

Bethlehem Landfill Committee Meeting Minutes

Date: Thursday, January 7, 2021, **Via Zoom**
Time: 6:05 p.m.
Location: Lower Saucon Township
Attendance: **Hanover Engineering**: Scott Brown; **Bethlehem Landfill**: Astor Lawson & David Pannucci;
Members: Hazem Hijaz (Neil Ortwein – Absent); **Staff Members**: Leslie Huhn & Diane Palik;
Council Liaison: Tom Carocci.

Note: The December 17, 2020 meeting was cancelled due to a snow event, so this is the rescheduled meeting.

Mr. Pannucci reviewed the monthly tonnages for November:

	<u>September</u>	<u>October</u>	<u>November</u>
MSW	20,037.55	14,398.92	13,113.94
C&D	5,676.66	6,723.68	5,901.80
Residual (Total)	1,712.46	1,141.02	1,411.56
Asbestos	5.04	0.00	0.0
Sewage Sludge	411.78 (1.48%)	738.14 (3.21%)	744.20 (3.52%)
Out of State (Total)	14,043.52 (50%)	9,640.55 (42%)	8,693.70 (41%)
Recycle	7 (86%)	8 (75%)	11 (82%)

Mr. Pannucci said there were two Form U Submittals. VSE Corp. with Pharmaceutical Waste which are expired pills on 11/23/20. Middlesex County Utilities with sewage sludge approved on 12/01/20. Mr. Hijazi said who is reviewing these Form U's for the Township? Mr. Pannucci said he doesn't know. Mr. Brown said nobody is reviewing them right now. Mrs. Huhn said we're looking into it to see what we can do. They are still going to DEP, but no one from the Township is reviewing them. Since Laressa retired, we've only maybe had a handful. She doesn't think anything has been an unusual waste stream. She talked to Scott about this and he said he would certainly point out anything that was an unusual waste stream.

Mr. Hijazi said what kind of waste was the pharmaceutical. Mr. Pannucci said it was expired pills, but he can get you more information. He figured that would raise a red flag since it said pharmaceutical but it was basically expired pills they were looking to get rid of. Mrs. Huhn said we do the drop box in the PD for the expired pills, is anything flagged with them or are they just put in a garbage bag and sent into the landfill. Mr. Pannucci said not knowing the details, he's not sure where they end up, but it's a good question. Mrs. Louder said what happens to the pills? Where do they go from the PD? Mrs. Huhn said that's what she wants to check into. Mr. Lawson said it was herbal supplements. Mr. Pannucci said it depends what we're talking about where it has to ultimately have to go, what's in it and that is pretty benign what is approved under that Form U, but other things may require other special disposal depending on what the MSDS sheet says and what is required for disposal.

Mr. Pannucci said annual groundwater trend analysis, the 4Q2020 sampling event was completed on December 1 – 4, 2020. For correspondence reports we had the overweight report and abatement well reports.

Mr. Pannucci said landfill operations, inspections were on 11/24/20 with M. Glogowski and Host Municipal Inspections with Scott Brown on 12/3/20 and 12/17/20 and also today.

Mr. Pannucci said commercial waste trucks, total was 2,142; overweight's 33, warnings 31 and suspensions 2. 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 November Average Flare Flow as 3,456 SCFM.

Mr. Pannucci said the North Slope Road has not needed repairs and the swale has not needed repairs. The 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.

Mr. Pannucci said the leachate collection, PS-2 had a new transducer installed in the detection zone. They had no radioactive loads in the month of November. For the SE Realignment Construction Activities waste operations are in SE-1B. The odor complaint log is attached.

Mr. Brown said do you want to give them an update as to where you are in the new cell. Mr. Pannucci said the new cell has been a struggle as the weather has not been their friend the last month. What they've done is they are going to certify the upper half of the cell which will allow them to gain access and be able to continue operations. As of today, they were pretty much done with that. The final certification package for that aspect of that part of the cell will go out tomorrow to DEP and then they are just waiting on approvals for DEP to go into there. As they begin filling in the upper portion, they will continue working on the lower portion and then when that's completed they can basically tie it all together and we'll have the entire cell at that time. Mr. Brown said that was the need for the temporary sump that everybody saw. Mr. Pannucci said yes. The lower portion of the cell was constructing the sump where the leachate collapsed and is pumped out into the first main and into the sewer. They ran into problems with the larger rain events and water got under the secondary, which caused some additional days and put them in a position to pull the trigger on putting in a temporary sump, which is standard in the industry to do in the interim when you are constructing a permanent sump. They've done it in Bethlehem before. It wasn't part of the plan but we had to implement that. That is installed and hooked up and operable at this point in time.

Mr. Brown said you anticipate it will be a couple of weeks for DEP to get the approval for the certification. Mr. Pannucci said that's realistic. They sent it to them in sections so there are three different sections. They've had two of the sections and the final submission will be out tomorrow which is the protective cover aspect of it which they just finished up even though sooner was their hope. Mr. Brown said part of that is why the waste tonnages that you are seeing are so low right now as the landfill has cut back. The December numbers are even probably lower than November. Mr. Pannucci said he anticipated that would be the case.

Mr. Brown said we just got the DEP inspection report from the 12/18/20 inspection. He doesn't know if everybody had a chance to read it, there was not much noteworthy. There was some slight intermittent odors noted at Applebutter and Sherry Hill intersections and that was before the actual inspection of the landfill occurred when they did the tour of the facility. He went around after the on-site inspection was done and he didn't smell any odors in that area or any other place along the landfill. Mr. Carocci said who found the odors, DEP or was it a resident. Mr. Brown said he believes it was Amy from DEP. Mr. Lawson said she does an odor patrol before she comes on-site. She's caught a smell on Sherry Hill Road as generally when it's a trash pickup day, she notices a light smell and she let us know. The last couple days it's been the pick-up date for that road. She usually notes that in the inspection report. Mr. Carocci said did she note it this time or that wasn't the case? Mr. Lawson said he didn't know.

Mr. Hijazi said he's looking at the complaints and since September there hasn't been any. Mr. Pannucci said correct. They got one from somebody in Hellertown in December, but not through November they didn't get any. Mr. Carocci said in Hellertown? Mr. Lawson said Kings Mill Road. Mr. Carocci said Kings Mill Road in Hellertown and they blamed it on the landfill. Mr. Lawson said it's off of Easton Road. Mrs. Louder said that's happened before. That odor complaint was at Kings Mill Road and they had multiple odor complaints there. The thing is that trash right now is very high and just sweeping over everything and then dropping at night when the weather turns cold. It's not uncommon. Mrs. Huhn said the one on Kings Mill, she forwarded to Mr. Pannucci. This has been the same resident that has smelled it in the past. Mr. Lawson said that was the first one since September.

Mr. Brown said the inspection went well today, there were no odors or issues, no trash along Applebutter Road or other roads, just the normal light trash odor up by the working face, which is totally expected. The tonnages are way down so the activity up there is not near what it was. It should pick up soon with the certification. No stormwater issues occurred or are evident on site. It was a pretty routine inspection.

Mrs. Louder said can you tell her if the scale house slips are available. She's noticed that in all of Hanover's reports, it says he did not go into the scale house for slips because the employee did not want to be exposed to anybody because of the COVID. Are those slips available to be taken or copied or emailed or some sort so that Scott can incorporate it in his report. Mr. Lawson said they can do that, that's what they are doing for customers, emailing them and making copies for them as they come and go. They have limited contact just to keep everyone safe and distant from the public. Mrs. Louder said it was from a report in the beginning of the year.

Mrs. Louder said in the DEP report from December, it brought up how the outstanding violation has not been taken care of as of yet, but in one of the reports she did notice it was discussed or you replied back to DEP. Can you tell her where that stands, it's regarding the final cover. Mr. Brown said the report basically said there was an outstanding violation, which is the cover you are talking about but he thinks it also says it is being addressed. Mrs. Louder said in every report, it states it's outstanding. Where are you going with this? Mr. Pannucci said without them talking with DEP, he doesn't know. They had submitted a schedule to them when they met with them last year, which has sequential steps over the next few years to get on schedule, so without asking Amy how they are going to handle that as for will it be outstanding until they get through that process, it could be, he's not sure. To Scott's point, they are in the works with meeting that schedule as they speak.

Mrs. Louder said what is the schedule for that final cap? Mr. Pannucci said it's going to be in steps. Last year they put in the temporary cap, which is ongoing as they speak and this year, 2021, they have a section on the north side of the landfill that will be final cover and they'll continue on to the east with placing final cover. Mrs. Louder said that will be Phase 4, which would include that final cover. Mr. Pannucci said correct. Mr. Carocci said do you feel you are making progress and are on schedule? Mrs. Louder said she just wanted to make sure. Mr. Carocci said he just wanted to make sure that you guys had worked on some Sundays, just dealing with the capping, not operating as a landfill earlier this fall. Mr. Pannucci said the Sundays were for lining.

Mr. Brown said the temporary cap is on the west side below the water tank. A major step has been taken to start sealing that up. They made very good progress in getting that done, so he doesn't know exactly what that schedule is, but Amy has seen it and has not commented negatively on it at all. Mr. Carocci said he has a feeling it's just outstanding until it's done. Mr. Pannucci said he doesn't know if they are going to take it off when the temp cover is done or they may keep it on for years until it's totally caught up. Mr. Carocci said he's not bothered that it's outstanding. Like Scott said, it's on track, and he's fine with that. Mrs. Louder said she's more concerned about it getting done. Mr. Lawson said it's being done and they are going to continue to make sure it gets done.

Mrs. Louder said the expired meds that the PD collects is taken down to the Sheriff's department on a monthly basis. Mr. Carocci said then it's probably in the Chrin landfill.

Mr. Carocci said the landfill purchased 38 bicycles for needy children this Christmas and passed them out with the PD and he wants to thank them for doing that. It's very nice and he's sure the kids and parents appreciated that and when the weather gets nice, they'll be able to ride them. Mr. Pannucci said absolutely.

Mrs. Huhn said DEP contacted us about the LMIP hearing and Council did discuss it at their last meeting and she'll let DEP know a couple of dates. She said Dave and Astor will be involved in that and they are looking at a couple of dates in early February and she will share that email with them so they can at least look at their calendars.

Mr. Carocci said last year we instituted this alternating meetings between 1 p.m. and 6 p.m., and he would like to keep that for this year and it's easier for Donna to make the night meetings, is that still the case? Mrs. Louder said she's available, she's no longer working. Mr. Carocci said he just thinks we need to have some options for the public at night every now and then. Mr. Lawson said he's not opposed to that. Mr. Carocci said he'd like to keep it every other month at 6:00 p.m. He'd like to propose that again for this year. Mrs. Huhn said we can look at the schedule and can get it out to everyone. Mr. Brown said he's fine with that.

The date of the next meeting will be Thursday, January 21, 2021 at 1:00 p.m. The meeting ended at 6:30 p.m.

**Bethlehem Landfill Company
LST Committee Meeting Notes November 2020
December 17, 2020**

Agenda Items

I. Waste Activities

Monthly Tonnages

	September	October	November
MSW	20,037.55	14,398.92	13,113.94
C&D	5,676.66	6,723.68	5,901.80
Residual (Total)	1,712.46	1,141.02	1,411.56
Asbestos	5.04	0.00	0.00
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Out of state (Total)	14,043.52 (50%)	9,640.55 (42%)	8,693.70 (41%)
Recycle	7 (86%)	8 (75%)	11 (82%)

<u>Form U Submittals</u>	<u>Waste</u>	<u>Approval Date</u>
VSE Corp.	Pharmaceutical, Biologival (312)	11/23/20
Middlesex County Utilities	Sewage Sludge (MW3)	12/1/20

II. Annual Groundwater Trend Analysis

Fourth quarter sampling event was completed on 12/1/20 – 12/4/20.

III. Correspondence / Reports

Overweight Report – November 2020	12/1/20
Abatement Well Reports – November 2020	12/3/20

IV. Landfill Operations

Department of Environmental Protection Inspections

11/24/20 M. Glogowski (Solid Waste)

Host Municipal Inspection

12/3/20 S. Brown
12/17/20 S. Brown

Commercial Waste Vehicles

	September	October	November
Total # Trucks	2,581	2,370	2,142

	September	October	November
Overweight	69	46	33
Warnings	60	45	31
Suspensions	9	1	2

September – TT=31, RL=21, RO=11, FL=2, DT=4 October – TT=23, RL=17, RO=4, DT=2 November – TT=8, RL=16, RO=5, FL=1, DT=3

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.

November Average Flare Flow = 3,456 SCFM

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

Beginning of event shutdown Flare	Date: 11/30/20	Time: 09:27	
End of event startup	Date: 11/30/20	Time: 09:54	Duration: 00:27min

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. PS-2 had a new transducer installed for the detection zone.

Radiation Monitoring

There were 0 radioactive loads for November.

SE Realignment Construction Activities

Waste operations are in SE-1B.

Complaints received by Waste Connections

See attached.

BETHLEHEM LANDFILL
LEACHATE DEMAND REPORT

November 2020

<u>Location</u>	<u>Total gallons</u>
LMC-6	22,560
LMC-7	67,995
LMC-8	151,275
PS-4	95,820
LMC-10	2,673,102
PS-1	299,001
PS-2	157,948
PS-3	85,847
Phase-IV	543,796

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	2,673,102
<u>Phase IV</u>	<u>543,796</u>
TOTAL	3,215,898 gallons

Total Leachate

Leachate	337,650
<u>Phase IV</u>	<u>269,257</u>
TOTAL	606,907 gallons

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 2,335,452 gallons (Neptune Flow meters)

BETHLEHEM LANDFILL
GROUNDWATER DEMAND REPORT

November 2020

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM)	(Total gal)
AB-1R	61.3	9.9	443,348
AB-2	49.0	2.3	101,202
AB-3	24.2	0.3	13,940
AB-4	24.5	1.4	61,364
AB-5	41.1	12.1	542,238
AB-6	43.3	1.9	84,884
AB-7	41.5	2.4	107,747
AB-8	12.7	0.0	0
AB-9	42.5	4.6	204,517
AB-10	116.3	17.4	776,212
TW-1	N/A	<0.1	0.0
Total Flow			2,335,452 gallons

*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 (gpd)	G/AI	TOTALIZER	GALLONS	LOW (gpd)	G/AI	TOTALIZER	GALLONS	LOW (gpd)	G/AI
1/9/2020	9.00	86103	5,595	622	40	4533683	2656	295	24	8,254,367	30468	3,385	584
1/16/2020	7.00	103734	17,631	2,519	160	4535796	2113	302	25	8,272,539	18172	2,596	448
1/20/2020	4.00	105431	1,697	424	27	4537200	1404	351	29	8,283,908	11369	2,842	490
1/31/2020	11.00	113861	8,430	766	49	4540849	3649	332	27	8,313,691	29783	2,708	467
2/7/2020	7.00	117498	3,637	520	33	4543848	2999	428	35	8,332,956	19265	2,752	475
2/14/2020	7.00	121469	3,971	567	36	4552157	8309	1,187	97	8,349,090	16134	2,305	397
2/19/2020	5.00	124541	3,072	614	39	4555094	2937	587	48	8,374,124	25034	5,007	863
2/28/2020	9.00	146708	22,167	2,463	157	4566735	11641	1,293	106	8,381,062	6938	771	133
3/2/2020	3.00	148953	2,245	748	48	4571049	4314	1,438	118	8,385,856	4794	1,598	276
3/13/2020	11.00	149853	900	82	5	4593751	22702	2,064	169	8,392,624	6768	615	106
3/18/2020	5.00	157742	7,889	1,578	100	4598740	4989	998	82	8,400,322	7698	1,540	265
3/26/2020	8.00	159833	2,091	261	17	4606185	7445	931	76	8,413,432	13110	1,639	283
3/31/2020	5.00	163103	3,270	654	42	4611095	4910	982	80	8,422,401	8969	1,794	309
4/7/2020	7.00	167821	4,718	674	43	4617547	6452	922	76	8,434,428	12027	1,718	296
4/17/2020	10.00	172123	4,302	430	27	4624643	7096	710	58	8,449,402	14974	1,497	258
4/20/2020	3.00	175212	3,089	1,030	66	4628910	4267	1,422	117	8,458,653	9251	3,084	532
4/29/2020	9.00	179941	4,729	525	33	4636320	7410	823	67	8,475,463	16810	1,868	322
5/5/2020	6.00	187025	7,084	1,181	75	4641637	5317	886	73	8,487,586	12123	2,021	348
5/13/2020	8.00	192131	5,106	638	41	4648300	6663	833	68	8,503,155	15569	1,946	336
5/21/2020	8.00	195481	3,350	419	27	4650021	1721	215	18	8,514,167	11012	1,377	237
5/26/2020	5.00	199803	4,322	864	55	4658236	8215	1,643	135	8,526,988	12821	2,564	442
6/1/2020	6.00	203314	3,511	585	37	4662646	4410	735	60	8,538,275	11287	1,881	324
6/10/2020	9.00	208623	5,309	590	38	4669228	6582	731	60	8,555,285	17010	1,890	326
6/16/2020	6.00	212240	3,617	603	38	4673648	4420	737	60	8,566,542	11257	1,876	323
6/26/2020	10.00	218279	6,039	604	38	4675709	2061	206	17	8,585,150	18608	1,861	321
6/30/2020	4.00	220787	2,508	627	40	4679046	3337	834	68	8,592,670	7520	1,880	324
7/10/2020	10.00	227475	6,688	669	43	13720	-5E+06	#####	###	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

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
969	1/9/2020	17	521678	0	0	0			59392717	295293	17370	668	21.7"
970	1/16/2020	7	521718	40	6	0			60772939	92494	13213	508	24.0"
971	1/20/2020	4	521792	74	19	1			60791604	18665	4666	179	21.9"
972	1/31/2020	11	522091	289	26	1			60839281	47677	4334	167	23.8"
973	2/7/2020	7	522343	262	37	1			60874300	35019	5003	192	18.1"
974	2/14/2020	7	522536	193	28	1			60910938	36638	5234	201	3.8"
975	2/19/2020	5	522547	11	2	0			60938943	28005	5601	215	3.9"
976	2/28/2020	9	522856	309	34	1			60977622	38679	4298	165	23.6"
977	3/2/2020	3	522916	60	20	1			60994898	17076	5692	219	16.4"
978	3/13/2020	11	523250	334	30	1			61049425	54727	4975	191	23.4"
978	3/18/2020	5	523352	102	20	1			61076976	27551	5510	212	21.5"
980	3/26/2020	8	523384	32	4	0			61206109	129133	18142	621	22.3"
981	3/31/2020	5	523587	183	37	1			61308872	102563	20513	789	15.9"
982	4/7/2020	7	523618	51	7	0			61359705	51033	7290	280	13.0"
983	4/17/2020	10	523671	53	5	0			61476748	117043	11704	450	16.4"
984	4/20/2020	3	523700	29	10	0			61504362	27614	9205	354	21.5"
985	4/29/2020	9	523720	20	2	0			61559365	55003	6111	235	18.9"
986	5/5/2020	6	523755	35	6	0			61595079	35714	5952	229	13.4"
987	5/13/2020	8	523844	89	11	0			61641720	46641	5830	224	12.1"
988	5/21/2020	8	523988	154	19	1			61681891	20171	2521	97	20.1"
989	5/26/2020	5	524039	41	8	0			61720812	58921	11784	453	18.9"
990	6/1/2020	6	524118	79	13	1			61751968	31156	5193	200	19.3"
991	6/10/2020	9	524195	77	9	0			61804170	52202	5800	223	22.1"
992	6/16/2020	6	524277	82	14	1			61833245	29075	4846	186	20.6"
993	6/26/2020	10	524301	24	2	0			61891777	58532	5853	225	13.6"
994	6/30/2020	4	524483	182	46	2			61910684	18907	4727	182	22.3"
995	7/10/2020	10	524566	83	8	0			61976383	65699	6570	253	14.7"
996	7/16/2020	6	524651	85	14	1			62012183	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	526580	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"

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)							
867	(days)	TOTALIZE	GALLONS	FLOW (gpd)	g/ac/day				Totalizer	gallons	flow(gpd)	g/ac/day	inches
969	1/9/2020	17	7263	0	0	0.0			22073720	85114	5007	472	4.1"
970	1/16/2020	7	7263	0	0	0.0			22101039	27319	3903	368	4.0"
971	1/20/2020	4	7263	0	0	0.0			22117251	16212	4053	382	4.1"
972	1/31/2020	11	7263	0	0	0.0			22159215	41964	3815	360	4.5"
973	2/7/2020	7	7263	0	0	0.0			22189631	30416	4345	410	4.5"
974	2/14/2020	7	7263	0	0	0.0			22223467	33836	4834	456	5.6"
975	2/19/2020	5	7263	0	0	0.0			22227486	4019	804	76	5.3"
976	2/28/2020	9	7263	0	0	0.0			22318120	80634	10070	950	5.3"
977	3/2/2020	3	7263	0	0	0.0			22355010	36890	12297	1160	5.2"
978	3/13/2020	11	7263	0	0	0.0			22383929	28919	2629	248	4.7"
979	3/18/2020	5	7263	0	0	0.0			22403059	19130	3826	361	4.4"
980	3/26/2020	8	7263	0	0	0.0			22431833	28774	3597	339	4.8"
981	3/31/2020	5	7263	0	0	0.0			22451677	19844	3969	374	5.1"
982	4/7/2020	7	7263	0	0	0.0			22480883	29206	4172	394	5.1"
983	4/17/2020	10	7263	0	0	0.0			22511958	31075	3108	293	5.1"
984	4/20/2020	3	7263	0	0	0.0			22532039	20081	6694	631	5.3"
985	4/29/2020	9	7263	0	0	0.0			22565254	33215	3691	348	5.4"
986	5/5/2020	6	7263	0	0	0.0			22590101	24847	4141	391	5.5"
987	5/13/2020	8	7263	0	0	0.0			22623030	32929	4116	388	5.4"
988	5/21/2020	8	7263	0	0	0.0			22643012	19982	2498	236	5.0"
989	5/26/2020	5	7263	0	0	0.0			22670532	27520	5504	519	5.1"
990	6/1/2020	8	7263	0	0	0.0			22689706	19174	3196	301	5.0"
991	6/10/2020	9	7335	72	8	0.8			22716901	27195	3022	285	4.9"
992	6/16/2020	6	7335	0	0	0.0			22734209	17308	2885	272	5.0"
993	6/26/2020	10	7335	0	0	0.0			22762029	27620	2782	262	5.0"
994	6/30/2020	4	7335	0	0	0.0			22773024	10995	2749	259	5.0"
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			22933639	21541	4308	406	8.2"
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	8.1"
1004	9/16/2020	5	7386	0	0	0.0			23034417	19991	3998	377	6.3"
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			23189765	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"

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)						
867	Date	days	totalizer	gallon	flow(gpd)	g/ac/day		totalizer	gallons	flow(gpd)	g/ac/day	sump	Inches
969	1/9/2020	17	44836	0	0	0		12254762	227402	13377	3223	15.5"	
970	1/16/2020	7	44842	6	1	0		12294996	40234	5748	1385	21.5"	
971	1/20/2020	4	44842	0	0	0		12320670	25674	6419	1547	18.1"	
972	1/30/2020	10	44842	0	0	0		12373955	53285	5329	1284	21.2"	
973	2/7/2020	8	44842	0	0	0		12386988	13033	1629	393	18.1"	
974	2/14/2020	7	44842	0	0	0		12401058	14070	2010	484	27.4"	
975	2/19/2020	5	44842	0	0	0		12407059	6001	1200	289	21.1"	
976	2/29/2020	9	44842	0	0	0		12480224	73165	8129	1959	23.0"	
977	3/2/2020	3	44842	0	0	0		12500429	20205	6735	1623	20.0"	
978	3/13/2020	11	44842	0	0	0		12578488	78059	7096	1710	25.1"	
979	3/18/2020	5	44842	0	0	0		12613564	35076	7015	1690	27.4"	
980	3/28/2020	8	44863	21	3	0		12665856	52292	6537	1575	25.4"	
981	3/31/2020	5	44863	0	0	0		12700297	34441	6888	1660	23.2"	
982	4/7/2020	7	44863	0	0	0		12753137	52840	7549	1819	16.4"	
983	4/17/2020	10	44863	0	0	0		12817553	64416	6442	1552	24.2"	
984	4/20/2020	3	44863	0	0	0		12859101	41548	13849	3337	20.4"	
985	4/29/2020	9	44863	0	0	0		12920054	60953	6773	1632	25.9"	
986	5/5/2020	6	44863	0	0	0		12978826	58772	9795	2360	17.2"	
987	5/13/2020	8	44863	0	0	0		13061671	82845	10356	2495	23.8"	
988	5/21/2020	8	44863	0	0	0		13088892	27221	3403	820	21.3"	
989	5/26/2020	5	44863	0	0	0		13157932	69040	13808	3327	21.1"	
990	6/1/2020	6	44863	0	0	0		13188082	30150	5025	1211	20.4"	
991	6/10/2020	9	44863	0	0	0		13226025	37943	4216	1016	27.2"	
992	6/16/2020	6	44863	0	0	0		13249608	23583	3931	947	22.3"	
993	6/26/2020	10	44863	0	0	0		13274886	25278	2528	609	17.5"	
994	6/30/2020	4	44863	0	0	0		13284260	9374	2344	565	20.4"	
995	7/10/2020	10	44863	0	0	0		13307263	23003	2300	554	22.6"	
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		13628026	17348	3470	836	27.0"	
1005	9/25/2020	9	44863	0	0	0		13655405	34579	3842	926	16.7"	
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"	

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
969	1/9/2020	17	10548	0	0	0	6518668	84485	4970	1198	28.0"		
970	1/16/2020	7	10623	77	11	1	6534974	16306	2329	581	28.6"		
971	1/20/2020	4	10665	42	11	1	6544237	9263	2316	558	27.1"		
972	1/31/2020	11	10733	68	6	1	6579233	34986	3181	787	14.5"		
973	2/7/2020	7	11209	476	68	6	6595381	16148	2307	556	30.7"		
974	2/14/2020	7	11233	24	3	0	6640286	44885	6412	1545	20.5"		
975	2/19/2020	5	11233	0	0	0	6648284	8018	1604	386	22.1"		
976	2/28/2020	9	11298	65	7	1	6683501	35217	3913	943	17.3"		
977	3/2/2020	3	11298	0	0	0	6688138	4637	1546	372	29.5"		
978	3/13/2020	11	11299	1	0	0	6711572	23434	2130	513	14.0"		
979	3/18/2020	5	11299	0	0	0	6718305	6733	1347	324	25.2"		
980	3/26/2020	8	11299	0	0	0	6739269	20964	2621	631	15.7"		
981	3/31/2020	5	11679	380	76	7	6753055	13786	2757	664	30.8"		
982	4/7/2020	7	11730	51	7	1	6769035	15980	2283	550	23.0"		
983	4/17/2020	10	11730	0	0	0	6790083	21048	2105	507	28.7"		
984	4/20/2020	3	11730	0	0	0	6803901	13818	4606	1110	13.2"		
985	4/29/2020	9	11730	0	0	0	6822395	18494	2055	495	27.0"		
986	5/5/2020	6	11730	0	0	0	6840574	18179	3030	730	30.8"		
987	5/13/2020	8	11730	0	0	0	6865709	25135	3142	757	25.8"		
988	5/21/2020	8	11730	0	0	0	6870318	4609	576	139	26.4"		
989	5/26/2020	5	11730	0	0	0	6879605	9287	1857	448	28.4"		
990	6/1/2020	6	11803	73	12	1	6888676	9071	1512	384	25.0"		
991	6/10/2020	9	11803	0	0	0	6900277	11601	1289	311	27.4"		
992	6/16/2020	6	11803	0	0	0	6909549	9272	1545	372	14.8"		
993	6/26/2020	10	12223	420	42	4	6920880	11331	1133	273	27.6"		
994	6/30/2020	4	12224	1	0	0	6927925	7045	1761	424	16.3"		
995	7/10/2020	10	12337	113	11	1	6938329	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	7097876	27808	2139	515	17.2"		
1003	9/1/2020	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"		

Bethlehem Landfill Odor Complaint Log (2335 Applebutter Rd, Bethlehem, PA 18017)

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)		
01/07/20	8:39	Saucun Ave, Steel City	0.893	Partly Cloudy	34.8	E	Residence	Landfill gas odor detected on property	2900	0	2900	1/9/2020	1/9/20 (W/M)
01/07/20	10:52	Johnston Ave, Steel City	1.170	Partly Cloudy	36.6	E	Residence	Slight gas odor that is intermittent	2925	0	2925	1/9/2020	1/9/20 (W/M)
01/14/20	9:50	Johnston Ave, Steel City	1.170	Overcast	36.3	W	Residence	Slight gas odor at ~9:50 AM - 10:55 AM on property	2995	0	2995	1/31/2020	4/24/20 (W/M)
01/23/20	8:23	Saucun Ave, Steel City	0.883	Partly Cloudy	22.8	E	Residence	Went to let dog out & when opened door can smell landfill gas. It is strong now, but complainant is on their way out.	2901	0	2901	1/31/2020	4/24/20 (W/M)
01/23/20	9:01	Johnston Ave, Steel City	1.170	Partly Cloudy	24.2	NW	Residence	Gas odor on property, noticed when went outside to start car. Complainant is on their way out.	2898	0	2898	1/31/2020	4/24/20 (W/M)
01/24/20	18:09	Johnston Ave, Steel City	1.170	Partly Cloudy	46.0	WNW	Residence	Landfill gas odor, has been going on for 2 hours.	2930	0	2930	1/31/2020	4/24/20 (W/M)
01/30/20	17:59	Jefferson Ave, Steel City	0.899	Clear	27.6	SSW	Residence	The landfill gas is horrible on property.	2920	0	2920	1/31/2020	4/24/20 (W/M)
01/30/20	18:10	Johnston Ave, Steel City	1.170	Scattered Clouds	27.9	SSW	Residence	The odor of landfill gas is very strong on property.	2940	0	2940	1/31/2020	4/24/20 (W/M)
01/30/20	18:18	Saucun Ave, Steel City	0.883	Scattered Clouds	27.9	SSW	Residence	Landfill odors on property for the past 5 min.	2941	0	2941	1/31/2020	4/24/20 (W/M)
01/30/20	18:19	Mixell Ave, Steel City	0.796	Scattered Clouds	27.9	SSW	Residence	Landfill gas smell is very strong for the last couple of hours on property.	2941	0	2941	1/31/2020	4/24/20 (W/M)
01/31/20	14:12	Johnston Ave, Steel City	1.170	Mostly Cloudy	39.5	NW	Residence	There is a slight landfill gas odor again today on property	3018	0	3018	2/5/2020	4/24/20 (W/M)
02/05/20	20:20	Saucun Ave, Steel City	0.893	Partly Cloudy	35.8	SSW	Residence	There is a terrible landfill odor tonight that can be detected on their property.	2952	0	2952	2/16/2020	4/24/20 (W/M)
03/03/20	13:28	Johnston Ave, Steel City	1.170	Cloudy	41.2	SW	Residence	Detected a gas odor on property from the landfill	2890	0	2890	3/5/2020	4/24/20 (W/M)
03/05/20	7:17	Johnston Ave, Steel City	0.980	Cloudy	43.2	NW	Residence	Smelled a garbage/gas odor on property	2879	0	2879	3/5/2020	4/24/20 (W/M)
03/24/20	18:58	Saucun Ave, Steel City	0.883	Partly Cloudy	45.3	SSW	Residence	Horrible landfill gas odor on property	2903	0	2903	4/24/2020	4/24/20 (W/M)
04/29/20	16:34	Johnston Ave, Steel City	1.170	Mostly Clear	53.1	SSW	Residence	Landfill gas odor at home. Has been going on for 5 hours.	3490	0	3490	5/13/2020	6/24/20 (W/M)
05/06/20	12:29	Johnston Ave, Steel City	1.170	Cloudy	48.4	WNW	Residence	Strong landfill gas odor on property.	3389	0	3389	5/13/2020	6/24/20 (W/M)
05/18/20	14:51	Jefferson Ave, Steel City	0.899	Mostly Sunny	65.1	SW	Residence	Strong gas odor on property	3450	0	3450	5/27/2020	6/24/20 (W/M)
05/20/20	19:04	Johnston Ave, Steel City	1.170	Mostly Sunny	49.9	SW	Residence	Can smell landfill gas on property.	3517	0	3517	5/27/2020	6/24/20 (W/M)
05/23/20	20:09	Johnston Ave, Steel City	1.170	Cloudy	58.1	WNW	Residence	The landfill gas smell is very strong and the wind is blowing in their way.	3530	0	3530	5/27/2020	6/24/20 (W/M)
06/18/20	20:36	Johnston Ave, Steel City	1.170	Fair	62.0	ESE	Residence	Very strong smell of methane gas at home, has been going on for 45 minutes.	3520	0	3520	6/24/2020	6/24/20 (W/M)
08/14/20	18:59	Fritz Ave, Steel City	0.950	Fair	82.0	NE	Residence	Foul odor on property from the landfill. Has noticed it since 8/10.	3500	0	3500	8/27/2020	
08/14/20	19:57	Mixell Ave, Steel City	0.796	Fair	81.0	ESE	Residence	It smells like gas fumes mixed with rotten eggs that has been going on for 2 days.	3500	0	3500	8/14/2020	8/14/20 (ER)
08/14/20	20:01	Jefferson Ave, Steel City	0.741	Fair	81.0	ESE	Residence	Gross gas-like odor present at home, has been going on a couple of night.	3500	0	3500	8/14/2020	8/14/20 (ER)
08/14/20	20:13	Johnston Ave, Steel City	0.980	Fair	81.0	ESE	Residence	Gas odor present at residence	3500	0	3500	8/14/2020	8/14/20 (ER)
08/14/20	20:15	Saucun Ave, Steel City	0.931	Fair	81.0	ESE	Residence	Rotting garbage odor at home.	3500	0	3500	8/14/2020	8/14/20 (ER)
08/18/20	12:44	Applebutter Rd, Bethlehem	0.180	Partly Cloudy	79.0	Calm	Residence	Strong odor coming from the landfill	3740	0	3740	8/27/2020	
08/26/20	17:00	Saucun Ave, Steel City	0.893	Fair	79.0	WSW	Residence	Horrible smell, and is inside their home	3700	0	3700	8/27/2020	
08/26/20	19:39	Saucun Ave, Steel City	0.931	Cloudy	75.0	Calm	Residence	Landfill odor is so strong they had to go inside their home-garbage odor	3499	0	3499	8/27/2020	
08/26/20	19:57	Jefferson Ave, Steel City	0.939	Cloudy	75.0	Calm	Residence	Detected a very strong odor on property	3510	0	3510	8/27/2020	
08/28/20	12:49	Applebutter Rd, Bethlehem	0.180	Cloudy	82.0	WSW	Residence	Smells like garbage all day	3640	0	3640	9/3/2020	
08/30/20	11:13	Saucun Ave, Steel City	0.883	Cloudy	72.0	WNW (21mph)	Residence	Complainant was outside taking their dog out, and the odor is so strong it's making the complainant sick	3465	0	3465	9/9/2020	
09/01/20	12:03	Johnston Ave, Steel City	1.170	Cloudy	74.0	ESE (7mph)	Residence	Gas odor on property from the landfill	3200	0	3200	9/9/2020	
09/08/20	7:59	Matthews Ave, Steel City	1.370	Cloudy	62.0	N(3mph)	Residence	It smells like rubber & cellophane on their property for the past 4.5 hours.	3300	0	3300	9/9/2020	
09/11/20	0:02	Ivywood Ave, Steel City	1.410	Cloudy	74.0	N(3mph)	Residence	There has been a strong landfill gas odor on property for an hour.	3750	0	3750		
09/12/20	16:43	Johnston Ave, Steel City	1.170	Cloudy	72.0	SE(6mph)	Residence	Intermittent landfill gas odors on property	3640	0	3640		