

Agenda
Bethlehem Landfill Committee
April 17, 2025
5:00 p.m.

- I. Waste Activities
 - A. Monthly Tonnages
 - B. Form U Submittals
- II. Annual Groundwater Trend Analysis
- III. Correspondence/Reports
- IV. Landfill Operations
 - A. Department of Environmental Protection Inspection
 - B. Host Municipal Inspections
 - C. Commercial Waste Vehicles
 - D. Flare Operations & Gas Collection
 - E. Abatement System & Leachate Collection
 - F. Radiation Monitoring
 - G. SE Realignment Construction Activities
 - H. Complaints Received by Waste Connections
 - I. Leachate & Groundwater Demand Report
- V. Host Municipal Inspector (HMI) – Inspection Reports
 - A. Odor Observations/Nuisance Issues
 - B. Status of Action Items
 - C. SEM Reports
- VI. DEP Inspection Reports
 - A. Violations
 - B. Observations
- VII. Archaea Report
- VIII. PFAS Treatment Report
- IX. Public Comment

Bethlehem Landfill Company
LST Committee Report Q1 2025 reported April 2025

Agenda Items

I. Waste Activities

Monthly Tonnages

	January	February	March
MSW	10,595	9,012	9,984
C&D	2,563	2,041	6,502
Residual (Total)	742	574	483
Asbestos	0.00	0.00	0.00
Alternate Daily Cover	0.00	0.00	0.00
Sewage Sludge	582 (4%)	343 (3%)	343 (2%)
Out of State (Total)	4,830 (33%)	4,157 (35%)	7,535 (44%)
Recycle	7 (70%)	9 (77.78%)	9 (77.78%)

Recycling is taken, by Republic Disposal, and disposed of at Greenstar Recycling in Northampton, PA.

<u>Form U Submittals</u>	<u>Waste</u>	<u>Approval Date</u>
Blend Pro Inc.	Baghouse Dust	1/25/2025
ADV Printing Co.	Contaminated Soil	1/27/2025
770 Paterson Ave. LLC	Contaminated Soil	1/29/2025
Hersey Co.	Food Waste	1/31/2025
Hersey Co.	Food Waste	2/05/2025
Candlewic	Plant Trash	2/19/2025
Gregory Packaging Inc.	Plant Trash	3/10/2025

II. Annual Groundwater Trend Analysis

First quarter sampling event was 2/24/25 through 2/27/25

III. Correspondence / Reports

02/13/2025 Q4 Groundwater Report

ROUTING

- Council
- Manager
- Asst. Mgr.
- Zoning
- Finance
- Police
- P. Works
- P/C
- P & R
- EAC
- Engineer
- Solicitor
- Planner
- Landfill
- EMC
- Other

MEISER & EARL, INC.

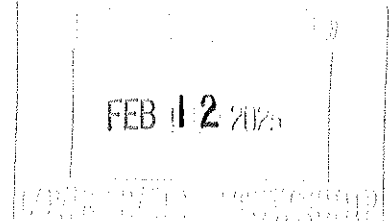
2730 CAROLEAN INDUSTRIAL DRIVE
SUITE 100
STATE COLLEGE, PA 16801



Hydrogeologists

Phone: (814) 234-0813
FAX: (814) 234-1693
Email: info@meiser-earl.com
Web: www.meiser-earl.com

February 12, 2025



Mr. Roger Bellas
Program Manager
Bureau of Waste Management
PA Department of Environmental Protection
2 Public Square, 4th Floor
Wilkes-Barre, PA 09918711-0790

RE: Waste Connections Inc.
Bethlehem Landfill Company
Groundwater Sampling Event Data
Fourth-Quarter 2024

Dear Mr. Bellas:

Enclosed is the Bethlehem Landfill Company's groundwater and leachate data from the Fourth-Quarter 2024 sampling event. Meiser & Earl, Inc. (M&E) conducted the sampling, and analyses were completed by Geochemical Testing – Energy and Environmental Services (Geochemical). The sampling event was completed from December 2 -4, 2024, and well CO-1 was sampled on December 18, 2024, following a pump repair and well development. As requested by Richard Malizia, PADEP, M&E will provide him with groundwater elevations, as well as an electronic copy of the laboratory data, from Geochemical.

Wells BL-2Ds and BL-17D had insufficient water for sampling during the fourth quarter 2024 (4Q24) sampling event. Wells BL-3Ds, BL-11D, BL-16D, and MP-5 were dry during the 4Q24 sampling event. The "dry" monitoring wells are briefly discussed in the following section and was discussed in more detail in the quarterly sampling results summary letter submitted to the DEP on August 4, 2017. The sampling of certain abatement wells in place of specific dry monitoring wells was implemented during the 2Q20. All the other groundwater monitoring wells, abatement wells, and surface streams were sampled during 4Q24, except BL-6D. In addition, the two private water supply wells (Hahn and Flowers) were not sampled due to power and access issues.

Well BL-6D was not sampled during the 4Q24 sampling event due to the well head being previously damaged, as noted in the 1Q24 data submission. A work plan addressing the repair or reconstruction of BL-6D was submitted to the Department on September 20, 2024, and was approved on October 9, 2024. As per the approved Sampling and Analysis plan, abatement well AB-9 was sampled in lieu of the inaccessible well BL-6D. During repair work on BL-6D on February 3, 2024, road gravel that fell into the 4-inch diameter PVC casing and screen was successfully removed from the BL-6D.

“Dry” Monitoring Wells

As noted above, monitoring wells BL-2Ds and BL-17D has insufficient water for sampling and monitoring wells BL-3Ds, BL-11D, BL-16D, BL-17D, and MP-5 were dry during the 4Q24 sampling event.

Well BL-11D was likely dry due to the monitoring well being impacted by abatement well pumping, which has been common for the well since 2017. Well BL-2Ds had insufficient water for sampling, which is more likely due to below normal precipitation in October and November 2024 and below average water-level elevations during the 4Q24 than abatement well pumping. As per the approved Sampling and Analysis plan abatement wells AB-3 and AB-10 were sampled in lieu of dry wells BL-11D and BL-2Ds. In addition, deeper well BL-2-Dd, adjacent to BL-2Ds, was also sampled.

Well BL-3Ds, a shallow well on the north slope of the landfill, was dry due to below average water-level elevations during the 3Q24 and 4Q24 sampling events. Well CO-1, a deeper well that is adjacent to well BL-3Ds, form a shallow/deep well pair with BL-3Ds. Well CO-1 is typically sampled on a quarterly basis and provides monitoring results for the area when BL-3Ds is unable to be sampled.

Wells BL-16D, BL-17D and MP-5 are wells located in the northwest area of the landfill. Well BL-17D had insufficient water for sampling, and Wells BL-16D and MP-5 were dry due to below average water-level elevations during 4Q24 combined with reduced groundwater recharge from landfill lining activities. Other monitoring points in the area that were sampled during 4Q24 include BL-5U, located upgradient of MP-5, and BL-18D, located side-gradient of MP-5.

Prior to 2018, the reduced groundwater recharge caused by the relatively drought-type conditions caused numerous wells, including BL-3Ds, BL-16D, BL-17D and MP-5 to have insufficient water levels for sampling during normal quarterly monitoring events.

The existing well network at Bethlehem Landfill remains more than adequate to properly monitor the groundwater system.

Discussion of Analytical Results

The longer-term observations mentioned in previous quarterly submissions, as well as the more recent, larger fluctuations, both towards higher and lower concentrations, are discussed below. Many of the occurrences noted in previous summaries were again noted during 4Q24, with minor changes. Overall, 4Q24 groundwater analyses do not exhibit obvious concerns.

No volatile organic compounds (VOCs) were detected in the monitoring wells, the surface water, or in the residential wells, except for a low-level detection of toluene in well CO-1. Toluene was detected at 2.1 µg/l in well CO-1, well below its maximum contaminant level (MCL) of 1,000 µg/l. Toluene has been detected in recent quarterly events and occasionally before at similar levels in CO-1, and its occasional detections is likely related to historic landfill activities.

The remaining analytical results from well CO-1 do not suggest impacts from lined landfill activities. Nitrate concentrations have increased over time, but the levels remain below the MCL of 10 mg/l. The 4Q24 nitrate result was 6.16 mg/l. The increased nitrate levels are likely the result from the oxidation of ammonia-nitrogen levels following the capping activities of the northern area in the 1990s. Since ammonia-nitrogen levels in CO-1 have been either below detection since 2009 or just above detection for 3Q24 at 0.25 mg/l, it is expected that nitrate levels will continue to decrease in the future.

Road salting impacts have been previously noted in wells BL-2Ds, BL-2Dd, and BL-13D which are located adjacent to the main access point for the landfill. The road salting impacts have been noted by elevated concentrations of sodium, chloride, and calcium, which are ions common in de-icing salts. For well BL-2Dd, recent chloride levels fluctuate between higher and lower levels with either a declining trend or no apparent trend. BL-13D continues to have total iron above secondary drinking water standard, which is normal for the well. There are no obvious impacts from lined landfill activities with the remaining analytical results.

Well BL-4Ds 3Q24 alkalinity concentration of 297 mg/l is still slightly elevated; however, this concentration is within the range of those previously observed. Manganese levels are elevated above the secondary drinking water standard, which is normal for the well. The remaining analyses do not indicate impacts from lined landfill activities.

Well BL-4Dd 4Q24 analytical results are within the range of previously observed concentrations. Alkalinity remains elevated at 333 mg/l, with a corresponding total dissolved

solids (TDS) value of 454 mg/l. There is no indication of groundwater impact from lined landfill activities; future proposed expansion activities should further reduce potential historic unlined landfill impacts.

Well BL-5U, which is downgradient or close to the stormwater ditch and pipe that were excavated in the spring of 2011, continues to contain elevated TDS and sulfate values. TDS and sulfate levels are generally decreasing. The increased TDS and alkalinity levels are related to the old waste encountered during excavation activities.

Well TW-9A, was also previously impacted by the stormwater ditch excavation activities in the Spring 2011. The 4Q24 results continue to have analyses within the range of concentrations observed prior to 2011. Manganese levels over the last couple of years have increased but the results in 2024 results have declined back to prior noted values.

Wells BL-7D, and BL-8D continue to be impacted by the old, unlined landfill; these wells are within the groundwater abatement trench and are expected to show these types of impacts. BL-7D, and BL-8D continue to have reported nitrate concentrations above the MCL of 10 mg/l at levels of 12.3, and 22.7 mg/l, respectively.

Well AB-9 was sampled in lieu of the inaccessible well BL-6D. AB-9 continues to have nitrate values above the MCL of 10 mg/l at 11.2 mg/l. The parameter results for AB-9 are comparable to previously observed concentrations and do not suggest new impacts.

Well AB-3 continues to be sampled in lieu of well BL-11D, which has had insufficient water for sampling since 1Q17. The parameter results for AB-3 are comparable to previously observed concentrations and do not suggest new impacts.

The results for wells BL-9UR, BL-14DR, and BL-15D are comparable to those previously observed.

The 4Q24 results from BL-18D remain relatively consistent with recent results. The 4Q24 chloride and TDS concentrations continue to be lower than peaks observed in 2020, with TDS concentrations equivalent to the secondary drinking water standard. The higher TDS values appear to be primarily influenced by the elevated calcium and chloride in this well. In addition, sodium, calcium, and specific conductivity have decreased in BL-18D. Manganese levels are elevated above the secondary drinking water standard, which is normal for the well. The remaining results from BL-18D do not suggest leachate impacts.

Well BL-19D continues to have fluctuations in alkalinity concentration ranging from elevated values to background values with the 4Q24 value of 551 mg/l being within the range of

previously observed values. The 4Q24 TDS and total manganese levels are above the secondary drinking water standard, which is normal for the well.

Well BL-20D had increased values for alkalinity, magnesium, nitrate, chloride, specific conductance, sulfate, sodium, calcium, and TDS. While the values are relatively low, they remain higher than the initial 3 years of sampling. Increases in the levels of calcium, magnesium, sodium, specific conductivity, and TDS are likely due to increases in sulfate. The chloride level was higher at 125 mg/l in 4Q24 compared to 71.2 mg/l in 3Q24. The change in well BL-20D water quality appears to be mainly influenced by construction activities for the Southeastern Realignment and will continue to be monitored.

Both Wells MP-9Ds, and MP-9Dd 2Q24 results continue to show higher sulfate levels that are likely influencing the levels of calcium, chloride, magnesium, specific conductivity, and TDS. Also, total organic carbon (TOC) concentrations remain somewhat higher in both wells at levels less than 5 mg/l. The change in water quality is likely due to the approximately 15 feet of fill material added to the area for construction of the renewable natural gas facility.

Wells MP-10Ds, and MP-10DdA analyses remain generally comparable to those previously observed. Well MP-10DdA continues to have higher levels of chloride, nitrate, sodium, and sulfate. Nitrate for MP-10DdA remains below the MCL of 10 mg/l at a level of 6.27 mg/l, while the concentrations of chloride and sodium are at approximate proportions typical of road salt. The elevated turbidity in MP-10DdA due to dewatering the well prior to sampling and high purge rates resulted in increased total iron and total manganese values. During the 1Q25 sampling event, a lower pumping rate will be used in an attempt to collect a less turbid sample. There are no results indicative of impacts from the lined portions of the landfill for wells MP-10Ds and MP-10DdA.

Wells MP-11Ds and MP-11Dd analyses remain generally comparable to those previously observed. Well MP-11Dd 4Q24 results continue to be similar to 3Q23 results, which have higher levels of calcium, chloride, magnesium, manganese, sulfate, TDS, and TOC compared to recent results. The chloride result for well MP-11Dd was 249 mg/l for 4Q24, just below the secondary drinking water standard of 250 mg/l and lower than the 3Q24 results of 258 mg/l.

1,4-Dioxane was analyzed for in MP-11Dd due to being qualitatively identified in MP-11Dd during the 3Q24 annual sampling event. 1,4-Dioxane was analyzed as a semi-volatile organic compound (SVOC) and was detected at a level 25.6 µg/l. 1,4-Dioxane does not have an MCL; however, 1,4-Dioxane has a Pennsylvania Act 2 residential groundwater standard of 6.5 µg/l and a non-residential groundwater standard of 27 µg/l. Well MP-11Dd is located approximately 100 feet south abatement well AB-1R and is typically shown to be within the ground trough created by abatement well pumping. At the request of the PADEP, 1,4-Dioxane

will be analyzed in wells AB-1R, MP-11Ds, MP-11Dd, MP-5, and stream point ST-2 during the 1Q25 sampling event.

MP-12D sulfate and alkalinity concentrations continue to remain relatively stable. Previous fluctuations are suggestive of a combined influence of landfill expansion activities and old landfill leachate. Overall, sulfate levels are increasing, while alkalinity levels are decreasing. MP-12D continues to have iron and manganese levels above secondary drinking water standards. None of the concentrations pose a regulatory issue.

The Hahn Well (PS-10) and the Flowers Well, the two water supplies north of the permitted facility, were not sampled during 4Q24. As previously noted, the Bethlehem Landfill Company now owns the Hahn and Flowers properties. The Hahn residence is currently vacant, and the power has been turned off to the property. Prior to the 1Q25 sampling event, the Hahn well will be set up to sample directly at the well. The Flowers are still residing in the house and the outside water was turned off due to the cold weather. Several attempts were made by the landfill and M&E to coordinate sampling; however the Flowers have not returned any calls to date. These wells will continue to be part of the monitoring program for the landfill.

Analyses from the upstream stream monitoring location ST-1 and the downstream location ST-2 are not suggestive of landfill leachate impacts.

The 4Q24 results from the 9 primary leachate collection points sampled were generally consistent with previous results. In addition, a leachate sample from the new cell NR-1A was collected from a temporary sump. The 1Q24 results from LMC-6, LMC-7, and LMC-8 had increases in some inorganic parameters (e.g., COD, calcium, iron, magnesium, and manganese) that corresponded with an increase in turbidity. Less turbid samples were collected from LMC-6, LMC-7, and LMC-8 during 4Q24 which resulted in lower levels of these parameters.

To evaluate the 3Q24 detection zone flow greater than 100 gal/acre/day in LMC -8 DZ, the detection zone sampled for the Form 50 indicator analytes. The results from LMC-8 DZ continue to show leachate impacts based on higher concentrations of alkalinity, ammonia-nitrogen, specific conductance, total organic carbon, and total potassium. In addition, decreased parameter concentrations in 4Q24 results for LMC-8DZ compared to the overlying leachate collection system for LMC-8 suggests dilution by stormwater.

The first baseline sample for the Form 50 Indicator Analytes from NR-1A DZ was collected during the 4Q24 event. NR-1A DZ will continue to be sampled for the Form 50 Indicator Analytes on a quarterly basis to establish baseline conditions in the detection zone through 3Q25.

Listed in the table attached to this submission are the primary leachate collection and secondary detection zone average flows for 4Q24. On October 7, 2024, the flow meters for the leachate and detection zone monitoring points for the leachate management chambers (LMCs), excluding LMC-8 DZ, were found to be operating incorrectly and double counting flows, and the issue was resolved. The noted change to these meters combined with below normal precipitation in November and December 2024 corresponds to the 4Q24 LMC flows being lower than flows reported in previous quarterly submissions for 2024. Flows reported for NR-1A and NR-1ADZ for 4Q24 are based on flow readings measured from October 25, 2024, to December 31, 2024.

LMC-8DZ flows are higher than LMC-8 flows for 4Q24. Historically, flows observed in LCM -8 DZ can be higher than flows observed in LMC-8 flow due to LMC-8DZ being stormwater influenced. Higher weekly flows in LMC-8DZ were observed in December 2024 following precipitation events, which supports the detection zone being stormwater influenced. The site will check the LMC-8DZ flow meter for issues similar to the other LMCs.

If you have any questions or concerns, please feel free to contact us at (814) 234-0813.

Sincerely,



Lena M. Fox, G.I.T.
Project Geoscientist



Todd A. Lowrey, P.G.
Senior Hydrogeologist

Enclosures

cc: David Pannucci, Waste Connections, Inc.
R. Malizia, PADEP Bethlehem Office
Lower Saucon Township

IV. Landfill Operations

Department of Environmental Protection Inspections

01/24/2025 M. Vipond/ E. McNulty
01/22/2025 M. Glogowski
02/14/2025 M. Glogowski
02/26/2025 M. Vipond
03/12/2025 M. Vipond
03/19/2025 M. Glogowski

Host Municipal Inspection

01/02/2025 S. Brown
01/16/2025 S. Brown
02/06/2025 J. Schray
02/20/2025 S. Brown
03/06/2025 S. Brown
03/20/2025 S. Brown

<u>Commercial Waste Vehicles</u>	January	February	March
Total # Trucks	1,794	1,378	1,809
	January	February	March
Overweight	11	13	16
Warnings	10	11	14
Suspensions	1	2	2

Flare Operations and Gas Collection

The LFG flare is the main GCCS. Bethlehem Landfill continues to communicate with SCS Field Services with any routine or non-routine maintenance to maximize LFG production and minimize odors.

January Average Flare Flow = 1,424 SCFM

January Average Plant Flow = 2,175 SCFM

Total Average GCCS Flow = 3,105 SCFM

See times for flare shutdowns and SSM forms. All times are in military.

On 1-8-2025 from 07:59 to 1-16-2025, 22:50, the flare was turned off by Archaea to have all gas flow diverted to plant.

On 1-24-2025 from 17:28 to 1-25-2025, 12:05, the flare was shutdown for troubleshooting of mechanical issues.

On 1-30-2025 from 9:05 to 13:39 the flare was manually shutdown for maintenance.

Total Down time of BLC Flare for January, 218 hours out of a total 744 run time hours.

February Average Flare Flow = 2,200 SCFM

February Average Plant Flow = 1,194 SCFM

Total Average from GCCS Flow = 2,989 SCFM

See times for flare shutdowns and SSM forms. All times are in military.

On 2-13-2025 from 8:21 to 2-14-2025, 13:15, the flare was manually shut down for burner tip cleaning.

On 2-16-2025 from 18:00 to 18:53 the flare shutoff due to low average temperatures. Call out was responded to by Archaea field techs. Flare was manually restarted.

Total Down time of Flare for February was 29.8 hours and out of 672 total run hours.

March Average Flare Flow = 2,565 SCFM

March Average Plant Flow = 2,478 SCFM

Total Average from GCCS Flow = 2,994 SCFM

See times for flare shutdowns and SSM forms. All times are in Military.

On 3-9-2025 from 17:04 to 18:25 the flare was down due to a thermocouple failure. The thermocouple was replaced, and the flare was restarted.

On 3-13-2025 from 15:03 to 3-18-2025 21:39 flare was shutdown to divert all gas to the Archaea facility.

On 3-19-2025 from 8:17 to 8:20 flare was tripped by Archaea facility operations.

On 3-19-2025 from 10:47 to 10:51, flare was tripped by Archaea facility operations.

On 3-21-2025 from 5:05 to 3-30-2025, 10:48, flare was down for Archaea facility adjustments due to Trans Canada compressors.

On 3-31-2025 from 10:30 to 23:59, flare was shutdown for Archaea facility adjustments.

Total Down time of Flare for March was 363 Hours and 0 minutes.

Total flare runtime 380 total run time out of 744 hours.

Documentation is on file.

During Q1 North Slope Road has not needed repairs. The swale has not needed repairs

Abatement System

Abatement system continues to operate and discharge to the City of Bethlehem WWTP.

Leachate collection

Leachate Management Chamber 7 (LMC-7) showed an increase in flow for the month of March due to a flow meter malfunction. The malfunction has been remedied and flow count has been restored to normal.

Radiation Monitoring

There was only one radioactive load alarm from January to March of 2025.

On 3-25-2025 the load was identified as Technetium-99m and the load was disposed of on-site.

**All loads are reported to the Pennsylvania Department of Environmental Protection (PADEP)*

SE Realignment Construction Activities

Waste operations were in SE-2AB Phase I and Phase II

Complaints received by Waste Connections

See attached.

BETHLEHEM LANDFILL
LEACHATE DEMAND REPORT

January 2025

<u>Location</u>	<u>Total gallons</u>
LMC-6	57,627
LMC-7	75,318
LMC-8	58,574
PS-4	108,442
PS-5	125,246
NR-1	126,659
LMC-10	2,419,653
PS-1	106,676
PS-2	46,991
PS-3	59,928
Phase-IV	213,595

Total LMC-10 Flow = LMC-6, 7, 8, Abatement Well System, Phase I and II, SE Realignment (PS-4 and PS-5), and LFG condensate. Phase-IV total from PS-1, PS-2 and PS-3 and LFG condensate.

Total Discharge

LMC-10	2,419,653
Phase IV	213,595
TOTAL	2,633,248 gallons

Total Leachate

Leachate	551,866
Phase IV	213,595
TOTAL	658,513 gallons

Total PFAS Treatment Plant Discharge = 809,056 gallons of leachate

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 1,867,787 gallons (Neptune Flow meters)

BETHLEHEM LANDFILL
GROUNDWATER DEMAND REPORT

January 2025

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM)	(Total gal)
AB-1R	49.8	6.1	272,674
AB-2	43.8	5.4	241,146
AB-3	23.7	0.6	24,679
AB-4	27.8	3.0	131,742
AB-5	40.8	0.3	14,658
AB-6	41.1	3.9	172,945
AB-7	57.0	4.5	199,941
AB-8	23.9	0.0	1,659
AB-9	37.4	6.1	273,871
AB-10	41.3	12.0	534,472
TW-1	N/A	<0.1	0.0
Total Flow		1,867,787	gallons

*SWL above transducer set point

* Per DEP approval well TW-1 was shut down September 14, 2009.

LEACHATE DEMAND REPORT

February 2025

<u>Location</u>	<u>Total gallons</u>
LMC-6	68,829
LMC-7	75,417
LMC-8	85,472
PS-4	89,866
PS-5	112,365
NR-1	121,517
LMC-10	1,578,566

PS-1	85,432
PS-2	39,865
PS-3	48,502

Phase-IV 176,462

Total LMC-10 Flow = LMC-6, 7, 8, Abatement Well System, Phase I and II, SE Realignment (PS-4 and PS-5), and LFG condensate. Phase-IV total from PS-1, PS-2 and PS-3 and LFG condensate.

Total Discharge

LMC-10	1,578,566
<u>Phase IV</u>	<u>176,462</u>
TOTAL	1,755,028 gallons

Total Leachate

Leachate	553,466
<u>Phase IV</u>	<u>176,462</u>
TOTAL	729,928 gallons

Total PFAS Treatment Plant Discharge = 667,668 gallons of leachate

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 1,025,100 gallons (Neptune Flow meters)

BETHLEHEM LANDFILL
GROUNDWATER DEMAND REPORT

February 2025

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM)	(Total gal)
AB-1R	51.1	2.8	115,246
AB-2	44.7	2.1	86,409
AB-3	24.2	0.6	25,228
AB-4	27.1	2.3	97,890
AB-5	41.5	0.2	8,805
AB-6	41.0	2.0	83,769
AB-7	57.1	3.4	140,704
AB-8	24.2	0.0	809
AB-9	39.1	4.7	195,063
AB-10	40.2	6.5	271,177
TW-1	N/A	<0.1	0.0
Total Flow		1,025,100	gallons

***SWL above transducer set point**

* Per DEP approval well TW-1 was shut down September 14, 2009.

LEACHATE DEMAND REPORT

March 2025

<u>Location</u>	<u>Total gallons</u>
LMC-6	36,187
LMC-7	354,025
LMC-8	48,728
PS-4	48,320
PS-5	61,472
NR-1	34,622
LMC-10	1,690,154
PS-1	82,365
PS-2	47,295
PS-3	51,585
Phase-IV	181,245

Total LMC-10 Flow = LMC-6, 7, 8, Abatement Well System, Phase I and II, SE Realignment (PS-4 and PS-5), and LFG condensate. Phase-IV total from PS-1, PS-2 and PS-3 and LFG condensate.

Total Discharge

LMC-10	1,690,154
<u>Phase IV</u>	<u>181,245</u>
TOTAL	1,871,399 gallons

Total Leachate

Leachate	583,354
<u>Phase IV</u>	<u>181,245</u>
TOTAL	764,599 gallons

Total PFAS Treatment Plant Discharge = 749,451 gallons of leachate

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 1,106,800 gallons (Neptune Flow meters)

BETHLEHEM LANDFILL
GROUNDWATER DEMAND REPORT

March 2025

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM)	(Total gal)
AB-1R	50.8	3.0	133,500
AB-2	45.2	1.3	56,103
AB-3	24.6	0.2	8,386
AB-4	26.9	1.3	59,320
AB-5	44.8	0.2	7,795
AB-6	41.3	2.9	128,269
AB-7	56.8	2.4	105,528
AB-8	24.0	0.0	854
AB-9	38.7	4.2	185,475
AB-10	42.1	9.4	421,573
TW-1	N/A	<0.1	0.0
Total Flow		1,106,800	gallons

***SWL above transducer set point**

* Per DEP approval well TW-1 was shut down September 14, 2009.

TIME	Phase IV PS-1 (Secondary Flows)					Phase IV PS-1 (Primary flow)					sump	
	(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day	Totalizer	gallons	flow(gpd)	g/ac/day	inches		
1/7/2025	8	796246	404	51	2	72925665	26118	3265	126	22.6"		
1/16/2025	9	796544	298	33	1	72947753	22088	2454	94	21.2"		
1/21/2025	5	796995	451	90	3	72979881	32128	6426	247	23.4"		
1/30/2025	9	797548	553	61	2	73004517	24636	2737	105	20.9"		
2/6/2025	7	797954	406	58	2	73025349	20832	2976	114	21.6"		
2/12/2025	6	798554	600	100	4	73044581	19232	3205	123	22.6"		
2/19/2025	7	799055	501	72	3	73066587	22006	3144	121	20.7"		
2/28/2025	9	799653	598	66	3	73087844	21257	2362	91	21.5"		
3/7/2025	7	799955	302	43	2	73108131	20287	2898	111	22.6"		
3/13/2025	6	800202	247	41	2	73126678	18547	3091	119	22.4"		
3/20/2025	7	800488	286	41	2	73146565	19887	2841	109	23.4"		
3/31/2025	11	800864	376	34	1	73168998	22433	2039	78	21.9"		

TIME	Phase IV PS-2 (Secondary Flows)					Phase IV PS-2 (Primary)					sump	
	(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day	Totalizer	gallons	flow(gpd)	g/ac/day	inches		
1/7/2025	8	8589	1	0	0.0	26460382	11258	1407	133	20.3"		
1/16/2025	9	8590	1	0	0.0	26468114	7732	859	81	19.8"		
1/21/2025	5	8590	0	0	0.0	26479896	11782	2356	222	19.4"		
1/30/2025	9	8590	0	0	0.0	26496113	16217	1802	170	20.6"		
2/6/2025	7	8590	0	0	0.0	26506079	9966	1424	134	19.5"		
2/12/2025	6	8590	0	0	0.0	26515841	9762	1627	153	21.6"		
2/19/2025	7	8590	0	0	0.0	26524187	8346	1192	112	18.9"		
2/28/2025	9	8590	0	0	0.0	26535978	11791	1310	124	20.4"		
3/7/2025	7	8590	0	0	0.0	26547801	11823	1689	159	21.6"		
3/13/2025	6	8590	0	0	0.0	26560204	12403	2067	195	19.6"		
3/20/2025	7	8590	0	0	0.0	26571191	10987	1570	148	19.8"		
3/31/2025	11	8590	0	0	0.0	26583273	12082	1098	104	21.1"		

Date	Phase IV PS-3 (Secondary)					Phase IV PS-3 (Primary)					sump	
	days	totalizer	gallon	flow(gpd)	g/ac/day	totalizer	gallons	flow(gpd)	g/ac/day	inches		
1/7/2025	8	52215	274	34	5	16409611	13488	1686	252	22.1"		
1/16/2025	9	52657	442	49	7	16421472	11861	1318	197	19.6"		
1/21/2025	5	52894	237	47	7	16437588	16116	3223	481	20.5"		
1/30/2025	9	53214	320	36	5	16454778	17190	1910	285	18.4"		
2/6/2025	7	53552	338	48	7	16466566	11788	1684	251	19.6"		
2/12/2025	6	53741	189	32	5	16477821	11255	1876	280	20.1"		
2/19/2025	7	54026	285	41	6	16488854	11033	1576	235	22.6"		
2/28/2025	9	54566	540	60	9	16501928	13074	1453	217	19.8"		
3/7/2025	7	54930	364	52	8	16514458	12530	1790	267	23.1"		
3/13/2025	6	55331	401	67	10	16525056	10598	1766	264	21.6"		
3/20/2025	7	55646	315	45	7	16538278	13222	1889	282	18.9"		
3/31/2025	11	56027	381	35	5	16552052	13774	1252	187	20.6"		

Date	Phase IV PS-4 (Secondary)					Phase IV PS-4 (Primary)					sump	
	days	totalizer	gallon	flow(gpd)	g/ac/day	totalizer	gallons	flow(gpd)	g/ac/day	inches		
1/7/2025	8	25254	255	32	2	6805631	24589	3074	223	30.8"		
1/16/2025	9	25445	191	21	2	6831222	25591	2843	206	32.1"		
1/21/2025	5	25697	252	50	4	6853784	22562	4512	327	31.5"		
1/30/2025	9	26034	337	37	3	6879449	25665	2852	207	29.6"		
2/6/2025	7	26354	320	46	3	6901678	22229	3176	230	30.2"		
2/12/2025	6	26485	131	22	2	6922547	20869	3478	252	31.2"		
2/19/2025	7	26721	236	34	2	6945789	23242	3320	241	29.7"		
2/28/2025	9	26979	258	29	2	6968370	22581	2509	182	30.2"		
3/7/2025	7	26979	0	0	0	6980450	12080	1726	125	29.8"		
3/13/2025	6	26979	0	0	0	6991922	11472	1912	139	28.6"		
3/20/2025	7	26979	0	0	0	7005643	13721	1960	142	30.6"		
3/31/2025	11	26979	0	0	0	7016690	11047	1004	73	31.0"		

Phase IV PS-5 (Secondary)						Phase IV PS-5 (Primary)						sump
Date	days	totalizer	gallon	flow(gpd)	g/ac/day			totalizer	gallons	flow(gpd)	g/ac/day	inches
1/7/2025	8	247899	428	54	4			11686648	34866	4358	318	28.6"
1/16/2025	9	248402	503	56	4			11720155	33507	3723	272	29.4"
1/21/2025	5	249089	687	137	10			11756147	35992	7198	525	30.1"
1/30/2025	9	250014	925	103	8			11793485	37338	4149	303	28.9"
2/6/2025	7	251805	1791	256	19			11819783	26298	3757	274	30.2"
2/12/2025	6	253142	1337	223	16			11845270	25487	4248	310	29.4"
2/19/2025	7	255112	1970	281	21			11867417	22147	3164	231	29.6"
2/28/2025	9	257181	2069	230	17			11898683	31266	3474	254	30.4"
3/7/2025	7	257213	32	5	0			11914019	15336	2191	160	27.4"
3/13/2025	6	257241	28	5	0			11927477	13458	2243	164	30.1"
3/20/2025	7	257280	39	6	0			11942054	14577	2082	152	29.9"
3/31/2025	11	257310	30	3	0			11960026	17972	1634	119	31.2"

Phase N-1R PS-6 (Primary)						Phase N-1R PS-6 (Secondary)					
Date	days	totalizer	gallon	flow(gpd)	g/ac/day			totalizer	gallons	flow(gpd)	g/ac/day
1/7/2025	8	11683408	31626	3953	527	1/7/2025	8	240389	35	3	0
1/16/2025	9	11716662	33254	3695	493	1/16/2025	9	240462	73	7	1
1/21/2025	5	11750111	33449	6690	892	1/21/2025	5	240476	14	1	0
1/30/2025	9	11778283	28172	3130	417	1/30/2025	9	240512	36	3	0
2/6/2025	7	11808620	30337	4334	578	2/6/2025	7	240586	74	7	1
2/12/2025	6	11838474	29854	4976	663	2/12/2025	6	240597	11	1	0
2/19/2025	7	11867031	28557	4080	544	2/19/2025	7	240615	18	2	0
2/28/2025	9	11899632	32601	3622	483	2/28/2025	9	240684	69	7	1
3/7/2025	7	11908250	8618	1231	164	3/7/2025	7	240720	36	3	0
3/13/2025	6	11917404	9154	1526	203	3/13/2025	6	240742	22	2	0
3/20/2025	7	11925402	7998	1143	152	3/20/2025	7	240781	39	4	0
3/31/2025	11	11934110	8708	792	106	3/31/2025	11	240828	47	5	0

	TIME (days)	LMC-6 (Primary Flows)				LMC-7 (Primary Flows)				LMC-8 (Primary Flows)			
		TOTALIZER	GALLONS	FLOW (gpd)	G/A/D	TOTALIZER	GALLONS	FLOW (gpd)	G/A/D	TOTALIZER	GALLONS	FLOW (gpd)	G/A/D
1/7/2025	8.00	1706674	11,445	1,431	91	5300440	14685	1,836	150	3,347,632	7887	986	170
1/16/2025	9.00	1719547	12,873	1,430	91	5312547	12107	1,345	110	3,355,251	7619	847	146
1/21/2025	5.00	1725474	5,927	1,185	76	5329181	16634	3,327	273	3,361,814	6563	1,313	226
1/30/2025	9.00	1741005	15,531	1,726	110	5344495	15314	1,702	139	3,371,296	9482	1,054	182
2/6/2025	7.00	1753816	12,811	1,830	117	5358087	13592	1,942	159	3,378,759	7463	1,066	184
2/12/2025	6.00	1765063	11,247	1,875	119	5372615	14528	2,421	198	3,385,656	6897	1,150	198
2/19/2025	7.00	1777621	12,558	1,794	114	5387401	14786	2,112	173	3,393,515	7859	1,123	194
2/28/2025	9.00	1792252	14,631	1,626	104	5398863	11462	1,274	104	3,401,150	7635	848	146
3/7/2025	7.00	1798799	6,547	935	60	5437473	38610	5,516	452	3,408,463	7313	1,045	180
3/13/2025	6.00	1803913	5,114	852	54	5474958	37485	6,248	512	3,415,021	6558	1,093	188
3/20/2025	7.00	1810570	6,657	951	61	5514505	39547	5,650	463	3,422,845	7824	1,118	193
3/31/2025	11.00	1818439	7,869	715	46	5553307	38802	3,527	289	3,430,405	7560	687	118

	TIME (days)	LMC-6 (Secondary Flows)				LMC-7 (Secondary Flows)				LMC-8 (Secondary Flows)			
		TOTALIZER	GALLONS	FLOW (gpd)	G/A/D	TOTALIZER	GALLONS	FLOW (gpd)	G/A/D	TOTALIZER	GALLONS	FLOW (gpd)	G/A/D
1/7/2025	8.00	30116	462	58	4	984779	5394	674	55	1,822,268	5505	688	119
1/16/2025	9.00	30558	442	49	3	989581	4802	534	44	1,827,447	5179	575	99
1/21/2025	5.00	31021	463	93	6	995254	5673	1,135	93	1,833,542	6095	1,219	210
1/30/2025	9.00	31505	484	54	3	1000963	5709	634	52	1,838,786	5244	583	100
2/6/2025	7.00	35900	4,395	628	40	1006225	5262	752	62	1,852,690	13904	1,986	342
2/12/2025	6.00	39924	4,024	671	43	1010350	4125	688	56	1,865,238	12548	2,091	361
2/19/2025	7.00	44536	4,612	659	42	1015567	5217	745	61	1,878,795	13557	1,937	334
2/28/2025	9.00	49087	4,551	506	32	1022012	6445	716	59	1,894,404	15609	1,734	299
3/7/2025	7.00	51498	2,411	344	22	1071906	49894	7,128	584	1,899,271	4867	695	120
3/13/2025	6.00	53485	1,987	331	21	1113165	41259	6,877	564	1,904,382	5111	852	147
3/20/2025	7.00	55712	2,227	318	20	1170677	57512	8,216	673	1,909,379	4997	714	123
3/31/2025	11.00	59092	3,380	307	20	1221593	50916	4,629	379	1,913,877	4498	409	71

2025 Bethlehem Landfill ODOR COMPLAINT LOG (2335 Applebutter Rd, Bethlehem, PA 18015)

Date	Time	Address	Distance from Landfill (miles)	Weather Data (Allentown (KABE))			Residence / Drive-by	Description / Notes	Gas Management Data			Date of Initial Response	Addressed in Insp Report Dated
				Skies	Temperature	Wind (out of)			Flare (scfm)	BRE (scfm)	Total (scfm)		
01/13/25	7:50	Lower Saucon Rd., Hellertown	2.050	Cloudy	27.0	Calm	Residence	Slight dump smell				1/16/2025	1/24/2025
01/17/25	19:10	Milan St., Bethlehem	2.380	Fair	31.0	S @ 3mph	Residence	After leaving our home for groceries and returning, we pulled off RT 33 Southbound and turned onto William Penn Highway. With the air intake "on" in our car, we began smelling landfill odors at this location (6:50pm). Upon arriving home at 7:10pm, we detected moderate landfill gas odors in our apartment complex (5 out of 10). This is the first time in months that we have smelled the landfill, so not sure if something isn't covered properly or what may be going on.				1/24/2025	1/24/2025
01/18/25	15:01	Johnston Ave., Steel City	1.170	Light rain	38.0	ESE @ 5mph	Residence	Light landfill gas				1/24/2025	1/24/2025
01/20/25	17:32	Countryside, Applebutter & Lower Saucon Rd (Drive-by)	NA	Fair	16.0	W @ 10mph	Drive-by	Drive by dump smell from Bethlehem landfill this morning. Countryside Rd. smelled pretty bad and then coming home this evening smelled horrible on Countryside onto Applebutter and on Lower Saucon.				1/24/2025	1/24/2025
01/21/25	16:30	Lower Saucon Rd., Hellertown	2.050	Cloudy	14.0	WSW @ 12mph	Residence	Slight smell when I came home from work at 4:30PM. Wasn't going to call it in but went back outside just before 6:30 and wow it is kicking. It is brutal out there. So much for getting better.				1/24/2025	1/24/2025
01/22/25	20:47	Milan St., Bethlehem	2.380	Fair	11.0	WSW @ 3mph	Residence	Persistent LFG odors were detected this evening at our residence. Took dog out at 8:40 PM and observed odors at a 5 out of 10 intensity. Checked the wind map and the wind direction is coming from the landfill. This is the 2nd time in a week that we've dealt with persistent LFG odors when they haven't been detectable for months.				1/24/2025	1/24/2025
01/24/25	16:54	unknown	unknown	Fair	27.0	W @ 7mph	Residence	I'm over a mile away from the Bethlehem Landfill and the landfill odors are horrific at my house. I'm going to have to start calling every time I smell this landfill because this is happening way too often. I know what landfill gas smells like, so there's no mistakes about this.				1/30/2025	1/24/2025
01/28/25	unknown	Redington Rd., Hellertown	1.390	unknown			Residence	Landfill smell, putrid. Encountered multiple times over the last several weeks, but with the wind cannot tell if there is odor today.				1/30/2025	1/24/2025
01/29/25	11:00	Charley Ln., Bethlehem	1.330	Fair	46.0	SW @ 14 mph	Residence	Garbage smell, sticky porta potty. Encountered at 11:00 AM while walking near home. The height of the garbage at the landfill is getting higher when looking up at the landfill.				1/30/2025	1/24/2025
02/02/25	17:48	Riverside Dr., Bethlehem	1.290	Cloudy	28.0	ESE @ 7mph	Residence	Strong rotten egg smell. Going on 30 min. At home.				2/3/2025	1/24/2025
02/03/25	7:25	St. Lukes Blvd., Easton	1.950	Mist	22.0	SW @ 3mph	non-Residence	Can smell the landfill inside the hospital.				2/3/2025	1/24/2025
02/06/25	7:30	Countryside Ln. (Drive-by)	NA	Light snow	29.0	E @ 6mph	Drive-by	Odors while driving on Countryside Ln.				2/12/2025	1/24/2025
02/06/25	13:32	Ivan St., Bethlehem	2.300	Wintry mix	33.0	E @ 3mph	Residence	There is a strong trash odor in the neighborhood today at 1:31 PM. This area doesn't have gas service and the smell is almost like gas or chemical like on top of trash.				2/12/2025	1/24/2025
02/06/25	15:55	Lower Saucon Rd., Hellertown	2.050	cloudy	35.0	WSW @ 8mph	Residence	Smells like s*it, like rotten garbage. Occurring now, while driving on Island Park Rd. and is present at home.				2/12/2025	1/24/2025
02/09/25	12:42	Countryside Ln. (Drive-by)	NA	cloudy	33.0	NW @ 7mph	Drive-by	On my way into work and driving by on Countryside Ln. and the dump is really reeking today. It's been pretty bad for a week now.				2/12/2025	1/24/2025
02/15/25	19:39	Johnston Ave., Steel City	1.170	Wintry mix	32.0	E @ 8mph	Residence	Landfill gas. It smells just like it does on Applebutter Rd. Going on 15 min. At home.				2/19/2025	2/26/2025
02/22/25	6:12	Butternut Rd., Hellertown	2.280	Fair	23.0	WNW @ 9mph	Residence	Rotten eggs & garbage. Encountered 6:12 AM on 2/22/25. At home.				2/26/2025	2/26/2025
02/24/25	9:20	Madison Ave., Steel City	0.740	Fair	35.0	Calm	Residence	odor complaint about the Bethlehem Landfill really smelling like dirty diapers this morning.				2/26/2025	2/26/2025
02/25/25	7:04	Redington Rd., Hellertown	1.390	Fair	31.0	Calm	Residence	Odors today from the Bethlehem Landfill. I believe they've already been cited. They've got a continuing violation since February of last year. I don't see what good all this calling is doing if nothing's going to be done about it, but I feel like people aren't doing their jobs or whatever. Somebody sure as hell isn't getting fined. At least not enough to make them change their ways, apparently.				2/26/2025	2/26/2025
02/25/25	8:48	Bachman Dr., Bethlehem	2.470	Fair	40.0	Calm	Residence	I may be smelling garbage again when I open my windows and doors the past few mornings. It is not a natural smell or a wood burning from a fireplace. It stinks. Not sure if it is the landfill, but I suspect it is.				2/26/2025	2/26/2025
02/25/25	9:39	Charley Ln., Bethlehem	1.330	Fair	40.0	Calm	Residence	Smells like methane gas throughout the neighborhood. Occurring now, at home.				2/26/2025	2/26/2025
02/25/25	11:35	St. Luke's Blvd., Easton	2.010	Fair	51.0	Calm	Non-Residence	reporting odors from BLF when exiting St. Lukes at around 11:35 AM.				2/26/2025	2/26/2025
02/26/25	7:45	Applebutter Rd. (Drive-by)	NA	Fair	35.0	Calm	Drive-by	Calling to complain about odor in Lower Saucon Twp on Applebutter Rd by the landfill. It was a very strong odor at 7:45 this morning when I drove by on Applebutter Rd.				2/26/2025	2/26/2025
03/04/25	6:33	Jefferson Ave., Steel City	0.839	Cloudy	29.0	Calm	Residence	Complaint about the landfill. I could smell it this morning when I was leaving for work. It's not the first phone call I've made/ There's basically no wind today, so there's no surprise that you could smell it.				3/4/2025	3/4/2025
03/11/25	"morning"	St. Lukes Blvd., Easton	2.010	unknown			non-Residence	I have a landfill odor complaint for the Bethlehem Landfill that I smelled this morning when I was coming out of the fitness center over there.				3/12/2025	3/12/2025
03/11/25	9:18	Charley Ln., Bethlehem	1.330	Fair	37.0	NNW @ 3mph	Residence	Stinky, smells like gas. Odor occurring now, at home.				3/12/2025	3/12/2025
03/11/25	10:54	Redington Rd., Hellertown	1.700	Fair	54.0	Calm	Residence	Smells like living in a garbage can. Occurring now, at home. Odor has been worse and more frequent since the gas plant opened.				3/12/2025	3/12/2025
03/15/25	11:43	Charley Ln., Bethlehem	1.330	Cloudy	43.0	S @ 6mph	Residence	Methane odor. Going on 2 hours. At home.				3/18/2025	3/18/2025
03/15/25	15:26	6th St., Bethlehem	1.930	Cloudy	48.0	SSE @ 6mph	Residence	Very strong sulfur and methane odor. Going on 3-4 hours. At home.				3/18/2025	3/18/2025
03/18/25	9:14	Applebutter Rd. (Drive-by)	NA	Fair	36.0	NW @ 6mph	Drive-by	Stinky today. This morning on Applebutter Rd.				3/18/2025	3/18/2025

V. Host Municipal Inspector (HMI) – Inspection Reports

A. Odor Observations/Nuisance Issues

1. January 2, 2025 – No WWTP odor was detected along Applebutter Road. A slight landfill gas odor was detected from the self-storage facility to Red Barn Auto before and after the landfill inspection. No vultures or seagulls were observed. A minor gas odor was detected at the southeast corner of cell SE-2A and along the southern anchor trench for cell SE-2A.
2. January 16, 2025 – No WWTP odor was detected along Applebutter Road. No LF gas odors were detected along Applebutter Road. No vultures or seagulls were observed. A minor gas odor was detected at the southeast corner of cell SE-2A and along the south slope anchor trench for cell SE-2A.
3. February 6, 2025 – A slight LF gas odor was detected along Applebutter Road east of the self-storage building. A strong LF gas odor was detected west of the maintenance building while traveling the east to west access road. A very strong odor was detected at the southeast corner of cell SE-2A and along the south anchor trench of cell SE-2A.
4. February 20, 2025 – No WWTP odor was detected along Applebutter Road. A slight LF gas odor was detected between Red Barn Auto and the Krasnansky residence along Applebutter Road before and after the LF inspection. No vultures or seagulls were observed. A gas odor was detected along the eastern and southeastern corner and southern slope of cell SE-2A.
5. March 6, 2025 – A WWTP odor was detected along Applebutter Road in the area of the S-turns and auto shop. A slight LF gas odor was detected in the area of Red Barn Auto along Applebutter Road. After the LF inspection, no LF gas odor was detected along Skyline Drive, throughout Steel City, and along Riverside Drive. A very slight LF gas odor was detected at the self-storage facility. There was a minimal Starling population at the working face. No seagulls or vultures were observed. The Falconer was present. A LF gas odor was detected along the northern and southeast corner of cell SE-2AB.
6. March 20, 2025 – No WWTP odor was detected along Applebutter Road. No LF gas odor was detected along Applebutter Road before or after the LF inspection. No vultures or seagulls were observed. A slight LF gas odor was detected along the western side of the northern edge of cell SE-2B. No odors were detected along the eastern and southern sides of cell SE-2AB.

B. Status of Action Items

1. January 2, 2025:
 - a. Final cap installation between Phase III and cell SE2-AB – To be Completed.
 - b. Additional LF gas wells to be installed above the southern anchor trench of cell SE-2A – To be Completed.
2. January 16, 2025:
 - a. Final cap installation between capped Phase III and cell SE-2AB – To be Completed.
 - b. Additional LF gas wells to be installed above the southern anchor trench of cell SE-2A – To be Completed.
 - c. Repair leachate seep noted during January 2, 2025 inspection – To be Completed.
3. February 6, 2025:
 - a. Final cap installation between capped Phase III and cell SE-2AB – To be Completed.
 - b. Additional LF gas wells to be installed above the southern anchor trench of cell SE-2A – To be Completed.
 - c. Repair leachate seep noted during the January 2, 2025 inspection – Completed.
4. February 20, 2025:
 - a. Final cap installation between capped Phase III and cell SE-2AB – To be Completed.
 - b. Additional LF gas wells to be installed above the southern anchor trench of cell SE-2A – To be Completed.
 - c. Installation of the candlestick flare – To be Completed.
5. March 6, 2025:
 - a. Final cap installation between capped Phase III and cell SE-2AB – To be Completed.
 - b. Additional LF gas wells to be installed above the southern anchor trench of cell SE-2A – To be Completed.

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- c. Installation of the candlestick flare – To be Completed.
 - d. Removal of litter from north slope just south of the perimeter fence – To be Completed.
 - 6. March 20, 2025:
 - a. Final cap installation between capped Phase III and cell SE-2AB – To be Completed.
 - b. Additional LF gas wells to be installed above the southern anchor trench of cell SE-2A – To be Completed.
 - c. Installation of the candlestick flare – To be Completed.
 - d. Removal of litter from north slope just south of the perimeter fence – Completed.
- C. SEM Reports
 - 1. March 6, 2025:
 - a. SEM Report dated January 17, 2025 noted on December 2, 2024 five (5) penetrations with gas emissions above 500 PPM. Upon notification, BL immediately placed additional cover soil. A 10-day re-check of five (5) penetrations found no emissions above 500 PPM. The one-month re-check also found no emissions in excess of 500 PPM.
 - b. SEM Report dated January 30, 2025 noted on December 27, 2024 one cap penetration located in the southeast quadrant of cell SE-1A with a gas emission above 500 PPM. Upon notification, BL immediately placed additional soil cover. A 10-day re-check of the penetration was conducted on January 6, 2025, and no emissions above 500 PPM were detected. The one-month re-check was conducted on January 24, 2025, and no emissions above 500 PPM were detected.
 - 2. March 20, 2025:
 - c. SEM Report dated February 24, 2025 noted on January 24, 2025 there were two (2) cap penetrations, and one (1) route exceedance found to have gas emission levels exceeding 500 PPM. Upon notification, BL immediately placed additional soil cover. A 10-day re-check of the three (3) exceedances found no emissions above 500 PPM. The one-month re-check also found no emissions in excess of 500 PPM.

VI. DEP Inspection Reports

A. December 18, 2025

1. Violations

- a. BL has been improperly noting the intermediate cover as “Proper”, particularly on the upper deck.
- b. Flagging of waste and degraded intermediate cover was observed during prior inspection and not properly addressed.
- c. DEP noted that BL has responded to the February 8, 2024 NOV regarding fugitive air emissions but the violation is still outstanding.

2. Observations

- a. A slight intermittent LF gas odor and garbage was detected along Applebutter Road east of Ringhoffer Road before and after the inspection.

B. January 24, 2025

1. Violations

- a. No violations noted during this inspection.
- b. DEP noted that BL has responded to the February 8, 2024 NOV regarding fugitive air emissions but the violation is still outstanding.

2. Observations

- a. A slight intermittent LF gas odor was detected along Applebutter Road near Ringhoffer Road. A slight intermittent odor of LF gas was detected along Applebutter Road between Swint’s and Red Barn Auto. A slight sewage odor was detected at the WWTP.
- b. A strong LF gas odor continues to be detected on the southeast slope of cell SE-2AB. Ballooning of the wind defender tarps was observed due to low vacuum by Archaea.

3. Requested Information

- a. An explanation of why all gases not handled by Archaea were not directed to BL’s flare on January 24, 2025.
- b. 10-day follow-up monitoring readings from January 24, 2025 monitoring event.
- c. November and December 2024 monitoring maps and data.

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- d. BL must submit all surface monitoring data within 30 days of the monitoring event.
- C. February 26, 2025:
- 1. Violations
 - a. No violations were noted during this inspection.
 - b. DEP noted that BL has responded to the February 8, 2024 NOV regarding fugitive air emissions but the violation is still outstanding.
 - c. BL has addressed the degraded intermediate cover soil on the upper deck. The February 8, 2024 NOV remains outstanding. The odors noted during the August, October, November and December inspection reports have significantly diminished.
 - 2. Observations
 - a. Strong LF gas odors were detected in the southeast corner of cell SE-2AB.
 - b. Some wind-blown litter was observed in the trees opposite the portable mister. BL will address the litter issue by the end of the week.