odors or evidence of stressed vegetation.






Leachate Collection and Leak Detection Systems:

There are no leachate breakouts or seeps on or off the property.





**Legend:**

- MW 1A  Approximate Location of Existing Groundwater Monitoring Well
- GMW 3S  Approximate Location of Existing Gas Monitoring Well
-  Approximate Breakfast Hill Landfill Groundwater Management Zone
-  Fenceline
-  Existing Gas Vent
- GV-9 

|                         |  |   |                     |
|-------------------------|--|---|---------------------|
| Town of Rye, NH         |  | date:<br>March 2022   | designed by:<br>CMM |
| Breakfast Hill Landfill |  | project no:<br>527  | drawn by:<br>JBS    |
| Site Plan               |  | file name:<br>Bf_Site Plan2021.dwg  | approved by:<br>CMM |
| drawing no.<br><b>1</b> |  | scale:<br>0 20' 40'<br>Scale: 1" = 20'  |                     |
| sheet: 1 of 1           |  |   |                     |
|                         |  | <b>CMA ENGINEERS</b><br>CIVIL/ENVIRONMENTAL/STRUCTURAL<br>Portsmouth, NH • Manchester, NH • Portland, ME<br>603/431-6196 • 603/827-0708 • 207/541-4223<br>c m a e n g i n e e r s . c o m |                     |
|                         |  | no.   | revision            |
|                         |  | date  | by                  |

CMAA and CMAI Technologies are not responsible for any use for other purposes



**Rye Municipal Landfill**  
**Table 1- Gas Well and Passive Gas Vent Testing Summary**

| Passive Gas Vent | Date     | in Hg Barometric Pressure | %LEL | % Methane | % Oxygen | % Carbon Dioxide |
|------------------|----------|---------------------------|------|-----------|----------|------------------|
| GMW-1S           |          |                           |      |           |          |                  |
|                  | 01/26/11 | 29.9                      | <2   | <0.1      | 16       | 5.3              |
|                  | 04/29/11 | 29.5                      | 2    | 0.1       | 1.5      | 3.5              |
|                  | 11/22/11 | 30.2                      | <2   | <0.1      | <0.1     | 17               |
|                  | 02/28/12 | 30.1                      | <2   | <0.1      | 19       | 2.8              |
|                  | 05/01/12 | 30.0                      | <2   | <0.1      | 14       | 6.1              |
|                  | 11/20/12 | 29.9                      | <2   | <0.1      | 11       | 9.2              |
|                  | 02/15/13 | 29.7                      | <2   | <0.1      | 17       | 4.9              |
|                  | 05/01/13 | 30.3                      | <2   | <0.1      | 14       | 4.4              |
|                  | 11/26/13 | 30.1                      | <2   | <0.1      | 15       | 7.5              |
|                  | 04/30/14 | 30.2                      | <2   | <0.1      | 15       | 5                |
|                  | 11/24/14 | 29.3                      | <2   | <0.1      | 11       | 9.5              |
|                  | 05/01/15 | 29.8                      | <2   | <0.1      | 14       | 4.7              |
|                  | 11/02/15 | 29.8                      | <2   | <0.1      | 1.3      | 17               |
|                  | 04/29/16 | 30.0                      | <2   | <0.1      | 16       | 5.30             |
|                  | 11/30/16 | 29.8                      | <2   | <0.1      | 14       | 7.5              |
|                  | 05/24/17 | 29.7                      | <2   | <0.1      | 5.9      | 11               |
|                  | 11/20/17 | 29.7                      | <2   | <0.1      | 11       | 9.6              |
|                  | 05/01/18 | 29.8                      | <2   | <0.1      | 16       | 3.2              |
|                  | 11/21/18 | 26.9                      | <2   | <0.1      | 9.7      | 10               |
|                  | 04/02/19 | 30.2                      | <2   | <0.1      | 4.1      | 15               |
|                  | 11/08/19 | 29.79                     | <2   | <0.1      | 3.0      | 17               |
|                  | 04/30/20 | 30.1                      | <2   | <0.1      | 4.2      | 15               |
|                  | 11/04/20 | 30.3                      | <2   | <0.1      | 12.0     | 8.6              |
|                  | 04/09/21 | 30.0                      | <2   | <0.1      | 16       | 4.0              |
|                  | 11/29/21 | 29.6                      | <2   | <0.1      | 14       | 8.4              |
| GMW-1D           |          |                           |      |           |          |                  |
|                  | 01/26/11 | 29.9                      | <2   | <0.1      | 0.3      | 18               |
|                  | 04/29/11 | 29.5                      | <2   | <0.1      | 15       | 3.5              |
|                  | 11/22/11 | 30.2                      | <2   | <0.1      | 12       | 8.0              |
|                  | 02/28/12 | 30.1                      | <2   | <0.1      | 0.4      | 17               |
|                  | 05/01/12 | 30.0                      | <2   | <0.1      | 1.4      | 16               |
|                  | 11/20/12 | 29.9                      | <2   | <0.1      | 0.1      | 19               |
|                  | 02/15/13 | 29.7                      | <2   | <0.1      | 0.9      | 18               |
|                  | 05/01/13 | 30.3                      | <2   | <0.1      | 2.1      | 16               |
|                  | 11/26/13 | 30.1                      | <2   | <0.1      | 0.9      | 18               |
|                  | 04/30/14 | 30.2                      | <2   | <0.1      | 2.3      | 17               |
|                  | 11/24/14 | 29.4                      | <2   | <0.1      | 1.3      | 18               |
|                  | 05/01/15 | 29.8                      | <2   | <0.1      | 2.5      | 15               |
|                  | 11/02/15 | 29.8                      | <2   | <0.1      | 11       | 9.0              |
|                  | 04/29/16 | 30.0                      | <2   | <0.1      | 3        | 16.0             |
|                  | 11/30/16 | 29.8                      | <2   | <0.1      | 1.8      | 18               |
|                  | 05/24/17 | 29.7                      | <2   | <0.1      | 3.0      | 15               |
|                  | 11/20/17 | 29.7                      | <2   | <0.1      | 2.2      | 18               |
|                  | 05/01/18 | 29.8                      | <2   | <0.1      | 3.2      | 15.0             |
|                  | 11/21/18 | 26.9                      | <2   | <0.1      | 2.9      | 17               |
|                  | 04/02/19 | <2*                       | <2   | <0.1      | 17       | 4.4              |

**Rye Municipal Landfill**  
**Table 1- Gas Well and Passive Gas Vent Testing Summary**

| Passive Gas Vent | Date     | in Hg Barometric Pressure | %LEL       | % Methane  | % Oxygen | % Carbon Dioxide |
|------------------|----------|---------------------------|------------|------------|----------|------------------|
| GMW-1D           | 11/08/19 | 29.79                     | <2         | <0.1       | 11       | 9.2              |
|                  | 04/30/20 | 30.1                      | <2         | <0.1       | 5.1      | 16               |
|                  | 11/04/20 | 30.3                      | <2         | <0.1       | 3.0      | 16               |
|                  | 04/09/21 | 30.0                      | <2         | <0.1       | 4.3      | 15               |
|                  | 11/29/21 | 29.6                      | <2         | <0.1       | 1.8      | 17               |
| GMW-2S           |          |                           |            |            |          |                  |
|                  | 01/26/11 | 29.9                      | <2         | <0.1       | 6.5      | 12               |
|                  | 04/29/11 | 29.4                      | <2         | <0.1       | 7.1      | 8.6              |
|                  | 11/22/11 | 30.2                      | <b>170</b> | <b>8.6</b> | <0.1     | 19               |
|                  | 02/28/12 | 30.1                      | <2         | <0.1       | 8.5      | 9.8              |
|                  | 05/01/12 | 30.1                      | <2         | <0.1       | 6.3      | 11               |
|                  | 11/20/12 | 29.9                      | 33         | 1.7        | 1.1      | 18               |
|                  | 02/15/13 | 29.7                      | <2         | <0.1       | 8.4      | 9.5              |
|                  | 05/01/13 | 30.3                      | <2         | <0.1       | 7.6      | 8.5              |
|                  | 11/26/13 | 30.1                      | 10         | 0.5        | 4.4      | 16               |
|                  | 04/30/14 | 30.2                      | <2         | <0.1       | 8.8      | 8.4              |
|                  | 11/24/14 | 29.3                      | <2         | 3.2        | <0.1     | 18               |
|                  | 05/01/15 | 29.8                      | <2         | <0.1       | 6.7      | 8.7              |
|                  | 11/02/15 | 29.8                      | 30         | 1.5        | 1.1      | 16               |
|                  | 04/29/16 | 30.0                      | <2         | <0.1       | 9.2      | 8.8              |
|                  | 11/30/16 | 29.8                      | 4          | 0.2        | 5.5      | 14               |
|                  | 05/24/17 | 29.7                      | <2         | <0.1       | 5.0      | 9                |
|                  | 11/20/17 | 29.7                      | 20         | 1.0        | 1.0      | 17               |
|                  | 05/01/18 | 29.8                      | <2         | <0.1       | 8.0      | 8.1              |
|                  | 11/21/18 | 26.9                      | <b>66</b>  | <b>3.3</b> | <0.1     | 18               |
|                  | 04/02/19 | <2*                       | <2         | <0.1       | 9.0      | 8.5              |
|                  | 11/08/19 | 29.79                     | <b>26</b>  | <b>1.2</b> | 1.3      | 16               |
|                  | 04/30/20 | 30.1                      | <2         | <0.1       | 8.3      | 8.5              |
|                  | 11/04/20 | 30.3                      | <b>20</b>  | <b>1.0</b> | 0.5      | 16               |
|                  | 04/09/21 | 30.0                      | <2         | <0.1       | 9.4      | 7.7              |
|                  | 11/29/21 | 29.6                      | <b>58</b>  | <b>2.9</b> | <0.1     | 17               |
| GMW-3S           |          |                           |            |            |          |                  |
|                  | 01/26/11 | 29.9                      | <2         | <0.1       | 18       | 3.2              |
|                  | 04/29/11 | 29.5                      | <2         | <0.1       | 18       | 2.5              |
|                  | 11/22/11 | 30.2                      | <2         | <0.1       | 13       | 7.6              |
|                  | 02/28/12 | 30.1                      | <2         | <0.1       | 17       | 3.2              |
|                  | 05/01/12 | 30.1                      | <2         | <0.1       | 5.0      | 7.0              |
|                  | 11/20/12 | 29.9                      | <2         | <0.1       | 14       | 7.7              |
|                  | 02/15/13 | 29.7                      | <2         | <0.1       | 18       | 2.7              |
|                  | 05/01/13 | 30.4                      | <2         | <0.1       | 18       | 2.7              |
|                  | 11/26/13 | 30.1                      | <2         | <0.1       | 16       | 5.5              |
|                  | 04/30/14 | 30.2                      | <2         | <0.1       | 18       | 2.7              |
|                  | 11/24/14 | 29.3                      | <2         | <0.1       | 10       | 9.7              |
|                  | 05/01/15 | 29.8                      | <2         | <0.1       | 17       | 3                |
|                  | 11/02/15 | 29.9                      | <2         | <0.1       | 9.3      | 10               |
|                  | 04/29/16 | 30.0                      | <2         | <0.1       | 18       | 2.9              |

**Rye Municipal Landfill**  
**Table 1- Gas Well and Passive Gas Vent Testing Summary**

| Passive Gas Vent | Date     | in Hg Barometric Pressure | %LEL | % Methane | % Oxygen | % Carbon Dioxide |
|------------------|----------|---------------------------|------|-----------|----------|------------------|
| GMW-3S           | 11/30/16 | 29.8                      | <2   | <0.1      | 12       | 9.1              |
|                  | 05/24/17 | 29.7                      | <2   | <0.1      | 4.7      | 4.4              |
|                  | 11/20/17 | 29.7                      | <2   | <0.1      | 11       | 8.5              |
|                  | 05/01/18 | 29.8                      | <2   | <0.1      | 18       | 2.6              |
|                  | 11/21/18 | 26.9                      | <2   | <0.1      | 14       | 6.0              |
|                  | 04/02/19 | <2*                       | <2   | <0.1      | 18       | 2.6              |
|                  | 11/08/19 | 29.79                     | <2   | <0.1      | 7.5      | 11               |
|                  | 04/30/20 | 30.1                      | <2   | <0.1      | 17       | 2.8              |
|                  | 11/04/20 | 30.3                      | <2   | <0.1      | 8.7      | 9.8              |
|                  | 04/09/21 | 30.0                      | <2   | <0.1      | 13       | 3.4              |
|                  | 11/29/21 | 29.6                      | <2   | <0.1      | 7.6      | 9.0              |
|                  |          |                           |      |           |          |                  |
| GMW-4S           |          |                           |      |           |          |                  |
|                  | 01/26/11 | 29.9                      | 64   | 3.2       | <0.1     | 18               |
|                  | 04/29/11 | 29.4                      | <2   | <0.1      | 0.8      | 13               |
|                  | 11/22/11 | 30.2                      | <2   | <0.1      | 10       | 10               |
|                  | 02/28/12 | 30.1                      | <2   | <0.1      | 8.8      | 12               |
|                  | 05/01/12 | 30.0                      | <2   | <0.1      | 12       | 7.8              |
|                  | 11/20/12 | 29.9                      | 12   | 0.6       | <0.1     | 14.0             |
|                  | 02/15/13 | 29.7                      | <2   | <0.1      | 2        | 15.0             |
|                  | 05/01/13 | 30.3                      | <2   | <0.1      | 1        | 12.0             |
|                  | 11/26/13 | 30.1                      | <2   | <0.1      | 12       | 8.7              |
|                  | 04/30/14 | 30.2                      | <2   | <0.1      | 8        | 11               |
|                  | 11/24/14 | 29.3                      | <2   | <0.1      | 3.3      | 12               |
|                  | 05/01/15 | 29.8                      | <2   | <0.1      | 10       | 10               |
|                  | 11/02/15 | 29.9                      | <2   | <0.1      | 5.4      | 10               |
|                  | 04/29/16 | 30.0                      | <2   | <0.1      | 7.3      | 10.0             |
|                  | 11/30/16 | 29.8                      | <2   | <0.1      | 3.6      | 12               |
|                  | 05/24/17 | 29.7                      | <2   | <0.1      | 6.6      | 9.1              |
|                  | 11/20/17 | 29.7                      | <2   | <0.1      | 8.0      | 11               |
|                  | 05/01/18 | 29.8                      | <2   | <0.1      | 5.2      | 11               |
|                  | 11/21/18 | 26.9                      | <2   | <0.1      | 3.0      | 13               |
|                  | 04/02/19 | <2*                       | <2   | <0.1      | 13       | 8.8              |
| 11/08/19         | 29.79    | <2                        | <0.1 | 5.9       | 10       |                  |
| 04/30/20         | 30.1     | <2                        | <0.1 | 12        | 8.0      |                  |
| 11/04/20         | 30.3     | <2                        | <0.1 | 13.0      | 8.2      |                  |
| 04/09/21         | 30.0     | <2                        | <0.1 | 8.9       | 9.0      |                  |
| 11/29/21         | 29.6     | <2                        | <0.1 | 11        | 9.6      |                  |
|                  |          |                           |      |           |          |                  |
| GMW-5            |          |                           |      |           |          |                  |
|                  | 11/22/11 | 30.2                      | <2   | <0.1      | 18       | 3                |
|                  | 02/28/12 | 30.1                      | <2   | <0.1      | 0.4      | 17               |
|                  | 05/01/12 | 30.0                      | <2   | <0.1      | 18       | 2.4              |
|                  | 11/20/12 | 29.9                      | <2   | <0.1      | 17       | 3.7              |
|                  | 02/15/13 | 29.7                      | <2   | <0.1      | 17       | 4.1              |
|                  | 05/01/13 | 30.3                      | <2   | <0.1      | 20       | <0.1             |
|                  | 11/26/13 | 30.1                      | <2   | <0.1      | 16       | 4.2              |
| 04/30/14         | 30.2     | <2                        | <0.1 | 20        | 1.3      |                  |

**Rye Municipal Landfill**  
**Table 1- Gas Well and Passive Gas Vent Testing Summary**

| Passive Gas Vent | Date     | in Hg Barometric Pressure              | %LEL | % Methane | % Oxygen | % Carbon Dioxide |  |
|------------------|----------|--|------|-----------|----------|------------------|--|
| GMW-5            | 11/24/14 | 29.3                                   | <2   | <0.1      | 17       | 3.5              |  |
|                  | 05/01/15 | 29.8                                   | <2   | <0.1      | 19       | 1.5              |  |
|                  | 11/02/15 | 29.8                                   | <2   | <0.1      | 18       | 2.6              |  |
|                  | 04/29/16 | 30.0                                   | <2   | <0.1      | 20       | 1.8              |  |
|                  | 11/30/16 | 29.8                                   | <2   | <0.1      | 17       | 3.3              |  |
|                  | 05/24/17 | 29.7                                   | <2   | <0.1      | 18       | 2.2              |  |
|                  | 11/20/17 | 29.7                                   | <2   | <0.1      | 17       | 4.0              |  |
|                  | 05/01/18 | 29.8                                   | <2   | <0.1      | 19       | 1.9              |  |
|                  | 11/21/18 | 26.9                                   | <2   | <0.1      | 19       | 1.3              |  |
|                  | 04/02/19 | <2*                                    | <2   | <0.1      | 18       | 2.7              |  |
|                  | 11/08/19 | 29.79                                  | <2   | <0.1      | 16       | 3.8              |  |
|                  | 04/30/20 | 30.1                                   | <2   | <0.1      | 19       | 2.5              |  |
|                  | 11/04/20 | 30.3                                   | <2   | <0.1      | 17.0     | 3.7              |  |
|                  | 04/09/21 | 30.0                                   | <2   | <0.1      | 18       | 2.4              |  |
| 11/29/21         | 29.6     | <2                                     | <0.1 | 16        | 4.4      |                  |  |
|                  |          |  |      |           |          |                  |  |
| GMW-6            |          |  |      |           |          |                  |  |
|                  | 11/22/11 | 30.2                                   | <2   | <0.1      | 16       | 3.9              |  |
|                  | 02/28/12 | 30.1                                   | <2   | <0.1      | 17       | 3.3              |  |
|                  | 05/01/12 | 30.1                                   | <2   | <0.1      | 18       | 2.7              |  |
|                  | 11/20/12 | 29.9                                   | <2   | <0.1      | 17       | 3.3              |  |
|                  | 02/15/13 | Not Able to be Sampled - Tubing Frozen |      |           |          |                  |  |
|                  | 05/01/13 | 30.3                                   | <2   | <0.1      | 18       | 2.2              |  |
|                  | 11/26/13 | 30.1                                   | <2   | <0.1      | 16       | 4.0              |  |
|                  | 04/30/14 | 30.2                                   | <2   | <0.1      | 19       | 2.6              |  |
|                  | 11/24/14 | 29.4                                   | <2   | <0.1      | 16       | 3.5              |  |
|                  | 05/01/15 | 29.9                                   | <2   | <0.1      | 19       | 2.3              |  |
|                  | 11/02/15 | 29.9                                   | <2   | <0.1      | 17       | 3.0              |  |
|                  | 04/29/16 | 30.0                                   | <2   | <0.1      | 20       | 2.1              |  |
|                  | 11/30/16 | 29.8                                   | <2   | <0.1      | 16       | 3.3              |  |
|                  | 05/24/17 | 29.7                                   | <2   | <0.1      | 17       | 3.0              |  |
|                  | 11/20/17 | 29.7                                   | <2   | <0.1      | 15       | 3.8              |  |
|                  | 05/01/18 | 29.8                                   | <2   | <0.1      | 29       | 2.2              |  |
|                  | 11/21/18 | 26.9                                   | <2   | <0.1      | 13       | 4.1              |  |
|                  | 04/02/19 | <2*                                    | <2   | <0.1      | 19       | 2.8              |  |
|                  | 11/08/19 | 29.79                                  | <2   | <0.1      | 15       | 3.5              |  |
| 04/30/20         | 30.1     | <2                                     | <0.1 | 19        | 2.7      |                  |  |
| 11/04/20         | 30.3     | <2                                     | <0.1 | 16.0      | 3.1      |                  |  |
| 04/09/21         | 30.0     | <2                                     | <0.1 | 20        | 2.1      |                  |  |
| 11/29/21         | 29.6     | <2                                     | <0.1 | 16        | 3.5      |                  |  |
|                  |          |  |      |           |          |                  |  |
| GV-9             |          |  |      |           |          |                  |  |
|                  | 01/26/11 | 29.9                                   | <2   | <0.1      | 6.6      | 13               |  |
|                  | 04/29/11 | 29.4                                   | <2   | <0.1      | 20       | <0.1             |  |
|                  | 11/22/11 | 30.2                                   | <2   | <0.1      | 22       | <0.1             |  |
|                  | 02/28/12 | 30.1                                   | <2   | <0.1      | 14       | 6.7              |  |
|                  | 05/01/12 | 30.0                                   | <2   | <0.1      | 19       | 1.4              |  |
| 11/20/12         | 29.9     | <2                                     | <0.1 | 21        | <0.1     |                  |  |

**Rye Municipal Landfill**  
**Table 1- Gas Well and Passive Gas Vent Testing Summary**

| Passive Gas Vent | Date     | in Hg Barometric Pressure | %LEL | % Methane | % Oxygen | % Carbon Dioxide |
|------------------|----------|---------------------------|------|-----------|----------|------------------|
| GV-9             | 02/15/13 | 29.7                      | <2   | <0.1      | 13       | 8.3              |
|                  | 05/01/13 | 30.3                      | <2   | <0.1      | 15       | 3.9              |
|                  | 11/26/13 | 30.1                      | <2   | <0.1      | 20       | <0.1             |
|                  | 04/30/14 | 30.2                      | <2   | <0.1      | 21       | <0.1             |
|                  | 11/24/14 | 29.3                      | <2   | <0.1      | 21       | <0.1             |
|                  | 05/01/15 | 29.8                      | <2   | <0.1      | 21       | 0.2              |
|                  | 11/02/15 | 29.8                      | <2   | <0.1      | 21       | 0.1              |
|                  | 04/29/16 | 30                        | <2   | <0.1      | 20       | <0.1             |
|                  | 11/30/16 | 29.8                      | <2   | <0.1      | 21       | 0.2              |
|                  | 05/24/17 | 29.7                      | <2   | <0.1      | 19       | 0.7              |
|                  | 11/20/17 | 29.7                      | <2   | <0.1      | 14       | 11               |
|                  | 05/01/18 | 29.8                      | <2   | <0.1      | 18       | 3.3              |
|                  | 11/21/18 | 26.9                      | <2   | <0.1      | 11       | 12               |
|                  | 04/02/19 | <2*                       | <2   | <0.1      | 15       | 5.9              |
|                  | 11/08/19 | 29.79                     | <2   | <0.1      | 19       | 3.6              |
|                  | 04/30/20 | 30.1                      | <2   | <0.1      | 19       | 3.5              |
|                  | 11/04/20 | 30.3                      | <2   | <0.1      | 17.0     | 5.4              |
|                  | 04/09/21 | 30.0                      | <2   | <0.1      | 21       | <0.1             |
|                  | 11/29/21 | 29.6                      | <2   | <0.1      | 20       | 2.4              |
|                  |          |                           |      |           |          |                  |
| GV-10            |          |                           |      |           |          |                  |
|                  | 11/22/11 | 30.2                      | <2   | <0.1      | 22       | <0.1             |
|                  | 02/28/12 | 30.1                      | 2    | 0.1       | 17       | 4.0              |
|                  | 05/01/12 | 30.0                      | 16   | 0.8       | 4.6      | 7.0              |
|                  | 11/20/12 | 29.9                      | 26   | 1.3       | 5.4      | 6.8              |
|                  | 02/15/13 | 29.7                      | <2   | <0.1      | 14       | 2.9              |
|                  | 05/01/13 | 30.3                      | <2   | <0.1      | 12       | 2.9              |
|                  | 11/26/13 | 30.1                      | <2   | <0.1      | 20       | <0.1             |
|                  | 04/30/14 | 30.2                      | <2   | <0.1      | 20       | 0.3              |
|                  | 11/24/14 | 29.3                      | <2   | <0.1      | 21       | <0.1             |
|                  | 05/01/15 | 29.8                      | <2   | <0.1      | 21       | <0.1             |
|                  | 11/02/15 | 29.8                      | <2   | <0.1      | 21       | <0.1             |
|                  | 04/29/16 | 30                        | <2   | <0.1      | 22       | <0.1             |
|                  | 11/30/16 | 29.8                      | <2   | <0.1      | 21       | <0.1             |
|                  | 05/24/17 | 29.7                      | <2   | <0.1      | 20       | <0.1             |
|                  | 11/20/17 | 29.7                      | <2   | <0.1      | 21       | <0.1             |
|                  | 05/01/18 | 29.8                      | <2   | <0.1      | 21       | <0.1             |
|                  | 11/21/18 | 26.9                      | <2   | <0.1      | 21       | <0.1             |
|                  | 04/02/19 | <2*                       | <2   | <0.1      | 21       | 0.1              |
|                  | 11/08/19 | 29.79                     | <2   | <0.1      | 21       | <0.1             |
|                  | 04/30/20 | 30.1                      | <2   | <0.1      | 21       | <0.1             |
|                  | 11/04/20 | 30.3                      | <2   | <0.1      | 21.0     | <0.1             |
|                  | 04/09/21 | 30.0                      | <2   | <0.1      | 21       | <0.1             |
|                  | 11/29/21 | 29.6                      | <2   | <0.1      | 22       | <0.1             |
|                  |          |                           |      |           |          |                  |

\* reported by lab as <2, but was assumed to be 30.2