



**Public Works**

July 15, 2015

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Commissioners**

Kevin Beckner  
Victor D. Crist  
Ken Hagan  
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Lesley "Les" Miller, Jr.  
Sandra L. Murman  
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Liana Lopez  
Bonnie M. Wise

**Interim Internal Auditor**

Peggy Caskey

**County Attorney**

Chip Fletcher

**Public Works**

PO Box 1110  
Tampa, FL 33601-1110  
Phone: (813) 272-5912  
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Mr. Steve Morgan  
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 Mr. Morgan:

In accordance with Specific Condition No. C.12.d of Permit No. 35435-022-SO/01, the Solid Waste Management Division (SWMD) is submitting the Quarterly Leachate Water Balance summary for the Southeast County Landfill for the quarter ending June 30, 2015.

The data is being submitted as separate monthly reports for April, May, and June 2015. The attached reports include 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 quarter due to excessive rain and the planned shutdown of the Leachate Treatment Facility for the permit required tank inspections.

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

Sincerely,

Larry E. Ruiz, SC  
Manager Landfill Operations  
Solid Waste Management Division

LER/cp  
Attachment  
xc: Rich Siemering, HDR  
Ron Cope, EPC  
Terry Payton, EPC



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**DATE:** May 20, 2015

**TO:** Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

**FROM:** Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

**SUBJECT:** Leachate Water Balance Report Forms for April 2015  
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2015 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 2.69 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 effluent was not stored in Pond A.

##### **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 effluent was not stored in Pond B.

**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 due to less storage availability while the leachate treatment plant is offline. The average recorded depth of leachate in the PS-B sump was 24.1 inches.

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

Column VI has been removed.

The SWMD took TPS-6 off line on September 24th (details were included in the September 2014 Leachate Balance Report).

**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 average daily amount of leachate pumped from PS-A was 63,323 gallons. A total of 1,899,702 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 974 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 81,686 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 1,981,388 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 48,885 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 22 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 the leachate tank was empty for permit required tank inspection.

**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. The treatment plant is down due to the permit required tank inspection. As such, on October 16, 2014, the SWMD began storing leachate in the effluent tank until the inspection of the leachate tank is completed. This month an average of 438,900 gallons of *leachate* 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 leachate was not treated at the plant. The plant was taken off line on October 16, 2014, for the permit required tank inspection.

**Total Leachate Hauled (Column XVI)**

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,851,028 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 effluent was not 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 effluent was not 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 effluent was not 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 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. There was no evaporation rate estimated for this month.

**TABLE 2**

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

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,036,633 gallons. Total outflow quantity from the LTRF was 1,851,028 gallons. The change in storage for the month increased by 185,605 gallons.

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

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM  
APRIL 2015  
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

I	II	III	IV	V	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 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	0.0	0.0	22.6	89,604	47	3,976	93,580	2,086	4	0	439,000	0	113,330	0	0	0	0	0	0	0	0
2	0.00	0.0	0.0	22.0	76,984	2	4,176	81,160	473	0	0	408,000	0	78,177	0	0	0	0	0	0	0	0
3	0.00	0.0	0.0	22.5	68,015	49	5,328	73,343	6	0	0	394,000	0	79,216	0	0	0	0	0	0	0	0
4	0.00	0.0	0.0	22.1	71,952	3	4,698	76,650	15	0	0	389,000	0	35,747	0	0	0	0	0	0	0	0
5	0.00	0.0	0.0	<b>27.0</b>	<b>66,793</b>	<b>47</b>	<b>2,474</b>	<b>69,267</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>435,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
6	0.07	0.0	0.0	31.8	66,793	47	2,474	69,267	7	0	0	482,000	0	109,835	0	0	0	0	0	0	0	0
7	0.05	0.0	0.0	33.7	0	0	7,158	7,158	12	0	0	379,000	0	109,855	0	0	0	0	0	0	0	0
8	0.00	0.0	0.0	22.1	99,802	48	2,936	102,738	24,261	7	0	377,000	0	117,869	0	0	0	0	0	0	0	0
9	0.00	0.0	0.0	22.0	73,161	7	758	73,919	81	0	0	333,000	0	65,042	0	0	0	0	0	0	0	0
10	0.00	0.0	0.0	21.5	68,130	42	514	68,644	1,606	3	0	329,000	0	57,506	0	0	0	0	0	0	0	0
11	0.00	0.0	0.0	23.2	63,420	46	496	63,916	5	0	0	350,000	0	0	0	0	0	0	0	0	0	0
12	0.00	0.0	0.0	<b>22.5</b>	<b>63,975</b>	<b>5</b>	<b>219</b>	<b>64,194</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>409,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
13	0.12	0.0	0.0	21.8	63,975	5	219	64,194	4	0	0	468,000	0	42,881	0	0	0	0	0	0	0	0
14	0.00	0.0	0.0	22.4	60,628	60	0	60,640	581	1	0	475,000	0	96,014	0	0	0	0	0	0	0	0
15	0.00	0.0	0.0	21.2	63,072	0	0	63,072	763	1	0	444,000	0	60,625	0	0	0	0	0	0	0	0
16	0.60	0.0	0.0	23.4	61,678	48	1,438	63,116	1,110	0	0	444,000	0	58,624	0	0	0	0	0	0	0	0
17	0.00	0.0	0.0	21.2	61,002	0	4,074	65,076	1,048	1	0	437,000	0	73,932	0	0	0	0	0	0	0	0
18	0.00	0.0	0.0	23.2	61,435	49	1,968	63,403	1,344	0	0	432,000	0	30,615	0	0	0	0	0	0	0	0
19	0.00	0.0	0.0	<b>28.5</b>	<b>49,156</b>	<b>24</b>	<b>3,292</b>	<b>52,448</b>	<b>1,229</b>	<b>1</b>	<b>0</b>	<b>467,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
20	0.67	0.0	0.0	33.8	49,156	24	3,292	52,448	1,229	1	0	502,000	0	79,649	0	0	0	0	0	0	0	0
21	0.12	0.0	0.0	31.4	78,855	48	3,342	82,197	1,120	0	0	504,000	0	79,448	0	0	0	0	0	0	0	0
22	0.00	0.0	0.0	21.1	62,381	5	3,890	66,271	1,535	0	0	489,000	0	86,807	0	0	0	0	0	0	0	0
23	0.60	0.0	0.0	23.1	60,316	75	1,946	62,262	1,409	0	0	458,000	0	65,020	0	0	0	0	0	0	0	0
24	0.00	0.0	0.0	22.5	59,656	76	3,926	63,582	837	1	0	446,000	0	79,645	0	0	0	0	0	0	0	0
25	0.00	0.0	0.0	23.2	57,381	0	2,008	59,389	1,304	0	0	432,000	0	43,039	0	0	0	0	0	0	0	0
26	0.00	0.0	0.0	<b>23.1</b>	<b>57,425</b>	<b>36</b>	<b>3,046</b>	<b>60,471</b>	<b>1,312</b>	<b>1</b>	<b>0</b>	<b>470,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
27	0.00	0.0	0.0	23.0	57,425	36	3,046	60,471	1,312	1	0	509,000	0	65,278	0	0	0	0	0	0	0	0
28	0.33	0.0	0.0	22.7	63,024	73	4,024	67,048	1,302	1	0	504,000	0	86,795	0	0	0	0	0	0	0	0
29	0.13	0.0	0.0	21.2	62,811	0	4,680	67,491	1,591	0	0	480,000	0	63,820	0	0	0	0	0	0	0	0
30	0.00	0.0	0.0	23.5	61,698	74	2,276	63,974	1,293	1	0	482,000	0	72,259	0	0	0	0	0	0	0	0
Total	2.69				1,899,702	974	81,686	1,981,388	48,885	22			0	1,851,028								
Daily Average		0.0	0.0	24.1	63,323	32	2,723	66,046	1,630	1	0	438,900				0	0					
Mo. Average																0						0

projects\balance\2015\05-15ba1.xls (ds 5/07/15)

- Notes:
- NR = No Records, NA = Not Available.
  - Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
  - Daily average is calculated by dividing the total by the actual days measured in the month.
  - Monthly average calculated by dividing the total by the number of days of the month.
  - Column II, Trace is less than 0.01 inches and is not included in total.
  - Columns III and IV, field measured at staff gauges.
  - Column V, PPS-B sensor reading plus 9 inches.
  - Columns VIII & IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
  - Column XIII and XIV, calculated from depth in 575,000 gal. tanks.
  - Columns VI-XII, XV-XVII, and XX-XXIII, quantities from flow meters.
  - 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  
APRIL 2015  
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A Day	B Rainfall (in.)	D Flow Meter Pump Sta. A (gal.)	E Reading PS-B (in.)	F Section 9 Pump 1 (gal.)	G Section 9 Pump 2 (gal.)	H Section 9 LDS (gal.)	I Sections 7-8 Pump (gal.)	J Sections 7-8 LDS (gal.)	K Pond B Depth (ft.)	L Pond B Effluent Sprayed (gal.)	M Pond A Depth (ft.)	N Effluent Spray Irrigation (gal.)	O Depth in 575K Tank Leachate (ft.)	P Depth in 575K Tank Effluent (ft.)	Q Leachate Treated at LTRF (gal.)	R Leachate Hauled		T Leachate Dust Control (Sprayed) (gal.)	U Effluent Hauled		W Effluent Dust Control (Sprayed) (gal.)	
																Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)		
1	0.00	6,467,500	13.6	2,729,948	63,902	12,411	8,571,166	105,913	0.0	0.0	0.0	0	0.00	15.25	0	77,785	35,545	0	0	0	0	
2	0.00	6,544,484	13.0	2,730,377	63,946	12,411	8,575,342	105,915	0.0	0.0	0.0	0	0.00	14.17	0	56,444	21,733	0	0	0	0	
3	0.00	6,612,499	13.5	2,730,382	63,947	12,411	8,580,670	105,964	0.0	0.0	0.0	0	0.00	13.67	0	42,887	36,329	0	0	0	0	
4	0.00	6,684,451	13.1	2,730,389	63,955	12,411	8,585,368	105,967	0.0	0.0	0.0	0	0.00	13.50	0	35,747	0	0	0	0	0	
5	0.00	<b>6,751,244</b>	<b>18.0</b>	<b>2,730,394</b>	<b>63,958</b>	<b>12,411</b>	<b>8,587,842</b>	<b>106,014</b>	0.0	0.0	0.0	0	0.00	<b>15.13</b>	0	0	0	0	0	0	0	
6	0.07	6,818,037	22.8	2,730,398	63,960	12,411	8,590,316	106,061	0.0	0.0	0.0	0	0.00	16.75	0	73,593	36,242	0	0	0	0	
7	0.05	6,818,037	24.7	2,730,407	63,963	12,411	8,597,474	106,061	0.0	0.0	0.0	0	0.00	13.17	0	73,583	36,272	0	0	0	0	
8	0.00	6,917,839	13.1	2,749,727	68,904	12,418	8,600,410	106,109	0.0	0.0	0.0	0	0.00	13.08	0	81,353	36,516	0	0	0	0	
9	0.00	6,991,000	13.0	2,749,728	68,984	12,418	8,601,168	106,116	0.0	0.0	0.0	0	0.00	11.58	0	35,781	29,261	0	0	0	0	
10	0.00	7,059,130	12.5	2,749,911	70,407	12,421	8,601,682	106,158	0.0	0.0	0.0	0	0.00	11.42	0	42,882	14,624	0	0	0	0	
11	0.00	7,122,550	14.2	2,749,914	70,409	12,421	8,602,178	106,204	0.0	0.0	0.0	0	0.00	12.17	0	0	0	0	0	0	0	
12	0.00	<b>7,186,525</b>	<b>13.5</b>	<b>2,749,916</b>	<b>70,411</b>	<b>12,421</b>	<b>8,602,397</b>	<b>106,209</b>	0.0	0.0	0.0	0	0.00	<b>14.21</b>	0	0	0	0	0	0	0	
13	0.12	7,250,500	12.8	2,749,918	70,413	12,421	8,602,616	106,213	0.0	0.0	0.0	0	0.00	16.25	0	42,881	0	0	0	0	0	
14	0.00	7,311,128	13.4	2,749,919	70,993	12,422	8,602,628	106,273	0.0	0.0	0.0	0	0.00	16.50	0	96,014	0	0	0	0	0	
15	0.00	7,374,200	12.2	2,749,922	71,753	12,423	8,602,628	106,273	0.0	0.0	0.0	0	0.00	15.42	0	60,625	0	0	0	0	0	
16	0.60	7,435,878	14.4	2,749,925	72,860	12,423	8,604,066	106,321	0.0	0.0	0.0	0	0.00	15.42	0	58,624	0	0	0	0	0	
17	0.00	7,496,880	12.2	2,749,929	73,904	12,424	8,608,140	106,321	0.0	0.0	0.0	0	0.00	15.17	0	73,932	0	0	0	0	0	
18	0.00	7,558,315	14.2	2,749,935	75,242	12,424	8,610,108	106,370	0.0	0.0	0.0	0	0.00	15.00	0	30,615	0	0	0	0	0	
19	0.00	<b>7,607,471</b>	<b>19.5</b>	<b>2,749,941</b>	<b>76,465</b>	<b>12,425</b>	<b>8,613,400</b>	<b>106,394</b>	0.0	0.0	0.0	0	0.00	<b>16.21</b>	0	0	0	0	0	0	0	
20	0.67	7,656,627	24.8	2,749,947	77,688	12,425	8,616,692	106,418	0.0	0.0	0.0	0	0.00	17.42	0	43,068	36,581	0	0	0	0	
21	0.12	7,735,482	22.4	2,750,200	78,555	12,425	8,620,034	106,466	0.0	0.0	0.0	0	0.00	17.50	0	42,888	36,560	0	0	0	0	
22	0.00	7,797,863	12.1	2,750,982	79,308	12,425	8,623,924	106,471	0.0	0.0	0.0	0	0.00	17.00	0	50,145	36,662	0	0	0	0	
23	0.60	7,858,179	14.1	2,750,985	80,714	12,425	8,625,870	106,546	0.0	0.0	0.0	0	0.00	15.92	0	35,780	29,240	0	0	0	0	
24	0.00	7,917,835	13.5	2,750,988	81,548	12,426	8,629,796	106,622	0.0	0.0	0.0	0	0.00	15.50	0	43,100	36,545	0	0	0	0	
25	0.00	7,975,216	14.2	2,750,993	82,847	12,426	8,631,804	106,622	0.0	0.0	0.0	0	0.00	15.00	0	43,039	0	0	0	0	0	
26	0.00	<b>8,032,641</b>	<b>14.1</b>	<b>2,750,997</b>	<b>84,155</b>	<b>12,427</b>	<b>8,634,850</b>	<b>106,658</b>	0.0	0.0	0.0	0	0.00	<b>16.34</b>	0	0	0	0	0	0	0	
27	0.00	8,090,065	14.0	2,751,001	85,462	12,427	8,637,896	106,693	0.0	0.0	0.0	0	0.00	17.67	0	28,624	36,654	0	0	0	0	
28	0.33	8,153,089	13.7	2,751,005	86,760	12,428	8,641,920	106,766	0.0	0.0	0.0	0	0.00	17.50	0	50,083	36,712	0	0	0	0	
29	0.13	8,215,900	12.2	2,751,011	88,345	12,428	8,646,600	106,766	0.0	0.0	0.0	0	0.00	16.67	0	28,631	35,189	0	0	0	0	
30	0.00	8,277,598	14.5	2,751,012	89,637	12,429	8,648,876	106,840	0.0	0.0	0.0	0	0.00	16.75	0	43,009	29,250	0	0	0	0	
Totals	2.69											0				0	1,291,113	559,915	0	0	0	0

projects\balance\2015\05-15bal.xls (ds 5/07/15)

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	Sections 7-8 acres	Section 9 acres
Open	0	5
Intermediate	19.3	10
Final	0	0
Not Opened	0	0



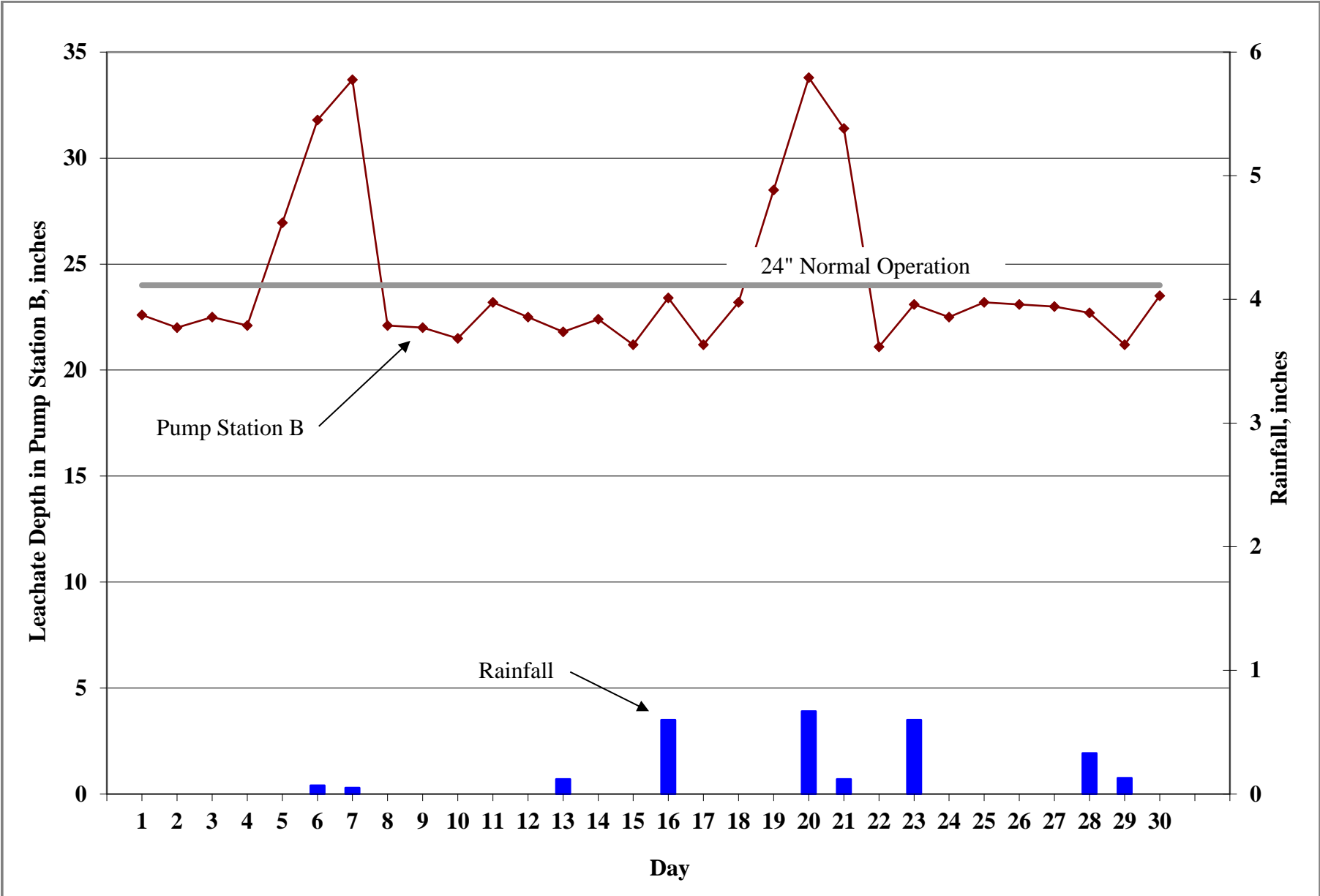


Figure 1. Leachate Levels in Pump Station B and Rainfall for April 2015.



## Public Works

### Board of County Commissioners

Kevin Beckner  
Victor D. Crist  
Ken Hagan  
Al Higginbotham  
Lesley "Les" Miller, Jr.  
Sandra L. Murman  
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### County Administrator Michael S. Merrill

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Carl S. Harness  
Gregory S. Horwedel  
Ramin Kouzehkanani  
Liana Lopez  
Bonnie M. Wise

### Interim Internal Auditor Peggy Caskey

### County Attorney Chip Fletcher

**Public Works**  
PO Box 1110  
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**DATE:** June 20, 2015

**TO:** Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

**FROM:** Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

**SUBJECT:** Leachate Water Balance Report Forms for May 2015  
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2015 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

### TABLE 1

#### Day (Column I)

Column I presents the calendar days for the month.

#### Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 1.67 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 effluent was not stored in Pond A.

#### 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 effluent was not stored in Pond B.

**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 May 4<sup>th</sup> due to a pump malfunction. The average recorded depth of leachate in the PS-B sump was 22.2 inches.

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

Column VI has been removed.

The SWMD took TPS-6 off line on September 24<sup>th</sup> (details were included in the September Leachate Balance Report).

**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 average daily amount of leachate pumped from PS-A was 49,927 gallons. A total of 1,547,741 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 1,023 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 80,827 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 1,628,568 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 33,756 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 10 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 the leachate tank was empty for permit required tank inspection.

**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. The treatment plant is down due to the permit required tank inspection. As such, on October 16, 2014, the SWMD began storing leachate in the effluent tank until the inspection of the leachate tank is completed. This month an average of 429,400 gallons of *leachate* 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 leachate was not treated at the plant. The plant was taken off line on October 16, 2014, for the permit required tank inspection.

**Total Leachate Hauled (Column XVI)**

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,561,683 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 effluent was not 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 effluent was not 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 effluent was not 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 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. There was no evaporation rate estimated for this month.

**TABLE 2**

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

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 1,667,753 gallons. Total outflow quantity from the LTRF was 1,561,683 gallons. The change in storage for the month increased by 106,070 gallons.

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

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM  
MAY 2015  
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

I	II	III	IV	V	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 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	0.0	0.0	21.2	54,404	32	5,784	60,188	814	0	0	453,000	0	79,598	0	0	0	0	0	0	0	0
2	0.00	0.0	0.0	22.0	51,694	41	5,806	57,500	622	1	0	441,000	0	35,875	0	0	0	0	0	0	0	0
3	0.00	0.0	0.0	<b>24.1</b>	<b>48,335</b>	<b>37</b>	<b>23</b>	<b>48,358</b>	<b>1,363</b>	<b>1</b>	<b>0</b>	<b>469,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
4	0.00	0.0	0.0	26.3	48,335	37	23	48,358	1,363	1	0	497,000	0	50,122	0	0	0	0	0	0	0	0
5	0.00	0.0	0.0	20.9	50,876	73	1,992	52,868	726	1	0	494,000	0	79,481	0	0	0	0	0	0	0	0
6	0.00	0.0	0.0	23.4	52,594	0	1,966	54,560	1,483	0	0	468,000	0	72,135	0	0	0	0	0	0	0	0
7	0.00	0.0	0.0	23.3	55,874	70	2,086	57,960	1,420	0	0	441,000	0	74,386	0	0	0	0	0	0	0	0
8	0.00	0.0	0.0	22.1	53,104	0	12,070	65,174	653	0	0	65,174	0	422,000	0	0	0	0	0	0	0	0
9	0.00	0.0	0.0	23.0	52,162	65	30	52,192	1,477	1	0	415,000	0	38,228	0	0	0	0	0	0	0	0
10	0.00	0.0	0.0	<b>22.4</b>	<b>50,352</b>	<b>33</b>	<b>79</b>	<b>50,431</b>	<b>863</b>	<b>0</b>	<b>0</b>	<b>446,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
11	0.00	0.0	0.0	21.7	50,352	33	79	50,431	863	0	0	477,000	0	79,533	0	0	0	0	0	0	0	0
12	0.00	0.0	0.0	20.6	49,520	0	0	49,520	1,433	0	0	449,000	0	79,318	0	0	0	0	0	0	0	0
13	0.00	0.0	0.0	22.7	49,848	65	0	49,848	1,458	0	0	420,000	0	72,375	0	0	0	0	0	0	0	0
14	0.07	0.0	0.0	22.0	49,146	0	226	49,372	517	0	0	398,000	0	65,025	0	0	0	0	0	0	0	0
15	0.00	0.0	0.0	23.0	49,418	66	26	49,444	1,524	0	0	367,000	0	72,350	0	0	0	0	0	0	0	0
16	0.00	0.0	0.0	23.0	47,988	0	292	48,280	721	1	0	353,000	0	0	0	0	0	0	0	0	0	0
17	0.10	0.0	0.0	<b>22.4</b>	<b>48,598</b>	<b>33</b>	<b>0</b>	<b>48,598</b>	<b>988</b>	<b>0</b>	<b>0</b>	<b>399,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
18	0.00	0.0	0.0	21.8	48,598	33	0	48,598	988	0	0	446,000	0	64,901	0	0	0	0	0	0	0	0
19	0.53	0.0	0.0	21.7	49,282	66	14,720	64,002	751	0	0	432,000	0	72,461	0	0	0	0	0	0	0	0
20	0.00	0.0	0.0	20.4	54,296	0	4,546	58,842	738	0	0	427,000	0	65,036	0	0	0	0	0	0	0	0
21	0.00	0.0	0.0	21.6	53,618	66	3,114	56,732	1,669	0	0	403,000	0	65,100	0	0	0	0	0	0	0	0
22	0.00	0.0	0.0	22.7	51,840	0	3,800	55,640	1,481	0	0	391,000	0	72,328	0	0	0	0	0	0	0	0
23	0.00	0.0	0.0	21.5	45,492	64	1,986	47,478	663	0	0	372,000	0	35,847	0	0	0	0	0	0	0	0
24	0.12	0.0	0.0	<b>22.0</b>	<b>46,539</b>	<b>22</b>	<b>2,565</b>	<b>49,105</b>	<b>1,189</b>	<b>0</b>	<b>0</b>	<b>408,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
25	0.00	0.0	0.0	<b>22.3</b>	<b>31,026</b>	<b>15</b>	<b>1,710</b>	<b>32,736</b>	<b>793</b>	<b>0</b>	<b>0</b>	<b>432,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
26	0.00	0.0	0.0	22.9	62,052	29	3,420	65,473	1,585	0	0	480,000	0	65,326	0	0	0	0	0	0	0	0
27	0.00	0.0	0.0	20.8	47,284	56	3,830	51,114	1,225	3	0	461,000	0	79,644	0	0	0	0	0	0	0	0
28	0.00	0.0	0.0	21.7	48,192	0	1,978	50,170	675	0	0	425,000	0	64,977	0	0	0	0	0	0	0	0
29	0.00	0.0	0.0	21.4	48,194	21	3,850	52,044	1,203	0	0	415,000	0	72,396	0	0	0	0	0	0	0	0
30	0.00	0.0	0.0	21.0	49,666	42	1,888	51,554	1,574	0	0	386,000	0	38,240	0	0	0	0	0	0	0	0
31	0.85	0.0	0.0	<b>22.0</b>	<b>49,061</b>	<b>26</b>	<b>2,937</b>	<b>51,998</b>	<b>936</b>	<b>1</b>	<b>0</b>	<b>424,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Total	1.67				1,547,741	1,023	80,827	1,628,568	33,756	10	0		0	1,561,683	0			0	0	0	0	0
Daily Average		0.0	0.0	22.2	49,927	33	2,607	52,534	1,089	0	0	429,400				0	0					
Mo. Average															0					0	0	0

projects/balance/2015/05-15bal.xls (ds 5/30/15)

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  
MAY 2015  
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A Day	B Rainfall (in.)	D Flow Meter Pump Sta. A (gal.)	E Reading PS-B (in.)	F Section 9 Pump 1 (gal.)	G Section 9 Pump 2 (gal.)	H Section 9 LDS (gal.)	I Sections 7-8 Pump (gal.)	J Sections 7-8 LDS (gal.)	K Pond B Depth (ft.)	L Pond B Effluent Sprayed (gal.)	M Pond A Depth (ft.)	N Effluent Spray Irrigation (gal.)	O Depth in 575K Tank Leachate (ft.)	P Depth in 575K Tank Effluent (ft.)	Q Leachate Treated at LTRF (gal.)	R Leachate Hauled		T Leachate Dust Control (Sprayed) (gal.)	U Effluent Hauled		W Effluent Dust Control (Sprayed) (gal.)
																Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)	
1	0.00	8,332,002	12.2	2,751,014	90,449	12,429	8,654,660	106,872	0.0	0.0	0.0	0	0.00	15.75	0	43,014	36,584	0	0	0	0
2	0.00	8,383,696	13.0	2,751,017	91,068	12,430	8,660,466	106,913	0.0	0.0	0.0	0	0.00	15.33	0	35,875	0	0	0	0	0
3	0.00	<b>8,432,031</b>	<b>15.1</b>	<b>2,751,491</b>	<b>91,957</b>	<b>12,431</b>	<b>8,660,489</b>	<b>106,950</b>	0.0	0.0	0.0	0	0.00	<b>16.29</b>	0	0	0	0	0	0	0
4	0.00	8,480,366	17.3	2,751,964	92,846	12,431	8,660,512	106,986	0.0	0.0	0.0	0	0.00	17.25	0	50,122	0	0	0	0	0
5	0.00	8,531,242	11.9	2,751,970	93,566	12,432	8,662,504	107,059	0.0	0.0	0.0	0	0.00	17.17	0	42,933	36,548	0	0	0	0
6	0.00	8,583,836	14.4	2,751,971	95,048	12,432	8,664,470	107,059	0.0	0.0	0.0	0	0.00	16.25	0	42,906	29,229	0	0	0	0
7	0.00	8,639,710	14.3	2,751,973	96,466	12,432	8,666,556	107,129	0.0	0.0	0.0	0	0.00	15.33	0	38,135	36,251	0	0	0	0
8	0.00	8,692,814	13.1	2,751,976	97,116	12,432	8,678,626	107,129	0.0	0.0	0.0	0	0.00	14.67	0	30,619	36,382	0	0	0	0
9	0.00	8,744,976	14.0	2,751,982	98,587	12,433	8,678,656	107,194	0.0	0.0	0.0	0	0.00	14.42	0	38,228	0	0	0	0	0
10	0.00	<b>8,795,328</b>	<b>13.4</b>	<b>2,752,074</b>	<b>99,358</b>	<b>12,433</b>	<b>8,678,735</b>	<b>107,227</b>	0.0	0.0	0.0	0	0.00	<b>15.50</b>	0	0	0	0	0	0	0
11	0.00	8,845,680	12.7	2,752,166	100,129	12,433	8,678,814	107,260	0.0	0.0	0.0	0	0.00	16.58	0	42,915	36,618	0	0	0	0
12	0.00	8,895,200	11.6	2,752,173	101,555	12,433	8,678,814	107,260	0.0	0.0	0.0	0	0.00	15.58	0	43,089	36,229	0	0	0	0
13	0.00	8,945,048	13.7	2,752,176	103,010	12,433	8,678,814	107,325	0.0	0.0	0.0	0	0.00	14.58	0	35,738	36,637	0	0	0	0
14	0.07	8,994,194	13.0	2,752,178	103,525	12,433	8,679,040	107,325	0.0	0.0	0.0	0	0.00	13.83	0	35,763	29,262	0	0	0	0
15	0.00	9,043,612	14.0	2,752,182	105,045	12,433	8,679,066	107,391	0.0	0.0	0.0	0	0.00	12.75	0	35,786	36,564	0	0	0	0
16	0.00	9,091,600	14.0	2,752,185	105,763	12,434	8,679,358	107,391	0.0	0.0	0.0	0	0.00	12.25	0	0	0	0	0	0	0
17	0.10	<b>9,140,198</b>	<b>13.4</b>	<b>2,752,510</b>	<b>106,426</b>	<b>12,434</b>	<b>8,679,358</b>	<b>107,424</b>	0.0	0.0	0.0	0	0.00	<b>13.88</b>	0	0	0	0	0	0	0
18	0.00	9,188,796	12.8	2,752,834	107,089	12,434	8,679,358	107,456	0.0	0.0	0.0	0	0.00	15.50	0	35,761	29,140	0	0	0	0
19	0.53	9,238,078	12.7	2,752,837	107,837	12,434	8,694,078	107,522	0.0	0.0	0.0	0	0.00	15.00	0	35,717	36,744	0	0	0	0
20	0.00	9,292,374	11.4	2,752,841	108,571	12,434	8,698,624	107,522	0.0	0.0	0.0	0	0.00	14.83	0	35,765	29,271	0	0	0	0
21	0.00	9,345,992	12.6	2,752,991	110,090	12,434	8,701,738	107,588	0.0	0.0	0.0	0	0.00	14.00	0	35,797	29,303	0	0	0	0
22	0.00	9,397,832	13.7	2,752,995	111,567	12,434	8,705,538	107,588	0.0	0.0	0.0	0	0.00	13.58	0	35,773	36,555	0	0	0	0
23	0.00	9,443,324	12.5	2,752,996	112,229	12,434	8,707,524	107,652	0.0	0.0	0.0	0	0.00	12.92	0	35,847	0	0	0	0	0
24	0.12	<b>9,489,863</b>	<b>13.0</b>	<b>2,752,999</b>	<b>113,415</b>	<b>12,434</b>	<b>8,710,089</b>	<b>107,674</b>	0.0	0.0	0.0	0	0.00	<b>14.17</b>	0	0	0	0	0	0	0
25	0.00	<b>9,520,890</b>	<b>13.3</b>	<b>2,753,001</b>	<b>114,206</b>	<b>12,435</b>	<b>8,711,800</b>	<b>107,689</b>	0.0	0.0	0.0	0	0.00	<b>15.00</b>	0	0	0	0	0	0	0
26	0.00	9,582,942	13.9	2,753,005	115,787	12,435	8,715,220	107,718	0.0	0.0	0.0	0	0.00	16.67	0	28,665	36,661	0	0	0	0
27	0.00	9,630,226	11.8	2,753,016	117,001	12,438	8,719,050	107,774	0.0	0.0	0.0	0	0.00	16.00	0	42,921	36,723	0	0	0	0
28	0.00	9,678,418	12.7	2,753,021	117,671	12,438	8,721,028	107,774	0.0	0.0	0.0	0	0.00	14.75	0	35,756	29,221	0	0	0	0
29	0.00	9,726,612	12.4	2,753,028	118,867	12,438	8,724,878	107,795	0.0	0.0	0.0	0	0.00	14.42	0	35,825	36,571	0	0	0	0
30	0.00	9,776,278	12.0	2,753,028	120,441	12,438	8,726,766	107,837	0.0	0.0	0.0	0	0.00	13.42	0	38,240	0	0	0	0	0
31	0.85	<b>9,825,339</b>	<b>13.0</b>	<b>2,753,098</b>	<b>121,307</b>	<b>12,439</b>	<b>8,729,703</b>	<b>107,863</b>	0.0	0.0	0.0	0	0.00	<b>14.71</b>	0	0	0	0	0	0	0
Totals	1.67											0	0		0	911,190	650,493	0	0	0	0

projects\balance\2015\05-15bal.xls (ds 5/30/15)

Notes:

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

Type of Cover	Sections 7-8 acres	Section 9 acres
Open	0	5
Intermediate	19.3	10
Final	0	0
Not Opened	0	0



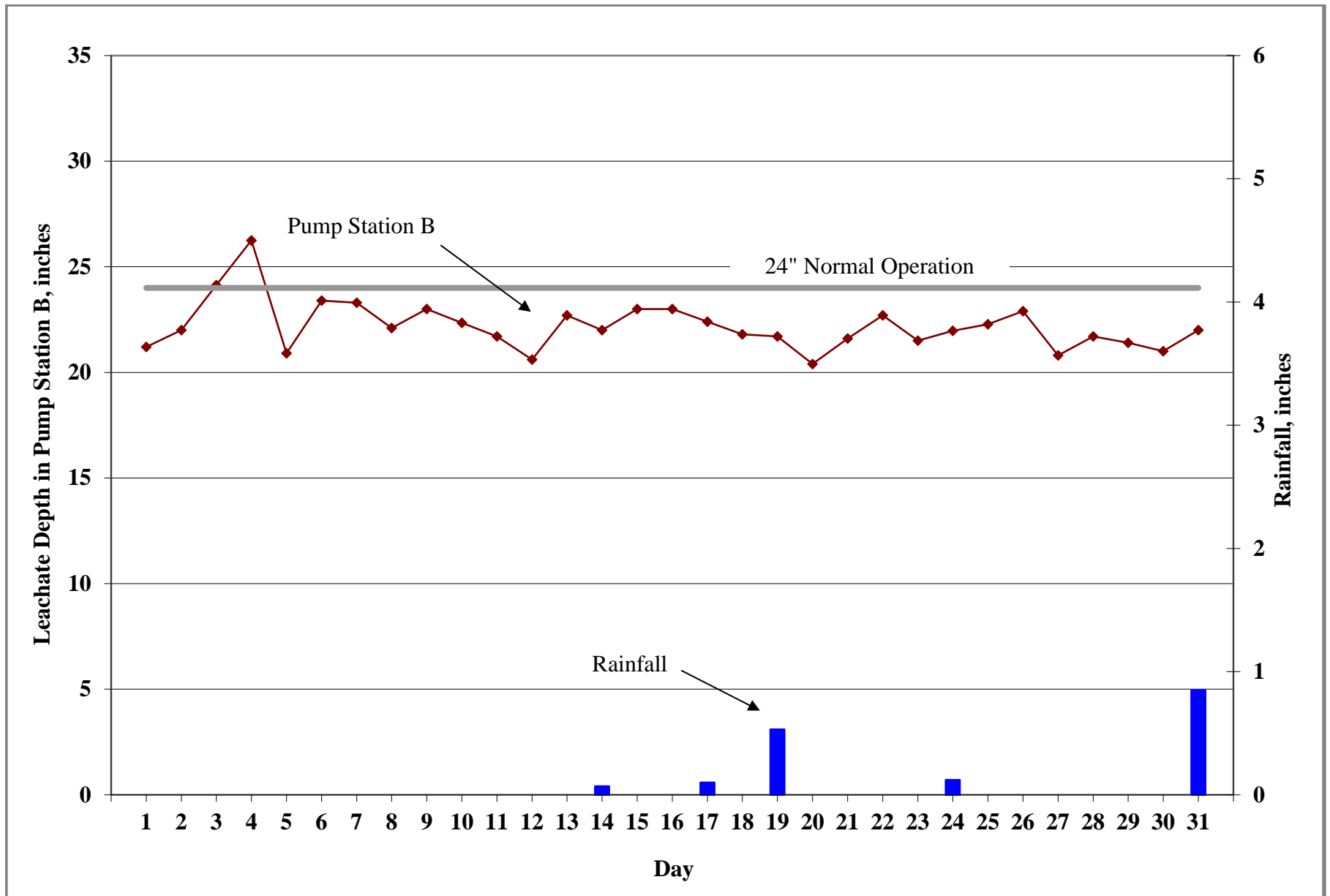


Figure 1. Leachate Levels in Pump Station B and Rainfall for May 2015.



## Public Works

**DATE:** July 15, 2015

**TO:** Larry E. Ruiz, Manager Landfill Operations, Solid Waste Management Division

**FROM:** Cindy A. Pelley, Landfill Supervisor, Solid Waste Management Division

**SUBJECT:** Leachate Water Balance Report Forms for June 2015  
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2015 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 7.35 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 effluent was not stored in Pond A.

#### 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 effluent was not stored in Pond B.

#### Board of County Commissioners

Kevin Beckner  
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Ramin Kouzehkanani  
Liana Lopez  
Bonnie M. Wise

#### Interim Internal Auditor Peggy Caskey

#### County Attorney Chip Fletcher

**Public Works**  
PO Box 1110  
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**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 June 16<sup>th</sup> – June 30<sup>th</sup> due to a Pump B going into the shop for maintenance. The average recorded depth of leachate in the PS-B sump was 27.1 inches.

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

Column VI has been removed.

The SWMD took TPS-6 off line on September 24<sup>th</sup> (details were included in the September Leachate Balance Report).

**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 average daily amount of leachate pumped from PS-A was 39,960 gallons. A total of 1,198,801 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 746 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 72,452 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 1,271,253 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 29,958 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 7 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 the leachate tank was empty for permit required tank inspection.

**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. The treatment plant is down due to the permit required tank inspection. As such, on October 16, 2014, the SWMD began storing leachate in the effluent tank until the inspection of the leachate tank is completed. This month an average of 337,400 gallons of leachate 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 leachate was not treated at the plant. The plant was taken off line on October 16, 2014, for the permit required tank inspection.

**Total Leachate Hauled (Column XVI)**

Column XVI presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,449,630 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 7,242 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 effluent was not 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 effluent was not 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 effluent was not 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 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. There was no evaporation rate estimated for this month.

**TABLE 2**

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

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 1,309,093 gallons. Total outflow quantity from the LTRF was 1,456,872 gallons. The change in storage for the month decreased by 147,779 gallons.

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

**TABLE I. LEACHATE WATER BALANCE REPORT FORM  
JUNE 2015  
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	0.65	0.0	0.0	23.0	0	0	0	0	0	0	0	0	461,000	0	72,634	0	0	0	0	0	0	0	0
2	1.42	0.0	0.0	20.9	0	49,398	0	1,920	51,318	503	0	0	432,000	0	79,673	0	0	0	0	0	0	0	0
3	0.00	0.0	0.0	20.9	0	54,600	57	3,816	58,416	1,779	0	0	403,000	0	36,372	0	0	0	0	0	0	0	0
4	0.00	0.0	0.0	22.7	0	50,741	0	1,910	52,651	506	0	0	420,000	0	72,121	0	0	0	0	0	0	0	0
5	0.00	0.0	0.0	22.7	0	50,451	55	2,018	52,469	1,394	1	0	389,000	0	72,467	0	0	0	0	0	0	0	0
6	0.00	0.0	0.0	23.1	0	48,827	1	3,866	52,693	808	0	0	372,000	0	35,786	0	0	0	0	0	0	0	0
7	0.18	0.0	0.0	22.5	0	47,052	28	1,933	48,985	1,003	1	0	406,000	0	0	0	0	0	0	0	0	0	0
8	0.00	0.0	0.0	21.9	0	47,052	28	1,933	48,985	1,003	1	0	439,000	0	64,345	0	0	0	0	0	0	0	0
9	0.07	0.0	0.0	23.0	0	47,925	57	3,852	51,777	1,004	0	0	410,000	0	71,452	0	0	0	0	0	0	0	0
10	1.57	0.0	0.0	22.7	0	47,349	0	1,876	49,225	1,473	1	0	391,000	0	71,530	0	0	0	0	0	0	0	0
11	0.00	0.0	0.0	20.9	0	47,106	15	1,892	48,998	907	0	0	374,000	0	64,788	0	0	0	0	0	0	0	0
12	0.01	0.0	0.0	21.8	0	46,420	41	3,814	50,234	534	0	0	353,000	0	72,434	0	0	0	0	0	0	0	0
13	0.00	0.0	0.0	21.9	0	42,787	0	1,916	44,703	993	0	0	329,000	0	0	0	0	0	0	0	0	0	0
14	0.00	0.0	0.0	22.2	0	46,262	29	2,909	49,171	1,159	1	0	373,000	0	0	0	0	0	0	0	0	0	0
15	0.00	0.0	0.0	22.4	0	46,262	29	2,909	49,171	1,159	1	0	417,000	0	57,389	0	0	0	0	0	0	0	0
16	0.00	0.0	0.0	33.7	0	5,637	64	1,924	7,561	1,260	0	0	369,000	0	71,554	0	0	0	0	0	0	0	0
17	0.04	0.0	0.0	33.2	0	31,045	0	4,104	35,149	671	1	0	333,000	0	71,269	0	0	0	0	0	0	0	0
18	0.23	0.0	0.0	32.5	0	40,668	41	2,208	42,876	1,347	0	0	300,000	0	70,994	7,242	0	0	0	0	0	0	5,800
19	0.00	0.0	0.0	32.2	0	43,280	16	2,510	45,790	1,205	0	0	271,000	0	63,987	0	0	0	0	0	0	0	0
20	0.07	0.0	0.0	33.6	0	38,364	0	6,786	45,150	1,370	0	0	266,000	0	0	0	0	0	0	0	0	0	0
21	0.00	0.0	0.0	33.4	0	14,541	26	2,130	16,671	702	0	0	275,000	0	0	0	0	0	0	0	0	0	0
22	0.10	0.0	0.0	33.1	0	14,541	26	2,130	16,671	702	0	0	283,000	0	35,782	0	0	0	0	0	0	0	0
23	0.90	0.0	0.0	33.3	0	13,002	0	254	13,256	1,387	1	0	269,000	0	71,212	0	0	0	0	0	0	0	0
24	2.02	0.0	0.0	33.8	0	45,877	63	2	45,879	828	0	0	259,000	0	70,674	0	0	0	0	0	0	0	0
25	0.09	0.0	0.0	29.8	0	37,050	57	0	37,050	1,085	0	0	257,000	0	64,281	0	0	0	0	0	0	0	0
26	0.00	0.0	0.0	33.9	0	46,295	0	2,236	48,531	1,076	0	0	257,000	0	65,312	0	0	0	0	0	0	0	0
27	0.00	0.0	0.0	29.8	0	45,851	0	2,540	48,391	1,072	1	0	257,000	0	0	0	0	0	0	0	0	0	0
28	0.00	0.0	0.0	31.7	0	22,491	31	2,980	25,471	831	0	0	246,000	0	0	0	0	0	0	0	0	0	0
29	0.00	0.0	0.0	33.6	0	22,491	31	2,980	25,471	831	0	0	235,000	0	57,033	0	0	0	0	0	0	0	0
30	0.00	0.0	0.0	23.0	0	105,438	54	3,104	108,542	1,368	0	0	276,000	0	36,541	0	0	0	0	0	0	0	0
Total	7.35				0	1,198,801	746	72,452	1,271,253	29,958	7			0	1,449,630	7,242			0	0	0	0	5,800
Daily Average		0.0	0.0	27.1	0	39,960	25	2,415	42,375	999	0	0	337,400				0	0			0	0	
Mo. Average																200					0	0	190

projects/balance/2015/06-15bal.xls (DS 6/30/15)

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  
JUNE 2015  
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	0.65	0	9,874,400	14.0	2,753,167	122,173	12,439	8,732,640	107,888	0.0	0.0	0.0	0	0.00	16.00	0	36,058	36,576	0	0	0	0
2	1.42	0	9,923,798	11.9	2,753,172	122,671	12,439	8,734,560	107,888	0.0	0.0	0.0	0	0.00	15.00	0	42,927	36,746	0	0	0	0
3	0.00	0	9,978,398	11.9	2,753,175	124,447	12,439	8,738,376	107,945	0.0	0.0	0.0	0	0.00	14.00	0	0	36,372	0	0	0	0
4	0.00	0	29,139	13.7	2,753,179	124,949	12,439	8,740,286	107,945	0.0	0.0	0.0	0	0.00	14.60	0	42,906	29,215	0	0	0	0
5	0.00	0	79,590	13.7	2,754,146	125,376	12,440	8,742,304	108,000	0.0	0.0	0.0	0	0.00	13.50	0	35,953	36,514	0	0	0	0
6	0.00	0	128,417	14.1	2,754,937	125,393	12,440	8,746,170	108,001	0.0	0.0	0.0	0	0.00	12.92	0	35,786	0	0	0	0	0
7	0.18	0	<b>175,469</b>	<b>13.5</b>	<b>2,755,362</b>	<b>125,971</b>	<b>12,441</b>	<b>8,748,103</b>	<b>108,029</b>	0.0	0.0	0.0	0	0.00	<b>14.09</b>	0	0	0	0	0	0	0
8	0.00	0	222,520	12.9	2,755,787	126,549	12,441	8,750,036	108,057	0.0	0.0	0.0	0	0.00	15.25	0	35,823	28,522	0	0	0	0
9	0.07	0	270,445	14.0	2,756,790	126,550	12,441	8,753,888	108,114	0.0	0.0	0.0	0	0.00	14.25	0	35,728	35,724	0	0	0	0
10	1.57	0	317,794	13.7	2,756,794	128,019	12,442	8,755,764	108,114	0.0	0.0	0.0	0	0.00	13.58	0	35,743	35,787	0	0	0	0
11	0.00	0	364,900	11.9	2,756,797	128,923	12,442	8,757,656	108,129	0.0	0.0	0.0	0	0.00	13.00	0	35,746	29,042	0	0	0	0
12	0.01	0	411,320	12.8	2,756,801	129,453	12,442	8,761,470	108,170	0.0	0.0	0.0	0	0.00	12.25	0	35,964	36,470	0	0	0	0
13	0.00	0	454,107	12.9	2,757,741	129,506	12,442	8,763,386	108,170	0.0	0.0	0.0	0	0.00	11.42	0	0	0	0	0	0	0
14	0.00	0	<b>500,369</b>	<b>13.2</b>	<b>2,758,254</b>	<b>130,153</b>	<b>12,443</b>	<b>8,766,295</b>	<b>108,199</b>	0.0	0.0	0.0	0	0.00	<b>12.96</b>	0	0	0	0	0	0	0
15	0.00	0	546,630	13.4	2,758,766	130,799	12,443	8,769,204	108,227	0.0	0.0	0.0	0	0.00	14.50	0	28,777	28,612	0	0	0	0
16	0.00	0	552,267	24.7	2,759,670	131,155	12,443	8,771,128	108,291	0.0	0.0	0.0	0	0.00	12.83	0	35,846	35,708	0	0	0	0
17	0.04	0	583,312	24.2	2,759,673	131,823	12,444	8,775,232	108,291	0.0	0.0	0.0	0	0.00	11.58	0	35,752	35,517	0	0	0	0
18	0.23	0	623,980	23.5	2,760,568	132,275	12,444	8,777,440	108,332	0.0	0.0	0.0	0	0.00	10.42	0	35,763	35,231	7,242	0	0	0
19	0.00	0	667,260	23.2	2,760,576	133,472	12,444	8,779,950	108,348	0.0	0.0	0.0	0	0.00	9.42	0	35,762	28,225	0	0	0	0
20	0.07	0	705,624	24.6	2,761,455	133,963	12,444	8,786,736	108,348	0.0	0.0	0.0	0	0.00	9.25	0	0	0	0	0	0	0
21	0.00	0	<b>720,165</b>	<b>24.4</b>	<b>2,761,893</b>	<b>134,227</b>	<b>12,444</b>	<b>8,788,866</b>	<b>108,374</b>	0.0	0.0	0.0	0	0.00	<b>9.54</b>	0	0	0	0	0	0	0
22	0.10	0	734,706	24.1	2,762,331	134,490	12,444	8,790,996	108,399	0.0	0.0	0.0	0	0.00	9.83	0	35,782	0	0	0	0	0
23	0.90	0	747,708	24.3	2,763,278	134,930	12,445	8,791,250	108,399	0.0	0.0	0.0	0	0.00	9.33	0	35,781	35,431	0	0	0	0
24	2.02	0	793,585	24.8	2,764,077	134,959	12,445	8,791,252	108,462	0.0	0.0	0.0	0	0.00	9.00	0	35,796	34,878	0	0	0	0
25	0.09	0	830,635	20.8	2,765,029	135,092	12,445	8,791,252	108,519	0.0	0.0	0.0	0	0.00	8.92	0	35,791	28,490	0	0	0	0
26	0.00	0	876,930	24.9	2,765,909	135,288	12,445	8,793,488	108,519	0.0	0.0	0.0	0	0.00	8.92	0	35,800	29,512	0	0	0	0
27	0.00	0	922,781	20.8	2,765,912	136,357	12,446	8,796,028	108,519	0.0	0.0	0.0	0	0.00	8.92	0	0	0	0	0	0	0
28	0.00	0	<b>945,272</b>	<b>22.7</b>	<b>2,765,916</b>	<b>137,184</b>	<b>12,446</b>	<b>8,799,008</b>	<b>108,550</b>	0.0	0.0	0.0	0	0.00	<b>8.55</b>	0	0	0	0	0	0	0
29	0.00	0	967,763	24.6	2,765,919	138,011	12,446	8,801,988	108,580	0.0	0.0	0.0	0	0.00	8.17	0	28,609	28,424	0	0	0	0
30	0.00	0	1,073,201	14.0	2,766,176	139,122	12,446	8,805,092	108,634	0.0	0.0	0.0	0	0.00	9.58	0	0	36,541	0	0	0	0
Totals	7.35										0		0			0	752,093	697,537	7,242	0	0	0

projects\balance\2015\06-15bal.xls (DS 6/30/15)

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



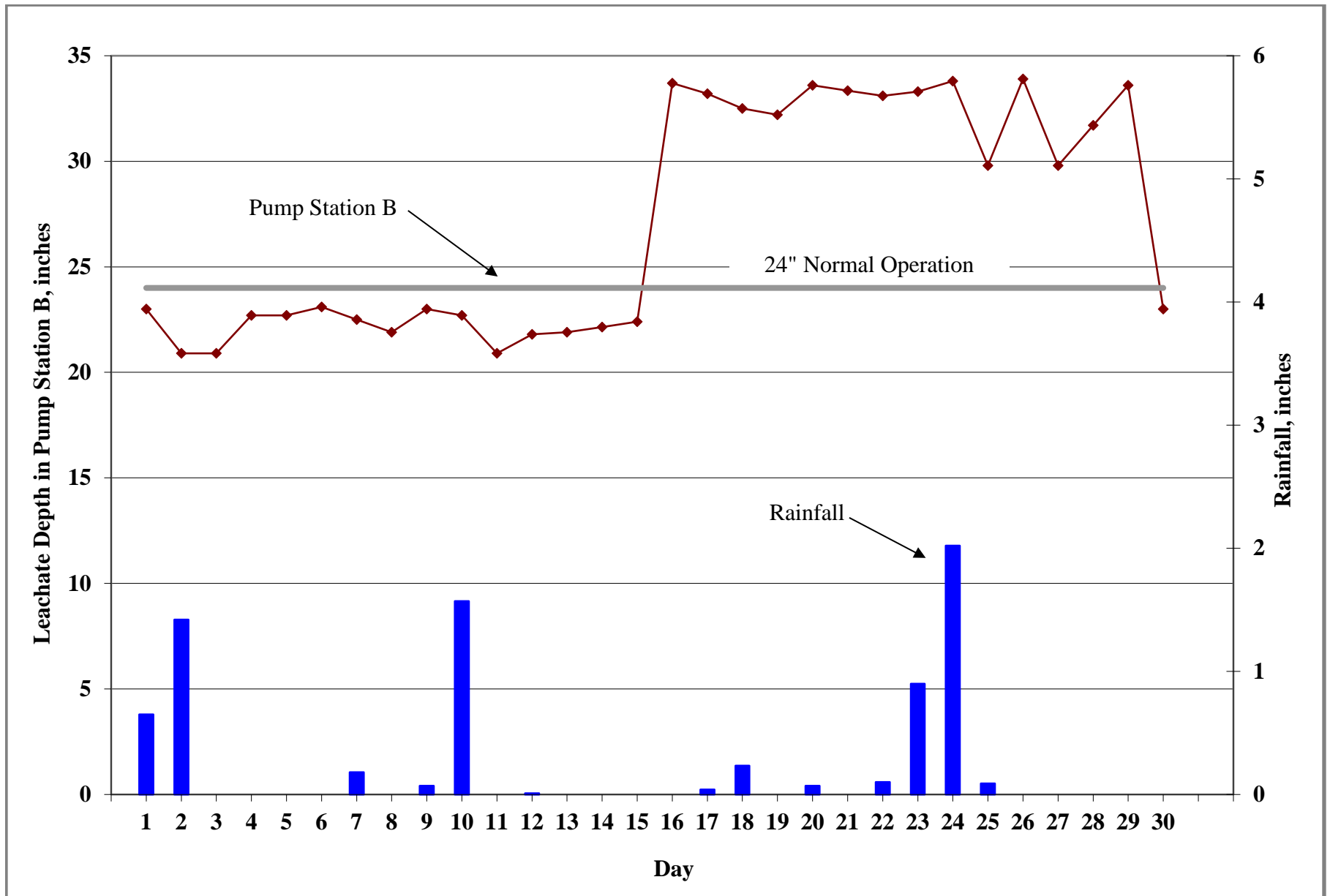


Figure 1. Leachate Levels in Pump Station B and Rainfall for June 2015.

**TABLE 3. LEACHATE BALANCE SUMMARY  
SOUTHEAST COUNTY LANDFILL  
HILLSBOROUGH COUNTY, FLORIDA  
YEAR-2015**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Condensate from LFG System (gal.)	Leachate from Section 9 Pumped to LTRF (gal.)	Leachate from Section 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage <sup>3</sup> (gal.)
January	1.15	7,214	44,572	197,166	2,213,468	2,259,648	0	0	0	0	0	2,462,420	2,259,648	202,772
February	5.40	9,440	29,182	93,449	1,970,261	1,915,340	0	0	0	0	0	2,102,332	1,915,340	186,992
March	1.04	6,628	52,240	149,624	1,890,785	2,073,947	0	0	0	0	0	2,099,277	2,073,947	25,330
April	2.69	6,338	48,907	81,686	1,899,702	1,851,028	0	0	0	0	0	2,036,633	1,851,028	185,605
May	1.67	5,420	33,765	80,827	1,547,741	1,561,683	0	0	0	0	0	1,667,753	1,561,683	106,070
June	7.35	7,875	29,965	72,452	1,198,801	1,449,630	7,242	0	0	0	0	1,309,093	1,456,872	-147,779
July														
August														
September														
October														
November														
December														
YTD Total	19.30	42,915	238,631	675,204	10,720,758	11,111,276	7,242	0	0	0	0	11,677,508	11,118,518	558,990

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.