

## Bethlehem Landfill Committee Meeting Minutes

Date: Thursday, June 27, 2019  
Time: 1:00 p.m.  
Location: Lower Saucon Township  
Attendance: **Hanover Engineering:** Chris Taylor; **Bethlehem Landfill:** Astor Lawson & Dave Pannucci; **Staff:** Leslie Huhn & Diane Palik; **Council Liaison:** Priscilla deLeon (by speakerphone); **Members:** Hazem Hijazi; **Exelon:** Todd Cutler, Attorney for Exelon and Don Riffle; **Absent:** Neil Ortwein.

Mr. Pannucci reviewed the monthly tonnages for May:

	<u>March</u>	<u>April</u>	<u>May</u>
MSW	20,422.10	22,864.56	27,105.51
C&D	1,626.50	1,593.65	1,628.28
Residual (Total)	3,811.30	2,425.86	2,383.65
Asbestos	0.00	0.00	6.20
Sewage Sludge (90/10)	109.00	93.75	95.37
Out of State (Total)	13,361.40 (51%)	12,890.02 (48%)	15,932.17 (51%)
Recycle	7 (86%)	7 (86%)	13 (85%)

Mr. Pannucci said there were three Form U submittals from May 21<sup>st</sup> through June 25<sup>th</sup>. The Annual Groundwater Trend Analysis third quarter sampling event is scheduled for August 26<sup>th</sup> through the 28<sup>th</sup> by EarthRes Group. There was one Annual Groundwater Trend Analysis report from 2018. There were two inspections by DEP on May 16<sup>th</sup> and June 25<sup>th</sup>. Mr. Taylor asked if there was any feedback on the DEP inspections. Mr. Pannucci said there were a few exceedances around gas wells that were addressed. There were two Host Municipal Inspections on June 6<sup>th</sup> and June 27<sup>th</sup>.

Mr. Pannucci said there were 2,506 trucks for May with 68 overweight's, 60 warnings and 8 suspensions. Mr. Taylor asked was there any inkling why the overweight's were so high. Mr. Pannucci said nothing really jumps out to him other than the rain they had in May. Mrs. deLeon said not everyone's tarps are waterproof. Mr. Pannucci said this is just speculation, he can't really say. Mr. Lawson said as of yesterday, the majority of the overweight trucks were the route commercial trucks and then people leave their trash outside and it becomes wet.

Mr. Taylor said looking at the truck slips in the scale house today, there were 9 from the transfer stations and one was overweight like 1,320 lbs. and the other 8 were underweight. He asked if the guy who is overweight gets a warning. Mr. Pannucci said it depends on what he had that month; if he hasn't gotten any warning prior to that, he'll just get a warning. Mr. Lawson said if it's 3% over 80,000 lbs., he gets an immediate suspension. This resets every month.

Mr. Pannucci said BRE is shut down for the foreseeable future. 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 flare flow was 2,972 SCFM. Mr. Taylor asked if there was a reason for the 5 shutdowns. Mr. Pannucci said the longest one was due to an electrical issue with the blower that is on site. They had a local guy take a look at it. They also looked at the blower and said the motor had a bearing that could go soon, so their plan was to purchase another motor, install it and send the motor out to get fixed so they can have a backup on site.

Mr. Taylor said there are two smaller blowers on standby, why didn't you switch to those. Mr. Pannucci said they have been there awhile. Mr. Taylor said he worries about the liability of the two smaller blowers and we probably need them as a redundant backup. He asked if the two smaller ones needed any work. Mr. Pannucci said they are looking into that.

Mr. Donald Riffle said read a short statement from Ken Minton "although BRE remains offline due to an equipment failure, a well-established and reputable owner of projects of this nature has signed an agreement to purchase BRE and is preparing for ownership of the facility to continue with beneficial use of the landfill gas as soon as possible". Attorney Cutler said on June 7<sup>th</sup> Dustin McKeown, Plant Manager, sent a letter to LST Council

informing the Council members of the sale of BRE to EPP. They've signed a purchase and sale agreement with EPP. BRE has been struggling with this facility and it hasn't really been economical to them. The facility was owned by Pepco Energy Services and they acquired Pepco last year and the question for them is how do they assure the continued benefit that you all have signed up for in terms of this facility. One question was whether they retired the thing, so they went out and looked for a reputable operator and EPP is such a facility. They are very anxious to get in and start making some repairs that BRE has not made. They signed the agreement in May and are looking to start ASAP. At some point, they would like to have EPP come and meet everyone and talk about what they are planning to do. That was the purpose of the statement Ken prepared. Mr. Hijazi said you said the plant was not making economic sense to you, what makes you think it's going to make economic sense for EPP, do they plan on changing anything in the operation. Attorney Cutler said he does not know, BRE was a subsidiary of Pepco that they inherited as part of the merger. They looked at it and saw it was struggling to the extent that EPP is a smaller company and may have more efficient economics. It's experienced in these sorts of facilities and may have a secret formula they don't have. They are in the area, and headquartered in Allentown. It makes sense for EPP to come here once they own the facility, tell you what their experience is and what they can do for the facility. They thought it was a good match and thought it was a good way to assure that you get what you bargained for in 2008.

Mrs. Huhn said did they have any experience with any other landfills. Attorney Cutler said yes, he's reading from the letter and it says they are headquartered in Allentown and they own and operate landfill gas facilities at Chrin Landfill and the solar energy facility at Crayola, in addition to the bio-gas plant at the City of Allentown waste water treatment plant. They do have a number of facilities. Their website is [www.energypowerpartners.com](http://www.energypowerpartners.com). He can coordinate with Ken Minton and at some point have someone come to one of the Landfill's meetings. If you have any questions, feel free to contact Ken.

Mr. Pannucci said the North Slope Road and swale have not needed repairs. Sedimentation traps and ponds need to be cleaned out. Mr. Taylor said the traps and ponds are still wet, so we need about a month of dry weather to get them cleaned out. If you get an opportunity to do it, don't miss it. Mr. Pannucci said we got a lot of rain and the storm water controls worked. Mr. Taylor said you have to start working on the two outfalls. Mr. Pannucci said they have their laborers ready to start on them. Mr. Taylor said once that gets done, remind him.

Mr. Pannucci said the abatement system continues to operate and discharge to Bethlehem WWTP. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed. Temporary transducer control as installed for AB-10. There was an issue and they used a temporary line to keep it functioning. Mr. Taylor said you did find something there. Mr. Pannucci said they are getting flow out of it now. Mr. Taylor said he's glad you tracked that down.

Mr. Pannucci said the leachate collection flow rates continue to be monitored and reported. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed. There was no radiation monitoring for May. The SE Realignment waste operations continue in Cell SE-1A and on the South slope of Phase III. Construction of Cell SE-1B will be complete this week and the site is waiting on certification from PA DEP.

Mr. Pannucci said there have been 11 complaints received by Waste Connections for 2019. The latest ones were June 3<sup>rd</sup> on Applebutter Road. They checked it out and found no odors with the mobile control unit. The other was a noise complaint on June 18<sup>th</sup> and the complaint said 9 pm. They checked their logs and their operations were finished at 6:20 pm and it could have been a pump from the cell project that went on as there was 3" of rain that day. As that project wraps up, the pumps will be removed. Mr. Lawson said it could have been the plant across the street which they can't confirm.

Mr. Hijazi asked if the mister was working. Mr. Pannucci said yes, and used as needed. Mr. Taylor said there were no odors today when he drove around. He asked about the static lines for the mister. Mr. Pannucci said they are going to rely on the mobile unit for now. Mr. Taylor asked Mr. Lawson if they used the mister at the landfill he was at. He said no, they didn't have odors there as they operated the landfill correctly. He plans to operate at a different standard than what Bethlehem has been operating at in the past. He wants to improve the operation

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standards and the way they work the landfill. He's trying to get people trained and teach them to do things properly and change the expectations and standards on site.

Mr. Taylor reviewed the leachate demand report for May. He reviewed his notes from his inspection and will be sending them into the Township. He said the instrument panel on the flare and the bar graph shows the frequency drive was at 100% at the last inspection and was 89% today, so they are trying to chase down what's going on. He asked if they are going to get rid of the tarps and start covering up with dirt. Mr. Lawson said the tarps are on if they are working in the area the next day. They take the tarp off each day, bring down more dirt on the trash and then cover it again with the tarp.

Mrs. deLeon said on May 21<sup>st</sup> she was on Applebutter Road and a truck was in front of her going to the landfill and kept going over the yellow line. She called the Landfill and Dee did track down the truck and had a talk with him. Mr. Lawson said Dee brought that to his attention.

Mr. Taylor asked about Trash Net with DEP. Mr. Pannucci said they always show up unannounced. The landfill does internal ones and they make sure there are no issues with the trucks coming in, check their paperwork, and walk around their vehicle. They try to do it quarterly. They usually do it first thing in the morning, and they catch them before they get to the scale. Mr. Taylor said next time he talks to Amy from DEP he'll mention the Trash Net.

Mr. Taylor said the next meeting is on July 18, 2019 starting at 1:00 p.m. The meeting adjourned at 1:45 p.m.

**Bethlehem Landfill Company  
LST Committee Meeting Notes June 2019  
June 27, 2019**

**Agenda Items**

**I. Waste Activities**

Monthly Tonnages

	March	April	May
MSW	20,422.10	22,864.56	27,105.51
C&D	1,626.50	1,593.65	1,628.28
Residual (Total)	3,811.30	2,425.86	2,383.65
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Form U Submittals

Waste

Approval Date

Earth Efficient, LLC	Contaminated Soil (506)	5/21/19
Victaulic Forks Facility	Concrete (506)	6/11/19
Victaulic Forks Facility	Contaminated Soil (506)	6/25/19

**II. Annual Groundwater Trend Analysis**

Third quarter sampling event is scheduled for August 26<sup>th</sup> through the 28<sup>th</sup> by Earthres Group.

**III. Correspondence / Reports**

Annual Groundwater Trend Analysis – 2018

**IV. Landfill Operations**

Department of Environmental Protection Inspections

5/16/19	A. Faulch (Solid Waste), C. Madden (Air Quality), L. Hillegas (Air Quality)
6/25/19	M. Glogowski (Solid Waste)

Host Municipal Inspection

6/6/19 C. Taylor  
6/27/19 C. Taylor

Commercial Waste Vehicles

	March	April	May
Total # Trucks	2455	2666	2506
	March	April	May
Overweight	55	49	68
Warnings	49	38	60
Suspensions	6	11	8

March - TT=28, RL=3, FL=1, RO=3, DT=20 April - TT=42, RL=3, FL=1, DT=3 May - TT=40, RL=22, FL=2, DT=4

FL = front loader, RO = roll-off, TT=tractor trailer, RL = rear loader, DT = triaxial dump truck

Bethlehem Renewable Energy and Flare Operations and Gas Collection

**BRE is shut down for the foreseeable future. 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 = 2,972 SCFM**

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

Beginning of event shutdown Flare	Date: 5/1/19	Time: 9:14	
End of event startup	Date: 5/1/19	Time: 10:20	Duration: 1:06min
Beginning of event shutdown Flare	Date: 5/15/19	Time: 15:51	
End of event startup	Date: 5/15/19	Time: 16:10	Duration: 0:19min

Beginning of event shutdown Flare	Date: 5/20/19	Time: 05:22	
End of event startup	Date: 5/20/19	Time: 11:21	Duration: 5:59min
Beginning of event shutdown Flare	Date: 5/21/19	Time: 09:13	
End of event startup	Date: 5/21/19	Time: 10:01	Duration: 0:48min
Beginning of event shutdown Flare	Date: 5/21/19	Time: 10:15	
End of event startup	Date: 5/21/19	Time: 11:02	Duration: 0:47min

Documentation is on file.

North Slope Road and swale have not needed repairs. Sedimentation traps and ponds need to be cleaned out.

#### 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. Temporary transducer control was installed for AB-10.

#### Leachate collection

Flow rates continue to be monitored and reported. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed.

#### Radiation Monitoring

None

#### SE Realignment Construction Activities

Waste operations continue in Cell SE-1A and on the South slope of Phase III. Construction of Cell SE-1B will be complete this week. Site is waiting on certification from the PADEP.

Complaints received by Waste Connections

9 complaints received in 2019:

- 1/8/19 (Odor Complaint)
- 2/1/19 (Odor Complaint)
- 2/26/19 (Odor Complaint)
- 3/1/19 (Odor Complaint)
- 3/7/19 (Odor Complaint)
- 3/12/19 (Odor Complaint)
- 3/13/19 (Odor Complaint)
- 4/4/19 (Odor Complaint)
- 4/13/19 (Odor Complaint)
- 6/3/19 (Odor Complaint)
- 6/18/19 (Noise Complaint)

**BETHLEHEM LANDFILL**  
**LEACHATE DEMAND REPORT**  
**May 2019**

<u>Location</u>	<u>Total gallons</u>
LMC-6	101,277
LMC-7	28,624
LMC-8	144,303
PS-4	427,059
LMC-10	1,788,254
PS-1	232,729
PS-2	237,972
PS-3	212,214
Phase-IV	682,915

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	1,788,254
Phase IV	682,915
<b>TOTAL</b>	<b>2,471,169 gallons</b>

**Total Leachate**

Leachate	701,263
Phase IV	682,915
<b>TOTAL</b>	<b>1,384,178 gallons</b>

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).  
 Abatement System Flow = 1,086,991 gallons (Neptune Flow meters)

**BETHLEHEM LANDFILL**  
**GROUNDWATER DEMAND REPORT**  
**May 2019**

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM) (Total gal)	
AB-1	89.4	6.6	256,542
AB-2	47.0	5.5	212,230
AB-3	71.7	1.2	47,017
AB-4	30.4	3.6	141,117
AB-5	41.0	0.8	32,864
AB-6	44.3	4.6	179,034
AB-7	41.7	4.0	154,586
AB-8	40.6	0.2	6,470
AB-9	73.7	1.2	48,199
AB-10	71.7	0.2	8,932
TW-1	54.4	<0.1	0.0
<b>Total Flow</b>			<b>1,086,991 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 (gpi)	G/AVD	TOTALIZER	GALLONS	LOW (gpi)	G/AVD	TOTALIZER	GALLONS	LOW (gpi)	G/AVD
5/7/2018	6.00	1929415	2,191	365	23	4153984	3582	597	49	7,312,372	4653	776	134
5/14/2018	7.00	1931714	2,299	328	21	4157899	3915	559	46	7,317,861	5489	784	135
5/22/2018	8.00	1941451	9,737	1,217	78	4162642	4743	593	49	7,324,158	6297	787	136
5/30/2018	8.00	1957150	15,699	1,962	125	4168640	5998	750	61	7,330,876	6718	840	145
6/7/2018	8.00	1962087	4,937	617	39	4173975	5335	667	55	7,337,432	6556	820	141
6/11/2018	4.00	1963994	1,907	477	30	4176297	2322	581	48	7,340,758	3326	832	143
6/20/2018	9.00	1968645	4,651	517	33	4181070	4773	530	43	7,347,903	7145	794	137
6/29/2018	9.00	1972093	3,448	383	24	4185888	4818	535	44	7,354,995	7092	788	136
7/5/2018	6.00	1975571	3,478	580	37	4188922	3034	506	41	7,359,559	4564	761	131
7/9/2018	4.00	1977247	1,676	419	27	4190621	1699	425	35	7,362,407	2848	712	123
7/16/2018	7.00	1980957	3,710	530	34	4193793	3172	453	37	7,367,648	5241	749	129
7/23/2018	7.00	1987902	6,945	992	63	4197413	3620	517	42	7,373,190	5542	792	137
8/1/2018	9.00	2002364	14,462	1,607	102	4203043	5630	626	51	7,380,786	7596	844	146
8/6/2018	5.00	2009784	7,420	1,484	95	4206558	3515	703	58	7,387,834	7048	1,410	243
8/13/2018	7.00	2016356	6,572	939	60	4211550	4992	713	58	7,397,325	9491	1,356	234
8/20/2018	7.00	2031303	14,947	2,135	136	4216001	4451	636	52	7,406,036	8711	1,244	215
8/31/2018	11.00	2041040	9,737	885	56	4222779	6778	616	51	7,417,472	11436	1,040	179
9/7/2018	7.00	2048903	7,863	1,123	72	4226212	3433	490	40	7,423,929	6457	922	159
9/12/2018	5.00	2062345	13,442	2,688	171	4229341	3129	626	51	7,429,272	5343	1,069	184
9/18/2018	6.00	2075788	13,443	2,241	143	4232471	3130	522	43	7,434,616	5344	891	154
10/1/2018	13.00	2126610	50,822	3,909	249	4240280	7809	601	49	7,448,700	14084	1,083	187
10/11/2018	10.00	2144225	17,615	1,762	112	4248664	8384	838	69	7,459,592	10892	1,089	188
10/19/2018	8.00	2162440	18,215	2,277	145	4254418	5754	719	59	7,468,523	8931	1,116	192
10/26/2018	7.00	2168193	5,753	822	52	4259031	4613	659	54	7,476,178	7655	1,094	189
11/8/2018	13.00	2218469	50,276	3,867	246	4267917	8886	684	56	7,494,605	18427	1,417	244
11/12/2018	4.00	2235017	16,548	4,137	264	4270862	2945	736	60	7,503,285	8680	2,170	374
11/20/2018	8.00	2281915	46,898	5,862	373	4277348	6486	811	66	7,519,184	15899	1,987	343
11/26/2018	6.00	2323727	41,812	6,969	444	4282847	5499	917	75	7,536,060	16876	2,813	485
12/3/2018	7.00	2362413	38,686	5,527	352	4288737	5890	841	69	7,549,897	13837	1,977	341
12/12/2018	9.00	2378987	16,574	1,842	117	4295542	6805	756	62	7,562,467	12570	1,397	241
12/17/2018	5.00	2385229	6,242	1,248	80	4298911	3369	674	55	7,569,124	6657	1,331	230
12/27/2018	10.00	2410111	24,882	2,488	158	4308355	9444	944	77	7,588,337	19213	1,921	331
1/3/2019	7.00	2421998	11,887	1,698	108	4313118	4763	680	56	7,596,652	8315	1,188	205
1/8/2019	5.00	2432734	10,736	2,147	137	4318265	5147	1,029	84	7,604,683	8031	1,606	277
1/14/2019	6.00	2440995	8,261	1,377	88	4323231	4966	828	68	7,612,768	8085	1,348	232
1/21/2019	7.00	2448933	7,938	1,134	72	4328080	4849	693	57	7,622,157	9389	1,341	231
1/31/2019	10.00	2478187	29,254	2,925	186	4335657	7577	758	62	7,636,997	14840	1,484	256
2/5/2019	5.00	2485497	7,310	1,462	93	4338934	3277	655	54	7,643,370	6373	1,275	220
2/14/2019	9.00	2512578	27,081	3,009	192	4344859	5925	658	54	7,655,197	11827	1,314	227
2/19/2019	5.00	2524553	11,975	2,395	153	4348515	3656	731	60	7,662,695	7498	1,500	259
2/28/2019	9.00	2544435	19,882	2,209	141	4355882	7367	819	67	7,674,910	12215	1,357	234
3/11/2019	11.00	2559281	14,846	1,350	86	4363719	7837	712	58	7,689,920	15010	1,365	235
3/18/2019	7.00	2568635	9,354	1,336	85	4367689	3970	567	46	7,695,592	5672	810	140
3/29/2019	11.00	2589246	20,611	1,874	119	4380618	12929	1,175	96	7,716,139	20547	1,868	322
4/4/2019	6.00	2595143	5,897	983	63	4385069	4451	742	61	7,724,469	8330	1,388	239
4/10/2019	6.00	2600597	5,454	909	58	4389338	4269	712	58	7,733,238	8769	1,462	252
4/17/2019	7.00	2625500	24,903	3,558	227	4394070	4732	676	55	7,747,020	13782	1,969	339
4/24/2019	7.00	2647515	22,015	3,145	200	4400649	6579	940	77	7,759,015	11995	1,714	295
5/1/2019	7.00	2664369	16,854	2,408	153	4406533	5884	841	69	7,769,945	10930	1,561	269
5/10/2019	9.00	2685158	20,789	2,310	147	4414270	7737	860	70	7,784,469	14524	1,614	278
5/17/2019	7.00	2699233	14,075	2,011	128	4420917	6647	950	78	7,797,010	12541	1,792	309
5/23/2019	6.00	2710148	10,915	1,819	116	4426176	5259	877	72	7,807,571	10561	1,760	303
5/28/2019	5.00	2713182	3,034	607	39	4428676	2500	500	41	7,813,572	6001	1,200	207



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
866	5/7/2018	6	314364	694	116	4		48699782	31400	5233	201	20.4"
887	5/14/2018	7	314639	275	39	2		48737142	37360	5337	205	18.7"
888	5/22/2018	8	315273	634	79	3		48785701	48559	6070	233	18.9"
889	5/30/2018	8	316171	898	112	4		48840699	54998	6875	264	19.8"
890	6/7/2018	8	316474	303	38	1		48890927	50228	6279	241	18.1"
891	6/11/2018	4	316480	6	2	0		48915631	24704	6176	238	22.9"
892	6/20/2018	13	316484	10	1	0		48971353	80426	6187	238	16.1"
893	6/29/2018	9	316495	11	1	0		49025903	54550	6061	233	13.6"
894	7/5/2018	6	316498	3	1	0		49059729	33826	5638	217	20.2"
895	7/9/2018	4	316502	4	1	0		49082662	22933	5733	221	14.0"
896	7/16/2018	7	316504	2	0	0		49120934	38272	5467	210	18.4"
897	7/23/2018	7	316507	3	0	0		49161305	40371	5767	222	15.4"
898	8/1/2018	9	316545	38	4	0		49205956	44651	4961	191	23.6"
899	8/6/2018	5	316633	88	18	1		49231931	25975	5195	200	18.9"
900	8/13/2018	7	316776	143	20	1		49268430	36499	5214	201	21.5"
901	8/20/2018	7	316944	168	24	1		49305805	37375	5339	205	18.9"
902	8/31/2018	11	317122	178	16	1		49369414	63609	5783	222	23.4"
903	9/7/2018	7	317301	179	26	1		49415154	45740	6534	251	18.7"
904	9/12/2018	5	317403	102	20	1		49455655	40501	8100	312	22.1"
905	9/18/2018	6	317557	154	26	1		49496755	41100	6850	263	21.2"
906	10/1/2018	13	317871	314	24	1		49565289	68534	5272	203	22.1"
907	10/11/2018	10	318122	251	25	1		49623186	57897	5790	223	21.2"
908	10/19/2018	8	318345	223	28	1		49664658	41472	5184	199	23.4"
909	10/26/2018	7	318500	155	22	1		49706343	41685	5955	229	17.4"
910	11/8/2018	13	318736	236	18	1		49784960	78617	6047	233	14.0"
911	11/12/2018	4	318746	10	3	0		49805391	20431	5108	196	17.4"
912	11/20/2018	8	319503	757	95	4		49860144	54753	6844	263	17.4"
913	11/26/2018	6	319996	493	82	3		51031479	1171335	195223	7509	20.4"
914	12/3/2018	7	325089	5093	728	28		51105543	74064	10581	407	20.6"
915	12/12/2018	9	329426	4337	482	19		51747262	641719	71302	2742	17.6"
916	12/17/2018	5	331435	2009	402	15		51802483	55201	11040	425	21.9"
917	12/27/2018	10	339877	8442	844	32		54197652	2395189	239519	9212	23.6"
918	1/3/2019	7	343848	3971	567	22		54208523	10871	1553	60	14.9"
919	1/8/2019	5	347137	3289	658	25		54208523	0	0	0	18.9"
920	1/14/2019	6	349233	2096	349	13		54233557	25034	4172	160	20.4"
921	1/21/2019	7	352210	2977	425	16		54270683	37126	5304	204	20.8"
922	1/31/2019	10	357979	5769	577	22		54324279	53596	5360	206	15.3"
923	2/5/2019	5	360083	2104	421	16		54334479	10200	2040	78	20.2"
924	2/14/2019	9	367044	6961	773	30		54387599	53120	5902	227	14.7"
925	2/19/2019	5	374215	7171	1434	55		54424895	37296	7459	287	20.2"
926	2/28/2019	9	383870	9655	1073	41		54555066	130171	14463	556	16.4"
927	3/11/2019	11	398975	15105	1373	53		56523918	1968852	178987	6884	22.3"
928	3/18/2019	7	403499	4524	646	25		56524849	931	133	5	22.7"
929	3/29/2019	11	414058	10559	960	37		57361365	836516	76047	2925	23.4"
930	4/4/2019	6	416236	2178	363	14		57505186	143821	23970	922	19.1"
931	4/10/2019	6	417759	1523	254	10		57571289	66103	11017	424	17.2"
932	4/17/2019	7	421560	3801	543	21		57615162	43873	6268	241	23.2"
933	4/24/2019	7	426076	4516	645	25		57665813	50651	7236	278	14.4"
934	5/1/2019	7	427709	1633	233	9		57708054	42241	6034	232	20.8"
935	5/10/2019	9	433016	5307	590	23		57765925	57871	6430	247	17.4"
936	5/17/2019	7	438115	5099	728	28		57815139	49214	7031	270	15.9"
937	5/23/2019	6	440911	2796	466	18		57871478	56339	9390	361	23.1"
938	5/28/2019	5	442052	1141	228	9		57882566	11088	2218	85	22.9"

**IESI BETHLEHEM LANDFILL**

	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
866	Phase IV PS-2 (Secondary Flows)					Phase IV PS-2 (Primary)							
867	TIME (days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day				Totalizer	gallons	flow(gpd)	g/ac/day	sump Inches
886	5/7/2018	6	7138	0	0	0.0			19532651	26701	4450	420	30.2"
887	5/14/2018	7	7138	0	0	0.0			19563115	30464	4352	411	31.6"
888	5/22/2018	8	7138	0	0	0.0			19600935	37720	4715	445	29.7"
889	5/30/2018	8	7138	0	0	0.0			19642231	41396	5175	488	28.8"
890	6/7/2018	8	7138	0	0	0.0			19678291	36060	4508	425	33.7"
891	6/11/2018	4	7138	0	0	0.0			19695505	17214	4304	406	30.5"
892	6/20/2018	13	7138	0	0	0.0			19733233	54942	4226	399	33.9"
893	6/29/2018	9	7138	0	0	0.0			19770463	37230	4137	390	31.4"
894	7/5/2018	6	7138	0	0	0.0			19794854	24391	4065	384	33.1"
895	7/9/2018	4	7138	0	0	0.0			19810534	15680	3920	370	34.6"
896	7/16/2018	7	7138	0	0	0.0			19829442	18908	2701	255	32.0"
897	7/23/2018	7	7138	0	0	0.0			19849101	19659	2808	265	33.1"
898	8/1/2018	9	7138	0	0	0.0			19867442	18341	2038	192	29.3"
899	8/6/2018	5	7138	0	0	0.0			19871321	3679	776	73	28.0"
900	8/13/2018	7	7138	0	0	0.0			19878945	7624	1089	103	32.9"
901	8/20/2018	7	7138	0	0	0.0			19880023	1078	154	15	32.2"
902	8/31/2018	11	7138	0	0	0.0			19891899	11876	1080	102	33.5"
903	9/7/2018	7	7138	0	0	0.0			19927242	35343	5049	476	34.5"
904	9/12/2018	5	7138	0	0	0.0			19957019	29777	5955	562	30.7"
905	9/18/2018	6	7138	0	0	0.0			19986895	29876	4979	470	31.8"
906	10/1/2018	13	7138	0	0	0.0			20061731	74836	5757	543	31.2"
907	10/11/2018	10	7138	0	0	0.0			20121467	59736	5974	564	33.3"
908	10/19/2018	8	7138	0	0	0.0			20167014	45547	5693	537	28.2"
909	10/26/2018	7	7138	0	0	0.0			20204646	37632	5376	507	34.1"
910	11/8/2018	13	7138	0	0	0.0			20279418	74772	5752	543	33.3"
911	11/12/2018	4	7138	0	0	0.0			20304457	25039	6260	591	28.2"
912	11/20/2018	8	7138	0	0	0.0			20358630	54173	6772	639	28.4"
913	11/26/2018	6	7138	0	0	0.0			20405933	47303	7884	744	29.3"
914	12/3/2018	7	7138	0	0	0.0			20461258	55325	7904	746	31.4"
915	12/12/2018	9	7138	0	0	0.0			20522082	60824	6758	638	33.7"
916	12/17/2018	5	7138	0	0	0.0			20550035	27953	5591	527	30.3"
917	12/27/2018	10	7138	0	0	0.0			20620324	70289	7029	663	32.9"
918	1/3/2019	7	7138	0	0	0.0			20660606	40282	5755	543	29.5"
919	1/8/2019	5	7138	0	0	0.0			20700486	39980	7976	752	33.3"
920	1/14/2019	8	7138	0	0	0.0			20740910	40424	6737	636	30.3"
921	1/21/2019	7	7138	0	0	0.0			20780285	39375	5625	531	34.1"
922	1/31/2019	10	7138	0	0	0.0			20842598	62313	6231	588	28.5"
923	2/5/2019	5	7138	0	0	0.0			20871208	28610	5722	540	30.2"
924	2/14/2019	9	7138	0	0	0.0			20923558	52350	5817	549	31.4"
925	2/19/2019	5	7138	0	0	0.0			20952717	29159	5832	550	27.8"
926	2/28/2019	9	7138	0	0	0.0			21007697	54980	6109	576	26.9"
927	3/11/2019	11	7138	0	0	0.0			21067002	59305	5391	509	31.4"
928	3/18/2019	7	7138	0	0	0.0			21091793	24791	3542	334	30.7"
929	3/29/2019	11	7138	0	0	0.0			21163357	71564	6506	614	34.6"
930	4/4/2019	6	7138	0	0	0.0			21196738	33381	5564	525	24.5"
931	4/10/2019	6	7138	0	0	0.0			21261533	64795	10799	1019	29.7"
932	4/17/2019	7	7138	0	0	0.0			21299432	37899	5414	511	27.1"
933	4/24/2019	7	7138	0	0	0.0			21341263	41831	5976	564	30.7"
934	5/1/2019	7	7138	0	0	0.0			21399235	57972	8282	781	29.9"
935	5/10/2019	9	7138	0	0	0.0			21444235	45000	5000	472	34.1"
936	5/17/2019	7	7138	0	0	0.0			21489235	45000	6429	606	31.4"
937	5/23/2019	6	7138	0	0	0.0			21534235	45000	7500	708	29.9"
938	5/28/2019	5	7138	0	0	0.0			21579235	45000	9000	849	29.7"

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)						sump
867	Date	days	totalizer	gallon	flow(gpd)	g/ac/day			totalizer	gallons	flow(gpd)	g/ac/day	inches
868	5/7/2018	6	42632	0	0	0			9002559	16286	2714	654	26.8"
887	5/14/2018	7	42632	0	0	0			9020498	17939	2563	618	24.9"
888	5/22/2018	8	42632	0	0	0			9047728	27230	3404	820	25.9"
889	5/30/2018	8	42665	33	4	0			9086032	38304	4788	1154	27.4"
890	6/7/2018	8	42665	0	0	0			9110208	24176	3022	728	25.5"
891	6/11/2018	4	42665	0	0	0			9120377	10169	2542	613	26.2"
892	6/20/2018	13	42665	0	0	0			9142393	32185	2476	597	26.8"
893	6/29/2018	9	42665	0	0	0			9162659	20266	2252	543	23.6"
894	7/5/2018	6	42665	0	0	0			9176312	13653	2276	548	23.6"
895	7/9/2018	4	42665	0	0	0			9185141	8829	2207	532	27.9"
896	7/16/2018	7	42665	0	0	0			9199913	14772	2110	509	26.8"
897	7/23/2018	7	42666	1	0	0			9216822	16909	2416	582	25.1"
898	8/1/2018	9	42666	0	0	0			9259666	42844	4760	1147	21.1"
899	8/6/2018	5	42666	0	0	0			9284508	24842	4968	1197	24.9"
900	8/13/2018	7	42666	0	0	0			9322417	37909	5416	1305	24.9"
901	8/20/2018	7	42666	0	0	0			9354156	31739	4534	1093	25.7"
902	8/31/2018	11	42689	23	2	0			9396489	42333	3848	927	25.3"
903	9/7/2018	7	42689	0	0	0			9416454	19965	2852	687	26.8"
904	9/12/2018	5	42689	0	0	0			9434353	17899	3580	863	24.8"
905	9/18/2018	6	42689	0	0	0			9452352	17999	3000	723	25.7"
906	10/1/2018	13	42689	0	0	0			9488864	36512	2809	677	66.9"
907	10/11/2018	10	42689	0	0	0			9490856	1992	199	48	67.8"
908	10/19/2018	8	42781	92	12	1			9494868	4012	502	121	63.1"
909	10/26/2018	7	42817	36	5	0			9500655	5787	827	199	60.5"
910	11/8/2018	13	42817	0	0	0			9596127	95472	7344	1770	24.5"
911	11/12/2018	4	43246	429	107	10			9627326	31199	7800	1879	15.3"
912	11/20/2018	8	43246	0	0	0			9692363	65037	8130	1959	17.7"
913	11/26/2018	6	43246	0	0	0			9747387	55024	9171	2210	21.5"
914	12/3/2018	7	43266	20	3	0			9811123	63736	9105	2194	18.5"
915	12/12/2018	9	43266	0	0	0			9869983	58860	6540	1576	26.6"
916	12/17/2018	5	43266	0	0	0			9893769	23786	4757	1146	27.6"
917	12/27/2018	10	43266	0	0	0			9968493	74724	7472	1801	23.2"
918	1/3/2019	7	43266	0	0	0			10015193	46700	6671	1608	20.2"
919	1/8/2019	5	43266	0	0	0			10063124	47931	9586	2310	18.5"
920	1/14/2019	6	43266	0	0	0			10105956	42832	7139	1720	26.2"
921	1/21/2019	7	43266	0	0	0			10142879	36923	5275	1271	21.5"
922	1/31/2019	10	43266	0	0	0			10216913	74034	7403	1784	20.0"
923	2/5/2019	5	43266	0	0	0			10250043	33130	6626	1597	18.7"
924	2/14/2019	9	43266	0	0	0			10303601	53558	5951	1434	23.2"
925	2/19/2019	5	43266	0	0	0			10344671	41070	8214	1979	16.4"
926	2/28/2019	9	43549	283	31	3			10429876	85205	9467	2281	22.3"
927	3/11/2019	11	43549	0	0	0			10502158	72282	6571	1583	16.4"
928	3/18/2019	7	43549	0	0	0			10530183	28025	4004	965	21.5"
929	3/29/2019	11	43718	169	15	1			10643865	113682	10335	2490	27.4"
930	4/4/2019	6	43718	0	0	0			10685160	41295	6883	1658	26.4"
931	4/10/2019	6	43718	0	0	0			10715075	29915	4986	1201	17"
932	4/17/2019	7	43718	0	0	0			10753687	38612	5516	1329	26.2"
933	4/24/2019	7	43718	0	0	0			10799919	46232	6605	1591	23.0"
934	5/1/2019	7	43718	0	0	0			10813348	13429	1918	462	17.9"
935	5/10/2019	9	43718	0	0	0			10840079	26731	2970	716	25.1"
936	5/17/2019	7	43718	0	0	0			10906158	66079	9440	2275	16.3"
937	5/23/2019	6	43718	0	0	0			11010719	104561	17427	4199	20.1"
938	5/28/2019	5	43722	4	1	0			11012129	1410	282	68	18.9"

IESI BETHLEHEM LANDFILL

	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
865	Phase IV PS-4 (Secondary)						Phase IV PS-4 (Primary)						
866	Date	days	totalizer	gallon	flow(gpd)	g/ac/day			totalizer	gallons	flow(gpd)	g/ac/day	sump
867													inches
868													
869													
870													
871													
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907													
908													
909													
910			0	0	0	0			0	0	#DIV/0!	#DIV/0!	0"
911	11/12/2018	0	147	147	0	0			207023	207023	#DIV/0!	#DIV/0!	28.3"
912	11/20/2018	8	147	0	0	0			575433	368410	46051	11097	31.4"
913	11/26/2018	6	147	0	0	0			880527	305094	50849	12253	21.5"
914	12/3/2018	7	147	0	0	0			1158031	277504	39643	9553	18.5"
915	12/12/2018	9	147	0	0	0			1158032	1	0	0	18.5"
916	12/17/2018	5	147	0	0	0			1158033	1	0	0	18.5"
917	12/27/2018	10	404	257	26	2			1560142	402109	40211	9689	19.3"
918	1/3/2019	7	404	0	0	0			1560143	1	0	0	19.3"
919	1/8/2019	5	483	79	16	1			1856842	296699	59340	14299	22.1"
920	1/14/2019	6	586	103	17	2			1875514	18672	3112	750	15"
921	1/21/2019	7	586	0	0	0			2019879	144365	20624	4970	14.1"
922	1/31/2019	10	941	355	36	3			2269621	249742	24974	6018	22.5"
923	2/5/2019	5	941	0	0	0			2286229	16608	3322	800	21.0"
924	2/14/2019	9	941	0	0	0			2352286	66057	7340	1769	28.4"
925	2/19/2019	5	941	0	0	0			2413009	60723	12145	2926	20.4"
926	2/28/2019	9	941	0	0	0			2515643	102634	11404	2748	21.8"
927	3/11/2019	11	941	0	0	0			2598596	82953	7541	1817	23.6"
928	3/18/2019	7	941	0	0	0			2638297	39701	5672	1367	27.2"
929	3/29/2019	11	941	0	0	0			2781453	143156	13014	3136	28.4"
930	4/4/2019	6	1410	469	78	7			2813906	32453	5409	1303	25.8"
931	4/10/2019	6	1410	0	0	0			2825936	12030	2005	483	23.0"
932	4/17/2019	7	1876	466	67	6			2960696	134760	19251	4639	20.3"
933	4/24/2019	7	2347	471	67	6			3115337	154641	22092	5323	20.5"
934	5/1/2019	7	2347	0	0	0			3206530	91193	13028	3139	22.5"
935	5/10/2019	9	3177	830	92	9			3344706	138176	15353	3699	24.5"
936	5/17/2019	7	4100	923	132	12			3467360	122654	17522	4222	17.5"
937	5/23/2019	6	5025	925	154	15			3498223	30863	5144	1239	24.7"
938	5/28/2019	5	5025	0	0	0			3539718	41495	8299	2000	25.3"