

Bethlehem Landfill Committee Meeting Minutes

Date: Thursday, August 15, 2019
Time: 1:00 p.m.
Location: Lower Saucon Township
Attendance: **Hanover Engineering:** Chris Taylor **Bethlehem Landfill:** Astor Lawson & Philip Garcia
Members: Hazem Hijazi & Neil Ortwein **Council Liaison:** Priscilla deLeon **Staff Members:** Leslie Huhn

Mr. Lawson reviewed the monthly tonnages for July:

	<u>May</u>	<u>June</u>	<u>July</u>
MSW	27,105.51	24,127.62	25,164.83
C&D	1,628.28	3,984.60	5,137.16
Residual (Total)	2,383.65	2,328.11	2,556.86
Asbestos	6.20	0.00	0.00
Sewage Sludge (90/10)	95.37	95.47	99.33
Out of State (Total)	15,932.17 (51%)	16,057.01 (53%)	17,379.60 (53%)
Recycle	13 (85%)	6 (83%)	13 (69%)

Mr. Lawson said there was one Form U Submittal, Valley Builders with Contaminated Soil on July 31, 2019. The third quarter sampling event is scheduled for August 26th through the 28th by EarthRes Group. Mr. Taylor said on the last inspection he saw the North Slope road was widened, so everything is ready for the landfill's sampling event. Mr. Lawson said yes. Mr. Lawson said if he ever sees any issues, he will notify the Township and they will fix it.

Mr. Lawson said there was no correspondence or reports. For DEP inspections, Matt Glogowski with DEP Solid Waste out on July 23, 2019. There were two Host Municipal Inspections on August 1 and August 15, 2019. The total number of trucks for July was 2,846 with 51 overweight, 38 warnings and 13 suspensions.

Mr. Lawson 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 July average flare flow was 2,784 SCFM. They had some shutdowns on July 22nd, and two on July 24th. Mr. Taylor said you just completed some work at the flare during the last inspection. Mr. Lawson said yes. Mr. Taylor said there was a maintenance outage on the flare the first week of August and then a protective shutdown on August 12th; otherwise your flare is running fine. Mr. Lawson said correct. Mr. Taylor said you have the new motor for the big blower synced with the instrumentation. The panel is reading correctly.

Mr. Lawson said the North Slope Road has not needed repairs. The swale has not needed repairs. Sedimentation traps and ponds need to be cleaned out, weather dependent. They are taking bids to get those dredged out. Mr. Taylor said that hasn't been done for a while so it goes up to sedimentation basin 6. Mr. Lawson said when they put it out to bid, they send them the specs. Mr. Taylor said these are sedimentation basins designed to take sediment from areas of the site that are not stabilized. Mr. Lawson said the sedimentation ponds are being addressed.

Mr. Lawson said Philip Garcia is the new Operations Manager and all the positions are filled, but on Friday, they lost an employee due to a failed drug test.

Mr. Lawson said 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. The flow rates continue to be monitored and reported. Intermittent malfunctions of the well pumps and controls are repaired or replaced as needed. Flows in July increased due to being in an open cell condition.

Mr. Lawson said there was one radioactive load for July (Tc-99m). The waste stream met level 1 requirements and was disposed of onsite. The SE Realignment Construction activities, waste operations have moved in SE-1B and they have certifications for this.

Bethlehem Landfill Committee Minutes
August 15, 2019

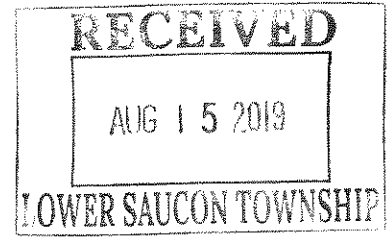
Mr. Lawson said there was one anonymous odor complaint on July 1st on Applebutter Road. There were no findings when DEP went out to check it.

Mr. Lawson reviewed the leachate demand report. Mr. Taylor reviewed the flows on LMC-6, LMC-7, and LCM-8. They are missing PS-1, PS-2, PS-3 and PS-4. Mr. Lawson said he will send the tables to the Township. They were doing maintenance today so there was a crew down in the leachate chambers doing routine maintenance on instrumentation. They are still working on the stormwater flows on the south face road. The acceptance rates have been running 1,600 this week because there is a lot of garbage being thrown their way. The average daily max is 1,300 and for any single day it's 1,800 but the quarterly average is 1,375. Mr. Lawson said the tons were down in July.

Mr. Taylor said he'd still like to see the overweight's get down. He was going to send an email to Amy at DEP and see if she'd run another Trash Net. They just show up and do their thing and hand out citations. He said Applebutter Road looked good and the sweeper was working today.

Mr. Taylor said the next inspection will be Thursday, September 4th and the next meeting is on Thursday, September 19th starting at 1:00 p.m. The meeting adjourned at 1:35 p.m.

**Bethlehem Landfill Company
LST Committee Meeting Notes August 2019
August 15, 2019**



Agenda Items

I. Waste Activities

Monthly Tonnages

	May	June	July
MSW	27,105.51	24,127.62	25,164.83
C&D	1,628.28	3,984.60	5,137.16
Residual (Total)	2,383.65	2,328.11	2,556.86
Asbestos	6.20	0.00	0
Sewage Sludge (90/10)	95.37	95.47	99.33
Out of state (Total)	15,932.17 (51%)	16,057.01 (53%)	17,379.60 (53%)
Recycle	13 (85%)	6 (83%)	13 (69%)

<u>Form U Submittals</u>	<u>Waste</u>	<u>Approval Date</u>
Valley Builders, LLC	Contaminated Soil (508)	7/31/19

II. Annual Groundwater Trend Analysis

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

III. Correspondence / Reports

None

IV. Landfill Operations

Department of Environmental Protection Inspections

7/23/19 M. Glogowski (Solid Waste)

Host Municipal Inspection

8/1/19 C. Taylor
8/15/19 C. Taylor

<u>Commercial Waste Vehicles</u>	May	June	July
Total # Trucks	2506	2997	2846
	May	June	July
Overweight	68	62	51
Warnings	60	53	38
Suspensions	8	9	13

May – TT=40, RL=22, FL=2, DT=4 June – TT=48, RL=13, RO=1 July – TT=36, RL=11, DT=1, FL=2, RO=1

FL = front loader, RO = roll-off, TT=tractor trailer, RL = rear loader, DT = triaxle 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.

July Average Flare Flow = 2,784 SCFM

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

Beginning of event shutdown Flare Date: 7/22/19 Time: 8:44
End of event startup Date: 7/22/19 Time: 11:22 Duration: 2:38min

Beginning of event shutdown Flare Date: 7/24/19 Time: 9:32
End of event startup Date: 7/24/19 Time: 15:35 Duration: 6:03min

Beginning of event shutdown Flare Date: 7/24/19 Time: 15:47
End of event startup Date: 7/24/19 Time: 15:56 Duration: 0:09min

Documentation is on file.

North Slope Road has not needed repairs. The swale has not needed repairs. Sedimentation traps and ponds need to be cleaned out (weather dependent).

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. Flows in July increased due to being in an open cell condition.

Radiation Monitoring

There was 1 radioactive load for July (Tc-99m). The waste stream met level 1 requirements and was disposed of onsite.

SE Realignment Construction Activities

Waste operations have moved into SE-1B.

Complaints received by Waste Connections

12 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)
- 6/11/19 (Odor Complaint)
- 6/18/19 (Noise Complaint)

BETHLEHEM LANDFILL
LEACHATE DEMAND REPORT
July 2019

<u>Location</u>	<u>Total gallons</u>
LMC-6	123,106
LMC-7	17,678
LMC-8	70,775
PS-4	1,977,827
LMC-10	3,012,308
PS-1	265,407
PS-2	116,642
PS-3	236,363
Phase-IV	618,412

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	3,012,308
Phase IV	618,412
TOTAL	3,630,720 gallons

Total Leachate

Leachate	2,189,386
Phase IV	618,412
TOTAL	2,807,798 gallons

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
 Abatement System Flow = 822,922 gallons (Neptune Flow meters)

BETHLEHEM LANDFILL

GROUNDWATER DEMAND REPORT July 2019

Well No.	Water Level (avg. ft SWL*)	Flow (avg. GPM)	(Total gal)
AB-1	85.1	3.8	158,851
AB-2	47.3	5.0	208,286
AB-3	70.1	0.1	3,635
AB-4	32.1	2.8	115,507
AB-5	41.3	0.6	26,376
AB-6	43.2	3.3	136,670
AB-7	41.3	3.1	127,456
AB-8	40.5	0.1	2,609
AB-9	44.9	0.9	37,311
AB-10	65.4	0.1	6,221
TW-1	54.4	<0.1	0.0
Total Flow		822,922 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/A/D	TOTALIZER	GALLONS	LOW (gpd)	G/A/D	TOTALIZER	GALLONS	LOW (gpd)	G/A/D
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
6/5/2019	8.00	2730274	17,092	2,137	136	4434327	5651	706	58	7,826,345	12773	1,597	275
6/13/2019	8.00	2749382	19,108	2,389	152	4439837	5510	689	56	7,838,610	12265	1,533	264
6/20/2019	7.00	2751930	2,548	364	23	4444290	4453	636	52	7,849,768	11158	1,594	275
6/28/2019	8.00	2755174	3,244	406	26	4449531	5241	655	54	7,861,043	11275	1,409	243
7/1/2019	3.00	2765773	10,599	3,533	225	4451306	1775	592	48	7,864,310	3267	1,089	188
7/11/2019	10.00	2796263	30,490	3,049	194	4457119	5813	581	48	7,876,648	12338	1,234	213
7/16/2019	5.00	2812684	16,421	3,284	209	4459951	2832	566	46	7,878,992	2344	469	81
7/24/2019	8.00	2831870	19,186	2,398	153	4463593	3642	455	37	7,886,403	7411	926	160
7/30/2019	6.00	2843280	11,410	1,902	121	4467209	3616	603	49	7,896,140	9737	1,623	280

ID	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
																					TIME (days)
1052																					
1053																					
1054	7/5/2018	6.00	1755473	1,405	234	15	2232654	79	13	13	0	0	0	5,963,266	458	76	13				
1055	7/8/2018	4.00	1759345	872	214	14	2232654	0	0	0	0	0	0	5,963,906	340	85	15				
1056	7/16/2018	7.00	1759035	2,690	384	24	2232654	53	8	8	0	0	0	5,964,367	761	109	19				
1057	7/23/2018	7.00	1765849	6,814	973	62	2232819	112	16	16	0	0	0	6,970,316	5949	850	147				
1058	8/1/2018	9.00	1791023	25,174	2,797	178	2232883	64	7	7	0	0	0	6,908,724	39408	4,268	736				
1059	8/6/2018	5.00	1814265	23,232	4,646	256	2232978	95	19	19	0	0	0	6,931,285	22561	4,512	779				
1060	8/13/2018	7.00	1828115	13,860	1,980	126	2232978	0	0	0	0	0	0	6,951,372	20087	2,870	495				
1061	8/20/2018	7.00	1841525	13,410	1,916	122	2233031	53	8	8	0	0	0	6,984,975	43603	6,229	1,074				
1062	8/31/2018	11.00	1853573	12,048	1,095	70	2234334	1303	118	118	0	0	0	6,128,175	33200	3,011	520				
1063	9/7/2018	7.00	1857973	4,400	629	40	2234334	0	0	0	0	0	0	6,136,851	8476	1,218	209				
1064	9/12/2018	5.00	1862522	4,549	910	58	2234334	0	0	0	0	0	0	6,140,059	3408	682	118				
1065	9/18/2018	6.00	1867971	4,543	758	48	2234334	0	0	0	0	0	0	6,143,458	3399	567	98				
1066	10/1/2018	13.00	1870004	2,933	226	14	2234334	0	0	0	0	0	0	6,177,029	33571	2,592	445				
1067	10/11/2018	10.00	1870004	0	0	0	2234334	0	0	0	0	0	0	6,178,945	1916	192	33				
1068	10/19/2018	8.00	1870004	0	0	0	2234334	19	2	2	0	0	0	6,217,640	36695	4,837	834				
1069	10/26/2018	7.00	1870004	0	0	0	2234334	0	0	0	0	0	0	6,222,926	5286	755	130				
1070	11/8/2018	13.00	1870004	0	0	0	2234364	11	1	1	0	0	0	6,256,016	30900	2,545	439				
1071	11/12/2018	4.00	1870004	0	0	0	2234364	0	0	0	0	0	0	6,271,294	15278	3,820	659				
1072	11/20/2018	8.00	1870004	0	0	0	2234364	0	0	0	0	0	0	6,305,491	34097	4,262	735				
1073	11/25/2018	6.00	1870004	0	0	0	2234364	0	0	0	0	0	0	6,330,351	24960	4,160	717				
1074	12/3/2018	7.00	1870079	66	9	1	2234364	0	0	0	0	0	0	6,355,909	25558	3,651	630				
1075	12/12/2018	9.00	1870075	5	1	0	2234364	0	0	0	0	0	0	6,375,901	19992	2,221	383				
1076	12/17/2018	5.00	1870075	0	0	0	2234364	0	0	0	0	0	0	6,386,162	10261	2,052	354				
1077	12/27/2018	10.00	1876681	8,606	861	55	2234364	0	0	0	0	0	0	6,415,039	28877	2,888	498				
1078	1/3/2019	7.00	1884440	6,259	894	57	2234364	0	0	0	0	0	0	6,433,524	18495	2,641	455				
1079	1/8/2019	5.00	1891124	6,184	1,237	79	2234364	0	0	0	0	0	0	6,450,342	16818	3,364	580				
1080	1/14/2019	6.00	1896692	5,568	926	59	2234364	0	0	0	0	0	0	6,462,673	12331	2,055	354				
1081	1/21/2019	7.00	1901893	5,201	743	47	2234419	55	8	8	0	0	0	6,476,106	13433	1,919	331				
1082	1/31/2019	10.00	1910172	8,279	826	53	2234419	0	0	0	0	0	0	6,502,398	26292	2,629	453				
1083	2/5/2019	5.00	1914165	3,993	799	51	2234419	0	0	0	0	0	0	6,508,143	5745	1,149	198				
1084	2/14/2019	9.00	1922540	8,375	931	59	2234419	0	0	0	0	0	0	6,526,208	19065	2,007	346				
1085	2/19/2019	5.00	1926775	4,235	847	54	2234419	0	0	0	0	0	0	6,539,884	13676	2,735	472				
1086	2/28/2019	9.00	1935312	8,537	949	60	2234419	0	0	0	0	0	0	6,564,906	25022	2,780	479				
1087	3/11/2019	11.00	1943491	8,179	744	47	2234420	1	0	0	0	0	0	6,589,354	24448	2,223	383				
1088	3/18/2019	7.00	1947359	3,868	553	35	2234420	0	0	0	0	0	0	6,599,117	3763	1,395	240				
1089	3/29/2019	11.00	1959286	11,927	1,084	69	2234420	0	0	0	0	0	0	6,628,871	28754	2,705	466				
1090	4/4/2019	6.00	1967743	8,457	1,410	90	2234420	0	0	0	0	0	0	6,635,533	6662	1,110	191				
1091	4/10/2019	6.00	1972343	4,600	767	49	2234425	5	1	1	0	0	0	6,639,477	3944	657	113				
1092	4/17/2019	7.00	1980223	7,880	1,126	72	2234425	0	0	0	0	0	0	6,650,837	11360	1,623	280				
1093	4/24/2019	7.00	1985866	5,443	778	50	2234425	0	0	0	0	0	0	6,670,374	19537	2,791	481				
1094	5/1/2019	7.00	1993276	7,610	1,087	69	2234430	5	1	1	0	0	0	6,684,772	14398	2,057	355				
1095	5/10/2019	9.00	2000276	7,000	778	50	2235022	592	66	66	0	0	0	6,709,960	25188	2,799	483				
1096	5/17/2019	7.00	2007276	7,000	1,000	64	2235022	0	0	0	0	0	0	6,737,841	27881	3,983	687				
1097	5/23/2019	6.00	2014276	7,000	1,167	74	2235022	0	0	0	0	0	0	6,752,979	15138	2,523	435				
1098	5/28/2019	5.00	2021276	7,000	1,400	89	2235022	0	0	0	0	0	0	6,760,120	7141	1,428	246				
1099	6/5/2019	8.00	2038276	7,000	875	56	2235022	0	0	0	0	0	0	6,767,412	7292	912	157				
1100	6/13/2019	8.00	2038276	7,000	875	56	2425304	190282	23,785	1,950	0	0	0	6,772,651	5239	655	113				
1101	6/20/2019	7.00	2042276	7,000	1,000	64	2425304	0	0	0	0	0	0	6,779,548	6897	985	170				
1102	6/28/2019	8.00	2049276	7,000	875	56	2425304	0	0	0	0	0	0	6,785,245	5697	712	123				
1103	7/1/2019	3.00	2056276	7,000	2,333	149	2425304	0	0	0	0	0	0	6,793,111	7866	2,622	452				
1104	7/11/2019	10.00	2063276	7,000	700	45	2425304	0	0	0	0	0	0	6,799,459	6348	835	109				
1105	7/16/2019	5.00	2070276	7,000	1,400	89	2425304	0	0	0	0	0	0	6,803,208	3749	750	129				
1106	7/24/2019	8.00	2077276	7,000	875	56	2425304	0	0	0	0	0	0	6,817,235	14037	1,753	302				
1107	7/30/2019	5.00	2084276	7,000	1,167	74	2425304	0	0	0	0	0	0	6,820,923	3688	615	106				

IESI BETHLEHEM LANDFILL

	A	B	C	D	E	F	H	I	J	K	M	N	O
893		TIME	Phase IV (Secondary Flows)				Phase IV (Primary Flow)						Sump
894		(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day		TIME	TOTALIZER	Gallons	FLOW (gpd)	g/ac/day	Level
895								DAYS					
896	6/29/2018	9	316495	11	1	0		49025903	54550	6061	233	13.6"	
897	7/5/2018	6	316498	3	1	0		49059729	33826	5638	217	20.2"	
898	7/9/2018	4	316502	4	1	0		49082662	22933	5733	221	14.0"	
899	7/16/2018	7	316504	2	0	0		49120934	38272	5467	210	18.4"	
900	7/23/2018	7	316507	3	0	0		49161305	40371	5767	222	15.4"	
901	8/1/2018	9	316545	38	4	0		49205956	44651	4961	191	23.6"	
902	8/6/2018	5	316633	88	18	1		49231931	25975	5195	200	18.9"	
903	8/13/2018	7	316776	143	20	1		49268430	36499	5214	201	21.5"	
904	8/20/2018	7	316944	168	24	1		49305805	37375	5339	205	18.9"	
905	8/31/2018	11	317122	178	16	1		49369414	63609	5783	222	23.4"	
906	9/7/2018	7	317301	179	26	1		49415154	45740	6534	251	18.7"	
907	9/12/2018	5	317403	102	20	1		49455655	40501	8100	312	22.1"	
908	9/18/2018	6	317557	154	26	1		49496755	41100	6850	263	21.2"	
909	10/1/2018	13	317871	314	24	1		49565289	68534	5272	203	22.1"	
910	10/11/2018	10	318122	251	25	1		49623186	57897	5790	223	21.2"	
911	10/19/2018	8	318345	223	28	1		49664658	41472	5184	199	23.4"	
912	10/26/2018	7	318500	155	22	1		49706343	41685	5955	229	17.4"	
913	11/8/2018	13	318736	236	18	1		49784960	78617	6047	233	14.0"	
914	11/12/2018	4	318746	10	3	0		49805391	20431	5108	196	17.4"	
915	11/20/2018	8	319503	757	95	4		49860144	54753	6844	263	17.4"	
916	11/26/2018	6	319996	493	82	3		51031479	1171335	195223	7509	20.4"	
917	12/3/2018	7	325089	5093	728	28		51105543	74064	10581	407	20.6"	
918	12/12/2018	9	329426	4337	482	19		51747262	641719	71302	2742	17.6"	
919	12/17/2018	5	331435	2009	402	15		51802463	55201	11040	425	21.9"	
920	12/27/2018	10	339877	8442	844	32		54197652	2395189	239519	9212	23.6"	
921	1/3/2019	7	343848	3971	567	22		54208523	10871	1553	60	14.9"	
922	1/8/2019	5	347137	3289	658	25		54208523	0	0	0	18.9"	
923	1/14/2019	6	349233	2096	349	13		54233557	25034	4172	160	20.4"	
924	1/21/2019	7	352210	2977	425	16		54270693	37126	5304	204	20.8"	
925	1/31/2019	10	357979	5769	577	22		54324279	53596	5360	206	15.3"	
926	2/5/2019	5	360083	2104	421	16		54334479	10200	2040	78	20.2"	
927	2/14/2019	9	367044	6961	773	30		54387599	53120	5902	227	14.7"	
928	2/19/2019	5	374215	7171	1434	55		54424895	37296	7459	287	20.2"	
929	2/28/2019	9	383870	9655	1073	41		54555086	130171	14463	556	16.4"	
930	3/11/2019	11	398975	15105	1373	53		56523918	1968852	178987	6884	22.3"	
931	3/18/2019	7	403499	4524	646	25		56524849	931	133	5	22.7"	
932	3/29/2019	11	414058	10559	960	37		57361365	836516	76047	2925	23.4"	
933	4/4/2019	6	416236	2178	363	14		57505186	143821	23970	922	19.1"	
934	4/10/2019	6	417759	1523	254	10		57571289	66103	11017	424	17.2"	
935	4/17/2019	7	421560	3801	543	21		57615162	43873	6268	241	23.2"	
936	4/24/2019	7	426076	4516	645	25		57665813	50651	7236	278	14.4"	
937	5/1/2019	7	427709	1633	233	9		57708054	42241	6034	232	20.8"	
938	5/10/2019	9	433016	5307	590	23		57765925	57871	6430	247	17.4"	
939	5/17/2019	7	438115	5099	728	28		57815139	49214	7031	270	15.9"	
940	5/23/2019	6	440911	2796	466	18		57871478	56339	9390	361	23.1"	
941	5/28/2019	5	442052	1141	228	9		57882566	11088	2218	85	22.9"	
942	6/5/2019	8	446716	4664	583	22		57932871	50305	6288	242	23.2"	
943	6/13/2019	8	451455	4739	592	23		57980063	47192	5899	227	19.8"	
944	6/20/2019	7	457388	5933	848	33		58021627	41564	5938	228	21.7"	
945	6/28/2019	8	462243	4855	607	23		58063965	42338	5292	204	21.0"	
946	7/1/2019	3	465426	3183	1061	41		58087271	23306	7769	299	21.5"	
947	7/11/2019	10	474667	9241	924	36		58146872	59601	5960	229	24.0"	
948	7/16/2019	5	477526	2859	572	22		58189011	42139	8428	324	21.6"	
949	7/24/2019	8	482019	4493	562	22		58251418	62407	7801	300	22.4"	
950	7/30/2019	6	485154	3135	523	20		58306461	55043	9174	353	18.9"	

TIME (days)	Phase IV PS-1 (Secondary Flows)			Phase IV PS-1 (Primary flow)			FLOW (gpd)	flow (gpd)	g/ac/day	sump inches
	TOTALIZER	GALLONS	FLOW (gpd)	Totalizer	gallons	FLOW (gpd)				
7/5/2018	3	316498	1	49059729	33826	5638	5638	5638	217.20.2"	
7/9/2018	4	316502	4	49086662	22933	5733	5733	5733	221.14.0"	
7/16/2018	7	316504	2	49120934	39272	5467	5467	5467	210.18.4"	
7/23/2018	7	316507	3	49161305	40371	5767	5767	5767	222.15.4"	
8/1/2018	9	316545	4	49205956	44651	4961	4961	4961	191.23.6"	
8/6/2018	5	316633	88	49231931	25975	5195	5195	5195	200.18.9"	
8/13/2018	7	316776	143	49268430	36499	5214	5214	5214	201.21.5"	
8/20/2018	7	316944	168	49305805	37375	5339	5339	5339	205.18.9"	
8/31/2018	11	317122	178	49369414	63609	5783	5783	5783	222.23.4"	
9/7/2018	7	317301	179	49415154	45740	6534	6534	6534	251.18.7"	
9/12/2018	5	317403	102	49455655	40501	8100	8100	8100	312.22.1"	
9/18/2018	6	317557	154	49496755	41100	6850	6850	6850	263.21.2"	
10/1/2018	13	317871	314	49565289	68534	5272	5272	5272	203.22.1"	
10/11/2018	10	318122	251	49623186	57897	5790	5790	5790	223.21.2"	
10/19/2018	8	318345	223	49664658	41472	5184	5184	5184	199.23.4"	
10/28/2018	7	318500	155	49706343	41685	5955	5955	5955	229.17.4"	
11/6/2018	13	318736	236	49784960	78617	6047	6047	6047	233.14.0"	
11/12/2018	4	318746	10	49805391	20431	5108	5108	5108	196.17.4"	
11/20/2018	8	318903	757	49860144	54753	6844	6844	6844	263.17.4"	
11/26/2018	6	319996	493	51031479	1171335	195223	195223	195223	7509.20.4"	
12/3/2018	7	325089	5093	51105543	74064	10581	10581	10581	407.20.6"	
12/12/2018	9	329426	4337	51747262	641719	71302	71302	71302	2742.17.6"	
12/17/2018	5	331435	2009	51802463	55201	11040	11040	11040	425.21.9"	
12/27/2018	10	339877	8442	54197852	2395189	239519	239519	239519	9212.23.6"	
1/3/2019	7	343848	3971	54208523	10871	1553	1553	1553	60.14.9"	
1/8/2019	5	347137	3289	54208523	0	0	0	0	0.18.9"	
1/14/2019	6	349233	2096	54233557	25034	4172	4172	4172	160.20.4"	
1/21/2019	7	352210	2977	54270683	37126	5304	5304	5304	204.20.8"	
1/31/2019	10	357979	5769	54324279	53596	5360	5360	5360	206.15.3"	
2/5/2019	5	360083	2104	54334479	10200	2040	2040	2040	78.20.2"	
2/14/2019	9	367044	6961	54387599	53120	5902	5902	5902	227.14.7"	
2/19/2019	5	374215	7171	54424895	37296	7459	7459	7459	287.20.2"	
2/28/2019	9	383870	9655	54555066	130171	14463	14463	14463	556.16.4"	
3/11/2019	11	398975	15105	56523918	1968852	178987	178987	178987	6884.22.3"	
3/18/2019	7	403499	4524	56524849	931	133	133	133	5.22.7"	
3/29/2019	11	414058	10559	57361385	836516	76047	76047	76047	2925.23.4"	
4/4/2019	6	418236	2178	57505186	143821	23970	23970	23970	922.19.1"	
4/10/2019	6	417759	1523	57574289	66103	11017	11017	11017	424.17.2"	
4/17/2019	7	421560	3801	57615162	43873	6268	6268	6268	241.23.2"	
4/24/2019	7	426076	4516	57665813	50651	7236	7236	7236	278.14.4"	
5/1/2019	7	427709	1633	57709054	42241	6034	6034	6034	232.20.8"	
5/10/2019	9	433016	5307	57765925	57871	6430	6430	6430	247.17.4"	
5/17/2019	7	438115	5099	57815139	49214	7031	7031	7031	270.15.9"	
5/23/2019	6	440911	2796	57871478	56339	9390	9390	9390	361.23.1"	
5/28/2019	5	442052	1141	57882566	11088	2218	2218	2218	85.22.9"	
6/5/2019	8	446716	4664	57932871	50305	6288	6288	6288	242.23.2"	
6/13/2019	8	451455	4739	57980063	47192	5899	5899	5899	227.18.6"	
6/20/2019	7	457388	5933	58021627	41564	5938	5938	5938	228.21.7"	
6/29/2019	8	462243	4855	58063965	42338	5292	5292	5292	204.21.0"	
7/1/2019	3	465426	3183	58087271	23306	7769	7769	7769	299.21.5"	
7/11/2019	10	474657	9241	58146872	59601	5960	5960	5960	229.24.0"	
7/16/2019	5	477526	2859	58189011	42139	8428	8428	8428	324.21.6"	
7/24/2019	8	482019	4493	58251418	562	7801	7801	7801	300.22.4"	
7/30/2019	6	485154	3135	58306461	55043	9174	9174	9174	353.18.9"	

TIME (days)	Phase IV PS-2 (Secondary Flows)				Phase IV PS-2 (Primary)				gpc/day	inches
	TOTALIZER	GALLONS	FLOW (gpd)	gpc/day	Totalizer	gallons	flow(gpd)	gpc/day		
7/5/2018	6	7138	0	0	19794854	24391	4065	384	33.1"	
7/9/2018	4	7138	0	0	19810534	15680	3920	370	34.6"	
7/16/2018	7	7138	0	0	19829442	18908	2701	255	32.0"	
7/23/2018	7	7138	0	0	19849101	19659	2808	265	33.1"	
8/1/2018	9	7138	0	0	19867442	16341	2038	192	29.3"	
8/6/2018	5	7138	0	0	19871321	3879	776	73	28.0"	
8/13/2018	7	7138	0	0	19878945	7624	1089	103	32.9"	
8/20/2018	7	7138	0	0	19880023	1078	154	15	32.2"	
8/31/2018	11	7138	0	0	19891899	11876	1080	102	33.5"	
9/7/2018	7	7138	0	0	19927242	35343	5049	476	34.5"	
9/12/2018	5	7138	0	0	19957019	29777	5955	562	30.7"	
9/18/2018	6	7138	0	0	19968995	29876	4979	470	31.8"	
10/1/2018	13	7138	0	0	20081731	74836	5757	543	31.2"	
10/11/2018	10	7138	0	0	20121467	59736	5974	564	33.3"	
10/19/2018	6	7138	0	0	20167014	45547	5693	537	28.2"	
10/26/2018	7	7138	0	0	20204646	37632	5376	507	34.1"	
11/8/2018	13	7138	0	0	20279418	74772	5752	543	33.3"	
11/12/2018	4	7138	0	0	20304457	25039	6260	591	28.2"	
11/20/2018	8	7138	0	0	20358630	54173	6772	639	28.4"	
11/26/2018	6	7138	0	0	20405933	47303	7884	744	29.3"	
12/3/2018	7	7138	0	0	20461258	55325	7904	746	31.4"	
12/12/2018	9	7138	0	0	20522082	60824	6758	638	33.7"	
12/17/2018	5	7138	0	0	20550035	27953	5591	527	30.3"	
12/27/2018	10	7138	0	0	20620324	70289	7029	663	32.9"	
1/3/2019	7	7138	0	0	20660606	40282	5755	543	29.5"	
1/8/2019	5	7138	0	0	20700486	39880	7976	752	33.3"	
1/14/2019	6	7138	0	0	20740910	40424	6737	636	30.3"	
1/21/2019	7	7138	0	0	20780285	39375	5625	531	34.1"	
1/31/2019	10	7138	0	0	20842598	62313	6231	588	28.5"	
2/5/2019	5	7138	0	0	20871208	28610	5722	540	30.2"	
2/14/2019	9	7138	0	0	20923558	52350	5817	549	31.4"	
2/19/2019	5	7138	0	0	20952717	29159	5832	550	27.8"	
2/28/2019	9	7138	0	0	21007697	54980	6109	576	26.9"	
3/11/2019	11	7138	0	0	21067002	59305	5391	509	31.4"	
3/18/2019	7	7138	0	0	21091793	24791	3542	334	30.7"	
3/29/2019	11	7138	0	0	21163357	71564	6506	614	34.6"	
4/4/2019	6	7138	0	0	21196738	33381	5564	525	24.5"	
4/10/2019	6	7138	0	0	21261533	64795	10799	1019	29.7"	
4/17/2019	7	7138	0	0	21299432	37899	5414	511	27.1"	
4/24/2019	7	7138	0	0	21341263	41831	5976	564	30.7"	
5/1/2019	7	7138	0	0	21399235	57972	8262	781	29.9"	
5/10/2019	9	7138	0	0	21444235	45000	5000	472	34.1"	
5/17/2019	7	7138	0	0	21469235	45000	6429	606	31.4"	
5/23/2019	6	7138	0	0	21534235	45000	7500	708	29.9"	
5/28/2019	5	7138	0	0	21578235	45000	9000	849	29.7"	
6/5/2019	8	7161	23	3	21168712	-410523	-51315	-4841	3.7"	
6/13/2019	8	7161	0	0	21193657	24945	3118	294	4.7"	
6/20/2019	7	7161	0	0	21203611	9954	1422	134	5.9"	
6/28/2019	8	7161	0	0	21209278	5667	708	67	6.5"	
7/1/2019	3	7161	0	0	21244305	35027	11676	1101	6.5"	
7/11/2019	10	7161	0	0	21272410	26105	2811	265	7.2"	
7/16/2019	5	7161	0	0	21291982	19572	3914	369	7.1"	
7/24/2019	8	7161	0	0	21313201	21219	2652	250	7.1"	
7/30/2019	6	7161	0	0	21325920	12719	2120	200	7.2"	

Date	Phase IV PS-3 (Secondary)				Phase IV PS-3 (Primary)				gals/day	flow (gpd)	gals/day	totalizer	gallon	flow (gpd)	totalizer	gallons	flow (gpd)	gals/day	sump inches
	days	totalizer	gallon	flow (gpd)	gals/day	totalizer	gallons	flow (gpd)											
7/5/2018	6	42665	0	0	0	9176312	13653	2276	2276	548	23.6"								
7/9/2018	4	42665	0	0	0	9185141	8829	2207	2207	532	27.9"								
7/19/2018	7	42665	0	0	0	9199913	14772	2110	2110	509	26.8"								
7/23/2018	7	42666	1	0	0	9216822	16909	2416	2416	562	25.1"								
8/1/2018	9	42666	0	0	0	9259666	42844	4760	4760	1147	21.1"								
8/6/2018	5	42666	0	0	0	9284508	24842	4968	4968	1197	24.9"								
8/13/2018	7	42666	0	0	0	9322417	37909	5416	5416	1305	24.9"								
8/20/2018	7	42666	0	0	0	9354156	31739	4534	4534	1093	25.7"								
8/31/2018	11	42689	23	2	0	9396489	42333	3848	3848	927	25.3"								
9/7/2018	7	42689	0	0	0	9416454	19985	2852	2852	687	26.8"								
9/15/2018	5	42689	0	0	0	9434353	17899	3580	3580	863	24.8"								
9/19/2018	6	42689	0	0	0	9452352	17999	3000	3000	723	25.7"								
10/1/2018	13	42689	0	0	0	9489884	36512	2809	2809	677	66.9"								
10/11/2018	10	42689	0	0	0	9490856	1992	199	199	48	67.8"								
10/19/2018	8	42781	92	12	1	9494868	4012	502	502	121	63.1"								
10/26/2018	7	42817	36	5	0	9500655	5787	827	827	199	60.5"								
11/8/2018	13	42817	0	0	0	9596127	95472	7344	7344	1770	24.5"								
11/12/2018	4	43246	429	107	10	9627326	31199	7800	7800	1879	15.3"								
11/20/2018	8	43246	0	0	0	9682363	65037	8130	8130	1959	17.7"								
11/26/2018	6	43246	0	0	0	9747387	55024	9171	9171	2210	21.5"								
12/3/2018	7	43266	20	3	0	9811123	63736	9105	9105	2194	18.5"								
12/12/2018	9	43266	0	0	0	9869983	58660	6540	6540	1576	26.5"								
12/17/2018	5	43266	0	0	0	9893769	23786	4757	4757	1146	27.6"								
12/27/2018	10	43266	0	0	0	9968493	74724	7472	7472	1801	23.2"								
1/3/2019	7	43266	0	0	0	10015193	46700	6671	6671	1608	20.2"								
1/8/2019	5	43266	0	0	0	10063124	47931	9586	9586	2310	18.5"								
1/14/2019	6	43266	0	0	0	10105956	42832	7139	7139	1720	26.2"								
1/21/2019	7	43266	0	0	0	10142879	36923	5275	5275	1271	21.5"								
1/31/2019	10	43266	0	0	0	10216913	74034	7403	7403	1784	20.0"								
2/5/2019	5	43266	0	0	0	10250043	33130	6626	6626	1597	18.7"								
2/14/2019	9	43266	0	0	0	10303601	55558	5951	5951	1434	23.2"								
2/19/2019	5	43266	0	0	0	10344671	41070	8214	8214	1979	16.4"								
2/28/2019	9	43549	283	31	3	10429876	85205	9467	9467	2281	22.3"								
3/11/2019	11	43549	0	0	0	10502158	72282	6571	6571	1583	16.4"								
3/18/2019	7	43549	0	0	0	10530183	28025	4004	4004	965	21.5"								
3/29/2019	11	43718	169	15	1	10643965	115682	10335	10335	2490	27.4"								
4/4/2019	6	43718	0	0	0	10685160	41295	6883	6883	1658	26.4"								
4/10/2019	6	43718	0	0	0	10715075	29915	4986	4986	1201	17"								
4/17/2019	7	43718	0	0	0	10753687	38612	5516	5516	1329	26.2"								
4/24/2019	7	43718	0	0	0	10799919	46232	6605	6605	1591	23.0"								
5/1/2019	7	43718	0	0	0	10813348	13429	1918	1918	482	17.9"								
5/10/2019	9	43718	0	0	0	10840079	26731	2970	2970	716	25.1"								
5/17/2019	7	43718	0	0	0	10906158	66079	9440	9440	2275	16.3"								
5/23/2019	6	43718	0	0	0	11010719	104561	17427	17427	4199	20.1"								
5/28/2019	5	43722	4	1	0	11012129	1410	282	282	68	18.9"								
6/5/2019	8	43736	14	2	0	11056072	45943	5743	5743	1384	15.5"								
6/13/2019	8	43736	0	0	0	11091919	33847	4231	4231	1019	20.2"								
6/20/2019	7	43736	0	0	0	11117289	25370	3624	3624	873	25.7"								
6/29/2019	8	43736	0	0	0	11143077	25788	3224	3224	771	23.1"								
7/1/2019	3	43736	0	0	0	11178444	35367	11789	11789	2841	23.4"								
7/11/2019	10	43736	0	0	0	11235487	57043	5704	5704	1375	16.4"								
7/18/2019	5	43736	0	0	0	11252551	17064	3413	3413	822	20.6"								
7/24/2019	8	43736	0	0	0	11328050	75499	9437	9437	2274	27.3"								
7/30/2019	6	43736	0	0	0	11379440	51390	8565	8565	2064	16.6"								

