

Hsu, Benjamin

From: Madden, Melissa
Sent: Friday, September 29, 2017 3:12 PM
To: SWD_Waste
Subject: FW: WACS ID 41193 - August 2017 Water Balance for Southeast County Landfill
Attachments: August 2017.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
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From: Pelley, Cindy [mailto:PelleyCA@HillsboroughCounty.ORG]
Sent: Friday, September 29, 2017 2:32 PM
To: Madden, Melissa <Melissa.Madden@dep.state.fl.us>
Cc: Morgan, Steve <Steve.Morgan@dep.state.fl.us>; Ruiz, Larry <RuizLE@HillsboroughCounty.ORG>; Byer, Kimberly <ByerK@hillsboroughcounty.org>; 'Clark, Bruce' <BClark@SCSEngineers.com>; 'Curtis, Bob' <BCurtis@scsengineers.com>; Adams, David <AdamsDS@HillsboroughCounty.ORG>; O'Neill, Joseph <ONeillJ@hillsboroughcounty.org>
Subject: WACS ID 41193 - August 2017 Water Balance for Southeast County Landfill

Melissa:

Please see the attached August 2017 Water Balance for Southeast County Landfill.

Please let me know if you have any questions or concerns.

Thank you, Cindy

Cindy A. Pelley

General Manager II

Solid Waste Management Division
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PUBLIC WORKS

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MEMORANDUM

DATE: September 28, 2017
TO: 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 August 2017 Southeast County Landfill, Hillsborough County, Florida

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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 2017 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 11.97 inches of rainfall recorded 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 2.9 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 2.3 feet.

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

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 except for August 29 – 31 due to excessive rain events within a short period of time and a high level in the leachate storage tank. The average recorded depth of leachate in the PS-B sump was 15.9 inches.

Leachate Pumped to Pump Station A Sump from Phases I-VI Condensate Line (Column VI)

Column VI presents the daily amount of leachate, in gallons, collected from the Phases I-VI condensate line and pumped to Pump Station A (PS-A). The average daily amount of leachate pumped from the Phases I-VI condensate line was 2,451 gallons. A total of 75,972 gallons of leachate was pumped this month.

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

Column VIII 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. This column also includes the Phase II data from the dewatering wells and temporary pump stations TPS-2B and PS-2. The average daily amount of leachate pumped from PS-A was 141,791 gallons. A total of 4,395,522 gallons of leachate was pumped this month.

Leachate Pumped from Sections 7-8 LDS (Column VIII)

Column IX 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 7,347 gallons of leachate was removed from the leak detection system of Sections 7-8.

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

Column X 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 IX). This month a total of 355,006 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column X)

Column XI presents the total quantity of leachate pumped to the LTRF from Phases I-VI (including condensate removed from LFG Wells and Condensate Traps), and Sections 7-8. This month a total of 4,750,528 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XI)

Column XII 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. A total of 270,988 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XII)

Column XIII 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 2,651 gallons per day. This month a total 3 gallons of leachate was removed from the leak detection system.

Leachate Pumped from Compost Area Sump (Column XIII)

Column XIV presents the total quantity of leachate pumped to the LTRF from the Compost Project Area Sump. This month a total of 916,050 gallons of leachate from the compost area was pumped to the LTRF.

Leachate in 575,000-Gallon Tank (Column XIV)

Column XV presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank T1 at the LTRF. The amount of leachate stored in T1 is calculated based on the circumference of the tank and the daily level reading. This month an average of 360,800 gallons of leachate was stored in the tank.

Effluent in 575,000-Gallon Tank (Column XV)

Column XVI presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank T6 at the LTRF. The amount of effluent stored in T6 is calculated based on the circumference of the tank and the daily level reading. This month an average of 387,800 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XVI)

Column XVII presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 1,272,284 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVII)

Column XVIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 3,868,019 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVIII)

Column XIX 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 a total of 6,349 gallons of leachate was used for dust control.

Pond A Storage (Column XIX)

Column XX 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 III). 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 105,600 gallons of effluent was stored in Pond A.

Pond B Storage (Column XX)

Column XXI 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 119,900 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XXI)

Column XXII 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 XXVI. This month 42,639 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXII)

Column XXIII presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases IV-VI. The daily amount of effluent irrigation on Phases IV-VI is measured from the flow meter at the irrigation pump station. This month a total of 234,699 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXIII)

Column XXIV 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 XXIV)

Column XXV presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month 1,058,677 gallons of effluent was hauled off site.

Total Evaporation (Column XXV)

Column XXVI 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 194,800 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 5,930,719 gallons. Total outflow quantity from the LTRF was 5,146,652 gallons. The change in storage for the month increased by 784,067 gallons.

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

TABLE I. LEACHATE WATER BALANCE REPORT FORM
AUGUST 2017
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	XXIV	XXV	
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Phases I - VI Condensate Meter (gal.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sections 7-8 LDS (gal.)	Leachate Pumped to MLPS from Sections 7-8 (gal.)	Leachate Pumped to LTRF from MPLS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Compost Leachate (gal.)	Leachate in 575K Tank (gal.)	Effluent in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)	
1	0.01	2.5	2.9	8.9	3,561	123,317	142	17,101	140,418	21,373	0	101,700	413,000	331,000	39,969	147,101	0	83,000	162,000	0	0	0	7,168	0	
2	0.82	2.7	3.1	17.6	1,625	151,319	183	26,208	177,527	23,155	0	63,100	456,000	377,000	53,621	196,122	0	93,000	182,000	0	0	0	0	0	
3	0.07	2.7	3.2	10.7	1,367	171,567	20	31,814	203,381	29,254	0	9,300	446,000	422,000	52,417	220,621	0	93,000	192,000	0	0	0	18,322	0	
4	0.00	2.7	3.3	9.8	1,481	160,434	71	29,621	190,055	22,457	0	65,200	446,000	439,000	38,471	226,994	0	93,000	202,000	0	0	0	24,416	0	
5	0.03	2.7	3.3	10.1	2,093	154,030	105	29,971	184,001	14,783	0	19,600	430,000	425,000	38,674	122,129	0	93,000	202,000	0	0	0	48,847	0	
6	0.00	2.7	3.3	11.2	2,980	142,765	230	10,570	153,335	12,396	0	1,050	422,000	466,000	38,675	178,413	0	88,000	192,000	0	0	0	36,777	0	
7	0.17	2.6	3.2	12.2	2,980	144,362	230	10,570	154,932	12,396	0	1,050	422,000	466,000	38,675	178,413	0	88,000	192,000	0	0	0	36,777	0	
8	0.10	2.6	3.2	8.6	3,252	136,892	734	38,998	175,890	9,668	0	2,100	403,000	463,000	35,850	171,436	0	88,000	192,000	0	11,615	0	28,597	9,300	
9	0.00	3.3	2.7	13.7	3,398	140,435	93	22,543	162,978	9,075	0	0	353,000	453,000	38,807	158,292	0	123,000	143,000	0	10,684	0	85,271	8,500	
10	0.00	3.2	2.7	16.4	3,267	134,772	127	17,394	152,166	8,695	0	0	302,000	415,000	41,141	158,668	3,070	118,000	143,000	42,639	0	0	72,756	4,600	
11	0.09	3.4	2.5	13.4	3,189	164,386	175	16,592	180,978	7,851	0	0	259,000	377,000	37,797	122,818	1,608	129,000	124,000	0	0	0	79,048	1,300	
12	0.65	3.4	2.5	20.0	3,252	132,572	457	9,956	142,528	8,040	0	0	274,000	341,000	45,529	49,689	0	129,000	124,000	0	0	0	0	0	
13	0.02	3.4	2.5	14.6	3,071	126,505	685	20,099	146,604	7,474	0	0	42,900	345,000	378,000	45,529	0	129,000	124,000	0	0	0	0	0	
14	0.20	3.3	2.5	9.2	3,071	127,285	685	20,099	147,384	7,474	0	0	417,000	415,000	45,528	109,221	0	123,000	124,000	0	0	0	63,875	0	
15	0.04	3.2	2.5	10.0	3,105	121,999	4	13,839	135,838	3,289	0	0	403,000	403,000	45,665	99,442	0	118,000	124,000	0	37,278	0	38,659	29,800	
16	0.10	2.7	2.6	8.6	2,897	111,092	0	10,862	121,954	2,527	3	0	389,000	386,000	32,854	129,619	1,671	93,000	133,000	0	0	0	72,655	1,300	
17	0.12	2.7	2.6	13.0	2,853	144,318	888	14,742	159,060	1,349	0	0	341,000	345,000	44,577	108,496	0	93,000	133,000	0	32,760	0	72,793	26,200	
18	0.11	2.1	2.8	13.4	2,744	118,957	369	2,553	121,510	28	0	300	336,000	314,000	41,500	91,723	0	65,000	152,000	0	28,295	0	36,689	22,600	
19	0.00	2.8	2.0	19.1	2,780	108,658	116	0	108,658	11	0	400	317,000	329,000	54,343	85,965	0	98,000	80,000	0	57,432	0	0	45,900	
20	0.03	2.4	2.0	15.0	2,239	105,536	106	5,028	110,564	49	0	0	317,000	378,000	54,343	43,713	0	79,000	80,000	0	0	0	0	0	
21	0.00	1.9	2.0	10.8	2,239	140,857	106	5,028	145,885	49	0	0	317,000	427,000	54,344	128,977	0	57,000	80,000	0	0	0	36,650	0	
22	0.00	3.3	1.0	17.9	1,885	117,134	490	778	117,912	1,134	0	0	286,000	427,000	40,580	114,122	0	123,000	19,000	0	46,397	0	36,600	37,100	
23	0.27	2.4	1.0	21.1	1,969	112,454	41	125	112,579	28,548	0	0	274,000	403,000	35,225	106,507	0	79,000	19,000	0	10,238	0	79,239	8,200	
24	0.00	3.2	0.0	8.2	1,379	128,709	231	77	128,786	6,029	0	17,550	245,000	369,000	36,554	128,359	0	118,000	0	0	0	0	79,761	0	
25	0.78	3.3	0.0	9.6	2,530	128,737	174	51	128,788	9	0	0	216,000	324,000	33,834	83,189	0	123,000	0	0	0	0	43,580	0	
26	4.48	3.3	0.0	8.8	1,913	118,497	0	48	118,545	11	0	0	50,700	216,000	331,000	35,948	42,440	0	123,000	0	0	0	0	0	0
27	1.27	3.4	1.0	13.9	2,018	148,060	217	45	148,105	13	0	0	291,200	299,000	354,000	35,948	43,619	0	129,000	19,000	0	0	0	0	0
28	2.27	3.4	2.0	18.9	2,018	161,639	217	45	161,684	13	0	82,550	381,000	377,000	35,947	121,826	0	129,000	80,000	0	0	0	36,480	0	
29	0.30	3.4	2.2	40.2	1,742	187,493	189	28	187,521	23,043	0	147,550	451,000	365,000	33,313	184,704	0	129,000	97,000	0	0	0	36,294	0	
30	0.04	3.4	3.3	44.4	1,352	212,692	50	70	212,762	2,798	0	19,800	504,000	355,000	33,313	173,230	0	129,000	202,000	0	0	0	6,044	0	
31	0.00	3.1	3.3	44.8	1,725	218,053	213	151	218,204	8,000	0	0	502,000	389,000	33,314	198,999	0	113,000	202,000	0	0	0	18,156	0	
Total	11.97				75,972	4,395,522	7,347	355,006	4,750,528	270,988	3	916,050			1,272,284	3,868,019	6,349						1,058,677	194,800	
Daily Average		2.9	2.3	15.9	2,451	141,791	237	11,452	153,243	8,742	0	29,550	360,800	387,800				105,600	119,900						
Mo. Average																		200			7,600		34,200	6,280	

projects\balance\2009\01-09\bal.xls (ds 9/07/17)

- 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. Daily average is calculated by dividing the total by the actual 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 IX & X, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 8. Column XV and XVI, calculated from depth in 575,000 gal. tanks.
 9. Columns VI-XIV, XVII-XIX, and XXII-XXV, quantities from flow meters.
 10. Column XXVI includes 80% of the daily values from Columns XIX, XXIII, and XXIV plus 5% of the daily values from column XXII.

**TABLE 2. FIELD DATA ENTRY FORM
AUGUST 2017
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A Day	B Rainfall (in.)	C		E Reading PS-B (in.)	F Section 9 Pump 1 (gal.)	G Section 9 Pump 2 (gal.)	H Section 9 LDS (gal.)	I Compost Leachate (gal.)	J Sections 7-8 Pump (gal.)	K Sections 7-8 LDS (gal.)	L Pond B Depth (ft.)	M Pond B Effluent Sprayed (gal.)	N Pond A Depth (ft.)	O Effluent Spray Irrigation (gal.)	P Depth in 575K Tank Leachate (ft.)	Q Depth in 575K Tank Effluent (ft.)	R Leachate Treated at LTRF (gal.)	S		U Leachate Dust Control (Sprayed) (gal.)	V		X Effluent Dust Control (Sprayed) (gal.)
		Phases I - VI Condensate Meter (gal.)	D Flow Meter Pump Sta. A (gal.)															T			W		
																		Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)	
1	0.01	222,066	4,062,172	8.9	3,602,974	2,178,553	5,846,192	503,500	3,549,105	16,399	2.9	0.0	2.5	0	14.33	11.50	0	102,993	44,108	0	7,168	0	0
2	0.82	223,691	4,191,253	17.6	3,603,035	2,201,647	5,846,192	566,600	3,575,313	16,582	3.1	0.0	2.7	0	15.83	13.08	0	123,563	72,559	0	0	0	0
3	0.07	225,058	4,342,800	10.7	3,603,036	2,230,900	5,846,192	575,900	3,607,127	16,602	3.2	0.0	2.7	0	15.50	14.67	0	126,833	93,788	0	18,322	0	0
4	0.00	226,539	4,483,874	9.8	3,603,155	2,253,238	5,846,192	641,100	3,636,748	16,673	3.3	0.0	2.7	0	15.50	15.25	0	112,819	114,175	0	24,416	0	0
5	0.03	228,632	4,618,117	10.1	3,603,570	2,267,606	5,846,192	660,700	3,666,719	16,778	3.3	0.0	2.7	0	14.92	14.75	0	43,598	78,531	0	48,847	0	0
6	0.00	231,612	4,740,209	11.15	3,604,844	2,278,728	5,846,192	661,750	3,677,289	17,008	3.25	0	2.65	0	14.80	15.46	0	78,896	42,689	0	0	0	0
7	0.17	234,591	4,862,300	12.2	3,606,118	2,289,849	5,846,192	662,800	3,687,859	17,238	3.2	0.0	2.6	0	14.67	16.17	0	128,666	49,747	0	36,777	0	0
8	0.10	237,843	4,975,900	8.6	3,614,615	2,291,020	5,846,192	664,900	3,726,857	17,972	3.2	0.0	2.6	11,615	14.00	16.08	0	93,118	78,318	0	28,597	0	0
9	0.00	241,241	5,089,009	13.7	3,623,687	2,291,023	5,846,192	664,900	3,749,400	18,065	2.7	0.0	3.3	10,684	12.25	15.75	0	72,888	85,404	0	85,271	0	0
10	0.00	244,508	5,196,632	16.4	3,632,301	2,291,104	5,846,192	664,900	3,766,794	18,192	2.7	42639	3.2	0	10.50	14.42	0	87,592	71,076	0	72,756	0	0
11	0.09	247,697	5,302,340	13.4	3,640,147	2,291,109	5,846,192	664,900	3,783,386	18,367	2.5	0.0	3.4	0	9.00	13.08	0	80,270	42,548	0	79,048	0	0
12	0.65	250,949	5,408,951	20.0	3,648,184	2,291,112	5,846,192	664,900	3,793,342	18,824	2.5	0.0	3.4	0	9.50	11.83	0	0	49,689	0	0	0	0
13	0.02	254,020	5,509,676	14.60	3,654,860	2,291,910	5,846,192	664,900	3,813,441	19,509	2.50	0	3.35	0	12.00	13.13	0	0	0	0	0	0	0
14	0.20	257,091	5,610,400	9.2	3,661,536	2,292,707	5,846,192	664,900	3,833,540	20,194	2.5	0.0	3.3	0	14.50	14.42	0	65,054	44,167	0	63,875	0	0
15	0.04	260,196	5,712,400	10.0	3,664,571	2,292,961	5,846,192	664,900	3,847,379	20,198	2.5	0.0	3.2	37,278	14.00	14.00	0	70,079	29,363	0	38,659	0	0
16	0.10	263,093	5,811,400	8.6	3,665,087	2,294,972	5,846,195	664,900	3,858,241	20,198	2.6	0.0	2.7	0	13.50	13.42	0	50,264	79,355	0	72,655	0	0
17	0.12	265,946	5,910,700	13.0	3,665,719	2,295,689	5,846,195	664,900	3,872,983	21,086	2.6	0.0	2.7	32,760	11.83	12.00	0	37,171	71,325	0	72,793	0	0
18	0.11	268,690	6,007,221	13.4	3,665,725	2,295,711	5,846,195	665,200	3,875,536	21,455	2.8	0.0	2.1	28,295	11.67	10.92	0	42,934	48,789	0	36,689	0	0
19	0.00	271,470	6,106,873	19.1	3,665,733	2,295,714	5,846,195	665,600	3,875,536	21,571	2.0	0.0	2.8	57,432	11.00	11.42	0	43,311	42,654	0	0	0	0
20	0.03	273,709	6,203,945	15.0	3,665,780	2,295,716	5,846,195	665,600	3,880,564	21,677	2.0	0.0	2.4	0	11.00	13.13	0	43,713	0	0	0	0	0
21	0.00	275,947	6,301,016	10.8	3,665,826	2,295,718	5,846,195	665,600	3,885,592	21,782	2.0	0.0	1.9	0	11.00	14.83	0	86,400	42,577	0	36,650	0	0
22	0.00	277,832	6,394,520	17.9	3,666,956	2,295,722	5,846,195	665,600	3,886,370	22,272	1.0	0.0	3.3	46,397	9.92	14.83	0	85,739	28,383	0	36,600	0	0
23	0.27	279,801	6,490,505	21.1	3,695,500	2,295,726	5,846,195	665,600	3,886,495	22,313	1.0	0.0	2.4	10,238	9.50	14.00	0	43,123	63,384	0	79,239	0	0
24	0.00	281,180	6,588,500	8.2	3,701,526	2,295,729	5,846,195	665,600	3,886,572	22,544	0.0	0.0	3.2	0	8.50	12.83	0	43,384	84,975	0	79,761	0	0
25	0.78	283,710	6,685,214	9.6	3,701,529	2,295,735	5,846,195	665,600	3,886,623	22,718	0.0	0.0	3.3	0	7.50	11.25	0	35,692	47,497	0	43,580	0	0
26	4.48	285,623	6,779,617	8.8	3,701,533	2,295,742	5,846,195	665,700	3,886,671	22,718	0.0	0.0	3.3	0	7.50	11.50	0	0	42,440	0	0	0	0
27	1.27	287,641	6,903,478	13.9	3,701,541	2,295,747	5,846,195	672,200	3,886,716	22,935	1.0	0.0	3.4	0	10.38	12.29	0	43,619	0	0	0	0	0
28	2.27	289,658	7,027,339	18.9	3,701,549	2,295,752	5,846,195	678,700	3,886,761	23,152	2.0	0.0	3.4	0	13.25	13.08	0	79,146	42,680	0	36,480	0	0
29	0.30	291,400	7,179,300	40.2	3,701,745	2,318,599	5,846,195	680,200	3,886,789	23,341	2.2	0.0	3.4	0	15.67	12.67	0	92,215	92,489	0	36,294	0	0
30	0.04	292,752	7,356,300	44.4	3,703,892	2,319,250	5,846,195	681,000	3,886,859	23,391	3.3	0.0	3.4	0	17.50	12.33	0	109,009	64,221	0	6,044	0	0
31	0.00	294,477	7,536,300	44.8	NA	NA	5,846,195	681,000	3,887,010	23,604	3.3	0.0	3.1	0	17.42	13.50	0	98,566	100,433	0	18,156	0	0
Totals	11.97											42,639		234,699			0	2,120,655	1,747,364	0	1,058,677	0	0

projects\balance\2009\01-09bal.xls (ds 9/07/17)

Notes:

- NR = No Records, NA = Not Available.
- Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values
- Columns I and L include quantities from leak detection system.
- Column B, trace is less than 0.01 inches.
- Columns C, D, E, G, H, I, J, K, L, N, P, S-X and Y are quantities from flow meters.
- Columns M and O measured from staff gages in each pond.

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

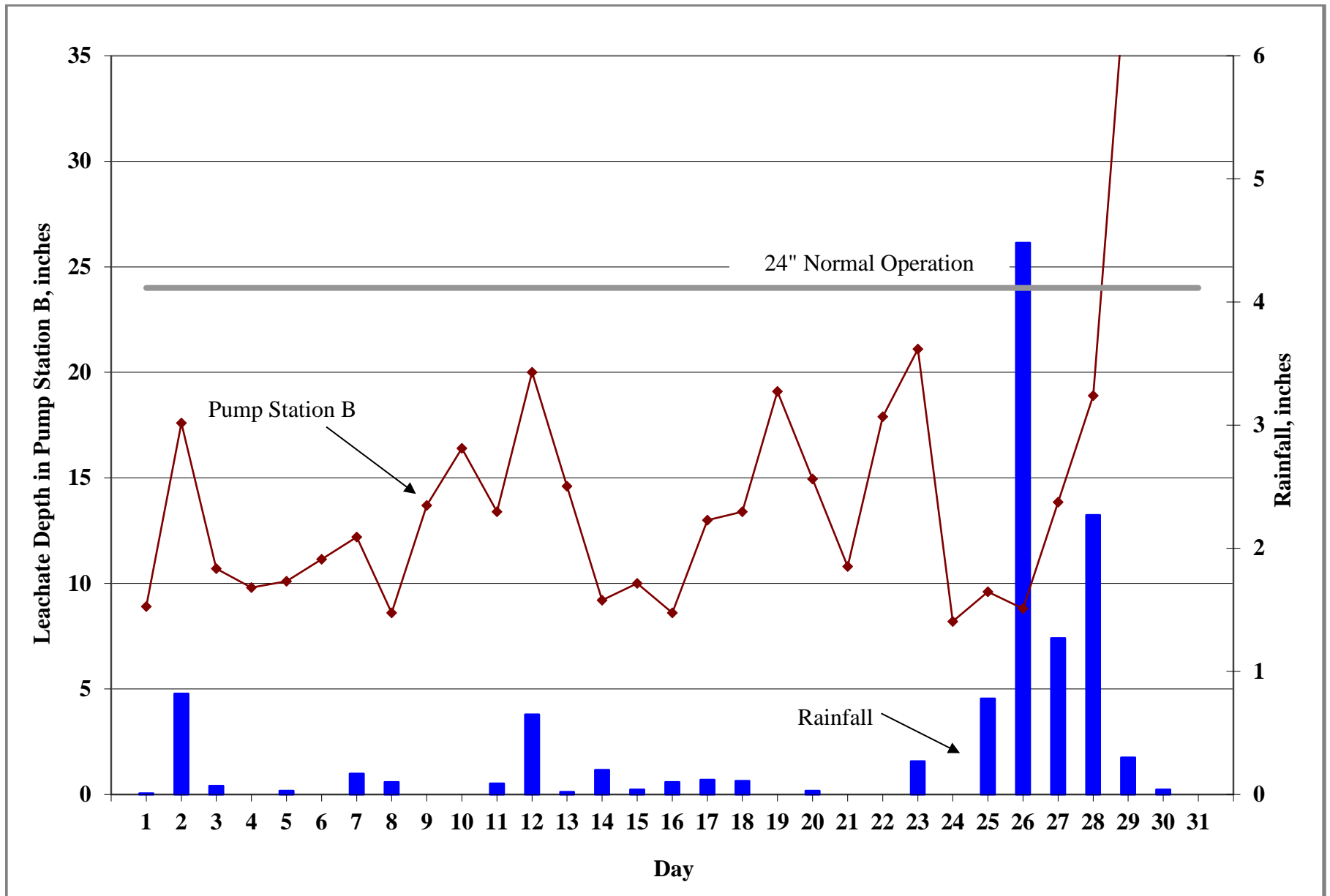


Figure 1. Leachate Levels in Pump Station B and Rainfall for August 2017.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2017**

Month	Rainfall (in.)	Leachate Arriving at LTRF					Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Condensate from LFG CS-1 (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.)	Compost Leachate (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.)	Change in Storage ³ (gal.)
January	1.26	15,559	63,901	107,208	2,220,588	0	1,465,900	0	928,400	7,108	0	612,840	2,407,256	2,394,300	12,956
February	1.96	12,809	56,814	96,390	1,796,165	0	1,253,632	0	700,600	78,895	0	526,386	1,962,178	1,954,232	7,946
March	0.67	11,418	49,816	83,733	2,101,893	0	1,473,627	0	907,200	168,009	0	707,976	2,479,359	2,380,827	98,532
April	2.58	21,470	49,032	81,696	1,849,005	0	1,165,386	0	951,500	7,425	0	829,485	2,176,868	2,116,886	59,982
May	1.97	5,365	46,880	84,635	1,672,229	0	1,158,105	1,618	841,400	135,383	0	819,657	1,951,373	2,001,123	-49,750
June	12.31	8,499	88,631	147,375	1,624,622	191,200	1,508,449	0	715,000	71,078	0	235,093	2,181,216	2,223,449	-42,233
July	12.59	3,899	219,288	374,905	2,371,971	203,100	2,430,780	1,555	1,230,100	1,083,579	0	180,558	3,401,701	3,662,435	-260,734
August	11.97	1,150	270,991	355,006	4,395,522	916,050	3,868,019	6,349	1,272,284	1,058,677	0	234,699	5,938,719	5,146,652	792,067
September															
October															
November															
December															
YTD Total	45.31	80,169	845,353	1,330,948	18,031,995	1,310,350	14,323,898	9,522	7,546,484	2,610,154	0	4,146,694	22,498,670	21,879,904	618,766

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. Change in storage represents total inflow to LTRF minus total outflow from LTRF.