Hanover
Engineering Associates Inc

March 28, 2012

Mr. Jack Cahalan, Manager
Lower Saucon Township
3700 Old Philadelphia Pike
Bethlehem, PA 18015

RE: Joint Municipal Landfill Committee
Minutes of March 15, 2012 Meeting
Hanover Project LS90-07

Dear Mr. Cahalan:

The Joint Municipal Committee between IESI Bethlehem Landfill and Lower Saucon Township met at the Landfill Office at 1:00 p.m. on March 15, 2012.

Attending the meeting were:

Ms. Priscilla deLeon
Mr. Hazem Hijazi, PE
Mr. Allen Schleyer
Mr. Christopher Taylor, PG

AGENDA ITEMS

I. Status of Waste Activities

Monthly Tonnages:

	December 2011	January 2012	February 2012
Mun Solid Waste (total)	26,058.60	23,490.00	23,113.40
Mun Solid Waste (out/state)	(17,479.10)	(15,221.30)	(14,693.70)
Construction and Demolition	3,257.30	11,867.80	5,392.10
Residual Waste (Total)	1,914.70	975.00	2,255.90
Asbestos	36.30	51.40	51.30
TOTAL	**31,230.60**	**36,332.80**	**30,761.40**
Recycled Tonnage (percent from Lower Saucon Twp.)	0.0 (86%)	9.70 (77%)	52.13 (85%)

Mr. Schleyer stated that the Construction and Demolition waste had been higher in January due to the Allentown hockey arena project. Ms. deLeon asked what the percentage of out of state waste was for February. Mr. Hijazi performed the calculation on his calculator and advised that it was 63.5%. Ms. deLeon asked for the same figure for January. Mr. Hijazi calculated that it was 64.8%.

Mr. Schleyer stated that residual waste amounts picked up a little bit. He stated that a large amount of recycling went out due to the fact that the cardboard/newspaper container finally filled up after two (2) years, and that the increased amount was due to mostly that, and some scrap. A general discussion on recycling followed. Mr. Hijazi asked what section of the newspaper the recycling

advertisement is run in. Mr. Schleyer responded that he wasn't sure, but that it was as specified by the PADEP.

Mr. Hijazi asked if Mr. Schleyer could add the calculated percentage of out of state to the figures provided. Mr. Schleyer responded yes, that is no problem.

Form U Submittals	Waste	Approval Date
NY Office of General Services	ACM	02-27-12
Montclair Country Club	ACM	02-27-12
City of Newark	ACM	02-27-12
CCPOP Development Corp	ACM	02-27-12
Plainfield Country Club	ACM	03-06-12
Vopak Terminal	ACM	03-06-12
Mars Snack Food	ACM	03-14-12
Vynecrest LLC	Off-spec product	submitted 03-13-12

II. Annual Groundwater Trend Analysis

- The 1st Quarter 2012 Quarterly Groundwater Monitoring sampling is scheduled to take place the week of March 19, 2012.
- The Annual 2011 Groundwater Trent report is due June 30, 2012.

III. Correspondence and Reports

- Form U Submittals to PADEP and Lower Saucon Township
- Abatement System Report
- Cell F correspondence
- 4th Quarter 2011 Groundwater Quarterly Report
- Cell 4E Permit Modification
- Responses to PADEP Inspections
- LFG well construction notice

IV. Landfill Operations

- Department of Environmental Protection Inspections

  - February 8, 2012 – S. French, W. Craft: Engineer's meeting
  - March 8, 2012 – S. French: Engineer's meeting

  Mr. Hijazi stated that Susan French is a new name that he is not familiar with. Mr. Schleyer provided a description of her current duties with the PADEP as they relate to the landfill. A general discussion of the PADEP inspectors currently involved with the landfill followed.

- Host Municipal Inspection

  - February 13, 2012 – Chris Taylor (as part of landfill tour requested by Councilman David Willard)
  - February 16, 2012 – Chris Taylor
  - March 9, 2012 – Chris Taylor

- Bethlehem Renewable Energy (BRE) and Flare Operations

The following is an update to the Gas Turbine Generator/Flare activity. We had the following BRE/LFG Generator shutdowns at Bethlehem Landfill. Auto-valves closed as designed for each shutdown of either the flare or turbine. No odors were noted or odor complaints received by Bethlehem Landfill during the outage events. BRE is currently shutdown for equipment repairs. The flare is operating.

Jan 25, 2012	Turbine shutdown	08:25	Maintenance
	Turbine startup	13:55	Flare running
	Turbine shutdown	14:14	Protective shutdown
	Turbine startup	14:27	Flare running
Jan 28, 2012	Flare shutdown	13:48	High temperature
	Turbine shutdown	13:51	Protective shutdown
	Turbine startup	16:53	Duration 3 hr 2 min
	Flare startup	18:06	Duration 3 hr 2 min then turbine running
Feb 1, 2012	Turbine shutdown	08:07	Maintenance
	Turbine startup	18:08	Flare running
Feb 3, 2012	Turbine shutdown	10:16	Maintenance
	Turbine startup	19:23	Flare running
Feb 10, 2012	Turbine shutdown	11:04	Protective shutdown
	Flare shutdown	11:06	High temperature
	Turbine startup	11:47	Duration 41 min
	Flare startup	15:58	Duration 41 min then turbine running
Feb 15, 2012	Turbine shutdown	08:32	Maintenance
	Turbine startup	16:55	Flare running
Feb 18, 2012	Turbine shutdown	09:19	Protective shutdown
	Flare shutdown	09:19	High temperature
	Turbine startup	09:47	Duration 28 min
	Flare startup	10:57	Duration 28 min then turbine running
Feb 22, 2012	Turbine shutdown	08:25	Maintenance
	Turbine startup	13:52	Flare operating
Feb 23, 2012	Flare shutdown	02:42	High temperature
	Turbine shutdown	02:44	Protective shutdown
	Turbine startup	08:23	Duration 5 hr 39 min
	Flare startup	09:32	Duration 5 hr 39 min then turbine running
Feb 24, 2012	Turbine shutdown	09:29	Protective shutdown
	Flare shutdown	09:30	High temperature
	Flare startup	10:37	Duration 1 hr 7 min
	Turbine startup	17:08	Duration 1 hr 7 min then flare running
Feb 26, 2012	Turbine shutdown	02:39	Protective shutdown
	Turbine startup	08:33	Flare running
Mar 1, 2012	Turbine shutdown	11:19	Protective shutdown
	Flare shutdown	11:20	High temperature
	Flare startup	12:13	Duration 53 min
	Turbine startup	14:06	Duration 53 min then flare running

All shutdown information is provided to the PADEP.

Mr. Schleyer confirmed that the BRE plant is down for repairs. Mr. Hijazi asked how long the plant has been down. Mr. Schleyer responded since March 2. Ms. deLeon asked what happened. Mr. Schleyer responded that the oil/water separator malfunctioned, and that a slug of oil was sent down the sewer line to the wastewater treatment plant. Mr. Taylor asked what the BRE plant has to do with the sewer plant. Mr. Schleyer responded that they have a line to the sewer plant. Mr. Taylor asked if this was for condensate. Mr. Schleyer responded yes. Mr. Hijazi asked how the shutdown was affecting the landfill, relative to gas collection. Mr. Schleyer responded that the flare has been operating and handling the extra gas. A general discussion followed on the existing capacity of the BRE plant, the option of adding capacity to the plant, and how gas management by IESI varies by phases throughout the landfill.

Mr. Schleyer explained the difference between the operation of internal combustion engines versus turbine engines, and how this relates to gas management. He explained that, in order to put a new turbine engine online, there needs to be a big jump in available gas flow. However, the turbine engines operate more efficiently and are more desirable for that reason.

Mr. Schleyer stated that the proposed expansion may include a new flare. Mr. Taylor asked if Mr. Schleyer if he felt that he was still handling the gas flow adequately. Mr. Schleyer responded yes, and added that they are still performing air monitoring.

- Well Sampling

  - The 1st Quarter 2012 Quarterly Groundwater Monitoring sampling is scheduled to take place the week of March 19, 2012.

- North Slope

  - The North Slope sedimentation traps are functional.
  - The North Slope perimeter road is accessible.

- Abatement System Operations

  - The abatement system continues to operate and discharge to the Bethlehem Waste Water Treatment Plant.

Mr. Schleyer stated that, in AB-9, the well pump failed and will be replaced tomorrow.

- Gas Collection

  - The Bethlehem Renewable Energy plant continues to operate as the primary landfill gas control system. The flare is a back-up to the generating plant. The flare is usually running simultaneously with the power plant. The BRE power plant is temporarily shut down for equipment maintenance. The flare is functioning as the primary LFG control device until the BRE plant is operational.

During the inspection following the meeting, Mr. Taylor confirmed that the landfill flare was operating.

- Leachate Collection

Flow rates continue to be monitored and reported. Following is a summary of the work history and developments:

- IESI submitted the report from Mieser and Earl, Inc. on December 23, 2008, to DEP and Lower Saucon Township evaluating the various tests that were performed to locate the source of the elevated detection zone flows as outlined in their May 7, 2008 Work Plan. Lower Saucon Township has forwarded their comments on the December 23, 2008 report to DEP.
- IESI has completed welding of approximately 1,200 L.F. of the secondary line to the primary liner along the northern end of Cell 3-D while the anchor trench was open and prior to completing the weld, a 2½-inch rain event occurred. A spike in the leachate collection/detection flow may be observed.
- IESI will retest the gabion stormwater channel over Cell 3-C and discharging into sedimentation Pond 4 for possible infiltration into the detection zone by flooding the channel on September 24, 2009.
- The capping of the remaining five (5) acres of Phase III has been completed.
- IESI provided an updated report on their LMC investigation to DEP and Lower Saucon Township November 2009. The reports in part indicated that:
    1. LMC 7 does not appear to be affected by rainfall since the northern Cell 3 anchor trench cap/liner welding occurred.
    2. LMC 8 still spiking from rainfall events.
- The next investigation will be to the integrity of the liner under gabion channel in Cell 3-C which will occur in the 1st Quarter 2010. IESI is looking for a seven to ten (7-10) day window with no rain for a meaningful evaluation. IESI received authorization for the Gabion Channel Work Plan from DEP on December 22, 2009.
- The investigation of the integrity of the liner under the gabion downchannel located in Cell 3C began April 10, 2010. The southern-most end of the gabion channel was excavated down to the anchor trench as well as to the east and west of the channel along the anchor trench. Toe drains above the primary liner were replaced and the primary and secondary liners were welded together in the excavated areas. The gabion channel and piping leading to Basin 4 were reconstricted. IESI will continue to monitor the LMC flows and prepare a report on the latest work performed.
- To date the flows into LMC-8 appear to have been substantially reduced since the repair in the first week of April 2010.
- As of this date the data appears to indicate that the repairs to the southern end of the gabion downchannel leading to Sedimentation Pond 4 and the toe drains running east/west at the southern most end of the gabion channel have caused a substantial reduction in the detection zone of LMC-8.
- The LMC-8 Detection Zone flow rate continues to be monitored. Existing data continues to show a substantial reduction in the flow rate.
- September/October 2010 – the recent rain events have shown influence on LMC-8. The committee is recommending that IESI investigate and consider extending the toe-drain, which was replaced in April along the toe of the southern slope and above Sedimentation Pond 4, to the east and west. Mr. Schleyer provided a summary of the remedial work completed to date to alleviate the high leachate flows being recorded in LMC-8. He reviewed the recent flow data, and stated his opinion that the remedial work has helped to reduce the overall flows. He stated his opinion that the flow data for 2010 indicates that the "response time" between a storm event and high flows observed in LMC-8 is less, and that the flows are of a shorter duration, since the work has been completed. He stated that he is monitoring the flow data and planning out the next step in the process, but is currently concentrating his efforts on the methane gas problem experienced at the residence at 2293 Applebutter Road. Ms. deLeon stated that Lower Saucon Township is very

concerned about the high leachate flows, since these could indicate a tear in the landfill liner or other serious problem.

- February 2011: Discussion regarding monitoring results, as provided in the Third Quarter 2010 Quarterly Facility Report, revealed that samples taken from the leachate detection zone provided very similar chemical analyses to samples taken from the leachate collection zone. Mr. Schleyer indicated that IESI had recognized this correlation, and noted it in their cover letter for the report. Mr. Schleyer provided further explanation with regard to how the report is prepared, and noted that the drainage area for LMC-8 is Phase 3, Cell C, which was completed prior to IESI's ownership of the facility.
- March 2011: Mr. Schleyer stated that rainy weather is necessitating working on erosion control, but that the toe-drain work is still at the forefront of his work plan. Ms. deLeon asked "What's going on there" in reference to the high leachate flows documented in the leachate demand report. Mr. Schleyer stated that "stormwater is still getting in" and that they have an "open cell; rainwater is going directly in there". Ms. deLeon stated that leachate flows jumped up starting February 11, 2011. Mr. Schleyer attributed this to a neighboring cell "filling up and overtopping" the short barrier between cells. He stated that LMC-8 serves Phase 3 Cell C, and that when this cell "fills up" with leachate, it causes the high flows documented in LMC-8, but also causes leachate to overspill to the adjacent Phase IV, causing high flows there also.
- April 2011: Mr. Schleyer noted that flows recorded in LMC 6 increased starting March 18, 2011, but that he is not sure exactly why other than to say it is stormwater-related. Mr. Schleyer stated that it is "the same scenario" as last month, with heavy rains every week that has his crews busy repairing leachate seeps and erosion rills.
- May 2011: Additional toe-drain drainage piping was constructed during the beginning of May. A final report will be completed and submitted to the PADEP and Township.
- June 2011: Mr. Taylor asked if the toe drains have been carrying water to daylight (i.e. – has water been flowing out of the new outlets installed in May). Mr. Schleyer responded that there have been a few flowing out.
- July 2011: Ms. deLeon asked what the PADEP says about the LMC 8 work that was completed. Mr. Schleyer stated that they're okay with it, and that it's "everything we said we'd do". Mr. Taylor commented that we'll probably need up to one (1) year of data to evaluate the effectiveness of the work.
- August 2011: Mr. Schleyer confirmed that that he is still collecting leachate flow data. He stated that he is taking LMC 8 detection zone readings every other day to see if the recent heavy rain causes a "bump" in the data. He indicated that the flow data during rain events should be a good tell-tale sign of whether the toe drains are working. He stated that he wants to collect more data, through the wet season.
- September 2011: Mr. Schleyer acknowledged higher detection zone flows during the monitoring period reported herein. He stated that the toe drains are functioning, because he has seen water flowing from them, and noted the extreme rainfall conditions that occurred during this monitoring period.
- October 2011: Mr. Schleyer stated that the flows in LMC 8 still bounce up when it rains. Ms. deLeon asked if anyone has any other ideas (to remediate this problem). Mr. Schleyer responded no. During the inspection following the meeting, I observed water flowing from each of the toe drain outlets. It had just rained in the last twenty-four (24) hours preceding the inspection.

- November 2011: Mr. Taylor asked what specific steps IESI is taking to identify the source of the inflow creating high flows in LMC 8. Mr. Schleyer responded that they are monitoring flow rates versus rainfall.
- December 2011: Mr. Schleyer stated that, as part of the construction of new cell 4F, the anchor trench along the north side of adjacent Cell 4B was exposed in order to "attach" the old cell to the new cell. He stated that this exposure allowed water from rain events at that time to run right into the collection and detection zones, which caused a spike in the flow numbers for those zones in both LMC 7 and LMC 8. He stated that he expects the numbers to come down. Mr. Taylor asked if everything was buttoned up now (i.e. – no continuing exposure to stormwater). Mr. Schleyer responded that, yes, it was.
- January 2012: Mr. Taylor noted that secondary leachate flows continue to exceed 100 gallons per acre per day (G/A/D) through LMC-8, and are also elevated above normal levels for LMC-6 and LMC-7. Mr. Taylor asked Mr. Schleyer if he is still attributing these higher leachate flows to Cell F being open. Mr. Schleyer stated that, yes, he was.
- February 2012: Mr. Schleyer stated that the high leachate flow numbers are, in his opinion, still due to Cell F being open.

Mr. Schleyer wanted to clarify a misunderstanding between himself and Mr. Taylor. Mr. Schleyer stated that there was one (1) week where the connection between Cell 4F and the adjacent cells were open, in order to fuse the liners together. He stated that while the old liner was cut open, there was a large rain event that week. He stated that in no way did he mean that this condition was the continuous cause of high flows in LMC-8 (over many weeks). Mr. Hijazi commented that possible solutions could range from the worst case of removing the trash and replacing the liner to doing nothing, and questioned that if there was another solution other than the extreme, it would have been applied? Mr. Schleyer responded yes.

Mr. Taylor noted that flows in LMC-8 are down, less than 100 gallons per acre per day. Mr. Hijazi asked if that was due to anything. Mr. Schleyer responded that it hadn't rained as much recently. Mr. Hijazi commented that he remembered flows in LMC-8 being an issue two (2) years ago. Mr. Schleyer provided a description of the work that had been performed in response to the high flows in LMC-8. Mr. Hijazi asked what the DEP's stance on the issue was, and if the issue was closed. Mr. Schleyer responded that no one has officially said so, and that the situation is being continually evaluated.

- Radiation Monitoring

  - February 4, 2012: I-131 Level 1
  - February 22, 2012: I-131 Level 1
  - February 27, 2012: I-131 Level 1

Level 1 isotopes were disposed of on site.

Ra-226 construction and demolition material continues to remain in the isolation area until directed from PADEP for off-site transport.

During the inspection following the meeting, Mr. Schleyer pointed out the roll-off container staged in the isolation area.

- Phase IV Construction Activities

  - Phase IV D-Stage 3 and Cell F are currently the active disposal area. Cell F was approved for disposal March 1, 2012. Capping certification is in the process of completion for submittal.

  Mr. Schleyer stated that IESI still hasn't heard back from the PADEP on the Cell 4E Minor Permit modification application yet.

- Complaints

  - No complaints filed in February

V. Commercial Waste Vehicles

	December 2011	January 2012	February 2012
Total Trucks	2,815	3,071	2,652
Overweight	39	59	42
Warnings	28	38	31
Suspensions	11 (0>3%)	21 (3>3%) 1-RO, 2-TT	11 (1>3%) 1-TT

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

Mr. Hijazi commented that after two (2) years (of absence from the Landfill Committee) he thought he'd see the violation numbers lower.

VI. Correspondence

- Correspondence from Department of Environmental Protection

  - No discussion

- Correspondence to Department of Environmental Protection

  - Mr. Schleyer stated that IESI has sent three (3) responses to the PADEP regarding recent incidents, as follows: a response to the leachate release on January 12, 2012; a response to the complaint filed with the PADEP and resulting general inspection on January 24, 2012; and a response to the air quality part of the inspection on January 24, 2012.

  - Mr. Taylor stated his expectation that a response from the PADEP to the above correspondence should be expected. Ms. deLeon stated that the Township should have been notified of the complaint.

  - Mr. Schleyer stated that he doesn't think that IESI would be getting a Notice of Violation for the leachate release. Ms. deLeon stated that there is a violation listed on the PADEP's website. Mr. Schleyer responded that IESI had not gotten a letter from the PADEP stating that they were in violation. Ms. deLeon asked why the website reflected a violation then. Mr. Taylor asked Ms. deLeon if she wanted him to look into it. Ms. deLeon responded yes.

- Other Correspondences
  - No discussion.

VII. Township Activities/Township Staff Meeting Update

- Township correspondence to the Department of Environmental Protection
  - No discussion.
- Council Meeting IESI Issues
  - No discussion.
- Miscellaneous
  - Ms. deLeon stated that she had a scheduling conflict on the next regular meeting date of April 19, and asked everyone if the meeting date could be changed. Everyone settled on the date reflected below.
  - Ms. deLeon stated that, while at the Saucon Valley Council of Governments meeting recently, Tom Ditmar requested that Sam Donato contact him regarding the county's solid waste plan.
  - Mr. Taylor raised the issue of the missing portion of the perimeter fence along the northern property line. Mr. Schleyer stated that he has made several telephone calls to the fence contractor requesting them to come out to the site and do the work. Mr. Taylor asked if the entire length can be replaced. Mr. Schleyer responded yes.

VIII. Establish Time for Next Meeting

1:00 p.m. April 18, 2012 at the Landfill Facility Office.

END OF MINUTES

Respectfully,

HANOVER ENGINEERING ASSOCIATES, INC.

Christopher A. Taylor, PG, HMI

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I:\Proj\LSauconTwp\000-Landfill\2012\IESI landfill report of March 15, 2012 mtg.doc
Enclosure(s)
cc: Ms. Priscilla deLeon (via e-mail)
Mr. Hazem Hijazi, PE (via e-mail)
Mr. Allen Schleyer (via e-mail)
Ms. Lauressa J. McNemar, PE (via e-mail)
Mr. James B. Birdsall, PE (via e-mail)
Mr. Scott J. Brown, HMI (via e-mail)
Mr. Jacob A. Schray, HMI (via e-mail)
Mr. Rich Sichler (via e-mail)
Ms. Leslie Huhn (via e-mail)
Ms. Diane Palik (via e-mail)

	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC
473		TIME	Phase IV PS-2 (Secondary Flows)						Phase IV PS-2 Primary Flow				
474		(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day		TIME	TOTALIZER	Gallons	FLOW (gpd)	g/ac/day	
475	12/30/2011	40907	4859	0	0	0.0			8405587	31246	13035	1917	33.9"
476	1/6/2012	7	4859	0	0	0.0			8405587	0	0	0	33.9"
477	1/13/2012	7	4859	0	0	0.0			8456494	50907	7272	1069	34.6"
478	1/20/2012	7	4859	0	0	0.0			8517008	60514	8645	1271	33.3"
479	1/27/2012	7	4859	0	0	0.0			8562944	45936	6562	965	34.4"
480	2/3/2012	7	4859	0	0	0.0			8645558	82614	11802	1736	33.1"
481	2/10/2012	7	4859	0	0	0.0			8657563	12005	1715	252	31.0"
482	2/16/2012	6	4859	0	0	0.0			8675014	17451	2909	428	35"
483	2/24/2012	8	4860	1	0	0.0			8700655	25641	3205	471	32.2"
484	3/2/2012	7	4860	0	0	0.0			8749790	49135	7019	1032	31.4"
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473		TIME	Phase IV PS-1 (Secondary Flows)					Phase IV PS-1 (Primary Flow)					Sump
474		(days)	TOTALIZER	GALLONS	FLOW (gpd)	g/ac/day		TIME	TOTALIZER	Gallons	FLOW (gpd)	g/ac/day	Level
475	12/30/2011	40907	225335	469	67	3			20146806	171752	24536	1031	12.5"
476	1/6/2012	7	225609	274	39	2			20241943	95137	13591	571	22.1
477	1/13/2012	7	225889	280	40	2			20365489	123546	17649	742	22.1
478	1/20/2012	7	226169	280	40	2			20478132	112643	16092	676	21.2"
479	1/27/2012	7	226503	334	48	2			20618373	140241	20034	842	18.9"
480	2/3/2012	7	226872	369	53	2			20787532	169159	24166	1015	19.1"
481	2/10/2012	7	227083	211	30	1			20877618	90086	12869	541	22.7"
482	2/16/2012	6	227261	178	30	1			20952699	75081	12514	526	14.2"
483	2/24/2012	8	227503	242	30	1			21044854	92155	11519	484	20.8"
484	3/2/2012	7	227746	243	35	1			21126496	81642	11663	490	23.8"
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629		TIME	LMC-6 (Secondary Flows)				LMC-7 (Secondary Flows)				LMC-8 (Secondary Flows)			
630		(days)	TOTALIZER	GALLONS	FLOW (gpd	G/A/D	TOTALIZER	GALLONS	FLOW (gpd	G/A/D	TOTALIZER	GALLONS	LOW (gp	G/A/D
631	12/30/2011	7.00	937,452	2,998	428	27	1,468,467	1270	181	15	3,131,363	15177	2,168	374
632	1/6/2012	7.00	940027	2,575	368	23	1469540	1073	153	13	3,141,407	10044	1,435	247
633	1/13/2012	7.00	942479	2,452	350	22	1470785	1245	178	15	3,148,256	6849	978	169
634	1/20/2012	7.00	945050	2,571	367	23	1472264	1479	211	17	3,161,816	13560	1,937	334
635	1/27/2012	7.00	947260	2,210	316	20	1473312	1048	150	12	3,172,977	11161	1,594	275
636	2/3/2012	7.00	950171	2,911	416	26	1474656	1344	192	16	3,190,086	17109	2,444	421
637	2/10/2012	7.00	952655	2,484	355	23	1475767	1111	159	13	3,196,722	6636	948	163
638	2/16/2012	6.00	954767	2,112	352	22	1476575	808	135	11	3,200,335	3613	602	104
639	2/24/2012	8.00	957409	2,642	330	21	1477728	1153	144	12	3,204,057	3722	465	80
640	3/2/2012	7.00	959460	2,051	293	19	1478572	844	121	10	3,206,660	2603	372	64
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BETHLEHEM LANDFILL

LEACHATE DEMAND REPORT

February 2012

Location	Total gallons
LMC-6	11,127
LMC-7	38,461
LMC-8	32,717
LMC-10	1,520,000
PS-1	358,262
PS-2	117,874
Phase-IV	476,136

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

Total Discharge

LMC-10	1,520,000
Phase IV	476,136
TOTAL	1,996,136 gallons

Total Leachate

Leachate	236,530
Phase IV	476,136
TOTAL	712,666 gallons

LMC-10 Flow – Abatement System Flow = Leachate System Flow (gallons).
Abatement System Flow = 1,283,470 gallons (Neptune Flow meters)