

## Hsu, Benjamin

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**From:** Madden, Melissa  
**Sent:** Thursday, August 24, 2017 12:44 PM  
**To:** Hsu, Benjamin  
**Subject:** FW: Monthly Submittal  
**Attachments:** August 2016.pdf; July 2016.pdf

Please feel free to contact me with any questions or concerns.

Thanks, Melissa



### **Melissa Madden**

Environmental Consultant – Solid Waste  
Florida Department of Environmental Protection, Southwest District  
13051 N Telecom Parkway, Suite 101, Temple Terrace, FL 33637 **NEW!**  
(813) 470-5795 Phone | (813) 470-5995 Fax  
[melissa.madden@dep.state.fl.us](mailto:melissa.madden@dep.state.fl.us)

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**From:** Pelley, Cindy [mailto:[PelleyCA@HillsboroughCounty.ORG](mailto:PelleyCA@HillsboroughCounty.ORG)]  
**Sent:** Friday, September 16, 2016 9:05 AM  
**To:** Madden, Melissa <[Melissa.Madden@dep.state.fl.us](mailto:Melissa.Madden@dep.state.fl.us)>  
**Subject:** RE: Monthly Submittal

Good morning,  
I scanned quick copy in case you want to review before the meeting.  
Thank you, Cindy

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**From:** Madden, Melissa [mailto:[Melissa.Madden@dep.state.fl.us](mailto:Melissa.Madden@dep.state.fl.us)]  
**Sent:** Thursday, September 15, 2016 4:23 PM  
**To:** Pelley, Cindy <[PelleyCA@HillsboroughCounty.ORG](mailto:PelleyCA@HillsboroughCounty.ORG)>  
**Cc:** Ruiz, Larry <[RuizLE@HillsboroughCounty.ORG](mailto:RuizLE@HillsboroughCounty.ORG)>  
**Subject:** RE: Monthly Submittal

Tomorrow is fine. If you want to shoot them over electronically before you head out that would work.

Please feel free to contact me with any questions or concerns.

Thanks, Melissa



### **Melissa Madden**

Environmental Consultant – Solid Waste  
Florida Department of Environmental Protection, Southwest District  
13051 N Telecom Parkway, Temple Terrace, FL 33637  
(813) 470-5795 Phone | (813) 470-5995 Fax  
[melissa.madden@dep.state.fl.us](mailto:melissa.madden@dep.state.fl.us)

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**From:** Pelley, Cindy [<mailto:PelleyCA@HillsboroughCounty.ORG>]  
**Sent:** Thursday, September 15, 2016 3:01 PM  
**To:** Madden, Melissa <[Melissa.Madden@dep.state.fl.us](mailto:Melissa.Madden@dep.state.fl.us)>  
**Cc:** Ruiz, Larry <[RuizLE@HillsboroughCounty.ORG](mailto:RuizLE@HillsboroughCounty.ORG)>  
**Subject:** Monthly Submittal

Hello Melissa,

Would it be ok to submit the monthly leachate balance reports at the meeting tomorrow or do you need them today?

Thank you, Cindy

**Cindy A. Pelley**

**General Manager II**

Solid Waste Management Division

Public Works Department

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**M:** (813) 767-0510

**P:** (813) 671-7707

**E:** [pelleyca@HillsboroughCounty.org](mailto:pelleyca@HillsboroughCounty.org)

**W:** [HillsboroughCounty.org](http://HillsboroughCounty.org)

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**Hillsborough County**

601 E. Kennedy Blvd., Tampa, FL 33602

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Chip Fletcher

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PO Box 1110  
Tampa, FL 33601-1110  
Phone: (813) 272-5912  
Fax: (813) 272-5811

**DATE:** August 16, 2016  
September 14, 2016 (Revised)  
**TO:** *Larry E. Ruiz*  
Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division  
**FROM:** Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division  
**SUBJECT:** Leachate Water Balance Report Forms for July 2016  
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2016 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

**TABLE 1**

**Day (Column I)**

Column I presents the calendar days for the month.

**Rainfall (Column II)**

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 5.55 inches of rainfall at the Southeast County Landfill (SCLF).

**Depth in Pond A (Column III)**

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.6 feet.

**Depth in Pond B (Column IV)**

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent stored in Pond B was 1.5.

**Estimated Depth at Pump Station B Sump (PS-B) (Column V)**

(Revision 9/14/16)

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. This month PS-B was below the normal operation level of 24-inches except for July 1 through 4<sup>th</sup>, July 6<sup>th</sup>, and July 8<sup>th</sup>. The average recorded depth of leachate in the PS-B sump was 23.6 inches.

In the past as a conservative measure, the County was adding 9-inches to the bubbler reading. Moving forward, the bubbler reading will be reported to DEP without any adjustments as any liquid at the bottom of the sump is exempted by Rule. Maintaining the LMP goal of 24-inches above the bubbler will ensure the level over the liner is not more than 12-inches during normal operations.

**Leachate Pumped to MLPS from Phases I-VI (Column VI)**

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. The average daily amount of leachate pumped from PS-A was 94,543 gallons. A total of 2,930,831 gallons of leachate was pumped this month.

**Leachate Pumped from Sections 7-8 LDS (Column VII)**

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month a total of 2,602 gallons of leachate was removed from the leak detection system of Sections 7-8.

**Leachate Pumped to MLPS from Sections 7-8 (Column VIII)**

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VIII). This month leachate was not pumped from Sections 7-8.

(Revision 9/14/16)

Upon closer inspection of the pump station systems, the flow meter was found to contain moisture in the instrumentation housing and thus was deemed not reliable. The County will be repairing or replacing the flow meter at PS-7.

**Leachate Pumped to LTRF from the MLPS (Column IX)**

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 2,930,831 gallons of leachate was pumped to the LTRF.

**Leachate Pumped to LTRF from Section 9 (Column X)**

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. This month leachate was not pumped to the LTRF.

(Revision 9/14/16)

Upon closer inspection of the pump station systems, it was determined that the pump station flow meters had a grounding problem as such, the readings were not reliable. The grounding of the flow meters have been repaired and currently are working properly. In addition, the Pump Station 9 bubbler sensors may have not been showing accurate levels and in turn the pumps were not operating normal. The sensors have been replaced and the pump station is currently is working normal.

**Leachate Pumped from Section 9 LDS (Column XI)**

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month leachate was not removed from the leak detection system.

**Leachate in 575,000-Gallon Tank (Column XII)**

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 410,700 gallons of leachate was stored in the tank.

**Effluent in 575,000-Gallon Tank (Column XIII)**

Column XIII presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank at the LTRF. The amount of effluent stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 246,900 gallons of effluent was stored in the tank.

**Leachate Treated at LTRF (Column XIV)**

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 1,020,000 gallons of leachate was treated at the plant.

**Total Leachate Hauled (Column XV)**

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,956,329 gallons of leachate was hauled off site.

**Leachate Dust Control Sprayed (Column XVI)**

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month 10,698 gallons of leachate was used for dust control.

**Pond A Storage (Column XVII)**

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 94,300 gallons of effluent was stored in Pond A.

**Pond B Storage (Column XVIII)**

Column XVIII presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. This month a daily average of 62,400 gallons of effluent was stored in Pond B.

**Effluent Sprayed at Pond B (Column XIX)**

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XXIV. This month 165,477 gallons of effluent was sprayed in Pond B.

**Effluent Irrigation (Column XX)**

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 1,045,869 gallons of effluent was used for spray irrigation.

**Effluent Dust Control Sprayed (Column XXI)**

Column XXI presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. This month effluent was not sprayed as dust control.

**Total Effluent Hauled (Column XXII)**

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month effluent was not hauled off site.

**Total Evaporation (Column XXIII)**

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 853,600 gallons.

**TABLE 2**

Table 2 presents data assembled from daily logs compiled by the SWMD staff.

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,941,165 gallons. Total outflow quantity from the LTRF was 2,987,027 gallons. The change in storage for the month decreased by 45,863 gallons.

Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM  
JULY 2016  
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at P/B (in.)	Leachate Pumped to MIP S from Phases A-VI (gal.)	Leachate Pumped from Sections 7-8 LDS (gal.)	Leachate Pumped to MIP S from Sections 7-8 LDS (gal.)	Leachate Pumped to LTRF from MPLS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Leachate in 575K Tank (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Spray) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Spray) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	3.6	0.7	24.5	92,468	0	92,468	0	0	0	381,000	216,000	21,000	49,156	0	145,000	9,000	0	0	0	0	0
2	0.53	3.4	1.4	27.5	92,466	212	92,678	0	0	0	403,000	216,000	30,100	56,620	0	129,000	38,000	0	0	0	0	0
3	0.58	3.4	1.5	26.2	79,869	185	80,054	0	0	0	432,000	245,000	30,100	0	0	160,000	38,000	0	0	0	0	0
4	0.77	3.5	1.5	25.4	53,246	123	53,369	0	0	0	451,000	264,000	30,100	0	0	140,000	44,000	0	0	0	0	0
5	0.00	3.5	1.6	23.7	106,492	246	106,738	0	0	0	489,000	302,000	30,100	78,112	0	140,000	11,000	0	0	0	0	0
6	0.00	3.7	2.6	24.4	97,960	0	97,960	0	0	0	466,000	206,000	33,300	85,286	0	151,000	133,000	0	0	0	0	0
7	0.00	3.5	2.8	23.3	96,757	133	96,890	0	0	0	446,000	230,000	28,900	70,994	0	140,000	152,000	0	0	0	0	0
8	0.00	3.5	2.8	24.3	96,406	0	96,406	0	0	0	453,000	257,000	27,000	71,046	0	140,000	152,000	0	0	0	0	0
9	0.00	2.9	2.8	23.6	98,636	0	98,636	0	0	0	441,000	281,000	29,100	102,632	0	103,000	152,000	0	28,446	0	0	20,400
10	0.00	2.8	2.8	23.5	99,153	0	99,153	0	0	0	463,000	287,000	29,400	0	0	98,000	143,000	0	47,930	0	0	38,100
11	0.58	2.7	2.7	23.3	99,153	0	99,153	0	0	0	485,000	295,000	29,400	101,696	0	93,000	143,000	0	0	0	0	0
12	0.00	3.4	2.7	23.7	95,862	0	95,862	0	0	0	417,000	211,000	30,600	109,022	0	93,000	143,000	0	72,615	0	0	38,100
13	1.02	2.9	2.2	23.4	91,912	0	91,912	0	0	0	369,000	230,000	28,600	116,474	1,016	129,000	143,000	0	85,602	0	0	69,100
14	0.00	2.9	2.1	23.5	97,489	0	97,489	0	0	0	324,000	214,000	30,400	101,800	1,066	103,000	97,000	56,338	83,379	0	0	70,400
15	0.01	2.3	1.9	23.4	97,112	0	97,112	0	0	0	297,000	230,000	27,300	57,212	0	103,000	88,800	68,510	53,418	0	0	46,200
16	0.26	2.4	1.4	23.7	98,510	0	98,510	0	0	0	339,000	235,000	26,400	0	1,026	74,000	72,000	40,599	59,204	0	0	50,200
17	0.00	2.5	1.1	23.6	96,064	61	96,125	0	0	0	389,000	265,000	26,400	0	0	79,000	38,000	0	44,377	0	0	33,500
18	0.00	2.6	0.7	23.4	96,064	61	96,125	0	0	0	449,000	285,000	26,400	0	1,026	83,000	19,000	0	0	0	0	0
19	0.00	3.1	0.7	23.4	97,402	268	97,670	0	0	0	439,000	233,000	23,800	77,470	1,017	113,000	9,000	0	72,117	0	0	38,900
20	0.00	2.3	0.7	23.5	97,402	268	97,670	0	0	0	422,000	216,000	30,300	49,400	1,128	74,000	9,000	0	45,772	0	0	37,300
21	0.00	2.2	0.9	23.1	103,546	238	103,784	0	0	0	435,000	240,000	36,400	71,771	0	70,000	0	0	0	0	0	0
22	0.33	2.6	0.0	22.5	101,479	248	101,727	0	0	0	435,000	245,000	36,400	78,823	1,024	88,000	0	0	38,709	0	0	47,800
23	0.00	3.1	0.0	22.4	100,516	245	100,761	0	0	0	417,000	241,000	35,200	49,432	0	113,000	0	0	59,564	0	0	47,200
24	1.02	2.8	0.6	22.4	94,184	148	94,332	0	0	0	448,000	240,000	35,200	0	0	98,000	0	0	0	0	0	0
25	0.01	2.4	0.4	22.3	94,184	148	94,332	0	0	0	478,000	245,000	35,200	79,307	0	79,000	3,000	0	0	0	0	0
26	0.00	2.6	0.4	23.3	91,600	0	91,600	0	0	0	435,000	266,000	39,300	58,085	1,129	88,000	3,000	0	45,270	0	0	0
27	0.00	1.7	0.4	22.1	92,306	0	92,306	0	0	0	461,000	305,000	42,300	86,261	1,134	48,000	3,000	0	29,641	0	0	31,100
28	0.00	1.0	1.3	23.1	92,971	0	92,971	0	0	0	415,000	285,000	45,400	122,948	1,132	21,000	37,000	0	0	0	0	24,600
29	0.02	0.8	2.3	23.4	91,188	0	91,188	0	0	0	320,000	225,000	48,000	116,099	0	17,000	0	0	0	0	0	900
30	0.00	0.8	2.3	22.3	91,892	0	91,892	0	0	0	262,000	238,000	47,100	94,561	0	17,000	124,000	0	108,772	0	0	87,000
31	0.42	0.9	2.6	23.7	91,680	0	91,680	0	0	0	279,000	275,000	47,100	0	0	17,000	124,000	0	94,319	0	0	73,500
Total	5.55				2,930,831	2,602	2,933,433	0	0	0	11,070,000	246,900	1,020,000	1,956,379	10,698	94,300	62,400	165,477	1,015,869	0	0	853,600
Mo. Average		2.6	1.5	23.6	94,543	84	94,627	0	0	0	410,700	246,900	300	300	0	0	0	33,700	0	0	0	273,500

Notes:  
 1. NR = No Records, NA = Not Available.  
 2. Values in bold are estimated; values in italic are solution for missing data and are based on averaged values.  
 3. Daily average is calculated by dividing the total by the total days measured in the month.  
 4. Monthly average calculated by dividing the total by the number of days of the month.  
 5. Column II, Trace is less than 0.01 inches and is not included in total.  
 6. Columns III and IV, field measured at staff gauges.  
 7. Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.  
 8. Columns XIII and XIV, calculated from depth in 575,000 gal. tanks.  
 9. Columns V-XII, XV-XVII, and XX-XXIII, quantities from flow meters.  
 10. Column XXIV includes 80% of the daily values from Columns XVII, XXI, and XXII plus 5% of the daily values from column XX.



TABLE 2. FIELD DATA ENTRY FORM  
JULY 2016  
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pump 1 (gal.)	Section 9 Pump 2 (gal.)	Section 9 LDS (gal.)	Sections 7-8 Pump (gal.)	Sections 7-8 LDS (gal.)	Pond B Depth (ft.)	Pond B Effluent Sprayed (gal.)	Pond A Depth (ft.)	Effluent Spray Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTR (gal.)	Leachate Hauled Contractor (gal.)	Leachate Hauled County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled Contractor (gal.)	Effluent Hauled County (gal.)	Effluent Dust Control (Sprayed) (gal.)
1	0.00	2,520,468	24.5	2,960,632	724,719	5,814,537	995,926	145,281	0.7	0.0	3.6	0	13.33	7.50	22,089	49,156	0	0	0	0	0
2	0.53	2,612,934	27.5	2,960,635	724,720	5,814,537	995,926	145,493	1.4	0.0	3.4	0	14.00	7.50	30,077	56,620	0	0	0	0	0
3	0.58	2,692,803	26.2	2,960,640	724,722	5,814,543	995,926	145,678	1.5	0.0	3.4	0	15.00	8.50	30,077	0	0	0	0	0	0
4	0.77	2,746,043	25.4	2,960,643	724,723	5,814,546	995,926	145,801	1.5	0.0	3.5	0	15.67	9.17	30,077	0	0	0	0	0	0
5	0.00	2,852,540	23.7	2,960,649	724,725	5,814,554	995,926	146,047	1.6	0.0	3.5	0	17.00	10.50	30,077	49,510	28,602	0	0	0	0
6	0.00	2,950,500	24.4	2,960,652	724,725	5,814,554	995,926	146,048	2.6	0.0	3.7	0	16.17	7.17	35,292	49,508	35,778	0	0	0	0
7	0.00	3,047,257	23.3	2,960,652	724,729	5,814,554	995,926	146,181	2.8	0.0	3.5	0	15.50	8.00	28,891	35,264	35,730	0	0	0	0
8	0.00	3,143,663	24.3	2,960,654	724,734	5,814,554	995,926	146,206	2.8	0.0	3.5	25,446	15.75	8.92	29,244	35,410	35,636	0	0	0	0
9	0.00	3,242,299	23.6	2,960,659	724,738	5,814,554	995,926	146,206	2.8	0.0	2.9	47,930	15.33	9.75	29,443	102,632	0	0	0	0	0
10	0.00	3,341,452	23.5	2,960,662	724,742	5,814,554	995,926	146,206	2.8	0.0	2.8	0	16.08	9.96	29,443	0	0	0	0	0	0
11	0.58	3,440,605	23.3	2,960,665	724,745	5,814,554	995,926	146,206	2.7	0.0	2.7	72,615	16.83	10.17	29,443	73,198	28,498	0	0	0	0
12	0.00	3,536,467	23.7	2,960,670	724,752	5,814,554	995,926	146,206	2.7	0.0	3.4	85,602	14.50	7.33	30,584	80,132	28,890	1,016	0	0	0
13	1.02	3,631,379	23.4	2,960,674	724,761	5,814,554	995,926	146,206	2.2	563,380	2.9	83,379	12.83	8.00	28,642	79,906	36,568	1,066	0	0	0
14	0.00	3,728,868	23.4	2,960,688	724,763	5,814,554	995,926	146,206	2.1	685,400	2.9	53,418	11.25	7.42	30,391	65,240	36,564	0	0	0	0
15	0.01	3,825,980	23.5	2,960,694	724,766	5,814,554	995,989	146,205	1.9	405,990	2.3	59,204	10.33	8.25	27,253	28,150	29,062	1,026	0	0	0
16	0.26	3,924,490	23.7	2,960,696	724,769	5,814,554	995,989	146,205	1.4	0.0	2.4	44,377	11.42	8.17	26,383	0	0	0	0	0	0
17	0.00	4,020,554	23.6	2,960,699	724,773	5,814,554	995,989	146,206	1.1	0.0	2.5	0	13.50	9.09	26,383	0	0	0	0	0	0
18	0.00	4,116,617	23.4	2,960,701	724,776	5,814,554	995,989	146,327	0.7	0.0	2.6	59,702	15.58	10.00	26,383	35,374	36,844	1,026	0	0	0
19	0.00	4,210,883	23.4	2,960,706	724,780	5,814,554	995,989	146,395	0.7	0.0	3.1	72,117	15.25	7.75	23,765	42,403	35,067	1,017	0	0	0
20	0.00	4,308,285	23.5	2,960,712	724,784	5,814,554	995,989	146,861	0.7	0.0	2.3	45,772	14.67	7.50	30,305	49,400	0	1,128	0	0	0
21	0.00	4,411,831	23.1	2,960,715	724,787	5,814,554	995,989	147,119	0.0	0.0	2.2	0	15.10	8.33	36,408	42,394	29,377	0	0	0	0
22	0.33	4,513,310	22.5	2,960,721	724,790	5,814,554	995,989	147,367	0.0	0.0	2.6	58,709	15.10	8.50	34,518	42,361	36,462	1,024	0	0	0
23	0.00	4,613,826	22.4	2,960,760	724,795	5,814,554	995,994	147,612	0.0	0.0	3.1	59,566	14.50	6.75	35,168	49,432	0	0	0	0	0
24	1.02	4,708,010	22.4	2,960,766	724,801	5,814,554	995,994	147,760	0.0	0.0	2.8	0	15.55	7.63	35,168	0	0	0	0	0	0
25	0.01	4,802,194	22.3	2,960,771	724,806	5,814,554	995,994	147,908	0.4	0.0	2.4	0	16.60	8.50	35,168	42,439	36,768	0	0	0	0
26	0.00	4,896,794	23.3	2,960,772	724,806	5,814,554	995,994	147,910	0.4	0.0	2.6	45,270	15.10	9.25	39,340	21,231	36,854	1,129	0	0	0
27	0.00	4,989,100	22.1	2,960,783	724,810	5,814,554	995,994	147,910	0.4	0.0	1.7	29,641	16.00	10.58	42,277	49,483	36,778	1,134	0	0	0
28	0.00	5,082,071	23.1	2,960,787	724,812	5,814,554	995,994	147,910	1.3	0.0	1.0	0	14.40	10.00	45,399	86,992	35,956	1,132	0	0	0
29	0.02	5,175,259	23.4	2,960,788	724,815	5,814,554	995,996	147,910	2.3	0.0	0.8	0	11.10	7.83	48,020	86,841	29,258	0	0	0	0
30	0.00	5,267,151	22.3	2,960,796	724,818	5,814,554	995,997	147,910	2.5	0.0	0.8	108,772	9.10	8.25	47,067	94,561	0	0	0	0	0
31	0.42	5,358,831	23.7	2,960,799	724,826	5,814,554	995,998	147,911	2.6	0.0	0.9	94,349	9.70	9.54	47,067	0	0	0	0	0	0
Totals	5.55									165,477		1,045,869			1,019,842	1,347,637	608,692	10,698			

Notes:  
 1. NR = No Records, NA = Not Available.  
 2. Values in bold are estimated; values in *italic* are substitute for missing data and are based on averaged values.  
 3. Column IV includes quantities from leak detection system.  
 4. Column R, trace is less than 0.01 inches.  
 5. Columns C, D, F, G, H, I, J, L, N, Q, R, V and W are quantities from flow meters.  
 6. Columns K and M measured from staff gauges in each pond.

Type of Cover	Phases I-VI acres	Sections 7-8 acres	Section 9 acres
Open	5	0	0
Intermediate	134.4	19.3	15
Final	23	0	0
Not Opened	0	0	0

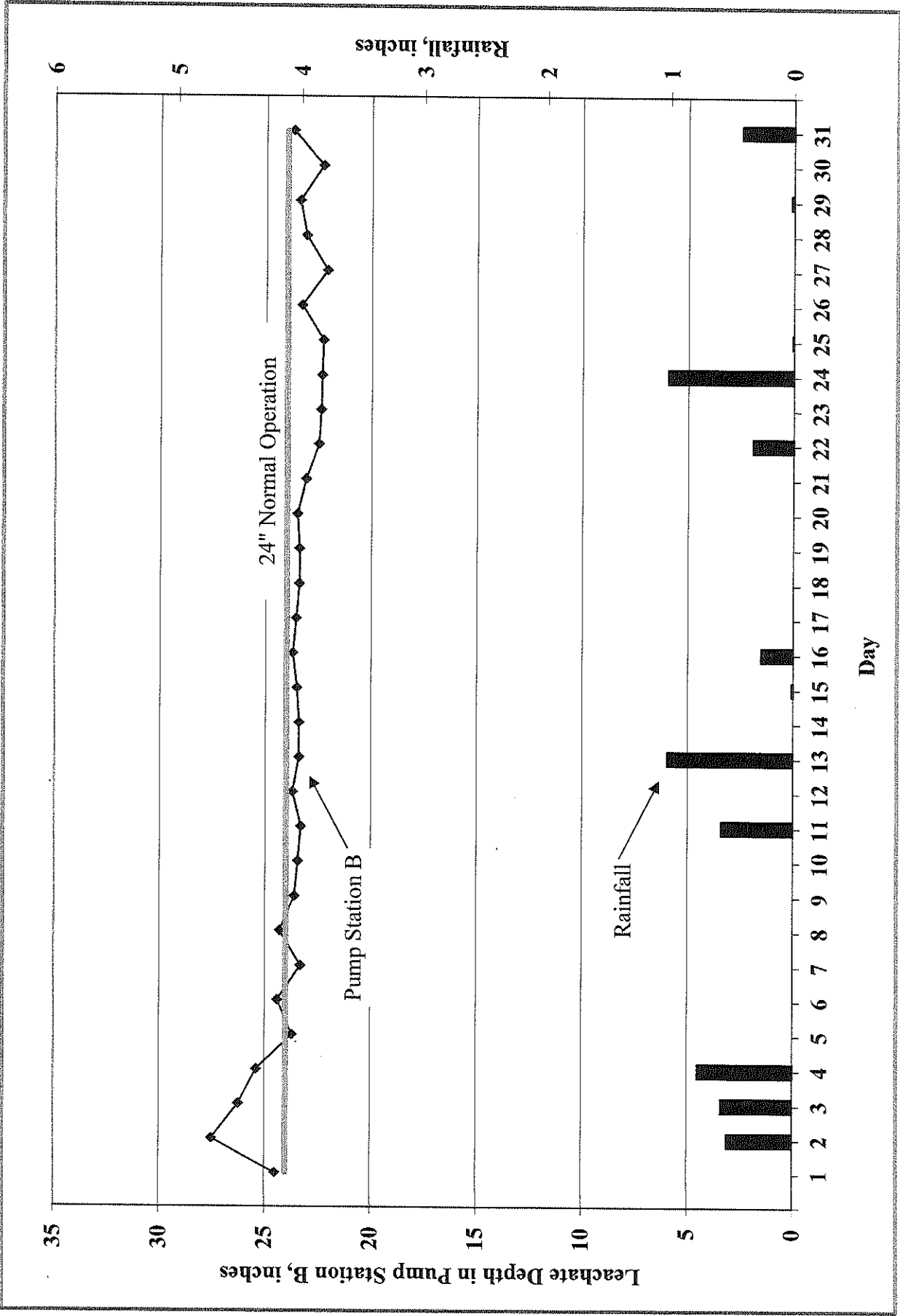


Figure 1. Leachate Levels in Pump Station B and Rainfall for July 2016.

TABLE 3. LEACHATE BALANCE SUMMARY  
SOUTHEAST COUNTY LANDFILL  
HILLSBOROUGH COUNTY, FLORIDA  
YEAR-2016

Month	Rainfall (in.)	Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow for LTRF		
		Condensate from LFG System (gal.)	Leachate from Section 9 Pumped to LTRF (gal.)	Leachate from Section 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)
January	7.36	13,493	720	155,274	2,520,135	2,382,887	0	183,500	0	36,630	2,689,622	2,566,387	123,235
February	1.61	9,430	511	218,755	2,493,661	1,353,187	0	1,061,000	0	353,350	2,722,357	2,414,187	308,170
March	2.31	8,864	410	120,310	2,157,400	1,738,430	27,118	360,800	0	443,343	2,286,984	2,126,348	160,636
April	2.50	5,771	195	102,931	2,268,165	1,607,452	0	743,800	0	649,650	2,377,062	2,351,252	25,810
May	8.03	12,092	228	53,694	2,719,435	1,652,011	0	948,800	0	771,435	2,785,449	2,600,811	184,638
June	11.46	13,747	236	1	2,472,400	1,650,372	5,293	853,400	21,936	1,097,101	2,486,384	2,509,065	-22,681
July	5.55	9,860	0	0	2,930,831	1,956,329	10,698	1,020,000	0	1,045,869	2,940,691	2,987,027	-46,336
August	11.00	11,158	458,958	340,165	3,352,655	2,804,839	33,420	1,184,800	22,005	708,321	4,162,936	4,023,059	139,877
September													
October													
November													
December													
YTD Total	49.82	84,415	461,258	991,130	20,914,682	15,145,507	76,529	6,356,100	43,941	5,105,699	22,451,485	21,578,136	873,349

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.
3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.