

Smith, George

From: Pelley, Cindy <PelleyCA@HillsboroughCounty.ORG>
Sent: Thursday, June 15, 2017 10:31 AM
To: Madden, Melissa; SWD_Waste
Cc: Morgan, Steve; Ruiz, Larry; Byer, Kimberly; 'Clark, Bruce'; 'Curtis, Bob'; Morris, John R.; Adams, David; O'Neill, Joseph
Subject: WACS ID 41193 - May 2017 Water Balance for Southeast County Landfill
Attachments: May 2017 Water Balance.pdf

Melissa:

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

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

Thank you, Cindy

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PUBLIC WORKS

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MEMORANDUM

DATE: June 12, 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 May 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 1.97 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 1.9 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 0.8 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. The average recorded depth of leachate in the PS-B sump was 15.4 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 732 gallons. A total of 22,700 gallons of leachate was pumped this month.

Leachate Pumped to MLPS from Phase II Temporary Pump Station 2 – TPS-2 (Column VII)

Column VII presents the daily amount of leachate, in gallons, collected from the Phase II Temporary Pump Station 2 (TPS-2), and includes total gallons collected from the recently installed dewatering wells. The leachate removed from TPS-2 is pumped to the MLPS. The average daily amount of leachate pumped from TPS-2 was 4,589 gallons. A total of 142,264 gallons of leachate was pumped this month.

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

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. The average daily amount of leachate pumped from PS-A was 53,943 gallons. A total of 1,672,229 gallons of leachate was pumped this month.

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

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 600 gallons of leachate was removed from the leak detection system of Sections 7-8.

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

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 84,635 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column XI presents the total quantity of leachate pumped to the LTRF from Phases I-VI, Sections 7-8, and TPS-2. This month a total of 1,756,864 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

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 44,563 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

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 2,317 gallons of leachate was removed from the leak detection system.

Leachate Pumped from Compost Area Sump (Column XIV)

Column XIV presents the total quantity of leachate pumped to the LTRF from the Compost Project Area Sump. This month leachate from the compost area was not pumped to the LTRF.

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

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 222,900 gallons of leachate was stored in the tank.

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

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 239,400 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XVII)

Column XVII presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 841,400 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVIII)

Column XVIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,158,105 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XIX)

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 1,618 gallons of leachate was used for dust control.

Pond A Storage (Column XX)

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 60,400 gallons of effluent was stored in Pond A.

Pond B Storage (Column XXI)

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 32,700 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XXII)

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 487,998 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXIII)

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 819,657 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXIV)

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 XXV)

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 135,383 gallons of effluent was hauled off site.

Total Evaporation (Column XXVI)

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 681,300 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 1,951,373 gallons. Total outflow quantity from the LTRF was 2,001,123 gallons. The change in storage for the month decreased by 49,750 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MAY 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	XXVI	
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Phase I-VI Condensate Meter (gal.)	Phase II TPS-2 (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 LDS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Compost Leachate (gal.)	Leachate in 575K Tank (gal.)	Leachate in 575K Tank (gal.)	Effluent in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Hauled (gal.)	Leachate Hauled (gal.)	Pond Storage A (gal.)	Pond Storage B (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Hauled (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.01	2.9	2.2	15.8	1,868	8,838	55,022	0	5,777	60,799	3,103	0	312,000	250,000	30,800	35,852	0	103,000	97,000	39,239	28,210	0	0	0	24,500	
2	0.01	2.7	2.2	14.6	4,638	4,638	57,598	56	2,527	60,096	956	0	305,000	261,000	32,100	43,894	1,618	93,000	97,000	65,064	36,355	0	0	0	31,600	
3	0.34	2.9	2.2	7.4	984	4,295	57,598	17	2,536	60,134	1,989	0	317,000	240,000	23,600	70,612	0	103,000	97,000	65,985	35,694	0	0	0	31,900	
4	0.00	3.1	2.2	9.3	1,005	4,492	58,400	24	4,975	63,375	0	0	276,000	206,000	20,600	85,490	0	113,000	97,000	76,875	34,802	0	0	0	31,700	
5	0.32	2.5	2.2	12.8	1,170	4,731	62,970	24	2,418	65,388	2,562	0	240,000	203,000	20,300	26,500	0	83,000	97,000	0	0	0	0	0	0	
6	0.00	2.5	2.2	19.9	1,041	4,538	58,028	13	2,486	60,514	3,922	0	233,000	250,000	29,700	42,442	0	83,000	97,000	0	0	0	0	0	55,700	
7	0.00	1.9	2.2	16.6	495	4,281	52,430	18	2,501	54,931	1,660	0	247,000	288,000	29,700	43,026	0	32,000	88,000	79,696	0	0	0	0	4,000	
8	0.00	1.2	2.1	17.8	495	4,281	52,430	18	2,501	54,931	1,660	0	230,000	271,000	32,200	43,612	0	70,000	88,000	87,368	33,785	0	0	0	31,400	
9	0.00	2.2	2.1	16.6	686	4,035	53,918	25	2,583	56,501	0	0	218,000	252,000	29,500	64,200	0	79,000	88,000	80,280	0	0	0	0	56,700	
10	0.00	2.4	2.1	18.3	829	3,943	53,524	24	2,535	57,059	0	0	218,000	261,000	26,700	7,086	0	36,000	80,000	0	0	0	0	0	42,400	
11	0.00	3.1	2.0	19.7	823	3,865	55,122	21	2,446	57,568	1,434	0	216,000	223,000	30,000	42,456	0	113,000	0	0	0	0	0	0	6,768	
12	0.00	2.8	0.0	13.4	964	4,194	59,610	16	2,545	62,155	712	0	202,000	250,000	30,200	42,274	0	98,000	0	0	0	0	0	0	56,500	
13	0.00	2.8	0.0	13.4	964	4,194	59,610	16	2,545	62,155	712	0	202,000	250,000	30,200	42,274	0	98,000	0	0	0	0	0	0	56,500	
14	0.00	2.3	0.0	16.2	953	4,040	57,842	20	2,421	59,464	1,972	0	216,000	265,000	30,200	42,274	0	74,000	0	0	0	0	0	0	0	
15	0.00	1.7	0.0	20.0	953	4,040	57,842	20	2,421	59,464	1,974	0	230,000	281,000	30,200	36,540	0	48,000	0	0	0	0	0	0	33,600	
16	0.00	1.7	0.0	11.5	720	3,626	53,208	36	2,218	55,426	3,683	0	204,000	265,000	29,700	43,812	0	48,000	0	0	0	0	0	0	34,000	
17	0.00	1.7	0.0	17.8	528	2,21	50,018	36	2,261	52,279	1,792	0	204,000	245,000	26,100	58,019	0	48,000	0	0	0	0	0	0	49,700	
18	0.00	1.0	0.0	11.5	556	0	50,382	0	2,289	52,671	0	0	168,000	221,000	26,900	7,332	0	24,000	0	0	0	0	0	0	21,600	
19	0.01	0.8	0.0	10.5	551	6,087	51,409	16	4,366	55,415	0	0	204,000	168,000	26,300	28,088	0	17,000	0	0	0	0	0	0	0	
20	0.00	0.8	0.0	19.1	557	7,213	53,235	22	2,148	55,383	575	0	185,000	192,000	28,200	28,088	0	17,000	0	0	0	0	0	0	0	
21	0.37	0.8	0.0	19.1	550	6,042	50,915	21	2,432	53,447	2,182	0	268,000	216,000	28,200	34,800	0	17,000	0	0	0	0	0	0	0	
22	0.00	0.8	0.0	19.1	530	6,004	50,915	21	2,552	52,947	2,182	0	221,000	245,000	28,200	43,910	0	17,000	0	0	0	0	0	0	0	
23	0.00	1.3	0.0	14.6	554	5,750	53,572	29	5,226	60,598	3,503	0	214,000	247,000	26,300	36,404	0	36,000	0	0	0	0	0	0	31,400	
24	0.58	1.1	0.0	8.9	615	5,798	58,354	17	1,28	58,482	0	0	216,000	238,000	25,200	50,460	0	28,000	0	0	0	0	0	0	0	
25	0.00	2.0	0.0	20.6	651	5,648	57,122	0	0	57,122	0	0	216,000	214,000	16,800	35,338	0	61,000	0	0	0	0	0	0	0	
26	0.00	3.0	0.0	12.6	512	5,090	52,078	35	1,975	54,053	0	0	194,000	187,000	26,400	90,056	0	108,000	0	0	0	0	0	0	30,800	
27	0.00	2.2	0.0	12.5	485	4,607	46,156	26	2,122	48,278	0	0	149,000	209,000	26,500	0	0	70,000	0	0	0	0	0	0	27,500	
28	0.00	2.0	0.0	14.4	500	4,599	50,101	19	3,614	53,715	2,421	0	176,000	227,000	26,600	0	0	65,000	0	0	0	0	0	0	0	
29	0.00	1.9	0.0	15.6	334	3,066	33,400	12	2,410	35,810	1,644	0	179,000	239,000	26,600	0	0	61,000	0	0	0	0	0	0	0	
30	0.00	1.7	0.0	18.1	667	6,132	66,801	25	4,819	71,620	3,228	0	235,000	264,000	26,500	43,482	0	48,000	0	0	0	0	0	0	57,500	
31	0.33	0.9	0.0	14.2	472	4,370	48,282	22	2,771	51,053	0	0	235,000	245,000	15,400	71,276	0	21,000	0	0	0	0	0	0	13,900	
Total	1.97	1.9	0.8	15.4	22,700	142,264	1,672,229	600	84,635	1,756,864	44,563	75	222,900	239,400	841,400	1,158,105	1,618	60,400	32,700	487,998	819,657	0	0	0	135,383	
Daily Average					732	4,589	53,943	19	2,710	56,673	1,438						100			26,400					21,900	

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 0.1 inches and is not included in total.
6. Columns II and IV, field measured at start 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 VII-XIV, XVII-XIX, and XXII-XXV, quantities from flow meters.
10. Column XXVI includes 89% 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
MAY 2017
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	W	X	Y
Day	Rainfall (in.)	Condensate Meter (gal)	Phase II TFS-2 (gal)	Flow Meter Pump Sta. A (gal)	Reading PS-B (in.)	Section 9 Pump 1 (gal)	Section 9 Pump 2 (gal)	Section 9 LDS (gal)	Compost Leachate (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 Leachate (ft)	Depth in 575K Tank Effluent (ft)	Leachate Treated at LTRF (gal)	Leachate Hauled Contractor (gal)	Leachate Hauled County (gal)	Leachate Dust Control (Sprayed) (gal)	Effluent Hauled County (gal)	Dust Control (Sprayed) (gal)	
1	0.01	159.990	424.590	8,337.833	15.8	3,572.652	1,838.017	8,843.861	7,500	2,985.668	13,013	2.2	39,239	2.9	28,210	10.83	8.67	32,093	0	35,882	0	0	0	
2	0.01	160.966	429.228	8,395.002	14.6	3,572.659	1,838.066	8,843.861	7,500	2,988.195	13,069	2.2	65,061	2.7	63,355	10.58	9.08	37,062	0	43,894	1,618	0	0	
3	0.34	161.950	433.520	8,453.000	7.4	3,572.666	1,840.951	8,843.861	7,500	2,990.131	13,086	2.2	65,985	2.9	35,694	11.00	8.33	23,587	0	70,612	0	0	0	
4	0.00	162.955	438.015	8,517.400	9.3	3,572.666	1,840.958	8,843.861	7,500	2,995.706	13,110	2.2	76,875	3.1	34,802	9.58	7.17	20,583	0	85,490	0	0	0	
5	0.32	164.125	442.746	8,574.370	12.8	3,573.512	1,842.677	8,844.144	7,500	2,998.124	13,110	2.2	0	2.5	0	8.33	8.00	26,459	0	49,614	0	0	0	
6	0.00	165.166	447.284	8,632.398	19.9	3,573.512	1,846.596	8,844.276	7,500	3,000.610	13,123	2.2	0	2.5	69,568	8.08	8.67	29,674	0	42,442	0	0	0	
7	0.00	165.661	451.565	8,684.828	18.9	3,573.516	1,848.253	8,844.673	7,500	3,003.111	13,141	2.2	0	1.9	0	8.33	9.44	29,674	0	43,026	0	0	0	
8	0.00	166.156	455.848	8,737.528	17.8	3,573.519	1,849.909	8,845.069	7,500	3,005.612	13,159	2.1	79,696	1.2	0	8.58	10.00	29,675	0	43,026	0	0	0	
9	0.00	166.842	459.880	8,791.176	16.6	3,573.525	1,849.912	8,845.069	7,500	3,008.195	13,184	2.1	87,368	2.2	33,785	8.00	9.42	32,237	0	43,612	0	0	0	
10	0.00	167.671	463.823	8,846.150	18.3	3,573.533	1,849.914	8,845.069	7,500	3,010.740	13,208	2.1	73,774	2.4	66,280	7.58	8.75	29,544	0	64,200	0	0	0	
11	0.00	168.368	467.644	8,899.574	15.7	3,574.016	1,850.871	8,845.153	7,500	3,013.242	13,235	2.0	0	1.3	53,037	6.50	9.08	26,743	0	7,086	0	0	0	
12	0.00	169.191	471.509	8,954.966	19.7	3,574.022	1,852.299	8,845.290	7,500	3,015.688	13,256	0.0	0	3.1	16,174	7.50	7.75	29,971	0	42,456	0	0	0	
13	0.00	170.155	475.703	9,014.606	13.4	3,574.023	1,853.010	8,845.298	7,500	3,018.233	13,272	0.0	0	2.8	70,622	7.00	8.67	30,173	0	42,274	0	0	0	
14	0.00	171.108	479.743	9,077.649	16.7	3,574.097	1,854.910	8,845.298	7,500	3,020.654	13,292	0.0	0	2.3	0	7.50	9.21	30,173	0	42,274	0	0	0	
15	0.00	172.060	483.782	9,128.692	20.0	3,574.170	1,856.810	8,845.298	7,500	3,023.073	13,312	0.0	0	1.7	42,041	8.00	9.75	30,174	0	36,540	0	0	0	
16	0.00	172.880	487.400	9,181.900	11.5	3,574.176	1,860.487	8,845.312	7,500	3,025.295	13,312	0.0	0	1.7	42,518	7.75	9.25	29,652	0	43,812	0	0	0	
17	0.00	173.308	487.629	9,231.918	17.8	3,574.180	1,862.275	8,846.044	7,500	3,027.554	13,348	0.0	0	1.7	62,130	7.08	8.50	26,133	0	58,019	0	0	0	
18	0.00	173.864	487.629	9,282.900	11.5	3,574.183	1,862.284	8,846.044	7,500	3,029.843	13,348	0.0	0	1.0	27,032	5.83	7.67	26,876	0	7,332	0	0	0	
19	0.01	174.415	493.716	9,333.349	10.5	3,574.187	1,862.286	8,846.044	7,500	3,034.209	13,364	0.0	0	0.8	0	7.08	5.83	26,349	0	42,380	0	0	0	
20	0.00	174.920	500.929	9,386.384	19.1	3,574.190	1,862.858	8,846.044	7,500	3,036.357	13,386	0.0	0	0.8	0	6.42	6.67	28,163	0	28,088	0	0	0	
21	0.37	175.502	506.933	9,439.979	19.1	3,575.682	1,863.548	8,846.098	7,500	3,038.909	13,407	0.0	0	0.8	0	7.05	7.59	28,163	0	28,088	0	0	0	
22	0.00	176.032	512.937	9,487.374	19.1	3,577.174	1,864.237	8,846.152	7,500	3,041.461	13,428	0.0	0	0.8	0	7.67	8.50	28,162	0	43,910	0	0	0	
23	0.00	176.586	518.687	9,542.746	14.6	3,580.674	1,864.240	8,846.240	7,500	3,046.687	13,457	0.0	0	1.3	39,217	7.42	8.58	26,341	0	36,404	0	0	0	
24	0.58	177.201	524.485	9,601.100	8.9	3,580.686	1,864.242	8,846.242	7,500	3,046.815	13,474	0.0	0	1.1	0	7.50	8.25	25,229	0	50,460	0	0	0	
25	0.00	177.852	530.133	9,658.222	20.6	3,580.693	1,864.250	8,846.250	7,500	2,992.013	13,474	0.0	0	2.0	0	7.50	7.42	16,784	0	35,338	0	0	0	
26	0.00	178.364	535.223	9,710.300	12.6	3,580.700	1,864.253	8,846.253	7,500	2,993.988	13,509	0.0	0	3.0	38,540	6.75	6.50	26,395	0	90,056	0	0	0	
27	0.00	178.849	539.830	9,756.156	12.5	3,580.702	1,864.258	8,846.258	7,500	2,996.110	13,535	0.0	0	2.2	34,427	5.17	7.25	26,505	0	0	0	0	0	
28	0.00	179.349	544.429	9,806.337	14.4	3,580.983	1,866.397	8,846.397	7,500	2,999.234	13,554	0.0	0	2.0	0	6.17	7.89	26,505	0	0	0	0	0	
29	0.00	179.683	547.494	9,839.957	15.6	3,581.171	1,867.824	8,846.178	7,500	3,002.724	13,566	0.0	0	1.9	0	6.84	8.42	26,505	0	0	0	0	0	
30	0.00	180.350	553.626	9,906.758	18.1	3,581.546	1,870.676	8,846.178	7,500	3,006.953	13,591	0.0	0	1.7	71,894	8.17	9.17	26,505	0	43,482	0	0	0	
31	0.33	180.822	557.996	9,955.040	14.2	3,581.552	1,870.683	8,846.178	7,500	3,009.724	13,613	0.0	0	0.9	17,331	8.17	8.50	15,356	0	71,726	0	0	0	
Totals	1.97												487,998		819,657			841,145		1,158,105			135,383	

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. Columns I and L include quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. Columns C, D, E, G, H, J, K, L, N, P, S-X and Y are quantities from flow meters.
6. Columns M and O measured from staff gauges in each pond.

Type of Cover	Phases I-VI acres	Sections 7-8 acres	Section 9 acres
Open	0	0	5
Intermediate	139.4	19.3	10
Final	23	0	0
Not Opened	0	0	0

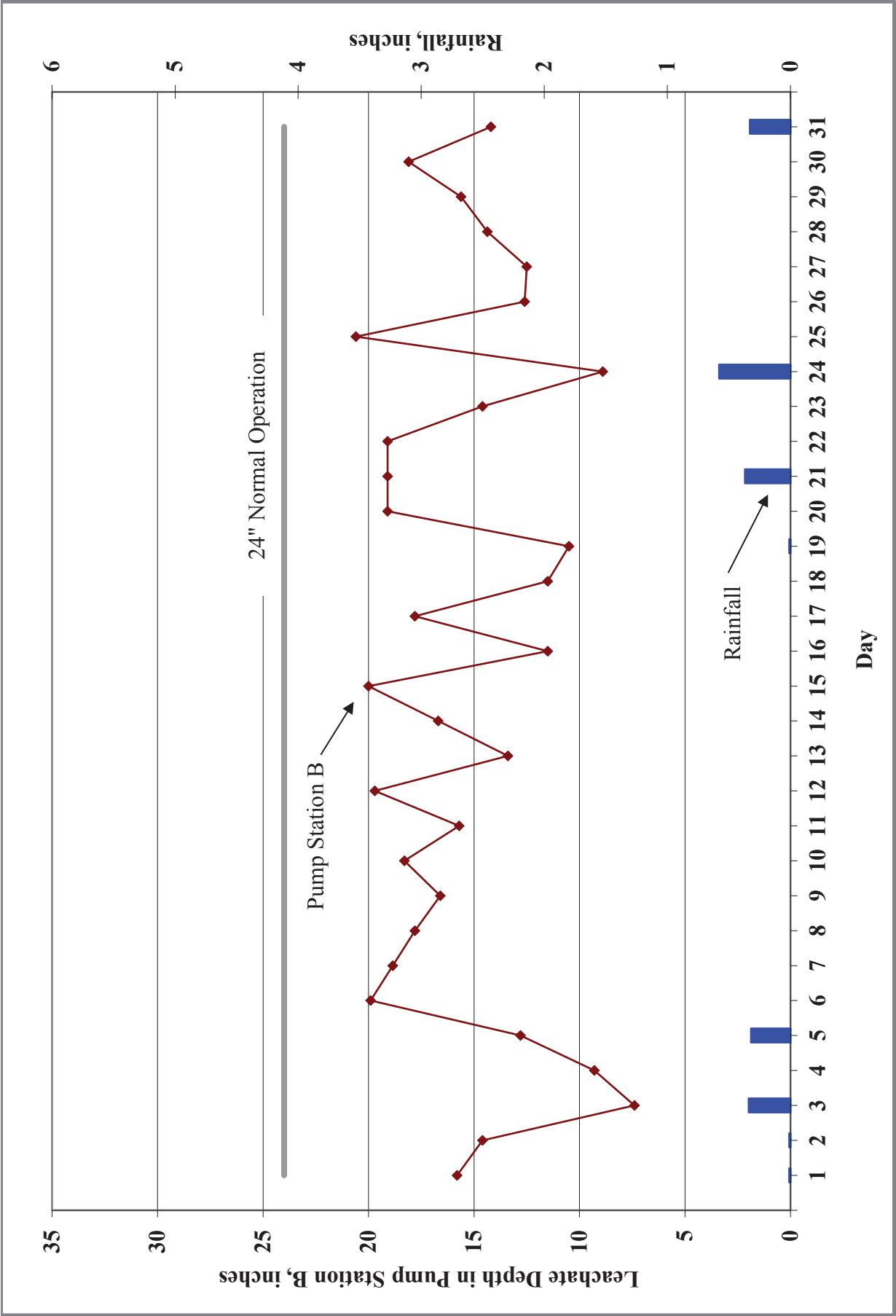


Figure 1. Leachate Levels in Pump Station B and Rainfall for May 2017.

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 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.)	Phase II TPS-2 (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.)
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	232,499	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	175,666	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	1,727,251	142,264	1,158,105	1,618	841,400	135,383	0	819,657	2,006,395	2,001,123	5,272
June															
July															
August															
September															
October															
November															
December															
YTD Total	8.44	66,621	266,443	453,662	9,694,902	550,429	6,516,650	1,618	4,329,100	396,820	0	3,496,344	11,032,056	10,847,368	184,688

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.