

## Bethlehem Landfill Committee Meeting Minutes

Date: Thursday, June 17, 2021, **Via Zoom**  
Time: 6:00 p.m.  
Location: Lower Saucon Township  
Attendance: **Hanover Engineering:** Chris Taylor; **Bethlehem Landfill:** Astor Lawson & David Pannucci; **Member:** Hazem Hijazi; **Staff Members:** Leslie Huhn & Diane Palik; **Council Liaison:** Tom Carocci. **Attendees:** Mrs. Louder Louder, George Gress, Ms. Opthof-Cordaro Opthof-Cordova. **Absent:** Member, Neil Ortwein.

Mr. Taylor stated for those who may be attending for the first time, what we do is go over each agenda item, and then a committee member can ask a question. Astor and Dave will answer the questions. If nobody jumps in, Dave will keep running through his report until we wrap up. The committee will then be asked if they have any questions. They will be answered by the Landfill or by Scott. Once the committee is done with the agenda, then typically it would be open to the public and you would need to raise your hand and Diane would see that, and when she unmutes you to present your question, you would state your name and address and proceed with your question. For anyone who is participating today, the agenda and back-up information is on our website.

Mr. Pannucci reviewed the monthly tonnages for May:

	<u>March</u>	<u>April</u>	<u>May</u>
MSW	24,520.77	24,065.53	20,184.96
C&D	8,783.90	8,147.78	6,945.65
Residual (Total)	2,463.37	2,382.47	3,319.66
Asbestos	0.00	0.00	0.00
Alternate Daily cover	4,692.01	2,646.05	1,997.70
Sewage Sludge	800.03 (1.94%)	775.47 (2.04%)	406.46 (1.24%)
Out of State (Total)	23,856.33 (58%)	21,232.21 (56%)	16,634.66 (51%)
Recycle	11 (82%)	9 (89%)	7 (71%)

Mr. Taylor asked Mr. Pannucci what are they using for alternate daily cover. Mr. Pannucci said it's mainly contaminated soils. Mr. Lawson said its part of a minor mod they received in December, which gave them a list of what they can use and most of the stuff is like a non-hazardous contaminated soil.

Mr. Pannucci said there was one Form U Submittal from John Manville Corporation on May 25, 2021. The third quarter sampling event is scheduled for August 30 – September 2, 2021.

Mr. Pannucci said there were six correspondence/reports, which were the BRE Check Q1 2021, Host Fee Check Adjustment Q1 2021, Overweight Report May 2021, Abatement Well Reports May 2021, 2020 Annual Operation Report and GP-3/GP-9 Permit Notice. Mr. Taylor said you hit rocks during construction. Mr. Pannucci said no, they have a pile of bricks they've taken in and are open to use for structural fill on the cell construction as opposed to purchasing it and bringing it in. It's the same crusher they've had on site for many years. They had that permit that they used on the other MSE Wall Construction for Phase IV and they have their application submitted to DEP.

Mr. Pannucci said there were two inspections from DEP on May 25 and June 9, 2021 with Matt Glogowski and Amy Faulch from Solid Waste. There were two Host Municipal Inspections with Scott Brown on June 3, 2021 and with Chris Taylor on June 17, 2021. Mr. Taylor said does Air Quality ever come out anymore. Mr. Pannucci said he doesn't remember the last time he's seen Air Quality.

Mr. Pannucci said total number of commercial waste vehicles is 2,827 with 66 overweight, 69 warnings and 7 suspensions. 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. The May Average Flow Rate was 3,369 SCFM.

Mr. Pannucci said the North Slope road has not needed any repairs nor has the swale needed any repairs. The

abatement system contained to operate and discharge to the Bethlehem WWTP. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed.

Mr. Pannucci said leachate collection continues to be monitored and reported. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed. The secondary pumps in LMC-6 and LMC-8 have been replaced. Mr. Taylor said the contractor was out today at Pump Station 1 running down some issues which is good.

Mr. Pannucci said there were four radioactive loads for May (Ga-67 (2) and Te-99m (2)). These waste streams met level 1 requirements and were disposed of onsite. Mr. Pannucci said the SE Realignment Construction Activities, waste operations were in SE-AB Phase 1. The odor complaint log is attached and the supporting leachate documentation is attached. Mr. Taylor said you are in the southern part of the cell installing fluff flare down there. Mr. Pannucci said yes. Mr. Pannucci said they have capping construction still going on and construction is ongoing like we talked about at other meetings.

Mrs. Louder, resident, said you mentioned you are working on the capping, what kind of capping are you doing, temporary or permanent. Mr. Lawson said there's a little bit of both. Mr. Pannucci said there's six acres on the south slope right above the temp cap that was just installed and there's another 6 acres on the north side on Phase IV as well. Mrs. Louder said that was part of the violation. Mr. Pannucci said correct.

Mrs. Louder said her other concern is the tractor trailers as usual. What is going on with 66 trucks overweight? Mr. Lawson said they don't know, they don't load them. They just come here and they may be new customers. If they break the rules, we kick them out and handle them appropriately. The last call they had, the State was here doing their survey but they haven't been out since then and he hasn't seen LST PD out since then either.

Mrs. Louder said is there a way the Township can request an Air Quality inspection since it hasn't been done for a while. Mrs. Huhn said we can do that. She said she also sent that letter to the Dept. of Health to request a study, but she's sure we can reach out to Air Quality. Mrs. Huhn said she did reach out to Amy Faulch to see if she could attend this meeting to discuss odors and she is unable to, but she did pass it on to Roger Bellas and Dean Ritter and she is waiting to hear back from them as well.

Mrs. Louder said she had a concern about the Landfill going down on the southeast expansion, that it's going down the opposite side of Applebutter Road and it's getting closer to the houses on Riverside, is she correct? Mr. Pannucci said are you referring to the application that's currently in with DEP. Mrs. Louder said yes, is there going to be more frequent inspection of the wells for those properties down there. Mr. Pannucci said no, there won't be. They will be sampled quarterly. Mrs. Louder said just because you are getting closer to them she thought maybe it would be a nice gesture to do it more often. Just again, safety precautions, peace of mind. She thanked them for keeping the sewage sludge down. March is when we had the odor complaints, April you went down and now you are at a nice level and she appreciates that as a resident.

Mrs. Louder said the on the odor complaint list, she would like to make it clear it was not her. When she makes a complaint, she will make it known that it's her, but none of those are her.

Ms. Opthof-Cordaro said with regard to the current report, she saw three different odor complaints in June but we don't have any information what happened with those yet, is that right? Mr. Lawson said they reached out to him and the first one they didn't notice any smell and then there was an issue with a truck that came in here that was leaking fuel but those odors are different. The other one Amy got a hold of him right away so when he went over, he talked to two residents of Steel City and they didn't smell anything in the last hour. Amy is getting a hold of him a lot quicker and they are going and investigating them in real time. They are doing their due diligence and if there are residents outside, they are talking to them.

Ms. Opthof-Cordaro said because she's not familiar with 100% of the names and she didn't know who she was talking to. Mr. Lawson said it was him. Ms. Opthof-Cordaro said Amy is who? Mr. Lawson said she's their inspector enforcement from DEP. Mrs. Huhn said that's Amy Faulch. Ms. Opthof-Cordaro said Amy contacted them right

away. Other than June, is that something that was recent that she started contacting them again? Mr. Lawson said generally if she did contact him, it was 24 hours or longer before she would let them know she had a complaint, so for him, it was welcomed that it was a lot quicker than what he received from her in the past of notifying him of complaints. In June, it's the first time she reached out that quickly, and he appreciates it.

Ms. Opthof-Cordaro said it sounds like maybe we alerted the DEP that we were a little bit more interested in the odor complaints and their timing and response. She knows Amy isn't able to attend today and she appreciates Leslie's information yesterday at the Council meeting. Looking at what DEP's response was from your inquiry, it just struck her that there is some issues there with response time. Maybe because we sent the letter, they decided to be more proactive and contact the Landfill to hunt down these complaints. Ms. Opthof-Cordaro asked what the DEP's response was or what the Committee felt about the letter she sent at the end of May. Does everyone know what she's asking about? Mrs. Huhn said she knows what she's talking about but she's not technically the Committee so she doesn't know if Haz had a chance to look at it.

Mr. Hijazi said what's her question? Ms. Opthof-Cordaro said what the position the committee had in response to the letter she sent at the end of May on the odor complaints regarding the DEP and their response time. She doesn't think Haz was on the last meeting. She was asking why some of the odor complaints indicate there's a significant lag time when the odor complaint is logged and then when the DEP comes and responds to those odor complaints. From her perspective, it seems to be an ongoing issue with the residents of Steel City and they feel very frustrated with that issue. There's a lot of discussion of people not even calling DEP anymore. She was trying to resolve it and she drafted the letter. That prompted Leslie to contact DEP to see whether they could assist the Township in responding more quickly to our concerns. They sent a response back and at last night's Council meeting, Leslie said we would discuss the letter at today's meeting. Mrs. Huhn said you are spot on with that, but Amy is the Solid Waste Manager and she does the inspections and that's why she passed it up the line to Roger Bellas who is her Supervisor and Dean Ritter and Leslie is hoping we get some feedback from them and see which way we can go.

Ms. Opthof-Cordaro asked Haz if he checked out her letter. Haz said he has not looked at it yet, but he will look at it and he will email her or discuss it at the next meeting. The concerns she is raising on the surface, nobody wants to have any smells or odors around the Landfill and he suspects the Landfill operator would be trying everything to avoid these issues. He thinks asking the DEP for their input is not a bad idea. They are the regulatory oversight entity. They see a lot of Landfills throughout the state. They may have more experience and knowledge on how to tackle this issue and he thinks Ms. Opthof-Cordaro had some suggestions and we are waiting for the DEP to get back to you, is this where we are?

Ms. Opthof-Cordaro said we had some initial answers from Amy about how the DEP procedurally responds to odor complaints and what happens if it's after hours and who do you get in touch with and some protocols they have, is it a drive by or come check it out at their next inspection date. Amy did say in the letter that they do notify the Landfill when they get a report and it sounds like that wasn't being done as often or timely until maybe we sent the letter to them. She's happy that they responded. She's hopeful we can get the DEP involved to a timelier response. Maybe the Township can help facilitate some odor complaints. She's hopeful we can make some headway and she asked that Council would address it and its unclear if the committee is going to make a recommendation. She's just following up with that as well.

Mr. Hijazi said from his perspective, and he speaks only from his experience and knowledge, he would focus on the facility operations on the proper recovery of methane, do they have enough wells, do they have enough recovery, is their system operating properly, are they doing what they need to do for the daily cover, and because he thinks what we need to try to tackle is there a deficiency in the operation or not. He thinks the help from the DEP to be involved with this is important and we need to rely on them as the oversight regulatory agency in charge of this. They have the resources, they have the experience, the inspectors and they could offer a lot more than the Township or Landfill Committee or anyone from our side could do. There's nothing wrong in asking them. The Landfill is a partner in this and we need to make sure they are doing everything they can. They are operating the Landfill and know if there's a deficiency someplace that causes this or not. If you are proposing for the DEP to be more involved and more

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inspections, absolutely, he backs that up 100% and from the Landfill's perspective is they are looking at their records and if they are all operating properly, we have to look at what else is there.

Ms. Opthof-Cordaro said she appreciates that and likes to hear Haz reiterate that about the DEP. Mrs. Huhn said she'll follow up with them. Mr. Lawson said he reached to to them and asked them to come out. The more oversight they have it's better for them and for the community. The more the DEP is involved and they are checking that the Landfill is doing everything correctly, it's better for the Landfill.

Mrs. Huhn said it's positive that we've gotten a response already and Amy is trying to get information to the Landfill more quickly. We're on the right track. Mr. Hijazi said this isn't against the Landfill. You have a stake in this. You would want to eliminate the odors and we appreciate what you can do from your end to help alleviate this issue. Mr. Lawson said it helps if you reach out and they will have DEP come out and hopefully they will make it out here sooner than later.

Ms. Opthof-Cordaro said Roger and somebody else you mentioned, who are they? Mr. Pannucci said they are quality inspectors. Mrs. Huhn said Roger is the oversight of the entire department. Mr. Lawson said Roger would be the one to send them out. Ms. Opthof-Cordaro said she will hold out on that issue as we are making good progress with this issue.

Mrs. Louder said did you find anything on the inspection today, Chris? Mr. Taylor said no. There were no off-site odors. The only on-site odor was the working face odor on top. He observed all the capping we've been talking about, it's quite extensive. The guy at PS1 was rattling off some diagnostic tests they had run. They were tackling some leachate seeps along the North Slope, which is not good we have seeps, but good they are out there tackling those. Those can be a source of odors, also so fixing those could help odor issues. The spotter was at the south end of the open cell spotting for things that should not be going in the lift. On the balance of things, the flow rate at the flare was higher than he ever seen it, in the 3400's, which indicates good capture of gas and then the flare itself is running fine which indicates good destruction of gas. Everything he saw looks very good. Mrs. Louder said kudos to the flare guy, Cody. Mr. Taylor said Cody came along on the tour and is very knowledgeable and sharp and has a great handle on the gas collection system.

The meeting ended at 7:01 p.m. The next meeting will be on Thursday, July 15, 2021 at 1:00 p.m.

**Bethlehem Landfill Company  
LST Committee Meeting May 2021  
June 17, 2021**

**Agenda Items**

**I. Waste Activities**

Monthly Tonnages

	March	April	May
MSW	24,520.77	24,065.53	20,184.96
C&D	8,783.90	8,147.78	6,945.65
Residual (Total)	2,463.37	2,386.47	3,319.66
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Recycle	11 (82%)	9 (89%)	7 (71%)

<u>Form U Submittals</u>	<u>Waste</u>	<u>Approval Date</u>
Johns Manville Corp.	Thermal Insulation Waste (416)	5/25/21

**II. Annual Groundwater Trend Analysis**

Third quarter sampling event is scheduled for 8/30/21 – 9/2/21.

**III. Correspondence / Reports**

BRE Check – Q1 2021	5/10/21
Host Fee Check Adj. – Q1 2021	5/24/21
Overweight Report – May 2021	6/2/21
Abatement Well Reports – May 2021	6/2/21
2020 Annual Operation Report	6/7/21
GP-3/GP-9 Permit Notice	6/10/21

**IV. Landfill Operations**

Department of Environmental Protection Inspections

5/25/21 M. Glogowski (Solid Waste)  
6/9/21 A. Faulch (Solid Waste)

Host Municipal Inspection

6/3/21 S. Brown  
6/7/21 S. Brown

<u>Commercial Waste Vehicles</u>	March	April	May
Total # Trucks	3,193	3,088	2,827
	March	April	May
Overweight	72	41	66
Warnings	66	39	59
Suspensions	6	2	7

March – TT=35, RL=8, RO=2, FL=1, DT=26 April – TT=24, RL=8, RO=5, FL=1, DT=3 May – TT=34, RL=11, RO=5, FL=1, DT=15

FL = front loader, RO = rolloff, TT=tractor trailer, RL = rear loader, SL = side loader, DT = triaxial dump

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.**

**May Average Flare Flow = 3,369 SCFM**

See times for flare shutdowns. Do not have Plant SSM forms yet

None

Documentation is on file.

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

### Abatement System

Abatement system continues to operate and discharge to the Bethlehem WWTP. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed.

### Leachate collection

Flow rates continue to be monitored and reported. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed. The secondary pumps in LMC-6 & LMC-8 have been replaced.

### Radiation Monitoring

There were 4 radioactive loads for May (Ga-67 [2] & Tc-99m [2]). These waste streams met level 1 requirements and were disposed of onsite.

### SE Realignment Construction Activities

Waste operations were in SE-2AB Phase I.

### Complaints received by Waste Connections

See attached.

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**BETHLEHEM LANDFILL**  
**LEACHATE DEMAND REPORT**

May 2021

<u>Location</u>	<u>Total gallons</u>
LMC-6	17,943
LMC-7	60,752
LMC-8	72,544
PS-4	110,995
LMC-10	1,247,295
PS-1	99,840
PS-2	81,410
PS-3	60,196
Phase-IV	241,446

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

Total Discharge

LMC-10	1,247,295
Phase IV	241,446
<b>TOTAL</b>	<b>1,488,741 gallons</b>

Total Leachate

Leachate	262,234
Phase IV	241,446
<b>TOTAL</b>	<b>715,258 gallons</b>

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).  
Abatement System Flow = 985,061 gallons (Neptune Flow meters)

**BETHLEHEM LANDFILL**  
**GROUNDWATER DEMAND REPORT**

**April 2021**

<b>Well No.</b>	<b>Water Level (avg. ft SWL*)</b>	<b>Flow (avg. GPM)</b>	<b>(Total gal)</b>
AB-1R	68.6	9.6	453,818
AB-2	47.4	2.0	94,151
AB-3	24.5	0.3	15,990
AB-4	1.6	1.4	67,989
AB-5	41.5	0.8	39,998
AB-6	41.5	3.2	154,202
AB-7	40.8	2.4	113,506
AB-8	14.2	0.0	0
AB-9	57.8	0.1	6,670
AB-10	115.5	0.8	38,747
TW-1	N/A	<0.1	0.0
<b>Total Flow</b>		<b>985,061 gallons</b>	

\*SWL above transducer set point

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

	TIME (days)	LMC-6 (Primary Flows)				LMC-7 (Primary Flows)				LMC-8 (Primary Flows)			
		TOTALIZER	GALLONS	LOW (gp)	G/A/D	TOTALIZER	GALLONS	LOW (gp)	G/A/D	TOTALIZER	GALLONS	LOW (gp)	G/A/D
7/10/2020	10.00	227475	6,688	669	43	13720	0	0	0	8,610,389	17719	1,772	306
7/16/2020	6.00	232249	4,774	796	51	18719	4999	833	68	8,621,690	11301	1,884	325
7/22/2020	6.00	238254	6,005	1,001	64	23823	5104	851	70	8,632,404	10714	1,786	308
7/31/2020	9.00	243236	4,982	554	35	28722	4899	544	45	8,643,618	11214	1,246	215
8/7/2020	7.00	251960	8,724	1,246	79	37490	8768	1,253	103	8,661,563	17945	2,564	442
8/13/2020	6.00	258928	6,968	1,161	74	63837	26347	4,391	360	8,674,376	12813	2,136	368
8/18/2020	5.00	264735	5,807	1,161	74	85793	21956	4,391	360	8,685,055	10679	2,136	368
8/31/2020	13.00	277404	12,669	975	62	131257	45464	3,497	287	8,708,098	23043	1,773	306
9/11/2020	11.00	284531	7,127	648	41	143812	12555	1,141	94	8,719,788	11690	1,063	183
9/16/2020	5.00	289276	4,745	949	60	161830	18018	3,604	295	8,733,483	13695	2,739	472
9/25/2020	9.00	295026	5,750	639	41	177725	15895	1,766	145	8,747,811	14328	1,592	274
9/30/2020	5.00	298590	3,564	713	45	188329	10604	2,121	174	8,757,540	9729	1,946	335
10/5/2020	5.00	301244	2,654	531	34	200556	12227	2,445	200	8,766,239	8699	1,740	300
10/15/2020	10.00	307119	5,875	588	37	212962	12406	1,241	102	8,779,385	13146	1,315	227
10/20/2020	5.00	312431	5,312	1,062	68	222764	9802	1,960	161	8,790,143	10758	2,152	371
10/30/2020	10.00	315866	3,435	344	22	237655	14891	1,489	122	8,801,652	11509	1,151	198
11/9/2020	10.00	322167	6,301	630	40	257053	19398	1,940	159	8,818,016	16364	1,636	282
11/19/2020	10.00	328799	6,632	663	42	278483	21430	2,143	176	8,833,996	15980	1,598	276
11/25/2020	6.00	335251	6,452	1,075	68	293052	14569	2,428	199	8,848,214	14218	2,370	409
11/30/2020	5.00	337198	1,947	389	25	305650	12598	2,520	207	8,854,271	6057	1,211	209
12/10/2020	10.00	343832	6,634	663	42	325487	19837	1,984	163	8,868,884	14613	1,461	252
12/16/2020	6.00	347443	3,611	602	38	348814	23327	3,888	319	8,889,148	20264	3,377	582
12/21/2020	5.00	352534	5,091	1,018	65	364113	15299	3,060	251	8,889,148	0	0	0
12/30/2020	9.00	359699	7,165	796	51	374477	10364	1,152	94	8,889,148	0	0	0
1/6/2021	7.00	363431	3,732	533	34	390420	15943	2,278	187	7,431	0	0	0
1/11/2021	5.00	369669	6,238	1,248	79	407758	17338	3,468	284	19,952	12521	2,504	432
1/22/2021	11.00	377770	8,101	736	47	436016	28258	2,569	211	40,966	21014	1,910	329
1/29/2021	7.00	382975	5,205	744	47	453468	17452	2,493	204	54,393	13427	1,918	331
2/4/2021	6.00	387321	4,346	724	46	467979	14511	2,419	198	66,164	11771	1,962	338
2/12/2021	8.00	392856	5,535	692	44	485238	17259	2,157	177	82,543	16379	2,047	353
2/17/2021	5.00	396808	3,952	790	50	496334	11096	2,219	182	94,692	12149	2,430	419
2/26/2021	9.00	408643	11,835	1,315	84	514328	17994	1,999	164	114,723	20031	2,226	384
3/1/2021	3.00	408918	275	92	6	526267	11939	3,980	326	127,213	12490	4,163	718
3/11/2021	10.00	416664	7,746	775	49	555727	29460	2,946	241	152,914	25701	2,570	443
3/17/2021	6.00	420987	4,323	721	46	572686	16959	2,827	232	167,819	14905	2,484	428
3/23/2021	6.00	425239	4,252	709	45	589056	16370	2,728	224	183,111	15292	2,549	439
3/31/2021	8.00	431102	5,863	733	47	611859	22803	2,850	234	204,654	21543	2,693	464
4/8/2021	8.00	437037	5,935	742	47	633943	22084	2,761	226	225,646	20992	2,624	452
4/16/2021	8.00	442519	5,482	685	44	655649	21706	2,713	222	247,588	21942	2,743	473
4/22/2021	6.00	446627	4,108	685	44	671107	15458	2,576	211	263,909	16321	2,720	469
4/29/2021	7.00	451195	4,568	653	42	687732	16625	2,375	195	281,622	17713	2,530	436
5/7/2021	8.00	456387	5,192	649	41	706466	18734	2,342	192	302,666	21044	2,631	454
5/11/2021	4.00	458740	2,353	588	37	714751	8285	2,071	170	311,793	9127	2,282	393
5/21/2021	10.00	463214	4,474	447	28	734167	19416	1,942	159	334,167	22374	2,237	386
5/28/2021	7.00	468324	5,110	730	46	748439	14272	2,039	167	349,750	15583	2,226	384



**IESI BETHLEHEM LANDFILL**

	A	B	C	D	E	F	H	I	J	K	M	N	O
866		TIME	Phase IV PS-1 (Secondary Flows)				Phase IV PS-1 (Primary flow)						sump
867		(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day			Totalizer	gallons	flow(gpd)	g/ac/day	inches
995	7/10/2020	10	524566	83	8	0			61976383	65699	6570	253	14.7"
996	7/16/2020	6	524651	85	14	1			62012163	35780	5963	229	17.0"
997	7/22/2020	6	524729	78	13	1			62044621	32458	5410	208	25.3"
998	7/31/2020	9	524841	112	12	0			62076168	31547	3505	135	20.4"
999	8/7/2020	7	526409	1568	224	9			62159346	83178	11883	457	15.5"
1000	8/13/2020	6	526560	151	25	1			62193872	34526	5754	221	18.7"
1001	8/18/2020	5	526686	126	25	1			62222647	28775	5755	221	19.7"
1002	8/31/2020	13	526888	202	16	1			62292925	70278	5406	208	13.4"
1003	9/11/2020	11	526992	104	9	0			62382145	89220	8111	312	13.4"
1004	9/16/2020	5	527011	19	4	0			62401942	19797	3959	152	22.4"
1005	9/25/2020	9	527117	106	12	0			62451099	49157	5462	210	17.0"
1006	9/30/2020	5	527173	56	11	0			62482625	31526	6305	243	23.8"
1007	10/5/2020	5	527215	42	8	0			62513246	30621	6124	236	22.5"
1008	10/15/2020	10	527215	0	0	0			62568597	55351	5535	213	23.2"
1009	10/20/2020	5	527322	107	21	1			62594132	25535	5107	196	22.1"
1010	10/30/2020	10	527420	98	10	0			62654664	60532	6053	233	23.8"
1011	11/9/2020	10	527509	89	9	0			62746626	91962	9196	354	13.0"
1012	11/19/2020	10	527608	99	10	0			62815665	69039	6904	266	16.1"
1013	11/25/2020	6	527612	4	1	0			62884516	68851	11475	441	16.2"
1014	11/30/2020	5	527655	43	9	0			62953430	68914	13783	530	23.8"
1015	12/10/2020	10	527711	56	6	0			63012164	58734	5873	226	28.7"
1016	12/16/2020	6	527746	35	6	0			63064314	52150	8692	334	27.1"
1017	12/21/2020	5	527784	38	8	0			63107071	42757	8551	329	14.7"
1018	12/30/2020	9	528281	497	55	2			63180785	73714	8190	315	17.0"
1019	1/6/2021	7	528310	29	4	0			63215472	34687	4955	191	20.1"
1020	1/11/2021	5	528374	64	13	0			63272325	56853	11371	437	17.0"
1021	1/22/2021	11	528442	68	6	0			63362249	89924	8175	314	16.1"
1022	1/29/2021	7	528470	28	4	0			63392464	30215	4316	166	16.6"
1023	2/4/2021	6	528480	10	2	0			63433975	41511	6919	266	24.9"
1024	2/12/2021	8	528610	130	16	1			63491472	57497	7187	276	17.0"
1025	2/17/2021	5	531010	2400	480	18			63526804	35332	7066	272	18.1"
1026	2/26/2021	9	533576	2566	285	11			63591456	64652	7184	276	24.7"
1027	3/1/2021	3	536366	2790	930	36			63633910	42454	14151	544	24.9"
1028	3/11/2021	10	537971	1605	161	6			63739052	105142	10514	404	16.6"
1029	3/17/2021	6	538105	134	22	1			63778385	39333	6556	252	17.7"
1030	3/23/2021	6	539791	1686	281	11			63823346	44961	7494	288	13.8"
1031	3/31/2021	8	541655	1864	233	9			63975260	151914	18989	730	22.9"
1032	4/8/2021	8	541950	295	37	1			63976709	1449	181	7	13.2"
1033	4/16/2021	8	542448	498	62	2			63985663	8954	1119	43	17.0"
1034	4/22/2021	6	542448	0	0	0			63994854	9191	1532	59	19.5"
1035	4/29/2021	7	542568	120	17	1			64023254	28400	4057	156	19.1"
1036	5/7/2021	8	542814	246	31	1			64070583	47329	5916	228	16.1"
1037	5/11/2021	4	542815	1	0	0			64076620	6037	1509	58	24.0"
1038	5/21/2021	10	542815	0	0	0			64106614	29994	2999	115	13.0"
1039	5/28/2021	7	542816	1	0	0			64122846	16232	2319	89	41.9"

**IESI BETHLEHEM LANDFILL**

	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
866	TIME	Phase IV PS-2 (Secondary Flows)						Phase IV PS-2 (Primary )					sump
867	(days)	TOTALIZE	GALLONS	FLOW (gpd)	g/ac/day			Totalizer	gallons	flow(gpd)	g/ac/day	inches	
995	7/10/2020	10	7335	0	0	0.0		22799449	26425	2643	249	5.0"	
996	7/16/2020	6	7335	0	0	0.0		22816852	17403	2901	274	5.4"	
997	7/22/2020	6	7335	0	0	0.0		22837900	21048	3508	331	5.5"	
998	7/31/2020	9	7335	0	0	0.0		22855368	17468	1941	183	5.0"	
999	8/7/2020	7	7335	0	0	0.0		22886450	31082	4440	419	6.4"	
1000	8/13/2020	6	7335	0	0	0.0		22912298	25848	4308	406	7.1"	
1001	8/18/2020	5	7335	0	0	0.0		22933839	21541	4308	406	6.2"	
1002	8/31/2020	13	7386	51	4	0.4		22984118	50279	3868	365	8.9"	
1003	9/11/2020	11	7386	0	0	0.0		23014426	30308	2755	260	6.1"	
1004	9/16/2020	5	7386	0	0	0.0		23034417	19991	3998	377	8.3"	
1005	9/25/2020	9	7386	0	0	0.0		23060504	26087	2899	273	6.9"	
1006	9/30/2020	5	7386	0	0	0.0		23077340	16836	3367	318	7.7"	
1007	10/5/2020	5	7386	0	0	0.0		23094274	16934	3387	320	6.9"	
1008	10/15/2020	10	7386	0	0	0.0		23115439	21165	2117	200	11.8"	
1009	10/20/2020	5	7386	0	0	0.0		23136871	21432	4286	404	15.7"	
1010	10/30/2020	10	7386	0	0	0.0		23157400	20529	2053	194	25.3"	
1011	11/9/2020	10	7389	3	0	0.0		23199765	42365	4237	400	19.0"	
1012	11/19/2020	10	7389	0	0	0.0		23241963	42198	4220	398	21.7"	
1013	11/25/2020	6	7389	0	0	0.0		23294285	52322	8720	823	19.3"	
1014	11/30/2020	5	7439	50	10	0.9		23315295	21010	4202	396	31.7"	
1015	12/10/2020	10	7439	0	0	0.0		23315295	0	0	0	30.0"	
1016	12/16/2020	6	7442	3	1	0.0		23344318	29023	4837	456	20.1"	
1017	12/21/2020	5	7442	0	0	0.0		23404459	60141	12028	1135	32.7"	
1018	12/30/2020	9	7442	0	0	0.0		23447940	43481	4831	456	25.0"	
1019	1/6/2021	7	7442	0	0	0.0		23487743	39803	5686	536	25.0"	
1020	1/11/2021	5	7442	0	0	0.0		23517125	29382	5876	554	29.2"	
1021	1/22/2021	11	7442	0	0	0.0		23564495	47370	4306	406	25.5"	
1022	1/29/2021	7	7442	0	0	0.0		23589289	24794	3542	334	31.2"	
1023	2/4/2021	6	7442	0	0	0.0		23607398	18109	3018	285	33.5"	
1024	2/12/2021	8	7443	1	0	0.0		23623114	15716	1965	185	30.2"	
1025	2/17/2021	5	7443	0	0	0.0		23645892	22778	4556	430	30.4"	
1026	2/26/2021	9	7443	0	0	0.0		23669319	23427	2603	246	30.2"	
1027	3/1/2021	3	7443	0	0	0.0		23698143	28824	9608	906	30.8"	
1028	3/11/2021	10	7443	0	0	0.0		23767970	69827	6983	659	30.8"	
1029	3/17/2021	6	7443	0	0	0.0		23794531	26561	4427	418	24.3"	
1030	3/23/2021	6	7443	0	0	0.0		23831835	37304	6217	587	25.6"	
1031	3/31/2021	8	7443	0	0	0.0		23871991	40156	5020	474	34.1"	
1032	4/8/2021	8	7443	0	0	0.0		23910078	38087	4761	449	34.9"	
1033	4/16/2021	8	7443	0	0	0.0		23941359	31281	3910	369	32.9"	
1034	4/22/2021	6	7525	82	14	1.3		23962470	21111	3519	332	25.7"	
1035	4/29/2021	7	7525	0	0	0.0		23985080	22610	3230	305	29.8"	
1036	5/7/2021	8	7525	0	0	0.0		24009683	24603	3075	290	26.2"	
1037	5/11/2021	4	7525	0	0	0.0		24020846	11163	2791	263	31.8"	
1038	5/21/2021	10	7525	0	0	0.0		24049046	28200	2820	266	25.3"	
1039	5/28/2021	7	7525	0	0	0.0		24066490	17444	2492	235	28.8"	

IESI BETHLEHEM LANDFILL

	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ
866	Phase IV PS-3 (Secondary)						Phase IV PS-3 (Primary)						sump
867	Date	days	totalizer	gallon	flow(gpd)	g/ac/day			totalizer	gallons	flow(gpd)	g/ac/day	inches
995	7/10/2020	10	44863	0	0	0			13307263	23003	2300	554	22.5"
996	7/16/2020	6	44863	0	0	0			13330152	22889	3815	919	22.3"
997	7/22/2020	6	44863	0	0	0			13352941	22789	3798	915	21.1"
998	7/31/2020	9	44863	0	0	0			13364424	11483	1276	307	21.3"
999	8/7/2020	7	44863	0	0	0			13418867	54443	7778	1874	18.5"
1000	8/13/2020	6	44863	0	0	0			13474007	55140	9190	2214	19.2"
1001	8/18/2020	5	44863	0	0	0			13519957	45950	9190	2214	19.9"
1002	8/31/2020	13	44863	0	0	0			13577909	57952	4458	1074	22.1"
1003	9/11/2020	11	44863	0	0	0			13603478	25569	2324	560	26.4"
1004	9/16/2020	5	44863	0	0	0			13620826	17348	3470	836	27.0"
1005	9/25/2020	9	44863	0	0	0			13655405	34579	3842	926	18.7"
1006	9/30/2020	5	44863	0	0	0			13677409	22004	4401	1060	17.7"
1007	10/5/2020	5	44863	0	0	0			13689319	11910	2382	574	21.7"
1008	10/15/2020	10	44863	0	0	0			13694320	5001	500	121	21.7"
1009	10/20/2020	5	44863	0	0	0			13694320	0	0	0	21.7"
1010	10/30/2020	10	44863	0	0	0			13694320	0	0	0	21.7"
1011	11/9/2020	10	45009	146	15	1			13730094	35774	3577	862	19.7"
1012	11/19/2020	10	45009	0	0	0			13762230	32136	3214	774	27.6"
1013	11/25/2020	6	45009	0	0	0			13773328	11098	1850	446	22.4"
1014	11/30/2020	5	45009	0	0	0			13780021	6693	1339	323	23.4"
1015	12/10/2020	10	45013	4	0	0			13803367	23346	2335	563	30.4"
1016	12/16/2020	6	45015	2	0	0			13810357	6990	1165	281	31.1"
1017	12/21/2020	5	45015	0	0	0			13825969	15612	3122	752	20.8"
1018	12/30/2020	9	45015	0	0	0			13862880	36911	4101	988	19.8"
1019	1/6/2021	7	45015	0	0	0			13874248	11368	1624	391	22.7"
1020	1/11/2021	5	45278	263	53	5			13921450	47202	9440	2275	23.0"
1021	1/22/2021	11	45278	0	0	0			13995360	73910	6719	1619	21.1"
1022	1/29/2021	7	45278	0	0	0			14022430	27070	3867	932	36.1"
1023	2/4/2021	6	45278	0	0	0			14039186	16756	2793	673	19.4"
1024	2/12/2021	8	45278	0	0	0			14052755	13569	1696	409	23.5"
1025	2/17/2021	5	45278	0	0	0			14084002	31247	6249	1506	20.6"
1026	2/26/2021	9	45282	4	0	0			14100432	16430	1826	440	20.7"
1027	3/1/2021	3	45288	6	2	0			14144285	43853	14618	3522	23.0"
1028	3/11/2021	10	45288	0	0	0			14197634	53349	5335	1286	24.9"
1029	3/17/2021	6	45288	0	0	0			14226120	28486	4748	1144	22.7"
1030	3/23/2021	6	45288	0	0	0			14255855	29735	4956	1194	24.7"
1031	3/31/2021	8	45288	0	0	0			14292417	36562	4570	1101	27.0"
1032	4/8/2021	8	45288	0	0	0			14333615	41198	5150	1241	25.5"
1033	4/16/2021	8	45288	0	0	0			14368718	35103	4388	1057	18.7"
1034	4/22/2021	6	45288	0	0	0			14389148	20430	3405	820	27.6"
1035	4/29/2021	7	45564	276	39	4			14405898	16750	2393	577	30.6"
1036	5/7/2021	8	45564	0	0	0			14416617	10719	1340	323	30.3"
1037	5/11/2021	4	45564	0	0	0			14427713	11096	2774	668	29.1"
1038	5/21/2021	10	45564	0	0	0			14451020	23307	2331	562	27.2"
1039	5/28/2021	7	45564	0	0	0			14466094	15074	2153	519	30.4"

IESI BETHLEHEM LANDFILL

	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
865	Phase IV PS-4 (Secondary)												
866	Date	days	totalizer	gallon	flow(gpd)	g/ac/day	Phase IV PS-4 (Primary)						sump
867							totalizer	gallons	flow(gpd)	g/ac/day	inches		
995	7/10/2020	10	12337	113	11	1	6939329	11404	1140	275	24.8"		
996	7/16/2020	6	12848	511	85	8	6960197	20868	3478	838	24.5"		
997	7/22/2020	6	12900	52	9	1	6971311	11114	1852	446	21.1"		
998	7/31/2020	9	12900	0	0	0	6982210	10899	1211	292	21.1"		
999	8/7/2020	7	13783	883	126	12	7041991	59781	8540	2058	21.8"		
1000	8/13/2020	6	14095	312	52	5	7057306	15315	2553	615	22.3"		
1001	8/18/2020	5	14225	130	26	2	7070070	12764	2553	615	29.7"		
1002	8/31/2020	13	14255	30	2	0	7097878	27808	2139	515	17.2"		
1003	9/11/2020	11	14255	0	0	0	7120913	23035	2094	505	17.2"		
1004	9/16/2020	5	14255	0	0	0	7128461	7548	1510	364	19.4"		
1005	9/25/2020	9	14675	420	47	4	7140453	11992	1332	321	24.7"		
1006	9/30/2020	5	14676	1	0	0	7157349	16896	3379	814	23.8"		
1007	10/5/2020	5	14676	0	0	0	7169841	12492	2498	602	24.8"		
1008	10/15/2020	10	14679	3	0	0	7179906	10065	1007	243	23.8"		
1009	10/20/2020	5	15151	472	94	9	7194892	14986	2997	722	22.7"		
1010	10/30/2020	10	15151	0	0	0	7219584	24692	2469	595	21.1"		
1011	11/9/2020	10	15652	501	50	5	7251905	32321	3232	779	30.4"		
1012	11/19/2020	10	15723	71	7	1	7281421	29516	2952	711	27.1"		
1013	11/25/2020	6	15723	0	0	0	7297743	16322	2720	656	21.3"		
1014	11/30/2020	5	15843	120	24	2	7314712	16969	3394	818	67.1"		
1015	12/10/2020	10	11758	0	0	0	6775667	-539045	0	0	30.2"		
1016	12/16/2020	6	11831	73	12	1	6782162	6495	1083	261	30.1"		
1017	12/21/2020	5	12174	343	69	6	6808163	26001	5200	1253	28.5"		
1018	12/30/2020	9	12597	423	47	4	6899386	91223	10136	2442	22.0"		
1019	1/6/2021	7	936	0	0	0	6713174	-186212	0	0	24.6"		
1020	1/11/2021	5	10815	9879	1976	186	4877820	-1835354	0	0	24.4"		
1021	1/22/2021	11	0	0	0	0	10180	-4867640	0	0	22.0"		
1022	1/29/2021	7	463	463	66	6	31358	21178	3025	729	25.3"		
1023	2/4/2021	6	464	1	0	0	41036	9678	1613	389	28.5"		
1024	2/12/2021	8	847	383	48	5	68177	27141	3393	818	24.8"		
1025	2/17/2021	5	847	0	0	0	280755	212578	42516	10245	24.2"		
1026	2/25/2021	9	847	0	0	0	437892	157137	17460	4207	23.2"		
1027	3/1/2021	3	1272	425	142	13	785863	347971	115990	27949	21.2"		
1028	3/11/2021	10	1693	421	42	4	928167	142304	14230	3429	22.6"		
1029	3/17/2021	6	1693	0	0	0	973098	44931	7489	1804	25.3"		
1030	3/23/2021	6	1693	0	0	0	1028010	54912	9152	2205	28.2"		
1031	3/31/2021	8	1693	0	0	0	1121438	93428	11679	2814	25.0"		
1032	4/8/2021	8	1693	0	0	0	1170297	48859	6107	1472	26.4"		
1033	4/16/2021	8	2112	419	52	5	1214708	44411	5551	1338	24.3"		
1034	4/22/2021	6	2112	0	0	0	1240600	25892	4315	1040	28.0"		
1035	4/29/2021	7	2112	0	0	0	1267520	26920	3846	927	31.5"		
1036	5/7/2021	8	2112	0	0	0	1303131	35611	4451	1073	24.2"		
1037	5/11/2021	4	2112	0	0	0	1320594	17463	4366	1052	31.3"		
1038	5/21/2021	10	2112	0	0	0	1356785	36191	3619	872	15.5"		
1039	5/28/2021	7	2116	4	1	0	1378511	21726	3104	748	30.5"		

## Bethlehem Landfill Odor Complaint Log (2335 Applebutter Rd, Bethlehem, PA 18015)

Date	Time	Address	Distance from Landfill (miles)	Weather Data (Allentown (KABE))		Temperature	Wind (out of)	Residence / Drive-by	Description / Notes	Gas Management Data			Date of Initial Response	Addressed in Insp Report Dated
				Stiles	Flare (scfm)					ORE (scfm)	Total (scfm)			
01/08/21	7:17	Johnston Ave., Steel City	unknown	Fair		20.0	N @ 5mph	Residence	landfill odors reaching complainant's family member's residence near Lower Saucon Rd. closer to Easton Rd.				1/8/2021	3/4/2021
01/25/21	18:59	Johnston Ave., Steel City	1.170	Fair		31.0	ENE @ 6mph	Residence	Very strong gas odor on property	3230	0	3230	1/25/2020	1/25/21 (ER)
01/25/21	18:59	Jefferson Ave, Steel City	0.939	Fair		31.0	ENE @ 6mph	Residence	very strong odor on property	3230	0	3230	1/25/2020	1/25/21 (ER)
01/25/21	18:59	Saucon Ave, Steel City	0.883	Fair		31.0	ENE @ 6mph	Residence	very strong odor on property	3230	0	3230	1/25/2020	1/25/21 (ER)
01/27/21	10:50	Johnston Ave, Steel City	0.980	Mostly Cloudy		23.0	S @ 4mph	Residence	Odor on property from the landfill. Odor described as an old garbage/leachate smell. (Complainant called back at 11:18 & said odor had dissipated. Odor was also detected throughout the neighborhood when they went for a walk).	3215	0	3215	1/27/2021	3/4/2021
01/28/21	22:56	Applebutter Rd., Bethlehem	NA	Fair/Windy		20.0	NW @ 22 mph	non-Residence	While complainant was at the storage yards, they detected a horrible odor from the landfill.	3170	0	3170	2/4/2021	3/4/2021
03/10/21	14:40	Applebutter Rd., Bethlehem	0.420	Fair		32.0	S @ 7mph	Residence	Gas odors this morning on property from the landfill	3223	0	3223	3/4/2021	3/4/2021
03/02/21	19:29	Applebutter Rd., Bethlehem	0.420	Fair		31.0	W @ 6mph	Residence	The landfill odor is horrendous tonight & odor detected on property.	3052	0	3052	3/4/2021	3/4/2021
03/31/21	10:24	Unknown	unknown	Cloudy		53.0	E @ 6mph	Drive-by	Rep. of LST Council emailed the following: Several complaints regarding a strong landfill gas odor on Applebutter Rd. near the entrance. Complainants were not received today, but on a regular basis prior.	3102	0	3102	3/31/2021	4/28/2021
03/31/21	13:03	Saucon Ave, Steel City	0.883	Mostly Cloudy		61.0	SSW @ 5mph	Residence	Intermittent landfill gas odor at home	3115	0	3115	4/8/2021	4/28/2021
06/03/21	9:35	Johnston Ave., Steel City	1.170	Cloudy		61.0	ESE @ 5mph	Residence	gas odor from the landfill detected on property	3402	0	3402	6/3/2021	6/9/2021
06/11/21	13:16	Johnston Ave., Steel City	1.170	cloudy		62.0	calm	Residence	slight landfill gas odor on property at time of call. Also noted odors yesterday.	3442	0	3442	6/11/2021	
06/11/21	13:21	Saucon Ave, Steel City	0.883	cloudy		62.0	calm	Residence	landfill gas odor on property that is affecting their quality of life.	3451	0	3451	6/11/2021	