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Dept. Of Environmental Protection

OCT 15 2012

Southwest District
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Lucia E. Garsys
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October 12, 2012

Ms. Susan J. Pelz, P.E.
Solid Waste Section
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Pkwy
Temple Terrace, Florida 33637

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Ms. Pelz:

In accordance with Specific Condition No. 8 of Permit No. 35435-014-SO, the Solid Waste Management Group (SWMG) is submitting the Quarterly Leachate Water Balance summary for the Southeast County Landfill for the quarter ending October 15, 2012.

The data is being submitted as separate monthly reports for July, August, and September 2012. The information includes the leachate level in Pump Station B (PS-B). This quarter PS-B was above the normal operation level of 24-inches for most of the month due to a system wide maintenance issue involving the bubbler system that has been repaired.

Please advise should you have any questions concerning the attached submittal.

Sincerely,

A handwritten signature in blue ink that reads "Larry E. Ruiz".

Larry E. Ruiz
General Manager III
Solid Waste Management Group
Public Utilities Department

Attachment

xc: Rich Siemering, HDR
Ron Cope, EPC
Terry Payton, EPC
Steve Morgan, FDEP

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MEMORANDUM

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OCT 15 2012
SOUTHWEST DISTRICT
TAMPA

DATE: August 9, 2012

TO: Larry Ruiz, General Manager III, Solid Waste Management Group

FROM: Cindy Pelley, Environmental Specialist II, Environmental Services Group
Raymond Graves, Sr. Eng. Tech., Solid Waste Management Group

SUBJECT: Leachate Water Balance Report Forms for July
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Group (SWMG) 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 2012 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 4.98 inches of rainfall at the Southeast County Landfill (SCLF).

MEMORANDUM

August 9, 2012

Page 2 of 6

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 3.2.

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 of 24-inches except for July 1st and 2nd due to the large amount of leachate generation following rain events from tropical storm Debby. The average recorded depth of leachate in the PS-B sump was 22.4 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the Main Leachate Pump Station (MLPS) from Phases I-VI (Column VII).

The average daily amount of leachate pumped from TPS-6 was 10,021 gallons. A total of 310,650 gallons of leachate was pumped this month.

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

Column VII 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 quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A was 50,270 gallons. A total of 1,558,367 gallons of leachate was pumped this month.

MEMORANDUM

August 9, 2012

Page 3 of 6

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

Column VIII 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 9,265 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 IX 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 a total of 216,186 gallons of leachate was pumped from Sections 7-8.

Leachate Pumped to LTRF from the MLPS (Column X)

Column X presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 1,774,553 gallons of leachate were pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XI)

Column XI 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 20,514 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XII)

Column XII 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 a total of 24 gallons of leachate were removed from the leak detection system.

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

Column XIII 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 315,500 gallons of leachate was stored in the tank.

MEMORANDUM

August 9, 2012

Page 4 of 6

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

Column XIV 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 346,200 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XV)

Column XV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 832,000 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 800,555 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVII)

Column XVII 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 171,493 gallons of leachate was used for dust control.

Pond A Storage (Column XVIII)

Column XVIII 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 101,300 gallons of effluent was stored in Pond A.

Pond B Storage (Column XIX)

Column XIX 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

MEMORANDUM

August 9, 2012

Page 5 of 6

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 194,400 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XX)

Column XX 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 a total of 1,260,235 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXI)

Column XXI 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 796,826 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXII)

Column XXII 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 XXIII)

Column XXIII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month a total of 60,184 gallons of effluent was hauled off site.

Total Evaporation (Column XXIV)

Column XXIV 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. The total evaporation estimated for this month was 837,600 gallons.

MEMORANDUM
August 9, 2012
Page 6 of 6

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMG 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 1,795,091 gallons. Total outflow quantity from the LTRF was 1,804,048 gallons. The change in storage for the month decreased by 8,957 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JULY 2012
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
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (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.)	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	0.00	2.9	3.3	33.2	10	74,677	89	5,050	79,727	1,366	1	420,000	396,000	20,500	83,377	0	103,000	202,000	0	0	0	0	0
2	0.00	2.8	3.3	32.7	10	74,677	89	5,050	79,727	1,366	1	391,000	417,000	21,200	86,186	0	98,000	202,000	47,630	55,100	0	0	46,500
3	0.00	3.4	3.3	21.7	5,280	75,385	295	28,615	104,000	3,342	3	405,000	345,000	23,000	79,482	6,045	129,000	202,000	96,743	56,400	0	6,008	54,800
4	0.01	3.1	3.3	21.8	4,700	65,871	312	9,173	75,044	896	1	368,000	359,000	30,900	75,603	0	113,000	202,000	0	0	0	0	0
5	0.03	2.8	3.3	21.9	4,700	65,871	312	9,173	75,044	896	1	331,000	372,000	6,500	52,474	3,000	98,000	202,000	50,309	57,000	0	0	50,500
6	0.00	2.5	3.3	21.1	13,300	60,737	295	8,996	69,733	0	0	309,000	355,000	27,600	74,972	8,980	83,000	202,000	74,514	58,500	0	0	57,700
7	0.00	2.3	3.2	21.2	12,550	57,252	295	5,982	63,234	0	0	274,000	331,000	28,300	22,594	6,004	74,000	192,000	0	0	0	0	4,800
8	0.00	2.3	3.2	21.5	0	52,078	297	7,385	59,462	0	0	284,000	359,000	29,100	0	0	74,000	192,000	0	0	0	0	0
9	0.00	2.3	3.2	21.8	0	52,078	297	7,385	59,462	0	0	295,000	386,000	29,000	31,615	6,004	74,000	192,000	102,357	51,092	0	0	50,800
10	0.15	2.3	3.1	22.1	11,320	51,834	329	3,758	55,592	221	1	290,000	353,000	28,000	45,058	9,006	74,000	182,000	113,445	56,991	0	0	58,500
11	0.23	2.5	3.1	22.6	11,070	49,459	347	8,202	57,661	0	0	259,000	317,000	28,000	38,325	3,008	83,000	182,000	71,476	46,503	0	0	43,200
12	0.00	2.8	3.1	20.8	11,900	48,515	361	6,490	55,005	596	1	247,000	281,000	28,300	18,046	6,002	98,000	182,000	115,507	52,187	0	0	52,300
13	0.00	3.0	3.1	21.2	13,370	46,293	365	5,766	52,059	507	1	247,000	250,000	27,300	18,016	0	108,000	182,000	0	56,428	0	0	45,100
14	0.00	2.7	3.1	20.3	12,090	44,779	360	2,912	47,691	541	1	247,000	233,000	28,300	0	3,000	93,000	182,000	0	0	0	0	2,400
15	0.67	3.1	3.2	21.4	6,205	43,551	335	5,827	49,378	596	1	266,000	235,000	28,200	0	0	113,000	192,000	0	0	0	0	0
16	0.00	3.4	3.3	22.4	6,205	43,551	335	5,827	49,378	596	1	286,000	238,000	28,400	6,018	6,008	129,000	202,000	0	0	0	0	4,800
17	0.00	3.4	3.3	20.6	12,700	46,105	310	5,572	51,677	605	1	297,000	259,000	25,600	18,057	9,007	129,000	202,000	21,484	26,606	0	0	29,600
18	1.00	3.0	3.5	22.9	0	44,899	297	5,797	50,696	720	1	297,000	288,000	28,500	18,060	3,009	108,000	223,000	66,650	0	0	0	5,700
19	1.15	3.1	3.5	23.4	13,930	41,748	287	5,835	47,583	672	1	297,000	317,000	28,700	18,154	8,993	113,000	223,000	109,581	0	0	0	12,700
20	0.00	3.1	3.5	20.9	13,520	42,744	281	5,872	48,616	512	0	290,000	343,000	28,400	18,053	6,005	113,000	223,000	102,649	58,550	0	0	56,800
21	0.33	2.6	3.5	22.8	14,960	43,150	283	5,896	49,046	540	2	288,000	333,000	28,400	0	0	88,000	223,000	27,675	45,356	0	0	37,700
22	0.63	2.8	3.3	21.7	7,855	41,205	306	5,894	47,099	507	1	306,000	362,000	28,500	0	0	98,000	192,000	0	0	0	0	0
23	0.78	2.9	3.0	20.5	7,855	41,205	306	5,894	47,099	507	1	324,000	391,000	28,700	6,028	6,019	103,000	172,000	0	0	0	12,006	4,800
24	0.00	3.0	3.1	21.5	15,750	39,693	304	5,891	45,584	748	1	338,000	408,000	28,500	6,067	12,118	108,000	182,000	0	0	0	12,006	9,700
25	0.00	3.0	3.1	22.2	18,030	42,814	307	8,878	51,692	573	0	345,000	422,000	28,700	18,229	12,018	108,000	182,000	0	34,275	0	0	37,000
26	0.00	3.1	3.1	21.5	19,310	45,484	313	5,829	51,313	532	1	336,000	410,000	30,400	24,091	9,052	113,000	182,000	105,568	14,196	0	0	23,900
27	0.00	3.4	3.2	23.2	18,150	44,580	306	5,889	50,469	529	1	324,000	386,000	28,800	6,009	8,996	129,000	192,000	88,937	42,489	0	18,147	45,600
28	0.00	2.6	3.2	21.1	18,910	46,495	299	5,832	52,327	631	1	336,000	386,000	26,800	0	12,065	88,000	192,000	65,710	17,130	0	0	26,600
29	0.00	2.8	3.2	21.1	9,480	43,070	318	5,841	48,910	715	1	350,000	397,000	26,000	0	0	98,000	182,000	0	0	0	0	0
30	0.00	2.9	3.1	21.0	9,480	43,070	318	5,841	48,910	715	1	365,000	408,000	25,200	12,041	9,254	103,000	182,000	0	32,894	0	12,017	33,700
31	0.00	2.8	3.1	21.6	18,010	45,502	322	5,836	51,338	1,087	1	367,000	396,000	28,400	24,000	17,900	98,000	182,000	0	35,129	0	0	42,400
Total	4.98				310,650	1,558,367	9,265	216,186	1,774,553	20,514	24			832,000	800,555	171,493			1,260,235	796,826	0	60,184	837,600
Daily Average		2.9	3.2	22.4	10,021	50,270	299	6,974	57,244	662	1	315,500	346,200				101,300	194,400					
Mo. Average																5,500				25,700	0	1,900	27,020

balance\2012\7-12bal.xls (dad 08/05/12)

- 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. Column V, PPS-B sensor reading plus 9 inches.
 8. Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 9. Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
 10. Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
 11. 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 2012
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
Day	Rainfall (in.)	Flow Meter TPS-6 (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.)	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 LTRF (gal.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
																	Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)	
1	0.00	30,753,520	2,652,761	24.2	1,919,382	2,012,729	9,804	4,063,097	11,603	3.3	0	2.9	0	14.58	13.75	20,321	83,377	0	0	0	0	0
2	0.00	30,753,530	2,727,437	23.7	1,919,382	2,014,094	9,805	4,068,147	11,691	3.3	47,630	2.8	55,100	13.58	14.50	21,168	68,084	18,102	0	0	0	0
3	0.00	30,758,810	2,802,822	12.7	1,919,382	2,017,436	9,808	4,096,762	11,986	3.3	96,743	3.4	56,400	14.08	12.00	22,996	73,441	6,041	6,045	0	6,008	0
4	0.01	30,763,510	2,868,693	12.8	1,919,382	2,018,332	9,809	4,105,935	12,298	3.3	0	3.1	0	12.79	12.46	30,888	75,603	0	0	0	0	0
5	0.03	30,768,210	2,934,563	12.9	1,919,382	2,019,228	9,809	4,115,108	12,609	3.3	50,309	2.8	57,000	11.50	12.92	6,455	34,407	18,067	3,000	0	0	0
6	0.00	30,781,510	2,995,300	12.1	1,919,382	2,019,228	9,809	4,124,104	12,904	3.3	74,514	2.5	58,500	10.75	12.33	27,598	56,917	18,055	8,980	0	0	0
7	0.00	30,794,060	3,052,552	12.2	1,919,382	2,019,228	9,809	4,130,086	13,199	3.2	0	2.3	0	9.50	11.50	28,300	22,594	0	6,004	0	0	0
8	0.00	30,794,060	3,104,630	12.5	1,919,382	2,019,228	9,809	4,137,471	13,496	3.2	0	2.3	0	9.88	12.46	29,095	0	0	0	0	0	0
9	0.00	30,794,060	3,156,707	12.8	1,919,382	2,019,228	9,809	4,144,855	13,793	3.2	102,357	2.3	51,092	10.25	13.42	28,964	13,560	18,055	6,004	0	0	0
10	0.15	30,805,380	3,208,541	13.1	1,919,603	2,019,228	9,810	4,148,613	14,122	3.1	113,445	2.3	56,991	10.08	12.25	27,999	26,999	18,059	9,006	0	0	0
11	0.23	30,816,450	3,258,000	13.6	1,919,603	2,019,228	9,810	4,156,815	14,469	3.1	71,476	2.5	46,503	9.00	11.00	28,010	20,273	18,052	3,008	0	0	0
12	0.00	30,828,350	3,306,515	11.8	1,920,199	2,019,228	9,811	4,163,305	14,830	3.1	115,507	2.8	52,187	8.58	9.75	28,338	0	18,046	6,002	0	0	0
13	0.00	30,841,720	3,352,808	12.2	1,920,706	2,019,228	9,812	4,169,071	15,195	3.1	0	3.0	56,428	8.58	8.67	27,274	0	18,016	0	0	0	0
14	0.00	30,853,810	3,397,587	11.3	1,921,247	2,019,228	9,813	4,171,983	15,555	3.1	0	2.7	0	8.58	8.08	28,303	0	0	3,000	0	0	0
15	0.67	30,860,015	3,441,138	12.4	1,921,843	2,019,228	9,814	4,177,810	15,890	3.2	0	3.1	0	9.25	8.17	28,161	0	0	0	0	0	0
16	0.00	30,866,220	3,484,689	13.4	1,922,438	2,019,228	9,814	4,183,637	16,224	3.3	0	3.4	0	9.92	8.25	28,375	0	6,018	6,008	0	0	0
17	0.00	30,878,920	3,530,794	11.6	1,923,044	2,019,228	9,815	4,189,209	16,534	3.3	21,484	3.4	26,606	10.33	9.00	25,611	0	18,057	9,007	0	0	0
18	1.00	30,878,920	3,575,693	13.9	1,923,764	2,019,228	9,816	4,195,006	16,831	3.5	66,650	3.0	0	10.33	10.00	28,510	0	18,060	3,009	0	0	0
19	1.15	30,892,850	3,617,441	14.4	1,924,436	2,019,228	9,817	4,200,841	17,118	3.5	109,581	3.1	0	10.33	11.00	28,674	0	18,154	8,993	0	0	0
20	0.00	30,906,370	3,660,185	11.9	1,924,948	2,019,228	9,817	4,206,713	17,399	3.5	102,649	3.1	58,550	10.08	11.92	28,392	0	18,053	6,005	0	0	0
21	0.33	30,921,330	3,703,335	13.8	1,925,410	2,019,306	9,819	4,212,609	17,682	3.5	27,675	2.6	45,356	10.00	11.58	28,350	0	0	0	0	0	0
22	0.63	30,929,185	3,744,540	12.7	1,925,917	2,019,306	9,820	4,218,503	17,988	3.3	0	2.8	0	10.63	12.58	28,469	0	0	0	0	0	0
23	0.78	30,937,040	3,785,744	11.5	1,926,424	2,019,306	9,820	4,224,397	18,293	3.0	0	2.9	0	11.25	13.58	28,670	0	6,028	6,019	0	12,006	0
24	0.00	30,952,790	3,825,437	12.5	1,927,172	2,019,306	9,821	4,230,288	18,597	3.1	0	3.0	0	11.75	14.17	28,454	0	6,067	12,118	0	12,006	0
25	0.00	30,970,820	3,868,251	13.2	1,927,745	2,019,306	9,821	4,239,166	18,904	3.1	0	3.0	34,275	12.00	14.67	28,699	0	18,229	12,018	0	0	0
26	0.00	30,990,130	3,913,735	12.5	1,928,277	2,019,306	9,822	4,244,995	19,217	3.1	105,568	3.1	14,196	11.67	14.25	30,432	0	24,091	9,052	0	0	0
27	0.00	31,008,280	3,958,315	14.2	1,928,806	2,019,306	9,823	4,250,884	19,523	3.2	88,937	3.4	42,489	11.25	13.42	28,788	0	6,009	8,996	0	18,147	0
28	0.00	31,027,190	4,004,810	12.1	1,929,437	2,019,306	9,824	4,256,716	19,822	3.2	65,710	2.6	17,130	11.67	13.42	26,821	0	0	12,065	0	0	0
29	0.00	31,036,670	4,047,880	12.1	1,930,152	2,019,306	9,825	4,262,557	20,140	3.2	0	2.8	0	12.17	13.80	25,981	0	0	0	0	0	0
30	0.00	31,046,150	4,090,949	12.0	1,930,866	2,019,306	9,826	4,268,397	20,457	3.1	0	2.9	32,894	12.67	14.17	25,181	0	12,041	9,254	0	12,017	0
31	0.00	31,064,160	4,136,451	12.6	1,931,953	2,019,306	9,827	4,274,233	20,779	3.1	0	2.8	35,129	12.75	13.75	28,443	0	24,000	17,900	0	0	0
Totals	4.98										1,260,235		796,826			831,720	475,255	325,300	171,493	0	60,184	0

balance/2012-07-12bal.xls (dad 08/05/12)

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 B, 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 gages 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

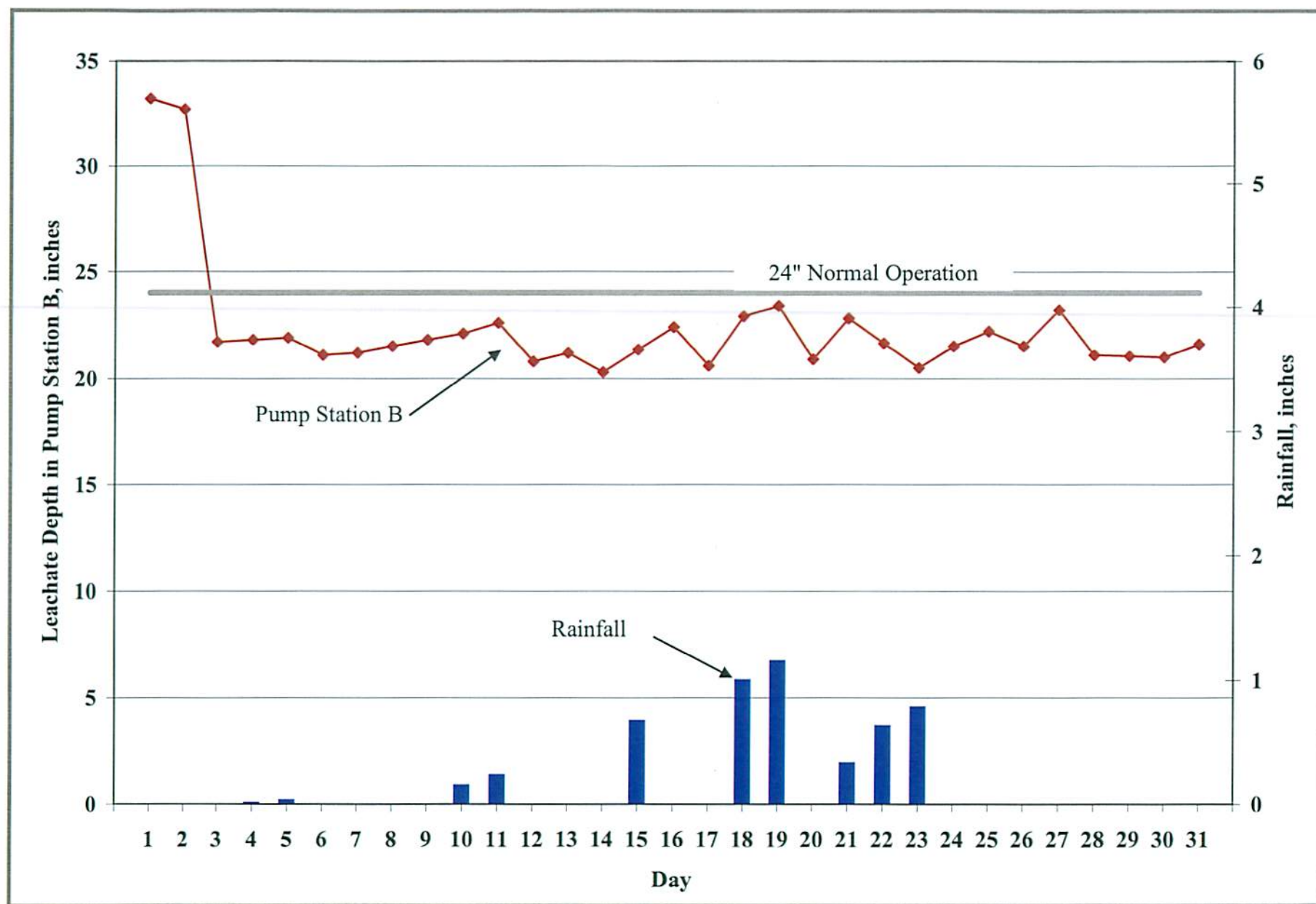


Figure 1. Leachate Levels in Pump Station B and Rainfall for July 2012.

BOARD OF COUNTY COMMISSIONERS

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FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OCT 15 2012
SOUTHWEST DISTRICT
TAMPA

MEMORANDUM

DATE: September 14, 2012

TO: Larry Ruiz, General Manager III, Solid Waste Management Group

FROM: Cindy Pelley, Environmental Specialist II, Environmental Services Group
Raymond Graves, Sr. Eng. Tech., Solid Waste Management Group

SUBJECT: Leachate Water Balance Report Forms for August
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Group (SWMG) 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 2012 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 14.20 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 3.0 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 3.6.

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 of 24-inches except for August 26 through 31 due to the large amount of leachate generation following consecutive rain events. The average recorded depth of leachate in the PS-B sump was 23.7 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the Main Leachate Pump Station (MLPS) from Phases I-VI (Column VII).

The average daily amount of leachate pumped from TPS-6 was 14,821 gallons. A total of 459,450 gallons of leachate was pumped this month.

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

Column VII 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 quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of

leachate pumped from PS-A was 46,337 gallons. A total of 1,436,462 gallons of leachate was pumped this month.

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

Column VIII 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 9,144 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 IX 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 a total of 228,852 gallons of leachate was pumped from Sections 7-8.

Leachate Pumped to LTRF from the MLPS (Column X)

Column X presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 1,665,314 gallons of leachate were pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XI)

Column XI 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 19,673 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XII)

Column XII 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 a total of 29 gallons of leachate were removed from the leak detection system.

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

Column XIII 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 410,300 gallons of leachate was stored in the tank.

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

Column XIV 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 412,200 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XV)

Column XV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 812,800 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 746,218 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVII)

Column XVII 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 116,021 gallons of leachate was used for dust control.

Pond A Storage (Column XVIII)

Column XVIII 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 110,200 gallons of effluent was stored in Pond A.

Pond B Storage (Column XIX)

Column XIX 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 229,700 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XX)

Column XX 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 a total of 1,366,547 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXI)

Column XXI 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 705,818 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXII)

Column XXII 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 XXIII)

Column XXIII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month a total of 170,725 gallons of effluent was hauled off site.

Total Evaporation (Column XXIV)

Column XXIV 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. The total evaporation estimated for this month was 725,700 gallons.

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMG 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 1,685,016 gallons. Total outflow quantity from the LTRF was 1,675,039 gallons. The change in storage for the month increased by 9,977 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
AUGUST 2012
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
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TPS-6 (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.)	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	0.38	3.1	3.1	22.6	18,470	45,393	339	5,873	51,266	1,101	0	350,000	369,000	24,400	18,056	0	113,000	182,000	72,862	36,488	0	6,600	32,800
2	0.00	2.8	3.1	23.0	18,440	44,744	308	5,849	50,593	0	0	358,000	374,000	24,900	24,073	12,034	98,000	182,000	96,694	37,716	0	0	44,600
3	2.75	2.9	3.1	22.8	17,280	44,826	282	5,827	50,653	267	2	343,000	353,000	29,900	18,168	6,005	103,000	182,000	64,596	48,306	0	0	46,700
4	0.00	3.3	3.5	22.5	17,900	41,064	298	5,975	47,039	999	2	353,000	336,000	28,800	0	0	123,000	223,000	0	0	0	0	0
5	0.55	3.4	3.5	22.3	8,990	41,578	306	7,413	48,991	500	1	374,000	363,000	29,000	0	0	129,000	223,000	0	0	0	0	0
6	0.30	3.4	3.5	22.4	8,990	41,578	306	7,413	48,991	500	1	396,000	391,000	27,900	24,122	2,987	129,000	223,000	42,589	0	0	0	4,500
7	0.00	3.4	3.5	21.1	18,230	46,462	330	8,849	55,311	711	1	394,000	420,000	28,500	18,131	6,004	129,000	223,000	102,722	16,077	0	6,010	22,800
8	0.00	3.1	3.5	21.0	18,120	46,110	330	8,884	54,994	618	1	401,000	439,000	28,500	18,215	9,126	113,000	223,000	60,241	28,814	0	6,006	33,400
9	0.00	3.2	3.5	22.6	16,020	44,890	346	6,067	50,957	509	2	394,000	422,000	28,300	24,270	9,054	118,000	223,000	98,229	40,782	0	0	44,800
10	0.00	3.1	3.5	21.0	17,730	47,215	345	5,954	53,169	544	0	381,000	417,000	28,500	24,114	9,074	113,000	223,000	92,750	49,128	0	5,996	51,200
11	0.00	2.9	3.5	23.2	17,430	47,797	329	8,942	56,739	785	1	377,000	391,000	28,600	0	3,995	103,000	223,000	86,273	0	0	0	7,500
12	0.07	2.9	3.5	22.8	7,745	43,210	326	5,891	49,101	696	1	393,000	419,000	28,700	0	0	103,000	223,000	0	0	0	0	0
13	0.00	2.9	3.5	22.3	7,745	43,210	326	5,891	49,101	696	1	410,000	446,000	26,500	18,127	9,469	103,000	223,000	83,013	42,360	0	0	45,600
14	0.57	2.9	3.5	22.3	18,000	45,658	336	5,911	51,569	427	1	408,000	427,000	27,900	24,159	3,058	103,000	223,000	60,061	46,118	0	0	42,300
15	0.00	3.0	3.5	22.1	15,630	44,593	349	5,787	50,380	763	1	403,000	408,000	30,700	30,920	0	108,000	223,000	102,492	29,818	0	0	29,000
16	0.00	2.8	3.5	21.8	17,940	45,765	364	5,877	51,642	756	0	396,000	410,000	29,000	24,265	0	98,000	223,000	101,500	59,652	0	0	52,800
17	0.00	2.8	3.5	21.5	18,260	44,449	373	5,873	50,322	661	1	394,000	381,000	26,700	23,565	0	98,000	223,000	89,376	58,122	0	0	51,000
18	0.48	2.7	3.5	20.8	19,610	46,273	377	3,934	50,207	571	0	386,000	350,000	28,300	0	0	93,000	223,000	29,712	0	0	0	1,500
19	0.27	2.8	3.5	20.8	8,490	44,053	363	5,377	49,430	649	1	408,000	379,000	28,600	0	0	98,000	223,000	0	0	0	0	0
20	0.02	2.8	3.5	20.8	8,490	44,053	363	5,377	49,430	649	1	430,000	408,000	27,400	18,121	0	98,000	223,000	0	0	0	0	0
21	0.00	2.8	3.5	21.2	18,410	45,275	218	5,885	51,160	707	3	434,000	432,000	29,000	18,469	0	98,000	223,000	0	32,923	0	0	26,300
22	1.33	3.0	3.6	21.6	18,270	42,091	205	5,931	48,022	855	1	439,000	417,000	28,300	18,121	0	108,000	234,000	70,495	0	0	0	3,500
23	3.58	3.4	4.0	21.4	17,930	39,563	188	9,476	49,039	704	1	453,000	451,000	29,900	17,965	6,028	129,000	267,000	84,198	0	0	24,090	9,000
24	0.00	3.1	4.0	22.0	18,400	49,951	178	6,006	55,957	525	1	463,000	466,000	29,600	59,942	0	113,000	267,000	28,744	43,148	0	18,013	36,000
25	0.00	2.9	3.7	20.6	18,870	53,864	177	9,096	62,960	600	0	449,000	466,000	23,700	0	9,051	103,000	245,000	0	27,960	0	35,055	29,600
26	3.00	3.0	3.7	24.9	4,250	42,061	205	5,051	47,112	535	1	450,000	451,000	0	0	0	108,000	245,000	0	0	0	0	0
27	0.40	3.1	3.8	29.1	4,250	42,061	205	5,051	47,112	535	1	533,000	475,000	0	74,475	16,046	113,000	245,000	0	0	0	36,355	12,800
28	0.50	3.2	3.8	33.4	4,250	42,061	205	5,051	47,112	535	1	453,000	422,000	28,100	55,120	3,006	118,000	256,000	0	0	0	15,146	2,400
29	0.00	3.3	3.9	33.6	18,130	46,556	281	25,444	72,000	1,031	1	441,000	439,000	28,000	54,614	0	123,000	267,000	0	0	0	18,054	0
30	0.00	3.2	3.9	33.4	19,070	72,390	282	12,582	84,972	743	1	441,000	439,000	26,800	73,162	0	118,000	267,000	0	54,352	0	0	43,500
31	0.00	3.1	3.9	33.8	18,110	67,670	306	12,316	79,986	502	1	415,000	417,000	28,300	66,044	11,084	113,000	267,000	0	54,054	0	0	52,100
Total	14.20				459,450	1,436,462	9,144	228,852	1,665,314	19,673	29	410,300	412,200	812,800	746,218	116,021	110,200	229,700	1,566,547	705,818	0	170,725	725,700
Daily Average	3.0	3.6	23.7	14,821	46,337	295	7,382	53,720	635	635	1	410,300	412,200			3,700				22,800	0	5,500	23,410
Mo. Average																							

projects balance 2012 08-12 bal.xls (dad 09/06/12)

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. Column V, PPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
9. Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
10. Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
11. 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
AUGUST 2012
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
Day	Rainfall (in.)	Flow Meter TPS-6 (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.)	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 LTRF (gal.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
																	Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)	
1	0.38	31,082,630	4,181,844	13.6	1,933,054	2,019,306	9,827	4,280,106	21,118	3.1	72,862	3.1	36,488	12.17	12.83	24,371	0	18,056	0	0	6,000	0
2	0.00	31,101,070	4,226,588	14.0	1,933,054	2,019,306	9,827	4,285,955	21,426	3.1	96,694	2.8	37,716	12.42	13.00	24,934	0	24,073	12,034	0	0	0
3	2.75	31,118,350	4,271,414	13.8	1,933,321	2,019,306	9,829	4,291,782	21,708	3.1	64,596	2.9	48,306	11.92	12.25	29,862	0	18,168	6,005	0	0	0
4	0.00	31,136,250	4,312,478	13.5	1,934,320	2,019,306	9,831	4,297,757	22,006	3.5	0	3.3	0	12.25	11.67	28,778	0	0	0	0	0	0
5	0.55	31,145,240	4,354,056	13.5	1,934,820	2,019,306	9,832	4,305,170	22,312	3.5	0	3.4	0	13.00	12.63	29,046	0	0	0	0	0	0
6	0.30	31,154,230	4,395,633	13.4	1,935,320	2,019,306	9,833	4,312,583	22,617	3.5	42,589	3.4	0	13.75	13.58	27,948	0	24,122	2,987	0	0	0
7	0.00	31,172,460	4,442,095	12.1	1,936,031	2,019,306	9,834	4,321,432	22,947	3.5	102,722	3.4	16,077	13.67	14.58	28,466	0	18,131	6,004	0	6,010	0
8	0.00	31,190,580	4,488,205	12.0	1,936,649	2,019,306	9,835	4,330,316	23,277	3.5	60,241	3.1	28,814	13.92	15.25	28,466	0	18,215	9,126	0	6,006	0
9	0.00	31,206,600	4,533,095	13.6	1,937,158	2,019,306	9,837	4,336,383	23,623	3.5	98,229	3.2	40,782	13.67	14.67	28,314	0	24,270	9,054	0	0	0
10	0.00	31,224,330	4,580,310	12.0	1,937,702	2,019,306	9,837	4,342,337	23,968	3.5	92,750	3.1	49,128	13.25	14.50	28,482	0	24,114	9,074	0	5,996	0
11	0.00	31,241,760	4,628,107	14.2	1,938,487	2,019,306	9,838	4,351,279	24,297	3.5	86,273	2.9	0	13.08	13.58	28,620	0	0	3,995	0	0	0
12	0.07	31,249,505	4,671,317	13.8	1,939,183	2,019,306	9,839	4,357,170	24,623	3.5	0	2.9	0	13.67	14.54	28,721	0	0	0	0	0	0
13	0.00	31,257,250	4,714,526	13.3	1,939,878	2,019,306	9,840	4,363,061	24,948	3.5	83,013	2.9	42,360	14.25	15.50	26,528	0	18,127	9,469	0	0	0
14	0.57	31,275,250	4,760,184	13.3	1,940,305	2,019,306	9,841	4,368,972	25,284	3.5	60,061	2.9	46,118	14.17	14.83	27,890	0	24,159	3,058	0	0	0
15	0.00	31,290,880	4,804,777	13.1	1,941,068	2,019,306	9,842	4,374,759	25,633	3.5	102,492	3.0	29,818	14.00	14.17	30,697	0	30,920	0	0	0	0
16	0.00	31,308,820	4,850,542	12.8	1,941,824	2,019,306	9,842	4,380,636	25,997	3.5	101,500	2.8	59,652	13.75	14.25	29,010	0	24,265	0	0	0	0
17	0.00	31,327,080	4,894,991	12.5	1,942,485	2,019,306	9,843	4,386,509	26,370	3.5	89,376	2.8	58,122	13.67	13.25	26,702	0	23,565	0	0	0	0
18	0.48	31,346,690	4,941,264	11.8	1,943,056	2,019,306	9,843	4,390,443	26,747	3.5	29,712	2.7	0	13.42	12.17	28,315	0	0	0	0	0	0
19	0.27	31,355,180	4,985,317	11.8	1,943,705	2,019,306	9,844	4,395,820	27,110	3.5	0	2.8	0	14.17	13.17	28,611	0	0	0	0	0	0
20	0.02	31,363,670	5,029,369	11.8	1,944,353	2,019,306	9,845	4,401,197	27,473	3.5	0	2.8	0	14.92	14.17	27,370	0	18,121	0	0	0	0
21	0.00	31,382,080	5,074,644	12.2	1,945,060	2,019,306	9,848	4,407,082	27,691	3.5	0	2.8	32,923	15.08	15.00	28,966	0	18,469	0	0	0	0
22	1.33	31,400,350	5,116,735	12.6	1,945,915	2,019,306	9,849	4,413,013	27,896	3.6	70,495	3.0	0	15.25	14.50	28,323	0	18,121	0	0	0	0
23	3.58	31,418,280	5,156,298	12.4	1,946,619	2,019,306	9,850	4,422,489	28,084	4.0	84,198	3.4	0	15.75	15.67	29,886	17,965	0	6,028	12,060	12,030	0
24	0.00	31,436,680	5,206,249	13.0	1,947,144	2,019,306	9,851	4,428,495	28,262	4.0	28,744	3.1	43,148	16.08	16.17	29,554	41,897	18,045	0	0	18,013	0
25	0.00	31,455,550	5,260,113	11.6	1,947,744	2,019,306	9,851	4,437,591	28,439	3.7	0	2.9	27,960	15.58	16.17	23,705	0	0	9,051	35,055	0	0
26	3.00	31,459,800	5,302,174	15.9	1,948,279	2,019,306	9,852	4,442,642	28,644	3.7	0	3.0	0	15.64	15.67	0	0	0	0	0	0	0
27	0.40	31,464,050	5,344,236	20.1	1,948,815	2,019,306	9,852	4,447,692	28,849	3.8	0	3.1	0	18.50	16.50	0	62,337	12,138	16,046	30,344	6,011	0
28	0.50	31,468,300	5,386,297	24.4	1,949,350	2,019,306	9,853	4,452,743	29,054	3.8	0	3.2	0	15.75	14.67	28,100	42,973	12,147	3,006	15,146	0	0
29	0.00	31,486,430	5,432,853	24.6	1,950,381	2,019,306	9,854	4,478,187	29,335	3.9	0	3.3	0	15.33	15.25	28,001	54,614	0	0	18,054	0	0
30	0.00	31,505,500	5,505,243	24.4	1,951,124	2,019,306	9,855	4,490,769	29,617	3.9	0	3.2	54,352	15.33	15.25	26,814	54,916	18,246	0	0	0	0
31	0.00	31,523,610	5,572,913	24.8	1,951,626	2,019,306	9,856	4,503,085	29,923	3.9	0	3.1	54,054	14.42	14.50	28,310	47,868	18,176	11,084	0	0	0
Totals	14.20										1,366,547		705,818			812,790	322,570	423,648	116,021	92,605	78,120	0

projects\balance\2012\08-12bal.xls (dad 09/06/12)

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 B, 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 gages 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

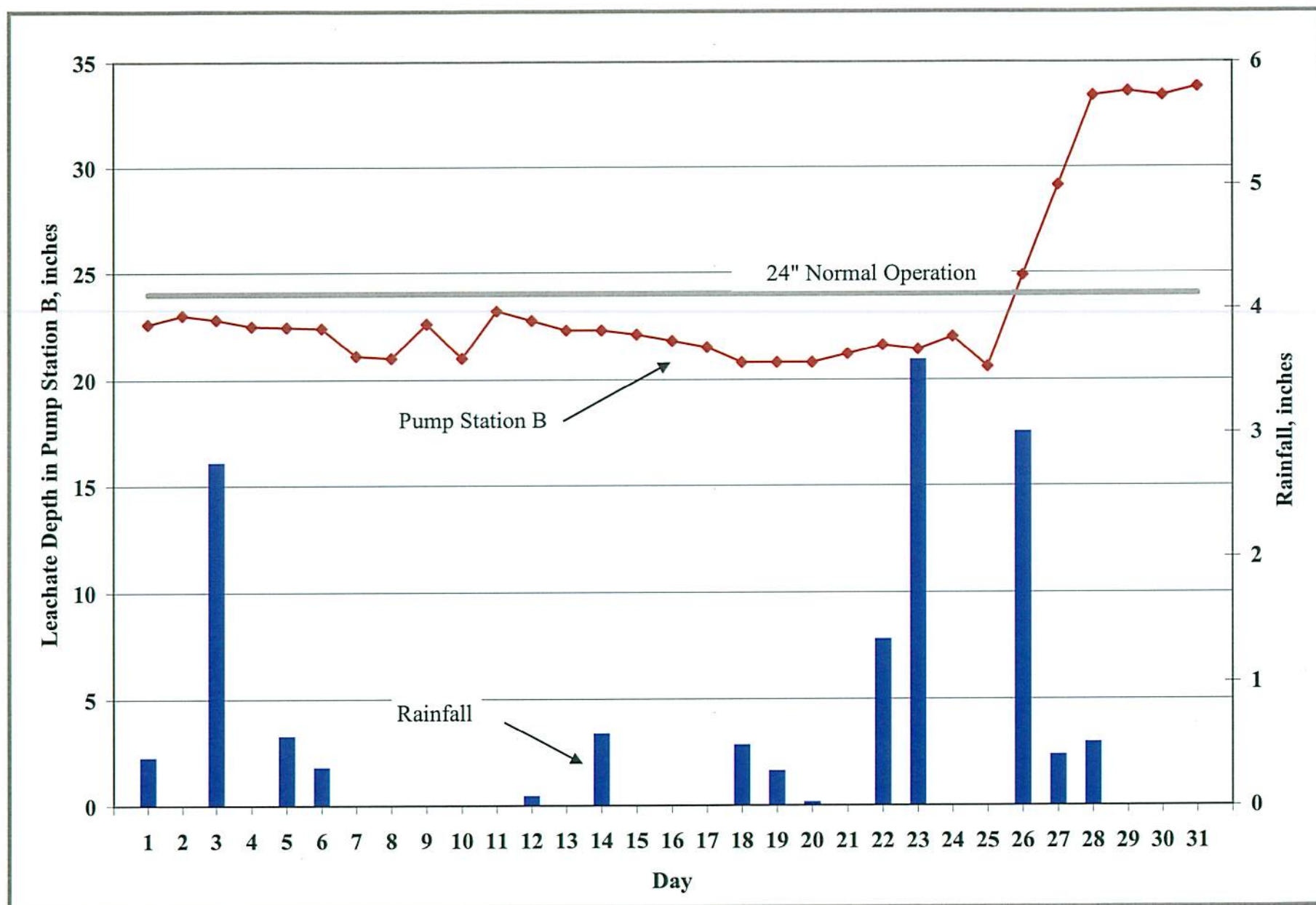


Figure 1. Leachate Levels in Pump Station B and Rainfall for August 2012.

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MEMORANDUM

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OCT 15 2012
SOUTHWEST DISTRICT
TAMPA

DATE: October 12, 2012

TO: Larry Ruiz, General Manager III, Solid Waste Management Group

FROM: Cindy Pelley, Environmental Specialist II, Environmental Services Group
Raymond Graves, Sr. Eng. Tech., Solid Waste Management Group

SUBJECT: Leachate Water Balance Report Forms for September
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Group (SWMG) 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 2012 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 3.70 inches of rainfall at the Southeast County Landfill (SCLF).

MEMORANDUM

October 12, 2012

Page 2 of 6

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 3.2 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 above the normal operation level of 24-inches during most of the month due to a system wide problem with the bubbler that has been repaired. The average recorded depth of leachate in the PS-B sump was 29.7 inches.

Leachate Pumped to PS-B from TPS-6 (Column VI)

Column VI presents the quantity of leachate from Phase IV pumped to PS-B by Temporary Pump Station-6 (TPS-6). The quantity of leachate removed by TPS-6 is measured in gallons by an in-line flow meter and is included in the quantity of leachate pumped to the Main Leachate Pump Station (MLPS) from Phases I-VI (Column VII).

The average daily amount of leachate pumped from TPS-6 was 12,948 gallons. A total of 388,430 gallons of leachate was pumped this month.

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

Column VII 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 quantity in column VII also includes the daily amount of leachate, in gallons, pumped from TPS-6. The average daily amount of leachate pumped from PS-A was 64,023 gallons. A total of 1,920,704 gallons of leachate was pumped this month.

MEMORANDUM

October 12, 2012

Page 3 of 6

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

Column VIII 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 7,916 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 IX 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 a total of 209,099 gallons of leachate was pumped from Sections 7-8.

Leachate Pumped to LTRF from the MLPS (Column X)

Column X presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 2,129,803 gallons of leachate were pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XI)

Column XI 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 20,454 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XII)

Column XII 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 a total of 30 gallons of leachate were removed from the leak detection system.

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

Column XIII 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 408,400 gallons of leachate was stored in the tank.

MEMORANDUM

October 12, 2012

Page 4 of 6

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

Column XIV 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 427,000 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XV)

Column XV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 815,200 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,300,030 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVII)

Column XVII 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 45,061 gallons of leachate was used for dust control.

Pond A Storage (Column XVIII)

Column XVIII 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 102,300 gallons of effluent was stored in Pond A.

Pond B Storage (Column XIX)

Column XIX 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

MEMORANDUM

October 12, 2012

Page 5 of 6

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 190,000 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XX)

Column XX 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 a total of 139,059 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXI)

Column XXI 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 782,345 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXII)

Column XXII 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 XXIII)

Column XXIII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month a total of 144,519 gallons of effluent was hauled off site.

Total Evaporation (Column XXIV)

Column XXIV 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. The total evaporation estimated for this month was 668,900 gallons.

MEMORANDUM
October 12, 2012
Page 6 of 6

TABLE 2

Table 2 presents data assembled from daily logs compiled by the SWMG 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 2,150,287 gallons. Total outflow quantity from the LTRF was 2,160,291 gallons. The change in storage for the month decreased by 10,004 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
SEPTEMBER 2012
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
Dry	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Leachate Pumped to PS-B from TFS-6 (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 MLPS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (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	0.00	3.1	3.9	33.8	9,870	78,980	301	9,141	88,121	759	0	396,000	391,000	28,800	55,018	0	113,000	267,000	0	15,436	0	0	12,300
2	0.00	3.1	3.9	33.8	2,698	76,962	307	9,208	86,170	841	1	416,000	413,000	28,200	0	0	113,000	267,000	0	0	0	0	0
3	0.00	3.0	3.9	33.9	2,698	76,962	307	9,208	86,170	841	1	416,000	413,000	28,200	67,340	0	113,000	267,000	0	0	0	0	0
4	0.00	3.0	3.9	33.9	2,698	76,962	307	9,208	86,170	841	1	416,000	413,000	28,200	57,556	6,003	108,000	267,000	59,924	55,571	0	0	52,300
5	0.00	3.0	3.8	33.4	14,305	76,531	345	9,100	85,631	785	0	417,000	412,000	28,200	100,464	0	108,000	256,000	79,135	51,942	0	0	45,500
6	0.37	2.9	3.7	33.5	10,050	77,008	331	8,998	86,006	780	2	389,000	410,000	26,000	74,141	0	103,000	245,000	0	37,856	0	0	30,300
7	0.00	3.0	3.5	33.1	0	72,719	315	6,351	79,070	1,142	2	372,000	425,000	20,900	57,692	0	108,000	223,000	0	0	0	12,064	0
8	0.00	2.7	3.4	32.6	17,310	74,281	292	9,184	83,465	1,122	9	369,000	408,000	28,300	50,014	0	93,000	213,000	0	0	0	0	0
9	1.45	2.8	3.5	32.7	6,565	72,780	303	7,669	80,449	0	0	389,000	414,000	28,200	13,594	0	98,000	223,000	0	0	0	0	0
10	0.00	2.8	3.6	31.5	6,565	72,780	303	7,669	80,449	0	0	408,000	461,000	200	57,421	0	98,000	234,000	0	0	0	18,043	0
11	0.00	3.0	3.6	28.8	14,450	70,189	329	6,458	76,647	0	0	414,000	466,000	8,800	42,410	0	108,000	234,000	0	0	0	18,022	0
12	0.00	3.0	3.6	33.6	17,590	58,846	304	9,856	68,702	0	0	441,000	444,000	25,100	37,026	0	108,000	234,000	0	40,358	0	6,048	32,300
13	0.00	2.8	3.6	31.6	18,940	61,536	320	6,748	68,284	2,693	2	446,000	430,000	28,300	54,740	0	98,000	234,000	0	50,747	0	0	40,600
14	0.00	2.9	3.3	29.2	17,970	70,002	345	6,700	76,702	910	1	412,000	422,000	27,100	36,190	0	103,000	202,000	0	43,338	0	18,027	34,700
15	0.00	2.9	3.0	27.9	20,320	69,683	321	6,643	76,326	847	1	414,000	401,000	29,400	48,432	0	103,000	172,000	0	18,160	0	0	14,500
16	0.40	2.9	3.0	26.2	6,895	66,012	304	6,583	72,595	788	1	464,000	410,000	29,600	0	0	103,000	172,000	0	0	0	0	0
17	0.32	2.9	3.0	24.4	6,895	66,012	304	6,583	72,595	788	1	494,000	458,000	29,200	48,212	3,035	103,000	172,000	0	26,209	0	0	23,400
18	0.50	2.9	3.0	26.5	19,550	65,752	302	6,740	72,492	940	1	473,000	463,000	29,200	66,403	0	103,000	172,000	0	40,417	0	0	32,300
19	0.02	2.8	3.1	24.4	17,390	66,535	304	6,710	73,245	701	2	449,000	451,000	29,100	30,242	0	98,000	182,000	0	30,422	0	18,064	24,300
20	0.00	2.6	3.1	21.4	18,250	63,649	312	6,605	70,254	674	0	468,000	446,000	28,500	66,688	6,008	88,000	182,000	0	42,051	0	0	38,400
21	0.00	3.0	3.0	21.1	19,050	62,075	322	6,432	68,507	942	2	427,000	420,000	28,500	66,413	0	108,000	172,000	0	46,699	0	0	37,400
22	0.07	2.7	3.0	22.3	19,340	61,727	321	3,228	64,955	673	0	389,000	405,000	28,900	36,300	0	93,000	172,000	0	0	0	0	0
23	0.00	2.7	3.0	28.0	8,280	46,023	144	6,598	52,620	718	1	396,000	433,000	28,400	0	0	93,000	172,000	0	0	0	0	0
24	0.00	2.7	3.0	33.7	8,280	46,023	144	6,598	52,620	718	1	403,000	461,000	28,400	54,640	5,979	93,000	172,000	0	55,974	0	0	49,600
25	0.00	3.1	2.7	30.1	19,100	63,759	132	3,200	66,959	1,952	1	381,000	412,000	28,700	42,853	5,922	113,000	143,000	0	53,161	0	18,043	47,300
26	0.00	2.7	2.7	30.4	19,020	57,690	128	6,585	64,275	0	0	374,000	405,000	29,000	43,587	6,003	93,000	143,000	0	54,303	0	18,021	48,200
27	0.00	3.0	2.6	32.6	18,840	55,183	123	6,469	61,652	0	0	353,000	381,000	28,300	50,576	3,075	108,000	133,000	0	53,864	0	18,187	45,600
28	0.25	2.9	1.9	33.3	18,020	46,422	121	3,239	49,661	0	0	326,000	389,000	28,800	42,078	9,034	103,000	72,000	0	65,837	0	0	59,900
29	0.00	2.8	1.6	33.4	18,650	54,247	116	6,446	60,693	0	0	307,000	389,000	29,000	0	0	98,000	51,000	0	0	0	0	0
30	0.32	2.8	1.6	22.0	8,840	13,176	110	4,944	18,120	0	0	294,000	415,000	19,700	0	0	98,000	51,000	0	0	0	0	0
Total	3.70				388,430	1,920,704	7,916	209,099	2,129,803	20,454	30			815,200	1,300,030	45,061			139,059	782,345	0	144,519	668,900
Daily Average		2.9	3.2	29.7	12,948	64,023	264	6,970	70,993	682	1	408,400	427,000				102,300	190,000					
Mo. Average																1,500				26,100	0	4,800	22,300

projects/balance/2012-09-12bal.xls (dad 10/05/12)

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. Column V, FPS-B sensor reading plus 9 inches.
8. Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
9. Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
10. Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
11. 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
SEPTEMBER 2012
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
Day	Rainfall (in.)	Flow Meter TPS-6 (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.)	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 LTRF (gal.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
																	Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)	
1	0.00	31,533,480	5,651,893	24.8	1,952,385	2,019,306	9,856	4,512,226	30,224	3.9	0	3.1	15,436	13.75	13.58	28,798	55,018	0	0	0	0	0
2	0.00	<i>31,536,178</i>	<i>5,728,855</i>	<i>24.8</i>	<i>1,953,226</i>	<i>2,019,306</i>	<i>9,857</i>	<i>4,521,434</i>	<i>30,531</i>	<i>3.9</i>	<i>0</i>	<i>3.1</i>	<i>0</i>	<i>14.44</i>	<i>14.36</i>	<i>28,198</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
3	0.00	<i>31,538,877</i>	<i>5,805,816</i>	<i>24.9</i>	<i>1,954,067</i>	<i>2,019,306</i>	<i>9,859</i>	<i>4,530,643</i>	<i>30,837</i>	<i>3.9</i>	<i>0</i>	<i>3.0</i>	<i>0</i>	<i>15.14</i>	<i>15.14</i>	<i>56,168</i>	<i>55,226</i>	<i>12,114</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
4	0.00	31,541,575	5,882,778	24.9	1,954,908	2,019,306	9,860	4,539,851	31,144	3.9	59,924	3.0	55,571	15.83	15.92	28,184	39,098	18,458	6,005	0	0	0
5	0.00	31,555,880	5,959,309	24.4	1,955,693	2,019,306	9,860	4,548,951	31,489	3.8	79,135	3.0	51,942	15.17	15.00	28,184	82,266	18,198	0	0	0	0
6	0.37	31,565,930	6,036,317	24.5	1,956,473	2,019,306	9,862	4,557,949	31,820	3.7	0	2.9	37,856	13.50	14.25	25,972	55,893	18,248	0	0	0	0
7	0.00	31,565,930	6,109,036	24.1	1,957,615	2,019,306	9,864	4,564,300	32,135	3.5	0	3.0	0	12.92	14.75	20,885	57,692	0	0	0	12,064	0
8	0.00	31,583,240	6,183,317	23.6	1,958,528	2,019,515	9,873	4,573,484	32,427	3.4	0	2.7	0	12.83	14.17	28,280	50,014	0	0	0	0	0
9	1.45	<i>31,589,805</i>	<i>6,256,097</i>	<i>23.1</i>	<i>1,958,528</i>	<i>2,019,515</i>	<i>9,873</i>	<i>4,581,153</i>	<i>32,730</i>	<i>3.5</i>	<i>0</i>	<i>2.8</i>	<i>0</i>	<i>13.50</i>	<i>15.09</i>	<i>28,166</i>	<i>13,594</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
10	0.00	31,596,370	6,328,877	22.5	1,958,528	2,019,515	9,873	4,588,821	33,033	3.6	0	2.8	0	14.17	16.00	210	57,421	0	0	0	18,043	0
11	0.00	31,610,820	6,399,266	19.8	1,958,528	2,019,515	9,873	4,595,279	33,362	3.6	0	3.0	0	15.08	16.17	8,753	42,410	0	0	0	18,022	0
12	0.00	31,628,410	6,458,112	24.6	1,958,528	2,019,515	9,873	4,605,135	33,666	3.6	0	3.0	40,358	15.33	15.42	25,102	24,928	12,098	0	0	6,048	0
13	0.00	31,647,350	6,519,648	22.6	1,961,221	2,019,515	9,875	4,611,883	33,986	3.6	0	2.8	50,747	15.50	14.92	28,326	36,568	18,172	0	0	0	0
14	0.00	31,665,320	6,589,650	20.2	1,962,131	2,019,515	9,876	4,618,583	34,331	3.3	0	2.9	43,338	15.00	14.67	27,129	36,190	0	0	0	18,027	0
15	0.00	31,685,640	6,659,333	18.9	1,962,978	2,019,515	9,877	4,625,226	34,652	3.0	0	2.9	18,160	15.08	13.92	29,425	48,432	0	0	0	0	0
16	0.40	<i>31,692,535</i>	<i>6,725,345</i>	<i>17.2</i>	<i>1,963,766</i>	<i>2,019,515</i>	<i>9,878</i>	<i>4,631,809</i>	<i>34,956</i>	<i>3.0</i>	<i>0</i>	<i>2.9</i>	<i>0</i>	<i>16.13</i>	<i>14.92</i>	<i>29,626</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
17	0.32	31,699,430	6,791,357	15.4	1,964,554	2,019,515	9,879	4,638,391	35,260	3.0	0	2.9	26,209	17.17	15.92	29,210	48,212	0	3,035	0	0	0
18	0.50	31,718,980	6,857,109	17.5	1,965,494	2,019,515	9,880	4,645,131	35,562	3.0	0	2.9	40,417	16.42	16.08	29,210	48,244	18,159	0	0	0	0
19	0.02	31,736,370	6,923,644	15.4	1,966,195	2,019,515	9,882	4,651,841	35,866	3.1	0	2.8	30,422	15.58	15.67	29,088	30,242	0	0	0	18,064	0
20	0.00	31,754,620	6,987,293	12.4	1,966,869	2,019,515	9,882	4,658,446	36,178	3.1	0	2.6	42,051	16.25	15.50	28,520	48,555	18,133	6,008	0	0	0
21	0.00	31,773,670	7,049,368	12.1	1,967,811	2,019,515	9,884	4,664,878	36,500	3.0	0	3.0	46,699	14.83	14.58	28,519	48,291	18,122	0	0	0	0
22	0.07	31,793,010	7,111,095	13.3	1,968,484	2,019,515	9,884	4,668,106	36,821	3.0	0	2.7	0	13.50	14.08	28,865	36,300	0	0	0	0	0
23	0.00	<i>31,801,290</i>	<i>7,157,118</i>	<i>19.0</i>	<i>1,969,202</i>	<i>2,019,515</i>	<i>9,885</i>	<i>4,674,704</i>	<i>36,965</i>	<i>3.0</i>	<i>0</i>	<i>2.7</i>	<i>0</i>	<i>13.75</i>	<i>15.04</i>	<i>28,439</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
24	0.00	31,809,570	7,203,140	24.7	1,969,919	2,019,515	9,885	4,681,301	37,109	3.0	0	2.7	55,974	14.00	16.00	28,439	36,545	18,095	5,979	0	0	0
25	0.00	31,828,670	7,266,899	21.1	1,971,871	2,019,515	9,886	4,684,501	37,241	2.7	0	3.1	53,161	13.25	15.00	28,674	42,853	0	5,922	0	18,043	0
26	0.00	31,847,690	7,324,589	21.4	1,971,871	2,019,515	9,886	4,691,086	37,369	2.7	0	2.7	54,303	13.00	14.08	28,963	43,587	0	6,003	0	18,021	0
27	0.00	31,866,530	7,379,772	23.6	1,971,871	2,019,515	9,886	4,697,555	37,492	2.6	0	3.0	53,864	12.25	13.25	28,340	50,576	0	3,075	0	18,187	0
28	0.25	31,884,550	7,426,194	24.3	1,971,871	2,019,515	9,886	4,700,794	37,613	1.9	0	2.9	65,837	11.33	13.50	28,805	24,067	18,011	9,034	0	0	0
29	0.00	31,903,200	7,480,441	24.4	1,971,871	2,019,515	9,886	4,707,240	37,729	1.6	0	2.8	0	10.67	13.50	28,955	0	0	0	0	0	0
30	0.32	<i>31,912,040</i>	<i>7,493,617</i>	<i>13.0</i>	<i>1,971,871</i>	<i>2,019,515</i>	<i>9,886</i>	<i>4,712,184</i>	<i>37,839</i>	<i>1.6</i>	<i>0.0</i>	<i>2.8</i>	<i>0</i>	<i>10.21</i>	<i>14.42</i>	<i>19,729</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Totals	3.70										139,059		782,345			815,162	1,112,222	187,808	45,061	0	144,519	0

projects\balance\2012\09-12\bal.xls (dad 10/05/12)

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 B, 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 gages 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

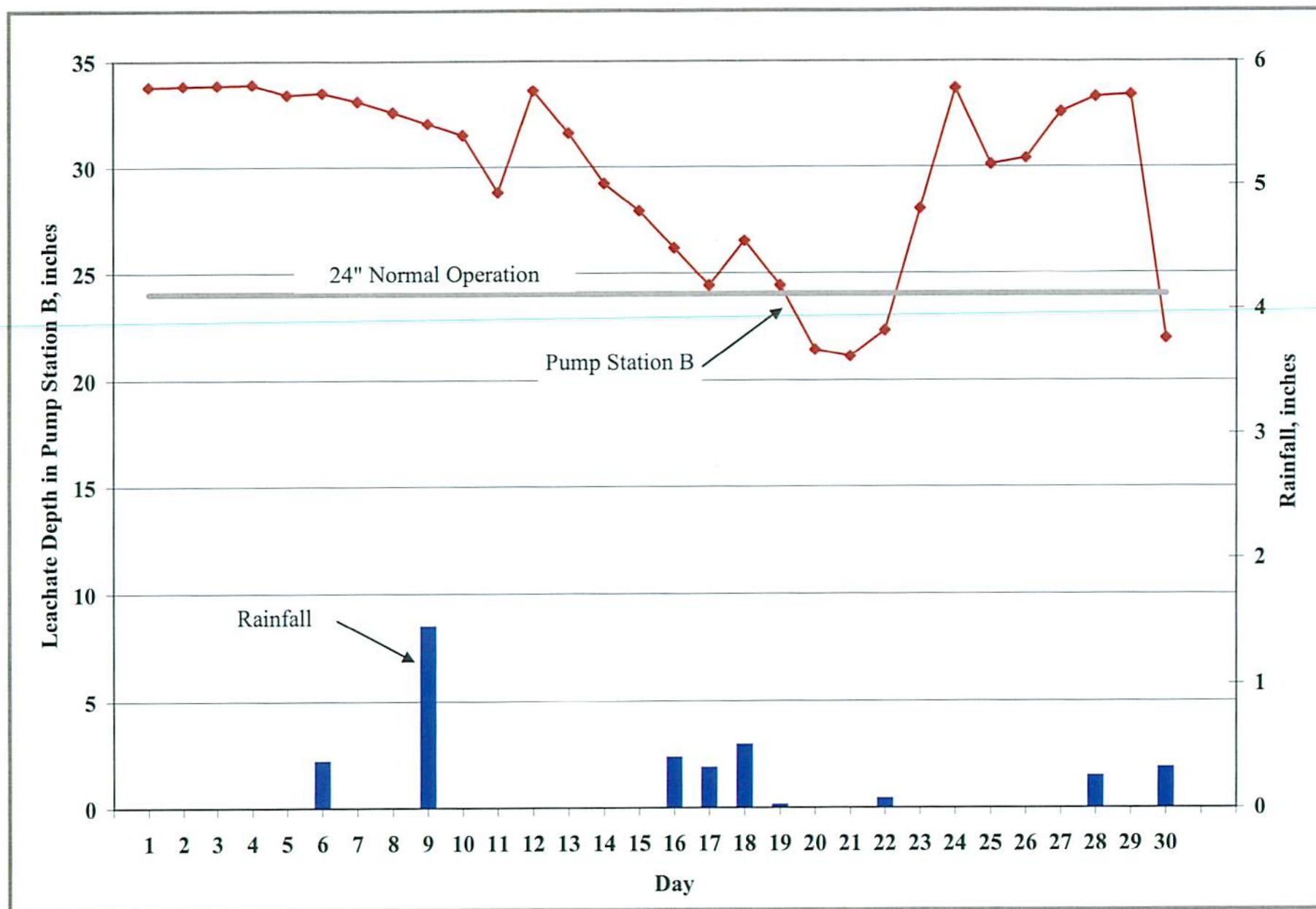


Figure 1. Leachate Levels in Pump Station B and Rainfall for September 2012.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2012**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Leachate Hauled to LTRF from HHLF/TRLF (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.)	Change in Storage ¹ (gal.)
January	1.07	0	23,500	70,007	813,178	699,589	106,160	0	0	0	0	906,685	805,749	100,936
February	0.73	0	355,409	44,187	711,900	729,481	3,015	0	0	0	0	1,111,496	732,496	379,000
March	1.34	0	14,454	40,857	755,703	731,676	0	249,900	0	0	0	811,014	981,576	-170,562
April	1.73	0	20,024	48,716	692,903	24,075	0	725,800	6,009	0	599,900	761,643	749,875	11,768
May	2.52	0	12,434	38,828	667,077	0	0	737,200	0	0	678,600	718,339	737,200	-18,861
June	19.69	0	19,532	216,419	939,380	379,754	14,787	683,800	24,400	0	495,700	1,175,331	1,078,341	96,990
July	4.98	0	20,538	216,186	1,558,367	800,555	171,493	832,000	60,184	0	796,826	1,795,091	1,804,048	-8,957
August	14.20	0	19,702	228,852	1,436,462	746,218	116,021	812,800	170,725	0	705,818	1,685,016	1,675,039	9,977
September	3.70	0	20,484	209,099	1,920,704	1,300,030	45,061	815,200	144,519	0	782,345	2,150,287	2,160,291	-10,004
October														
November														
December														
YTD Total	49.96	0	506,077	1,113,151	9,495,674	5,411,378	456,537	4,856,700	405,837	0	4,059,189	11,114,902	10,724,615	390,287

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.