Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

April 9, 2010

Ms. Susan J. Pelz, P.E.
Solid Waste Permitting
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 Department (SWMD) is submitting the quarterly Leachate Water Balance summary for the Southeast County Landfill for the quarter ending April 15, 2010.

The data is being submitted as separate monthly reports for January, February, and March 2010. The information includes the leachate level in Pump Station B (PS-B). PS-B was below the 24-inch normal operation level during this quarter except for January 3 and 4, February 12 and 25, and March 7, 8, 28 and 29 due to bubbler and pump malfunctions. These malfunctions were immediately corrected.

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

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachment
xc: Larry Ruiz, SWMD
Cindy Pelley, SWMD
Don Hullings, JEA
Ron Cope, EPC
Paul Schipfer, EPC

Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

March 5, 2010

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

RE: Southeast County Landfill – January 2010 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report for the month of January 2010. In addition, the SWMD is providing the January 2010 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (FDEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-014-SO, Specific Condition No. 8.

As initiated with the April 1996 report, the Landfill leachate information for January 2010 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches except for January 3, and 4 due to pump malfunctions. The average depth of leachate in the PS-B sump for the recorded days in January 2010 was 21.1 inches.

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

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0110.dep

Hillsborough County
Florida
Office of the County Administrator
Patricia G. Bean

MEMORANDUM

DATE: March 1, 2010

TO: Patricia Berry, Section Manager, Solid Waste Management Department

FROM: Larry Ruiz, General Manager III, Solid Waste Management Department
Raymond Graves, Sr. Eng. Tech., Solid Waste Management Department

SUBJECT: Leachate Water Balance Report Forms for January 2010
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Department (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 2010 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 3.5 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.2 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 0.5 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 of 24-inches except for January 3 and 4 due to pump malfunctions. The average recorded depth of leachate in the PS-B sump was 21.1 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 11,324 gallons. A total of 351,055 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 25,621 gallons. A total of 794,265 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 1,784 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 73,231 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 868,509 gallons of leachate was 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 30,101 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 1,013 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 299,400 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 269,800 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 625,400 gallons of leachate was treated.

Total Leachate Hauled (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 223,008 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 1,500 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 69,900 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 12,300 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 effluent was not 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 463,698 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 a total of 44,971 gallons of effluent was 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 24,397 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 408,300 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 898,610 gallons. Total outflow quantity from the LTRF was 849,908 gallons. The change in storage for the month increased by 48,702 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
JANUARY 2010
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	0.33	1.3	0.0	*20.6*	*4,505*	*26,247*	*40*	*1*	*26,247*	*1,530*	*0*	*281,000*	*287,000*	*26,400*	0	0	*32,000*	*0*	0	0	0	0	0
2	0.00	1.1	0.0	22.3	4,505	26,247	40	1	26,247	1,530	0	283,000	307,000	26,400	0	0	28,000	0	0	0	0	0	0
3	0.00	2.1	0.0	*27.9*	*4,835*	*19,370*	*61*	*1*	*19,387*	*1,641*	*16*	*278,000*	*283,000*	*26,400*	0	0	*65,000*	*0*	0	0	0	0	0
4	0.00	3.0	0.0	33.4	4,835	19,370	61	1	19,387	1,641	16	274,000	259,000	26,400	6,016	0	108,000	0	0	39,868	0	6,037	31,900
5	0.00	2.2	0.0	22.8	8,450	28,573	59	1	28,582	1,685	8	274,000	274,000	25,600	12,028	1,500	70,000	0	0	55,564	0	6,005	45,700
6	0.00	1.8	0.0	21.0	8,690	22,584	68	1	22,640	1,662	55	259,000	259,000	26,100	6,016	0	52,000	0	0	36,742	3,006	6,349	31,800
7	0.00	1.0	0.0	21.2	9,220	22,917	76	1	22,991	1,578	73	259,000	271,000	19,100	0	0	24,000	0	0	0	0	0	0
8	0.00	1.8	0.0	18.3	7,235	25,650	81	4,434	30,084	1,345	0	266,000	257,000	19,500	12,028	0	52,000	0	0	24,895	2,997	0	22,300
9	0.25	1.2	0.0	21.5	8,765	26,579	60	0	26,579	1,723	0	264,000	271,000	18,300	0	0	32,000	0	0	0	0	0	0
10	0.01	1.6	0.0	*19.8*	*5,490*	*20,974*	*61*	*0*	*20,979*	*1,391*	*5*	*265,000*	*271,000*	*18,300*	0	0	*44,000*	*0*	0	0	0	0	0
11	0.00	2.0	0.0	18.1	5,490	20,974	61	0	20,979	1,391	5	266,000	271,000	18,300	18,048	0	61,000	0	0	0	2,997	0	2,400
12	0.00	2.2	0.0	18.2	7,710	14,457	63	0	14,457	1,510	0	266,000	269,000	19,100	12,031	0	70,000	0	0	0	0	6,006	0
13	0.00	2.3	0.0	18.2	8,230	23,492	65	5,348	28,927	4,952	87	247,000	278,000	18,300	18,045	0	74,000	0	0	45,676	0	0	36,500
14	0.00	2.0	0.0	21.0	4,430	22,953	61	2	22,965	420	10	240,000	269,000	19,100	0	0	61,000	0	0	37,865	9,028	0	37,500
15	0.00	1.2	0.0	20.4	0	24,178	66	0	24,359	1,458	181	269,000	278,000	18,100	0	0	32,000	0	0	0	0	0	0
16	1.03	1.9	0.0	19.1	17,400	32,141	51	1	32,142	0	0	261,000	261,000	19,300	0	0	57,000	0	0	22,692	0	0	18,200
17	0.00	2.0	0.0	*20.6*	*11,420*	*31,091*	*80*	*1*	*31,091*	*0*	*0*	*276,000*	*264,000*	*19,300*	0	0	*61,000*	*0*	0	0	0	0	0
18	0.00	2.1	0.0	22.0	11,420	31,091	80	1	31,091	0	0	290,000	266,000	19,300	0	0	65,000	0	0	0	0	0	0
19	0.00	2.3	0.8	17.6	21,910	31,099	69	0	31,099	0	0	302,000	274,000	19,300	0	0	74,000	12,000	0	22,442	5,942	0	22,700
20	0.00	2.0	0.8	21.3	18,190	30,602	90	11,761	42,363	0	0	324,000	276,000	20,900	18,073	0	61,000	12,000	0	0	0	0	0
21	0.00	2.6	0.8	20.6	20,720	34,126	49	1	34,127	0	0	333,000	261,000	16,100	18,072	0	88,000	12,000	0	27,839	6,001	0	27,100
22	0.78	2.2	0.9	17.6	20,970	26,525	70	1	26,526	0	0	329,000	274,000	9,100	12,059	0	70,000	15,000	0	0	0	0	0
23	0.00	2.9	0.9	22.0	21,260	32,633	52	0	32,633	0	0	331,000	257,000	22,300	0	0	103,000	15,000	0	0	0	0	0
24	0.00	3.2	1.0	*20.6*	*10,525*	*27,672*	*51*	*15,374*	*43,045*	*0*	*0*	*355,000*	*259,000*	*22,300*	0	0	*118,000*	*19,000*	0	0	0	0	0
25	1.02	3.4	1.1	19.1	10,525	27,672	51	15,374	43,045	0	0	379,000	261,000	22,300	12,077	0	129,000	23,000	0	0	0	0	0
26	0.05	3.4	1.2	21.7	15,880	26,083	36	0	26,083	0	0	374,000	276,000	18,300	18,117	0	129,000	28,000	0	0	0	0	0
27	0.00	3.4	1.7	21.3	17,980	21,210	33	0	21,210	0	0	360,000	264,000	19,200	18,110	0	129,000	57,000	0	27,199	0	0	21,800
28	0.00	2.9	1.7	21.7	16,060	20,580	48	7,733	28,870	0	557	350,000	278,000	18,200	24,140	0	103,000	57,000	0	48,388	5,999	0	43,500
29	0.00	2.6	1.5	19.0	19,410	26,830	38	4	26,834	0	0	336,000	257,000	16,300	18,148	0	88,000	44,000	0	53,453	9,001	0	50,000
30	0.03	1.5	1.5	22.2	15,850	27,073	31	13,191	40,264	3,252	0	343,000	266,000	19,000	0	0	40,000	44,000	0	21,075	0	0	16,900
31	0.00	1.7	1.5	*22.6*	*9,145*	*23,276*	*35*	*1*	*23,277*	*1,393*	*0*	*348,000*	*266,000*	*18,800*	0	0	*48,000*	*44,000*	0	0	0	0	0
Total	3.50				351,055	794,265	1,784	73,231	868,509	30,101	1,013			625,400	223,008	1,500			0	463,698	44,971	24,397	408,300
Daily Average		2.2	0.5	21.1	11,324	25,621	58	2,362	28,016	971	33	299,400	269,800				69,900	12,300					
Mo. Average																0				15,000	1,000	800	13,170

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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
JANUARY 2010
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
											Pond B		Effluent	Depth in	Depth in	Leachate	Leachate Hauled		Leachate	Effluent Hauled		Effluent
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.)	Effluent Sprayed (gal)	Pond A Depth (ft.)	Spray Irrigation (gal.)	575K Tank Leachate (ft.)	575K Tank Effluent (ft.)	Treated at LTRF (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal)
1	0.33	*16,513,735*	*7,684,930*	*11.6*	*1,615,647*	*1,118,573*	*46,091*	*1,692,123*	*31,918*	*0.0*	0.0	*1.3*	0	*9.8*	*10.0*	*26,352*	0	0	0	0	0	0
2	0.00	16,518,240	7,711,176	13.3	1,617,177	1,118,573	46,091	1,692,123	31,957	0.0	0.0	1.1	0	9.83	10.67	26,352	0	0	0	0	0	0
3	0.00	*16,523,075*	*7,730,546*	*18.9*	*1,618,818*	*1,118,573*	*46,107*	*1,692,124*	*32,018*	*0.0*	0.0	*2.1*	0	*9.7*	*9.8*	*26,352*	0	0	0	0	0	0
4	0.00	16,527,910	7,749,915	24.4	1,620,458	1,118,573	46,123	1,692,125	32,078	0.0	0.0	3.0	39,868	9.50	9.00	26,355	0	6,016	0	0	6,037	0
5	0.00	16,536,360	7,778,488	13.8	1,622,095	1,118,621	46,131	1,692,126	32,137	0.0	0.0	2.2	55,564	9.50	9.50	25,625	0	12,028	1,500	0	6,005	0
6	0.00	16,545,050	7,801,072	12.0	1,623,757	1,118,621	46,186	1,692,127	32,205	0.0	0.0	1.8	36,742	9.00	9.00	26,070	0	6,016	0	0	6,349	3,006
7	0.00	16,554,270	7,823,989	12.2	1,625,335	1,118,621	46,259	1,692,128	32,281	0.0	0.0	1.0	0	9.00	9.42	19,125	0	0	0	0	0	0
8	0.00	16,561,505	7,849,639	9.3	1,626,680	1,118,621	46,259	1,696,562	32,362	0.0	0.0	1.8	24,895	9.25	8.92	19,459	0	12,028	0	0	0	2,997
9	0.25	16,570,270	7,876,218	12.5	1,628,403	1,118,621	46,259	1,696,562	32,422	0.0	0.0	1.2	0	9.17	9.42	18,274	0	0	0	0	0	0
10	0.01	*16,575,760*	*7,897,192*	*10.8*	*1,629,794*	*1,118,621*	*46,264*	*1,696,562*	*32,483*	*0.0*	0.0	*1.6*	0	*9.2*	*9.4*	*18,274*	0	0	0	0	0	0
11	0.00	16,581,250	7,918,166	9.1	1,631,185	1,118,621	46,269	1,696,562	32,544	0.0	0.0	2.0	0	9.25	9.42	18,275	0	18,048	0	0	0	2,997
12	0.00	16,588,960	7,932,623	9.2	1,632,695	1,118,621	46,269	1,696,562	32,607	0.0	0.0	2.2	0	9.25	9.33	19,125	0	12,031	0	0	6,006	0
13	0.00	16,597,190	7,956,115	9.2	1,632,710	1,123,558	46,356	1,701,910	32,672	0.0	0.0	2.3	45,676	8.58	9.67	18,270	0	18,045	0	0	0	0
14	0.00	16,601,620	7,979,068	12.0	1,632,710	1,123,978	46,366	1,701,912	32,733	0.0	0.0	2.0	37,865	8.33	9.33	19,102	0	0	0	0	0	9,028
15	0.00	16,601,620	8,003,246	11.4	1,632,800	1,125,346	46,547	1,701,912	32,799	0.0	0.0	1.2	0	9.33	9.67	18,106	0	0	0	0	0	0
16	1.03	16,619,020	8,035,387	10.1	1,632,800	1,125,346	46,547	1,701,913	32,850	0.0	0.0	1.9	22,692	9.08	9.08	19,314	0	0	0	0	0	0
17	0.00	*16,630,440*	*8,066,478*	*11.6*	*1,632,800*	*1,125,346*	*46,547*	*1,701,914*	*32,930*	*0.0*	0.0	*2.0*	0	*9.6*	*9.2*	*19,314*	0	0	0	0	0	0
18	0.00	16,641,860	8,097,568	13.0	1,632,800	1,125,346	46,547	1,701,914	33,009	0.0	0.0	2.1	0	10.08	9.25	19,314	0	0	0	0	0	0
19	0.00	16,663,770	8,128,667	8.6	1,632,800	1,125,346	46,547	1,701,914	33,078	0.8	0.0	2.3	22,442	10.50	9.50	19,314	0	0	0	0	0	5,942
20	0.00	16,681,960	8,159,269	12.3	1,632,800	1,125,346	46,547	1,713,675	33,168	0.8	0.0	2.0	0	11.25	9.58	20,930	0	18,073	0	0	0	0
21	0.00	16,702,680	8,193,395	11.6	1,632,800	1,125,346	46,547	1,713,676	33,217	0.8	0.0	2.6	27,839	11.58	9.08	16,101	0	18,072	0	0	0	6,001
22	0.78	16,723,650	8,219,920	8.6	1,632,800	1,125,346	46,547	1,713,677	33,287	0.9	0.0	2.2	0	11.42	9.50	9,101	0	12,059	0	0	0	0
23	0.00	16,744,910	8,252,553	13.0	1,632,800	1,125,346	46,547	1,713,677	33,339	0.9	0.0	2.9	0	11.50	8.92	22,276	0	0	0	0	0	0
24	0.00	*16,755,435*	*8,280,225*	*11.6*	*1,632,800*	*1,125,346*	*46,547*	*1,729,051*	*33,390*	*1.0*	0.0	*3.2*	0	*12.3*	*9.0*	*22,276*	0	0	0	0	0	0
25	1.02	16,765,960	8,307,896	10.1	1,632,800	1,125,346	46,547	1,744,424	33,441	1.1	0.0	3.4	0	13.17	9.08	22,276	0	12,077	0	0	0	0
26	0.05	16,781,840	8,333,979	12.7	1,632,800	1,125,346	46,547	1,744,424	33,477	1.2	0.0	3.4	0	13.00	9.58	18,314	0	18,117	0	0	0	0
27	0.00	16,799,820	8,355,189	12.3	1,632,800	1,125,346	46,547	1,744,424	33,510	1.7	0.0	3.4	27,199	12.50	9.17	19,202	0	18,110	0	0	0	0
28	0.00	16,815,880	8,375,769	12.7	1,632,800	1,125,346	47,104	1,752,157	33,558	1.7	0.0	2.9	48,388	12.17	9.67	18,191	0	24,140	0	0	0	5,999
29	0.00	16,835,290	8,402,599	10.0	1,632,800	1,125,346	47,104	1,752,161	33,596	1.5	0.0	2.6	53,453	11.67	8.92	16,282	0	18,148	0	0	0	9,001
30	0.03	16,851,140	8,429,672	13.2	1,634,211	1,127,187	47,104	1,765,352	33,627	1.5	0.0	1.5	21,075	11.92	9.25	18,982	0	0	0	0	0	0
31	0.00	*16,860,285*	*8,452,948*	*13.6*	*1,634,211*	*1,128,580*	*47,104*	*1,765,353*	*33,662*	*1.5*	0.0	*1.7*	0	*12.1*	*9.3*	*18,761*	0	0	0	0	0	0
Totals	3.50																					

projects\balance\2010\01-10bal.xls (jbw 2/11/10)

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	5	0	0
Intermediate	134.4	19.3	15
Final	23	0	0
Not Opened	0	0	0

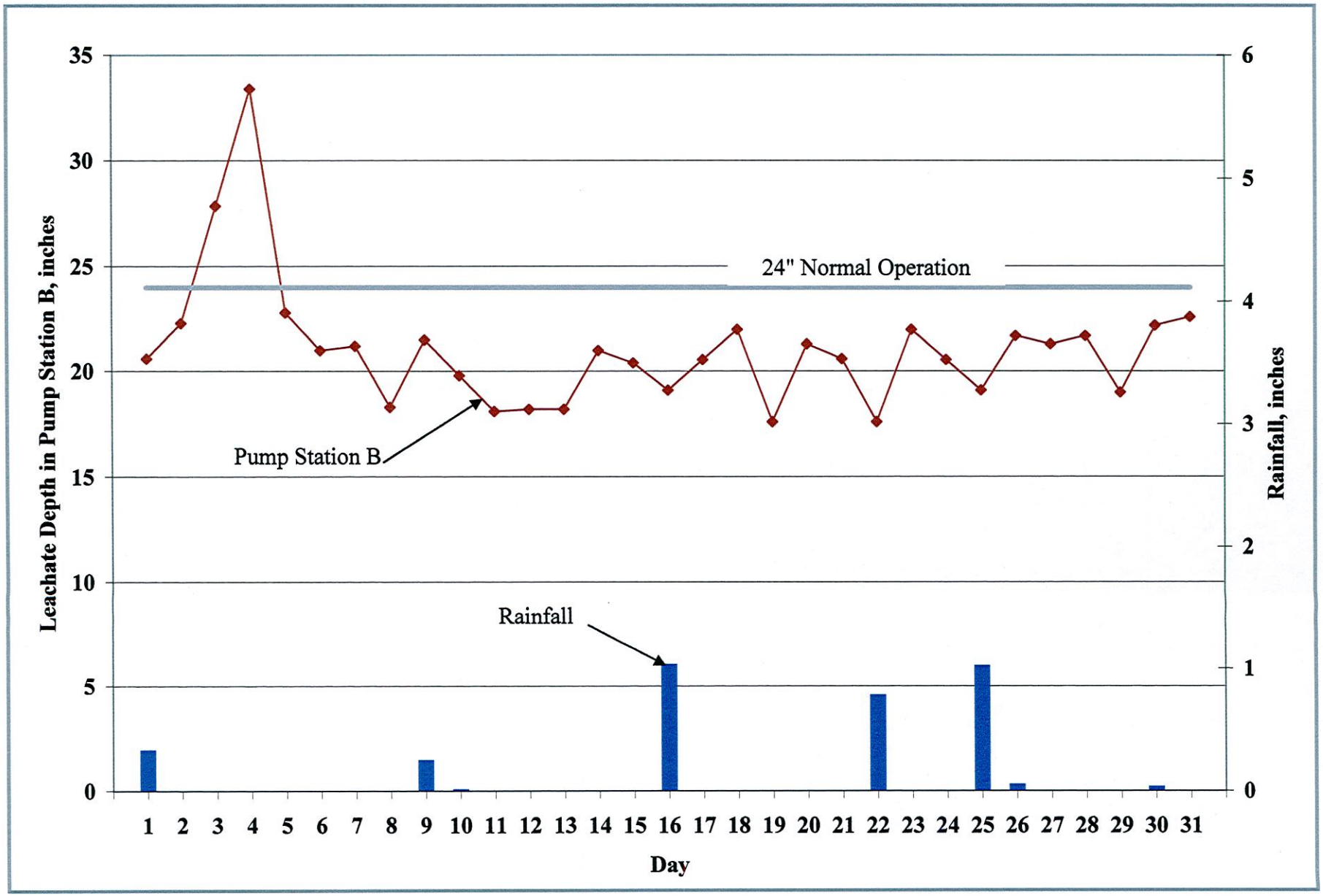

Figure 1. Leachate Levels in Pump Station B and Rainfall for January 2010.

Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

March 17, 2010

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

RE: Southeast County Landfill – February 2010 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report for the month of February 2010. In addition, the SWMD is providing the February 2010 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (FDEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-014-SO, Specific Condition No. 8.

As initiated with the April 1996 report, the Landfill leachate information for February 2010 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches except for February 12 and 25 due to bubbler malfunctions. The average depth of leachate in the PS-B sump for the recorded days in February 2010 was 21.7 inches.

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

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0210.dep

Hillsborough County
Florida
Office of the County Administrator
Patricia G. Bean

MEMORANDUM

DATE: March 15, 2010

TO: Patricia Berry, Section Manager, Solid Waste Management Department

FROM: Larry Ruiz, General Manager III, Solid Waste Management Department
Raymond Graves, Sr. Eng. Tech., Solid Waste Management Department

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

The Solid Waste Management Department (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 2010 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 2.6 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.1 feet.

Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent stored in Pond B was 1.5 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 of 24-inches except for February 12 and 25 due to bubbler malfunctions. The average recorded depth of leachate in the PS-B sump was 21.7 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 16,594 gallons. A total of 464,645 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 27,538 gallons. A total of 771,075 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 732 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 109,806 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 882,448 gallons of leachate was 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 45,583 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. On February 26, Sligo reset the flow meter. This month a total of 1,567 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 355,000 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 269,900 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 560,600 gallons of leachate was treated.

Total Leachate Hauled (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 337,419 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 leachate was not 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 66,500 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 43,000 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 effluent was not 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 483,052 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 a total of 45,071 gallons of effluent was 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 6,489 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 422,600 gallons.

TABLE 2

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

TABLE 3

Leachate Balance Summary

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 928,031 gallons. Total outflow quantity from the LTRF was 898,019 gallons. The change in storage for the month increased by 30,012 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
FEBRUARY 2010
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	0.09	1.8	1.5	23.0	18,290	46,552	69	1	46,553	2,786	0	353,000	266,000	18,800	18,084	0	52,000	44,000	0	12,331	0	0	9,900
2	0.10	1.8	1.5	21.7	26,180	26,194	37	0	26,194	1,865	0	345,000	271,000	17,600	30,133	0	52,000	44,000	0	0	0	0	0
3	0.00	2.2	1.5	21.8	19,025	29,466	32	4,709	34,610	1,011	435	331,000	266,000	17,100	5,996	0	70,000	44,000	0	0	0	6,489	0
4	0.00	2.2	1.5	21.7	21,275	27,658	43	0	27,658	1,147	0	336,000	281,000	17,600	18,058	0	70,000	44,000	0	48,662	0	0	38,900
5	0.98	1.8	1.5	18.2	13,670	26,322	22	11,532	37,854	1,975	0	331,000	269,000	18,300	18,065	0	52,000	44,000	0	30,228	3,015	0	26,600
6	0.00	1.7	1.5	20.6	9,450	29,652	33	0	29,652	2,696	0	336,000	266,000	19,200	0	0	48,000	44,000	0	0	0	0	0
7	*0.00*	*2.2*	*1.5*	*20.3*	*4,180*	*24,241*	*29*	*4,087*	*28,328*	*6,846*	*0*	*352,000*	*260,000*	*19,200*	0	0	*70,000*	*44,000*	0	0	0	0	0
8	0.00	2.7	1.5	19.9	4,180	24,241	29	4,087	28,328	6,846	0	367,000	254,000	19,200	18,625	0	93,000	44,000	0	19,761	0	0	15,800
9	0.27	2.2	1.6	20.1	10,770	25,564	20	201	25,809	1,408	44	353,000	271,000	17,100	12,037	0	70,000	51,000	0	24,846	0	0	19,900
10	0.00	2.5	1.6	19.7	23,350	33,692	44	9,819	43,518	0	7	374,000	254,000	18,000	18,430	0	83,000	51,000	0	0	0	0	0
11	0.00	2.5	1.6	23.0	22,710	28,370	26	4,672	33,060	416	18	360,000	276,000	24,500	19,016	0	83,000	51,000	0	48,265	0	0	38,600
12	0.57	1.5	1.6	33.7	18,530	28,920	23	22,520	51,455	0	15	377,000	293,000	18,600	18,498	0	40,000	51,000	0	24,285	0	0	19,400
13	0.00	2.0	1.6	21.6	24,050	26,786	35	1,342	28,146	0	18	365,000	271,000	24,400	0	0	61,000	51,000	0	0	0	0	0
14	*0.00*	*2.4*	*1.6*	*21.8*	*10,345*	*20,983*	*19*	*3,213*	*24,196*	*0*	*0*	*362,000*	*276,000*	*24,400*	0	0	*79,000*	*51,000*	0	0	0	0	0
15	0.00	2.7	1.6	21.9	10,345	20,983	19	3,213	24,196	0	0	360,000	281,000	24,400	18,469	0	93,000	51,000	0	52,459	0	0	42,000
16	0.00	2.6	1.6	21.4	19,870	29,976	24	7,152	37,128	0	0	353,000	259,000	22,100	18,217	0	88,000	51,000	0	12,245	0	0	9,800
17	0.00	2.4	1.6	22.0	21,200	25,844	20	3,889	29,733	42	0	343,000	276,000	19,900	18,138	0	79,000	51,000	0	0	12,007	0	9,600
18	0.00	2.4	1.6	22.3	18,220	26,290	20	2,926	29,216	0	0	350,000	278,000	19,500	0	0	79,000	51,000	0	44,465	15,038	0	47,600
19	0.00	1.9	1.6	19.3	20,190	28,630	16	2,947	31,577	0	0	360,000	271,000	19,900	12,209	0	57,000	51,000	0	32,992	0	0	26,400
20	0.00	2.1	1.4	18.4	17,540	18,102	0	3,508	21,610	0	0	353,000	254,000	20,000	0	0	65,000	38,000	0	35,637	0	0	28,500
21	*0.00*	*2.1*	*1.4*	*19.6*	*8,160*	*24,369*	*0*	*952*	*25,321*	*0*	*0*	*356,000*	*258,000*	*20,000*	0	0	*65,000*	*38,000*	0	0	0	0	0
22	0.00	2.1	1.4	20.7	8,160	24,369	0	952	25,321	0	0	360,000	261,000	20,000	18,483	0	65,000	38,000	0	23,242	0	0	18,600
23	0.00	1.5	1.4	22.0	21,140	42,536	0	7,654	50,190	437	0	367,000	278,000	21,600	19,153	0	40,000	38,000	0	25,365	0	0	20,300
24	0.32	2.1	1.2	21.7	22,850	35,480	69	217	35,697	574	0	365,000	266,000	18,200	19,177	0	65,000	28,000	0	24,936	6,007	0	24,800
25	0.28	1.7	1.2	26.1	23,860	20,910	48	4,645	25,967	737	412	355,000	281,000	19,800	18,520	0	48,000	28,000	0	0	0	0	0
26	0.00	2.3	1.2	21.9	20,280	25,824	26	1,998	27,822	0	*0.0*	360,000	266,000	20,600	18,111	0	74,000	28,000	0	23,333	9,004	0	25,900
27	0.00	1.8	1.2	21.0	17,860	26,552	8	1,082	28,252	14,410	618	355,000	276,000	20,300	0	0	52,000	28,000	0	0	0	0	0
28	*0.00*	*2.2*	*1.2*	*21.1*	*8,965*	*22,569*	*22*	*2,490*	*25,059*	*2,388*	*0*	*360,000*	*278,000*	*20,300*	0	0	*70,000*	*28,000*	0	0	0	0	0
Total	2.61				464,645	771,075	732	109,806	882,448	45,583	1,567			560,600	337,419	0			0	483,052	45,071	6,489	422,600
Daily Average		2.1	1.5	21.7	16,594	27,538	26	3,922	31,516	1,628	56	355,000	269,900				66,500	43,000					
Mo. Average																0				17,300	2,000	200	15,090

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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
FEBRUARY 2010
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
											Pond B		Effluent	Depth in	Depth in	Leachate	Leachate Hauled		Leachate	Effluent Hauled		Effluent
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.)	Effluent Sprayed (gal)	Pond A Depth (ft.)	Spray Irrigation (gal.)	575K Tank Leachate (ft.)	575K Tank Effluent (ft.)	Treated at LTRF (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal)
1	0.09	16,869,430	8,476,224	14.0	1,634,211	1,129,973	47,104	1,765,353	33,696	1.5	0.0	1.8	12,331	12.25	9.25	18,761	0	18,084	0	0	0	0
2	0.10	16,895,610	8,502,418	12.7	1,634,211	1,131,838	47,104	1,765,353	33,733	1.5	0.0	1.8	0	12.00	9.42	17,620	0	30,133	0	0	0	0
3	0.00	16,914,635	8,531,884	12.8	1,634,211	1,132,849	47,539	1,770,062	33,765	1.5	0.0	2.2	0	11.50	9.25	17,116	0	5,996	0	0	6,489	0
4	0.00	16,935,910	8,559,542	12.7	1,634,465	1,133,742	47,539	1,770,062	33,808	1.5	0.0	2.2	48,662	11.67	9.75	17,609	0	18,058	0	0	0	0
5	0.98	16,949,580	8,585,864	9.2	1,634,465	1,135,717	47,539	1,781,594	33,830	1.5	0.0	1.8	30,228	11.50	9.33	18,328	0	18,065	0	0	0	3,015
6	0.00	16,959,030	8,615,516	11.6	1,634,465	1,138,413	47,539	1,781,594	33,863	1.5	0.0	1.7	0	11.67	9.25	19,244	0	0	0	0	0	0
7	0.00	*16,963,210*	*8,639,757*	*11.3*	*1,634,465*	*1,145,259*	*47,539*	*1,785,681*	*33,892*	*1.5*	0.0	*2.2*	0	*12.2*	*9.0*	*19,244*	0	0	0	0	0	0
8	0.00	16,967,390	8,663,998	10.9	1,634,465	1,152,104	47,539	1,789,767	33,920	1.5	0.0	2.7	19,761	12.75	8.83	19,246	0	18,625	0	0	0	0
9	0.27	16,978,160	8,689,562	11.1	1,634,549	1,153,428	47,583	1,789,968	33,940	1.6	0.0	2.2	24,846	12.25	9.42	17,148	0	12,037	0	0	0	0
10	0.00	17,001,510	8,723,254	10.7	1,634,549	1,153,428	47,590	1,799,787	33,984	1.6	0.0	2.5	0	13.00	8.83	18,042	0	18,430	0	0	0	0
11	0.00	17,024,220	8,751,624	14.0	1,634,621	1,153,772	47,608	1,804,459	34,010	1.6	0.0	2.5	48,265	12.50	9.58	24,466	0	19,016	0	0	0	0
12	0.57	17,042,750	8,780,544	24.7	1,634,621	1,153,772	47,623	1,826,979	34,033	1.6	0.0	1.5	24,285	13.08	10.17	18,596	0	18,498	0	0	0	0
13	0.00	17,066,800	8,807,330	12.6	1,634,621	1,153,772	47,641	1,828,321	34,068	1.6	0.0	2.0	0	12.67	9.42	24,377	0	0	0	0	0	0
14	0.00	*17,077,145*	*8,828,313*	*12.8*	*1,634,621*	*1,153,772*	*47,641*	*1,831,534*	*34,087*	*1.6*	0.0	*2.4*	0	*12.6*	*9.6*	*24,377*	0	0	0	0	0	0
15	0.00	17,087,490	8,849,296	12.9	1,634,621	1,153,772	47,641	1,834,747	34,106	1.6	0.0	2.7	52,459	12.50	9.75	24,378	0	18,469	0	0	0	0
16	0.00	17,107,360	8,879,272	12.4	1,634,621	1,153,772	47,641	1,841,899	34,130	1.6	0.0	2.6	12,245	12.25	9.00	22,065	0	18,217	0	0	0	0
17	0.00	17,128,560	8,905,116	13.0	1,634,621	1,153,814	47,641	1,845,788	34,150	1.6	0.0	2.4	0	11.92	9.58	19,944	0	18,138	0	0	0	12,007
18	0.00	17,146,780	8,931,406	13.3	1,634,621	1,153,814	47,641	1,848,714	34,170	1.6	0.0	2.4	44,465	12.17	9.67	19,465	0	0	0	0	0	15,038
19	0.00	17,166,970	8,960,036	10.3	1,634,621	1,153,814	47,641	1,851,661	34,186	1.6	0.0	1.9	32,992	12.50	9.42	19,934	0	12,209	0	0	0	0
20	0.00	17,184,510	8,978,138	9.4	1,634,621	1,153,814	47,641	1,855,169	34,186	1.4	0.0	2.1	35,637	12.25	8.83	20,006	0	0	0	0	0	0
21	0.00	*17,192,670*	*9,002,507*	*10.6*	*1,634,621*	*1,153,814*	*47,641*	*1,856,121*	*34,186*	*1.4*	0.0	*2.1*	0	*12.4*	*9.0*	*20,006*	0	0	0	0	0	0
22	0.00	17,200,830	9,026,876	11.7	1,634,621	1,153,814	47,641	1,857,072	34,186	1.4	0.0	2.1	23,242	12.50	9.08	20,006	0	18,483	0	0	0	0
23	0.00	17,221,970	9,069,412	13.0	1,634,621	1,154,251	47,641	1,864,726	34,186	1.4	0.0	1.5	25,365	12.75	9.67	21,571	0	19,153	0	0	0	0
24	0.32	17,244,820	9,104,892	12.7	1,634,621	1,154,825	47,641	1,864,943	34,255	1.2	0.0	2.1	24,936	12.67	9.25	18,175	0	19,177	0	0	0	6,007
25	0.28	17,268,680	9,125,802	17.1	1,634,621	1,155,562	48,053	1,869,588	34,303	1.2	0.0	1.7	0	12.33	9.75	19,845	0	18,520	0	0	0	0
26	0.00	17,288,960	9,151,626	12.9	1,634,621	1,155,562	81,271	1,871,586	34,329	1.2	0.0	2.3	23,333	12.50	9.25	20,606	0	18,111	0	0	0	9,004
27	0.00	17,306,820	9,178,178	12.0	1,637,597	1,166,996	81,889	1,872,668	34,337	1.2	0.0	1.8	0	12.33	9.58	20,266	0	0	0	0	0	0
28	0.00	*17,315,785*	*9,200,747*	*12.1*	*1,638,379*	*1,168,602*	*81,889*	*1,875,158*	*34,359*	*1.2*	0.0	*2.2*	0	*12.5*	*9.7*	*20,266*	0	0	0	0	0	0

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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	5	0	0
Intermediate	134.4	19.3	15
Final	23	0	0
Not Opened	0	0	0

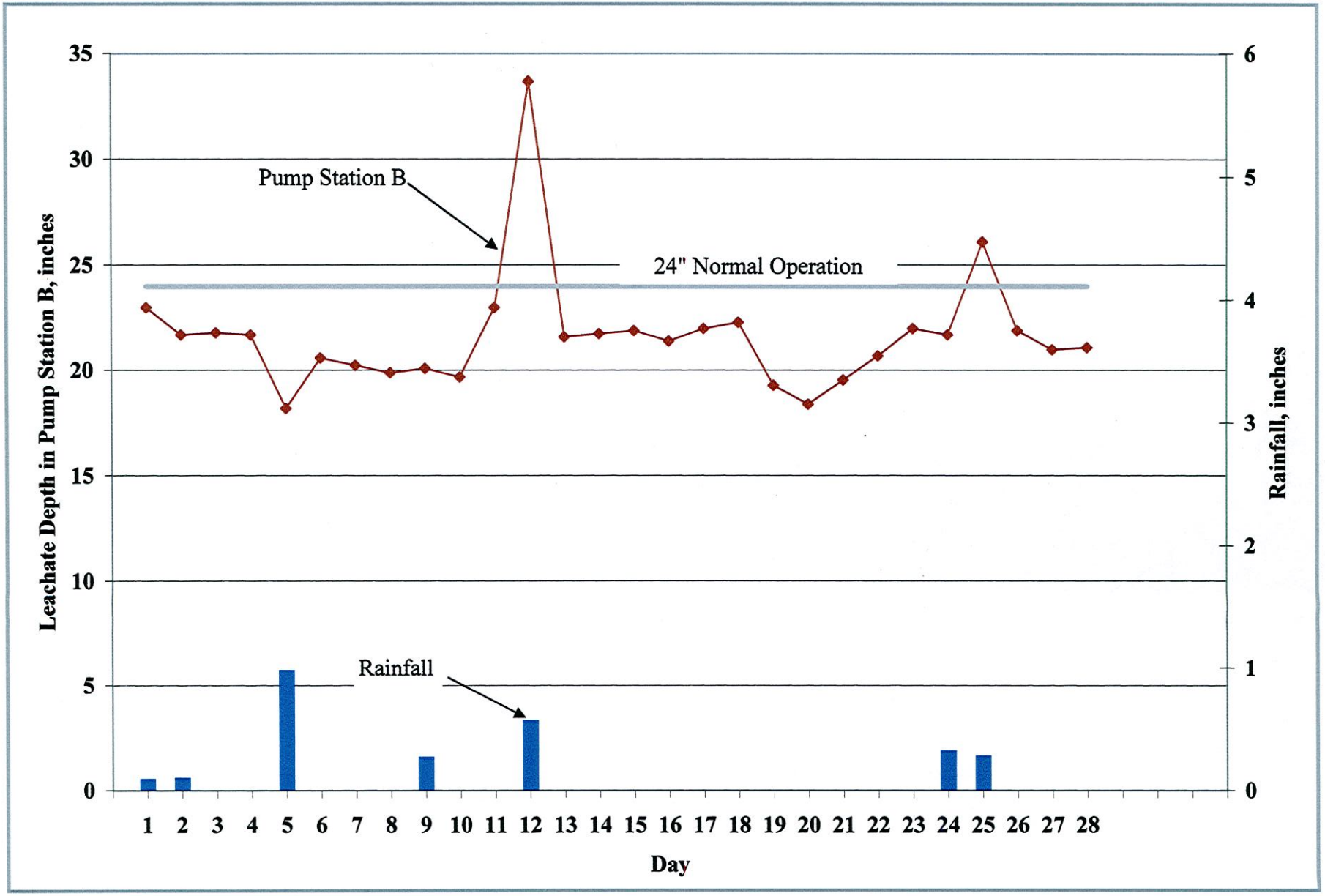

Figure 1. Leachate Levels in Pump Station B and Rainfall for February 2010.

Hillsborough County
Florida

Office of the County Administrator
Patricia G. Bean

April 9, 2010

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

RE: Southeast County Landfill – March 2010 Leachate Data

Dear Ms. Pelz:

In accordance with the Hillsborough County Solid Waste Management Department's (SWMD) Leachate Management Plan (LMP) for the Southeast County Landfill (Landfill), the SWMD is providing the Landfill's Water Balance Report for the month of March 2010. In addition, the SWMD is providing the March 2010 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

This information is being provided to the Florida Department of Environmental Protection (FDEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-014-SO, Specific Condition No. 8.

As initiated with the April 1996 report, the Landfill leachate information for March 2010 includes an evaluation by SWMD staff of the monthly data. The report includes a figure depicting the leachate levels in Pump Station B (PS-B) and rainfall. PS-B was below the normal operation level of 24 inches except for March 7, 8, 28 and 29 due to bubbler and pump malfunctions. The average depth of leachate in the PS-B sump for the recorded days in March 2010 was 22.5 inches.

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

Sincerely,

Patricia V. Berry
Landfill Services Section Manager
Solid Waste Management Department

Attachments

glfs/lea0310.dep

Hillsborough County
Florida
Office of the County Administrator
Patricia G. Bean

MEMORANDUM

DATE: April 7, 2010

TO: Patricia Berry, Section Manager, Solid Waste Management Department

FROM: Larry Ruiz, General Manager III, Solid Waste Management Department
Raymond Graves, Sr. Eng. Tech., Solid Waste Management Department

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

The Solid Waste Management Department (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 2010 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 7.6 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.2 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 0.9 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 of 24-inches except for March 7, 8, 28, and 29 due to bubbler and pump malfunctions. The average recorded depth of leachate in the PS-B sump was 22.5 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 16,933 gallons. A total of 524,925 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 26,237 gallons. A total of 813,346 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 712 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 86,576 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 905,678 gallons of leachate was 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 50,278 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 5,756 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 353,700 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 269,900 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 608,600 gallons of leachate was treated.

Total Leachate Hauled (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 372,562 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 leachate was not 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 71,500 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 20,600 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 effluent was not 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 455,821 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 a total of 137,050 gallons of effluent was 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 effluent was not 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 474,200 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 955,956 gallons. Total outflow quantity from the LTRF was 981,162 gallons. The change in storage for the month decreased by 25,207 gallons.

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

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MARCH 2010
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	2.5	1.2	21.2	8,965	22,569	22	2,490	25,059	2,388	0	365,000	281,000	20,300	18,436	0	83,000	28,000	0	45,810	12,003	0	46,300
2	0.28	2.3	1.3	22.2	21,500	33,196	29	2,381	35,577	2,294	0	365,000	252,000	18,500	18,828	0	74,000	33,000	0	0	0	0	0
3	0.00	2.3	1.3	22.4	22,190	33,646	12	2,477	36,123	2,113	0	365,000	274,000	20,700	18,317	0	74,000	33,000	0	0	0	0	0
4	0.00	2.9	1.3	21.9	22,357	22,560	20	82	22,642	1,601	0	358,000	259,000	21,100	18,149	0	103,000	33,000	0	46,892	17,003	0	51,100
5	0.00	2.2	1.3	21.5	18,253	23,508	19	2,501	26,009	1,401	0	345,000	259,000	17,900	12,055	0	70,000	33,000	0	28,035	0	0	22,400
6	0.00	1.6	1.3	22.0	17,690	22,184	21	2,073	24,257	2,163	0	336,000	276,000	19,200	0	0	44,000	33,000	0	0	9,002	0	7,200
7	***0.00***	***1.7***	***1.3***	***27.9***	***0***	***14,695***	***32***	***1,098***	***15,903***	***1,528***	***110***	***336,000***	***275,000***	***19,200***	***0***	***0***	***48,000***	***33,000***	***0***	***0***	***0***	***0***	***0***
8	0.00	1.8	1.3	33.7	16,245	14,695	32	1,098	15,903	1,528	110	336,000	274,000	19,200	18,068	0	52,000	33,000	0	8,413	15,005	0	18,700
9	0.00	1.6	1.3	21.6	18,615	31,256	19	2,697	34,452	1,649	499	329,000	276,000	19,500	12,041	0	44,000	33,000	0	19,304	24,006	0	34,600
10	0.00	2.0	0.8	22.3	21,290	28,808	21	2,381	31,189	1,093	0	333,000	274,000	19,600	0	0	61,000	12,000	0	45,953	24,015	0	56,000
11	0.27	1.2	0.0	18.4	20,200	32,890	16	2,442	35,332	1,918	0	350,000	264,000	19,200	24,173	0	32,000	0	0	0	0	0	0
12	2.43	1.3	0.0	21.4	23,300	36,032	23	2	36,034	2,652	0	348,000	278,000	18,900	12,083	0	36,000	0	0	0	0	0	0
13	0.00	2.2	1.1	22.2	23,370	35,056	22	5,264	40,402	1,805	82	362,000	271,000	19,200	0	0	70,000	23,000	0	0	0	0	0
14	***0.00***	***2.5***	***1.1***	***22.5***	***0***	***23,275***	***21***	***2,918***	***26,193***	***2,300***	***0***	***371,000***	***272,000***	***19,200***	***0***	***0***	***83,000***	***23,000***	***0***	***0***	***0***	***0***	***0***
15	0.00	2.8	1.1	22.8	20,910	23,275	21	2,918	26,193	2,300	0	379,000	274,000	19,200	18,668	0	98,000	23,000	0	55,214	9,011	0	51,400
16	0.00	1.9	1.1	21.7	21,950	29,032	20	3,350	32,509	0	127	365,000	278,000	19,900	18,710	0	57,000	23,000	0	46,044	0	0	36,800
17	0.00	1.6	1.1	19.2	19,270	25,246	18	3,284	30,769	2,705	2,239	362,000	269,000	23,700	18,688	0	44,000	23,000	0	0	0	0	0
18	0.00	2.1	1.1	21.4	19,200	25,746	23	2,867	29,363	1,753	750	360,000	259,000	13,900	0	0	65,000	23,000	0	49,138	0	0	39,300
19	0.00	1.5	0.8	22.1	20,630	25,212	31	3,132	28,395	2,234	51	365,000	271,000	19,300	18,163	0	40,000	12,000	0	23,642	0	0	18,900
20	0.00	2.1	0.0	21.5	19,620	25,144	21	1	25,145	857	0	353,000	257,000	19,900	18,163	0	65,000	0	0	38,530	0	0	30,800
21	***0.87***	***2.1***	***0.0***	***19.8***	***0***	***23,037***	***14***	***2,638***	***25,675***	***167***	***0***	***352,000***	***262,000***	***19,900***	***0***	***0***	***65,000***	***0***	***0***	***0***	***0***	***0***	***0***
22	0.00	2.1	0.0	18.0	18,970	23,037	14	2,638	25,675	167	0	350,000	266,000	19,900	18,121	0	65,000	0	0	0	0	0	0
23	0.00	2.1	0.0	21.8	16,480	25,792	24	2,435	28,715	3,547	488	353,000	278,000	17,500	18,135	0	65,000	0	0	27,951	18,000	0	36,800
24	0.00	1.6	0.0	19.1	20,980	28,476	23	2,167	31,203	4,199	560	348,000	281,000	19,600	18,143	0	44,000	0	0	0	0	0	0
25	1.13	2.3	0.0	20.9	19,490	22,654	28	2,326	25,721	1,704	741	336,000	266,000	19,900	12,079	0	74,000	0	0	20,895	9,005	0	23,900
26	0.00	2.0	0.8	21.3	20,300	29,432	21	2,434	31,866	0	0	343,000	278,000	21,500	18,067	0	61,000	12,000	0	0	0	0	0
27	0.00	2.7	0.8	21.0	20,940	28,842	46	2,637	31,479	3,795	0	345,000	266,000	20,800	0	0	93,000	12,000	0	0	0	0	0
28	***2.68***	***3.1***	***1.0***	***27.4***	***0***	***22,637***	***23***	***5,201***	***27,838***	***209***	***0***	***354,000***	***270,000***	***20,800***	***0***	***0***	***113,000***	***19,000***	***0***	***0***	***0***	***0***	***0***
29	0.00	3.5	1.2	33.8	21,910	22,637	23	5,201	27,838	209	0	362,000	274,000	20,800	12,532	0	140,000	28,000	0	0	0	0	0
30	0.00	3.3	1.6	21.7	9,940	32,276	26	8,083	40,359	0	0	372,000	269,000	19,900	12,366	0	123,000	51,000	0	0	0	0	0
31	0.00	3.4	1.8	22.3	20,360	***26,501***	30	5,362	31,863	0	0	367,000	264,000	20,400	18,577	0	129,000	64,000	0	0	0	0	0
Total	7.66				524,925	813,346	712	86,576	905,678	50,278	5,756			608,600	372,562	0			0	455,821	137,050	0	474,200
Daily Average		2.2	0.9	22.5	16,933	26,237	23	2,793	29,215	1,622	186	353,700	269,900				71,500	20,600					
Mo. Average																0				14,700	4,000	0	15,300

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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
MARCH 2010
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
											Pond B		Effluent	Depth in	Depth in	Leachate	Leachate Hauled		Leachate	Effluent Hauled		Effluent
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.)	Effluent Sprayed (gal)	Pond A Depth (ft.)	Spray Irrigation (gal.)	575K Tank Leachate (ft.)	575K Tank Effluent (ft.)	Treated at LTRF (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal.)	Contractor (gal.)	County (gal.)	Dust Control (Sprayed) (gal)
1	0.00	17,324,750	9,223,316	12.2	1,639,160	1,170,208	81,889	1,877,648	34,380	1.2	0.0	2.5	45,810	12.67	9.75	20,266	0	18,436	0	0	0	12,003
2	0.28	17,346,250	9,256,512	13.2	1,639,568	1,172,094	81,889	1,880,029	34,409	1.3	0.0	2.3	0	12.67	8.75	18,511	0	18,828	0	0	0	0
3	0.00	17,368,440	9,290,158	13.4	1,639,789	1,173,986	81,889	1,882,506	34,421	1.3	0.0	2.3	0	12.67	9.50	20,704	0	18,317	0	0	0	0
4	0.00	17,390,797	9,312,718	12.9	1,640,083	1,175,293	81,889	1,882,588	34,441	1.3	0.0	2.9	46,892	12.42	9.00	21,077	0	18,149	0	0	0	17,003
5	0.00	17,409,050	9,336,226	12.5	1,640,095	1,176,682	81,889	1,885,089	34,460	1.3	0.0	2.2	28,035	12.00	9.00	17,907	0	12,055	0	0	0	0
6	0.00	17,426,740	9,358,410	13.0	1,640,110	1,178,830	81,889	1,887,162	34,481	1.3	0.0	1.6	0	11.67	9.58	19,246	0	0	0	0	0	9,002
7	0.00	*17,426,740*	*9,373,105*	*18.9*	*1,640,241*	*1,180,228*	*81,999*	*1,888,260*	*34,513*	*1.3*	0.0	*1.7*	0	*11.7*	*9.54*	*19,246*	0	0	0	0	0	0
8	0.00	17,442,985	9,387,800	24.7	1,640,371	1,181,625	82,108	1,889,358	34,544	1.3	0.0	1.8	8,413	11.67	9.50	19,246	0	18,068	0	0	0	15,005
9	0.00	17,461,600	9,419,056	12.6	1,640,371	1,183,274	82,607	1,892,055	34,563	1.3	0.0	1.6	19,304	11.42	9.58	19,506	0	12,041	0	0	0	24,006
10	0.00	17,482,890	9,447,864	13.3	1,640,371	1,184,367	82,607	1,894,436	34,584	0.8	0.0	2.0	45,953	11.58	9.50	19,566	0	0	0	0	0	24,015
11	0.27	17,503,090	9,480,754	9.4	1,640,371	1,186,285	82,607	1,896,878	34,600	0.0	0.0	1.2	0	12.17	9.17	19,244	0	24,173	0	0	0	0
12	2.43	17,526,390	9,516,786	12.4	1,640,388	1,188,920	82,607	1,896,880	34,623	0.0	0.0	1.3	0	12.08	9.67	18,902	0	12,083	0	0	0	0
13	0.00	17,549,760	9,551,842	13.2	1,640,601	1,190,512	82,689	1,902,144	34,645	1.1	0.0	2.2	0	12.58	9.42	19,225	0	0	0	0	0	0
14	0.00	*17,549,760*	*9,575,117*	*13.5*	*1,641,686*	*1,191,727*	*82,689*	*1,905,062*	*34,666*	*1.1*	0.0	*2.5*	0	*12.9*	*9.46*	*19,225*	0	0	0	0	0	0
15	0.00	17,570,670	9,598,392	13.8	1,642,770	1,192,942	82,689	1,907,980	34,686	1.1	0.0	2.8	55,214	13.17	9.50	19,227	0	18,668	0	0	0	9,011
16	0.00	17,592,620	9,627,424	12.7	1,642,770	1,192,942	82,816	1,911,330	34,706	1.1	0.0	1.9	46,044	12.67	9.67	19,897	0	18,710	0	0	0	0
17	0.00	17,611,890	9,652,670	10.2	1,645,475	1,192,942	85,055	1,914,614	34,724	1.1	0.0	1.6	0	12.58	9.33	23,741	0	18,688	0	0	0	0
18	0.00	17,631,090	9,678,416	12.4	1,647,068	1,193,102	85,805	1,917,481	34,747	1.1	0.0	2.1	49,138	12.50	9.00	13,881	0	0	0	0	0	0
19	0.00	17,651,720	9,703,628	13.1	1,648,789	1,193,615	85,856	1,920,613	34,778	0.8	0.0	1.5	23,642	12.67	9.42	19,260	0	18,163	0	0	0	0
20	0.00	17,671,340	9,728,772	12.5	1,649,646	1,193,615	85,856	1,920,614	34,799	0.0	0.0	2.1	38,530	12.25	8.92	19,897	0	18,163	0	0	0	0
21	0.87	*17,671,340*	*9,751,809*	*10.8*	*1,649,813*	*1,193,615*	*85,856*	*1,923,252*	*34,813*	*0.0*	0.0	*2.1*	0	*12.2*	*9.09*	*19,897*	0	0	0	0	0	0
22	0.00	17,690,310	9,774,846	9.0	1,649,980	1,193,615	85,856	1,925,889	34,826	0.0	0.0	2.1	0	12.17	9.25	19,899	0	18,121	0	0	0	0
23	0.00	17,706,790	9,800,638	12.8	1,653,527	1,193,615	86,344	1,928,324	34,850	0.0	0.0	2.1	27,951	12.25	9.67	17,492	0	18,135	0	0	0	18,000
24	0.00	17,727,770	9,829,114	10.1	1,657,670	1,193,671	86,904	1,930,491	34,873	0.0	0.0	1.6	0	12.08	9.75	19,611	0	18,143	0	0	0	0
25	1.13	17,747,260	9,851,768	11.9	1,659,374	1,193,671	87,645	1,932,817	34,901	0.0	0.0	2.3	20,895	11.67	9.25	19,904	0	12,079	0	0	0	9,005
26	0.00	17,767,560	9,881,200	12.3	1,659,374	1,193,671	87,645	1,935,251	34,922	0.8	0.0	2.0	0	11.92	9.67	21,486	0	18,067	0	0	0	0
27	0.00	17,788,500	9,910,042	12.0	1,659,399	1,197,441	87,645	1,937,888	34,968	0.8	0.0	2.7	0	12.00	9.25	20,804	0	0	0	0	0	0
28	2.68	*17,788,500*	*9,932,679*	*18.4*	*1,659,399*	*1,197,650*	*87,645*	*1,943,089*	*34,991*	*1.0*	0.0	*3.1*	0	*12.3*	*9.38*	*20,804*	0	0	0	0	0	0
29	0.00	17,810,410	9,955,316	24.8	1,659,399	1,197,859	87,645	1,948,289	35,014	1.2	0.0	3.5	0	12.58	9.50	20,804	0	12,532	0	0	0	0
30	0.00	17,820,350	9,987,592	12.7	1,659,513	1,198,270	87,645	1,956,372	35,040	1.6	0.0	3.3	0	12.92	9.33	19,862	0	12,366	0	0	0	0
31	0.00	17,840,710	14,093	13.3	1,659,513	1,198,270	87,645	1,961,734	35,070	1.8	0.0	3.4	0	12.75	9.17	20,443	0	18,577	0	0	0	0

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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

TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2010

		Leachate Arriving at LTRF				Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
Month	Rainfall (in.)	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[3] (gal.)
January	3.50	0	31,114	73,231	794,265	223,008	1,500	625,400	24,397	44,971	463,698	898,610	849,908	48,702
February	2.61	0	47,150	109,806	771,075	337,419	0	560,600	6,489	45,071	483,052	928,031	898,019	30,012
March	7.66	0	56,034	86,576	813,346	372,562	0	608,600	0	137,050	455,821	955,956	981,162	-25,207
April														
May														
June														
July														
August														
September														
October														
November														
December														
YTD Total	13.77	0	134,297	269,613	2,378,686	932,989	1,500	1,794,600	30,886	227,092	1,402,571	2,782,596	2,729,089	53,507

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.

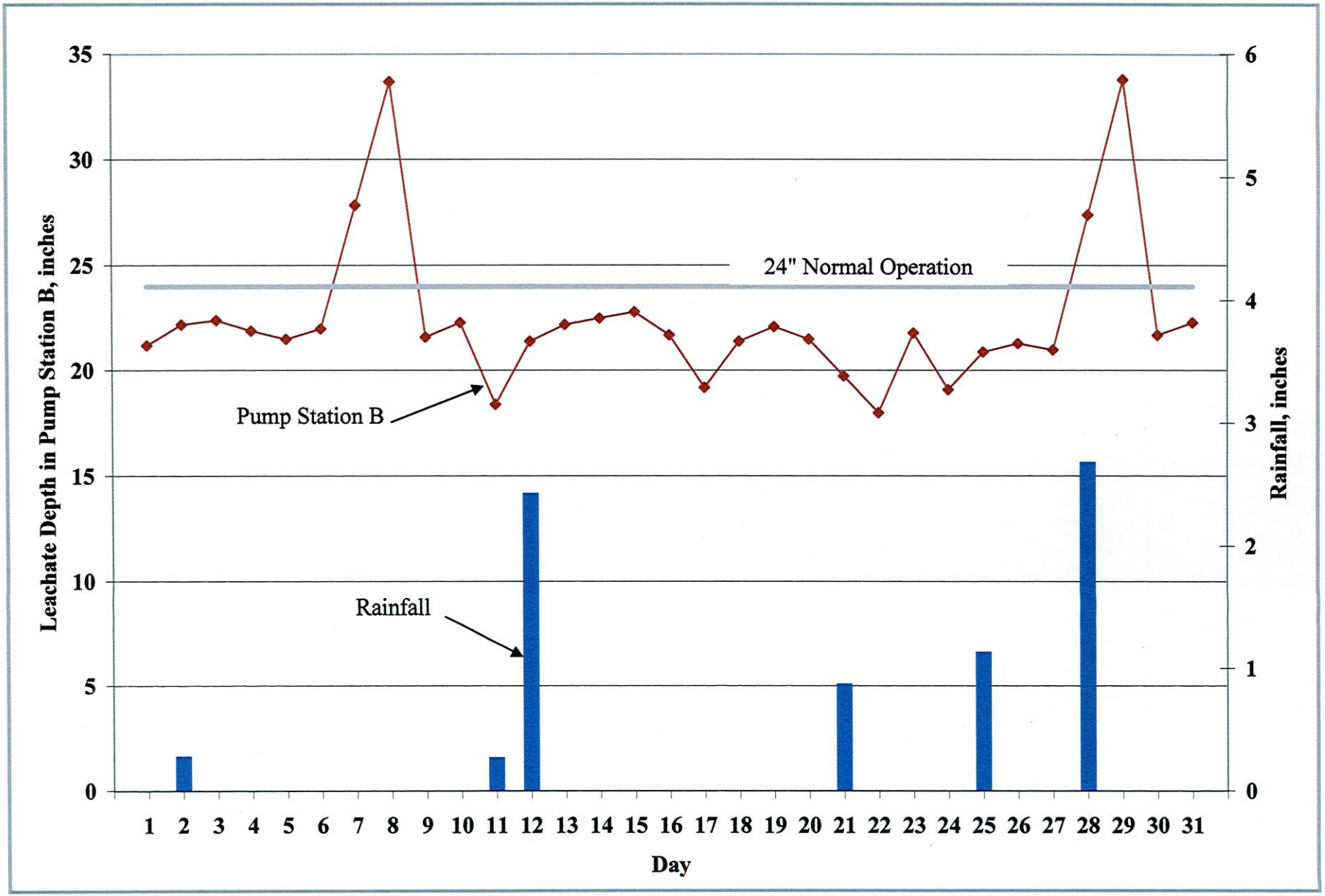

Figure 1. Leachate Levels in Pump Station B and Rainfall for March 2010.