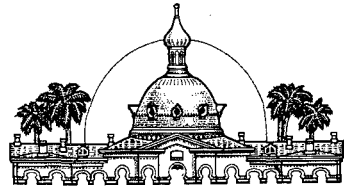


LR 270586  
Leachate  
Quantity



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

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January 12, 2006

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

FILED  
JAN 13 2006

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Ms. Pelz:

In accordance with Specific Conditions No. 16 of Permit No. 35435-006-SO, the Solid Waste Management Department (SWMD) is submitting the quarterly Leachate Water Balance submittal for the Southeast County Landfill for the quarter ending January 15, 2006.

The data is being submitted as separate monthly reports for October, November and December 2005. 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.

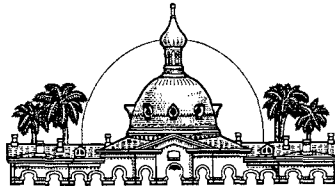
Please advise should you have any questions concerning the attached submittal.

Sincerely,

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

Attachment

xc: Larry Ruiz, SWMD  
Walter Gray, SWMD  
Rich Siemering, JEA  
Paul Schipfer, EPC



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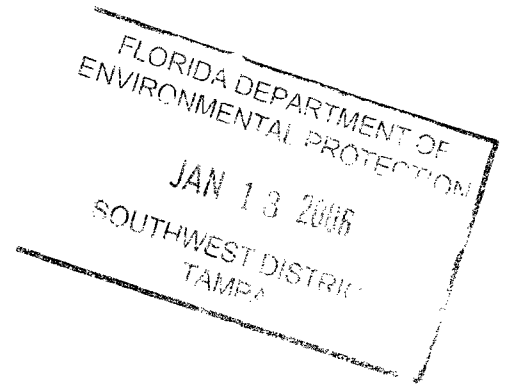
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January 12, 2006

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 –December 2005 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 Form for the month of December 2005. In addition, the SWMD is providing the December 2005 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

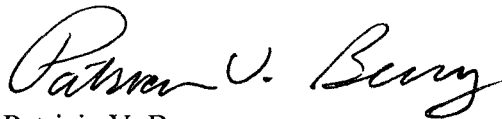
This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for December 2005 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. The average depth of leachate in the PS-B sump for the recorded days in December 2005 was 17.6 inches.

Ms. Susan J. Pelz  
January 12, 2006  
Page Two

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

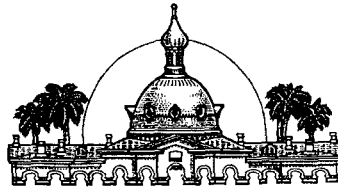
Sincerely,

A handwritten signature in black ink, reading "Patricia V. Berry". The signature is written in a cursive style with a large, looping "P" and a long, sweeping "y".

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

Attachments

glfs/lea1205.dep



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

MEMORANDUM

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DATE: January 10, 2006

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

FROM: Larry Ruiz, General Manager, Solid Waste Management Department *fer*  
Raymond Graves, Eng. Tech. II, Solid Waste Management Department

SUBJECT: Leachate Water Balance Report Forms for December 2005  
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 and Section 7 of the Capacity Expansion for December 2005. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2005 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in the Pump Station B sump 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 1.3 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 the existing 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 average depth of effluent stored in Pond A was 2.6 feet.



## MEMORANDUM

January 10, 2006

Page 2 of 5

### **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 average depth of effluent stored in Pond B was 2.8 feet.

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

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches except for December 22 due to a malfunction of the MLPS control panel. The average depth of leachate in the PS-B sump for the recorded days was 17.6 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 3,770 gallons. A total of 116,860 gallons was pumped from TPS-6 to PS-B 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 39,213 gallons. A total of 1,215,610 gallons of leachate was pumped to the storage tank this month.

### **Leachate Pumped from Section 7 Leak Detection System (Column VIII)**

Column VIII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7 and 8. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. The removal rate did not exceed 1,250 gallons per day. This month a total of 2009 gallons of leachate was removed from the leak detection system of Sections 7 and 8.

## MEMORANDUM

January 10, 2006

Page 3 of 5

### **Leachate Pumped to MLPS from Section 7 (Column IX)**

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. Normally the quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7 and 8 (Column VIII). This month 152,320 gallons of leachate was pumped to the MLPS from Section 7.

### **Total Leachate Pumped to LTRF (Column X)**

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. This month a total of 1,367,930 gallons of leachate was pumped from Phases I-VI and Section 7.

### **Leachate in 575,000-Gallon Tank (Column XI)**

Column XI 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. The average daily amount of leachate stored in the tank this month was estimated at 303,500 gallons.

### **Leachate Treated at LTRF (Column XII)**

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 1,150,900 gallons of leachate was treated at the LTRF.

### **Total Leachate Hauled (Column XIII)**

Column XIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 222,780 gallons of leachate was hauled off site.

### **Leachate Dust Control (Sprayed) (Column XIV)**

Column XIV 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 Phases I-VI. This month a total of 24,990 gallons of leachate was used for dust control.

### **Pond A Storage (Column XV)**

Column XV 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). The volume is estimated using AutoCAD software and is based on the

## MEMORANDUM

January 10, 2006

Page 4 of 5

cross-sectional area of the pond at varying depths. 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 91,900 gallons of effluent was stored in Pond A.

### **Pond B Storage (Column XVI)**

Column XVI 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). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent 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 158,500 gallons of effluent was stored in Pond B.

### **Effluent Sprayed at Pond B (Column XVII)**

Column XVII 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. No effluent was sprayed at Pond B this month.

### **Effluent Irrigation (Column XVIII)**

Column XVIII 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 1,204,081 gallons of effluent was used as spray irrigation.

### **Effluent Dust Control (Sprayed) (Column XIX)**

Column XIX 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 no effluent was sprayed as dust control.

### **Total Effluent Hauled (Column XX)**

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month no effluent was hauled off site.

MEMORANDUM

January 10, 2006

Page 5 of 5

**Total Evaporation (Column XXI)**

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation estimated for this month was 31,720 gallons.

**TABLE 2**

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

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 1,367,930 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,398,670 gallons. The change in storage for the month of December decreased by 30,740 gallons.

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

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM**  
**DECEMBER 2005**  
**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
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	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 Section 7-8 Leak Det. (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	3.6	2.6	18.9	1,500	38,308	84	32,907	71,215	266,000	45,700	6,019	0	145,000	133,000	0	0	0	0	0
2	0.00	3.6	3.0	15.1	5,980	39,834	83	5,439	45,273	266,000	43,300	12,066	0	145,000	172,000	0	85,394	0	0	68,300
3	0.00	2.8	3.0	15.5	5,320	35,966	83	5,372	41,338	257,000	45,800	0	0	98,000	172,000	0	85,863	0	0	68,700
4	0.00	2.0	3.0	15.6	6,130	37,972	92	3,048	41,020	254,000	43,100	0	0	61,000	172,000	0	0	0	0	0
5	0.25	2.8	3.0	15.8	6,640	40,088	92	4,742	44,830	259,000	45,600	6,015	5,185	98,000	172,000	0	84,384	0	0	71,700
6	0.00	2.1	3.0	15.8	6,850	44,354	86	2,656	47,010	250,000	47,400	18,048	0	65,000	172,000	0	0	0	0	0
7	0.50	2.7	3.0	15.6	4,630	35,626	90	6,087	41,713	245,000	31,900	18,049	0	93,000	172,000	0	81,055	0	0	64,800
8	0.01	1.7	3.0	15.5	3,670	35,774	86	6,225	41,999	245,000	32,000	6,016	0	48,000	172,000	0	0	0	0	0
9	0.00	2.3	3.0	18.6	4,980	32,706	80	12,061	44,767	259,000	33,000	12,036	0	74,000	172,000	0	0	0	0	0
10	0.00	2.8	3.0	18.4	1,330	39,120	78	11,412	50,532	278,000	30,600	0	0	98,000	172,000	0	0	0	0	0
11	0.10	3.3	3.0	18.6	6,284	39,436	77	6,930	46,366	297,000	31,100	0	0	123,000	172,000	0	0	0	0	0
12	0.00	3.6	3.2	15.1	6,046	41,156	0	6,930	48,086	317,000	30,900	12,041	0	145,000	192,000	0	81,525	0	0	65,200
13	0.00	2.6	3.2	20.5	5,020	39,772	132	10,186	49,958	326,000	31,200	0	0	88,000	192,000	0	79,736	0	0	63,800
14	0.00	1.6	3.2	15.7	4,490	37,308	66	0	37,308	329,000	31,100	12,041	0	44,000	192,000	0	0	0	0	0
15	0.00	2.6	3.2	17.6	4,650	41,024	66	2,841	43,865	322,000	56,900	12,054	2,000	88,000	192,000	0	86,283	0	0	70,600
16	0.00	1.8	3.2	14.2	3,340	48,586	67	2,903	51,489	309,000	52,600	6,022	0	52,000	192,000	0	0	0	0	0
17	0.24	1.7	3.2	19.8	3,160	34,321	61	2,713	37,034	309,000	37,100	0	0	48,000	192,000	0	0	0	0	0
18	0.07	2.5	3.2	17.0	2,775	37,617	59	2,864	40,481	319,000	39,800	0	0	83,000	192,000	0	0	0	0	0
19	0.01	3.1	3.2	21.3	3,585	34,072	61	2,734	36,806	319,000	37,900	12,040	0	113,000	192,000	0	0	0	0	0
20	0.00	3.4	3.2	16.7	4,400	35,926	55	2,725	38,651	329,000	22,900	18,068	2,072	129,000	192,000	0	89,994	0	0	73,700
21	0.00	2.1	3.2	15.6	2,320	39,904	60	2,863	42,767	324,000	20,400	12,046	0	65,000	192,000	0	45,218	0	0	36,200
22	0.00	2.8	3.0	33.0	1,710	22,752	48	3,069	25,821	300,000	45,600	18,081	0	98,000	172,000	0	44,887	0	0	35,900
23	0.00	2.7	2.8	16.5	2,650	45,990	25	2,701	48,691	309,000	45,500	12,038	11,179	93,000	152,000	0	79,368	0	0	72,400
24	0.00	2.3	2.6	15.2	2,750	42,150	55	2,397	44,547	295,000	34,500	0	4,554	74,000	133,000	0	58,897	0	0	50,800
25	0.13	2.7	2.6	15.3	2,685	45,997	49	1,472	47,469	313,000	31,400	0	0	93,000	133,000	0	0	0	0	0
26	0.00	3.1	2.6	15.3	2,685	45,997	49	1,472	47,469	331,000	31,400	0	0	113,000	133,000	0	45,190	0	0	36,200
27	0.00	2.8	2.6	19.3	2,830	35,864	45	2,265	38,129	345,000	32,500	0	0	98,000	133,000	0	46,379	0	0	37,100
28	0.00	2.5	2.1	17.4	3,115	38,302	50	0	38,302	358,000	31,200	12,050	0	83,000	88,000	0	0	0	0	0
29	0.00	3.0	2.1	18.0	405	47,450	43	2,804	50,254	358,000	32,100	12,034	0	108,000	88,000	0	79,926	0	0	63,900
30	0.00	2.6	1.8	17.3	2,870	43,404	45	2,503	45,907	365,000	32,100	6,016	0	88,000	64,000	0	60,409	0	0	48,300
31	0.00	2.8	1.5	20.0	2,060	38,834	43	0	38,834	355,000	44,300	0	0	98,000	44,000	0	69,573	0	0	55,700
Total	1.31				116,860	1,215,610	2,009	152,320	1,367,930		1,150,900	222,780	24,990				1,204,081	0	0	983,300
Daily Average		2.6	2.8	17.6	3,770	39,213	65	4,914	44,127	303,500				91,900	158,500	0				
Mo. Average													800				38,800		0	31,720

**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 XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

projects\balance\2005\Dec-05bal.xls (Revised by ler 1/10/06)

**TABLE 2. FIELD DATA ENTRY FORM**  
**DECEMBER 2005**  
**SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
Day	Reading PS-B (in.)	Section 7-8 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal.)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
							Contractor (gal.)	County (gal.)								Contractor (gal.)	County (gal.)	
1	9.9	145,848	1,952,011	5,525,710	8,733,636	9.25	0	6,019	0	0.00	3.6	2.6	0.0	45,675	0	0	0	0
2	6.1	145,931	1,957,450	5,531,690	8,773,470	9.25	0	12,066	0	0.00	3.6	3.0	0.0	43,322	85,394	0	0	0
3	6.5	146,014	1,962,822	5,537,010	8,809,436	8.92	0	0	0	0.00	2.8	3.0	0.0	45,752	85,863	0	0	0
4	6.6	146,106	1,965,870	5,543,140	8,847,408	8.83	0	0	0	0.00	2.0	3.0	0.0	43,097	0	0	0	0
5	6.8	146,198	1,970,612	5,549,780	8,887,496	9.00	0	6,015	5,185	0.25	2.8	3.0	0.0	45,550	84,384	0	0	0
6	6.8	146,284	1,973,268	5,556,630	8,931,850	8.67	0	18,048	0	0.00	2.1	3.0	0.0	47,443	0	0	0	0
7	6.6	146,374	1,979,355	5,561,260	8,967,476	8.50	0	18,049	0	0.50	2.7	3.0	0.0	31,943	81,055	0	0	0
8	6.5	146,460	1,985,580	5,564,930	9,003,250	8.50	0	6,016	0	0.01	1.7	3.0	0.0	31,996	0	0	0	0
9	9.6	146,540	1,997,641	5,569,910	9,035,956	9.00	0	12,036	0	0.00	2.3	3.0	0.0	32,982	0	0	0	0
10	9.4	146,618	2,009,053	5,571,240	9,075,076	9.67	0	0	0	0.00	2.8	3.0	0.0	30,554	0	0	0	0
11	9.6	146,695	2,015,983	5,577,524	9,114,512	10.33	0	0	0	0.10	3.3	3.0	0.0	31,080	0	0	0	0
12	6.1	146,695	2,022,913	5,583,570	9,155,668	11.00	0	12,041	0	0.00	3.6	3.2	0.0	30,942	81,525	0	0	0
13	11.5	146,827	2,033,099	5,588,590	9,195,440	11.33	0	0	0	0.00	2.6	3.2	0.0	31,227	79,736	0	0	0
14	6.7	146,893	2,033,099	5,593,080	9,232,748	11.42	0	12,041	0	0.00	1.6	3.2	0.0	31,133	0	0	0	0
15	8.6	146,959	2,035,940	5,597,730	9,273,772	11.17	0	12,054	2,000	0.00	2.6	3.2	0.0	56,896	86,283	0	0	0
16	5.2	147,026	2,038,843	5,601,070	9,322,358	10.75	0	6,022	0	0.00	1.8	3.2	0.0	52,574	0	0	0	0
17	10.8	147,087	2,041,556	5,604,230	9,356,679	10.75	0	0	0	0.24	1.7	3.2	0.0	37,065	0	0	0	0
18	8.0	147,146	2,044,420	5,607,005	9,394,296	11.08	0	0	0	0.07	2.5	3.2	0.0	39,816	0	0	0	0
19	12.3	147,207	2,047,154	5,610,590	9,428,368	11.08	0	12,040	0	0.01	3.1	3.2	0.0	37,859	0	0	0	0
20	7.7	147,262	2,049,879	5,614,990	9,464,294	11.42	0	18,068	2,072	0.00	3.4	3.2	0.0	22,851	89,994	0	0	0
21	6.6	147,322	2,052,742	5,617,310	9,504,198	11.25	0	12,046	0	0.00	2.1	3.2	0.0	20,405	45,218	0	0	0
22	24.0	147,370	2,055,811	5,619,020	9,526,950	10.42	0	18,081	0	0.00	2.8	3.0	0.0	45,645	44,887	0	0	0
23	7.5	147,395	2,058,512	5,621,670	9,572,940	10.75	0	12,038	11,179	0.00	2.7	2.8	0.0	45,456	79,368	0	0	0
24	6.2	147,450	2,060,909	5,624,420	9,615,090	10.25	0	0	4,554	0.00	2.3	2.6	0.0	34,462	58,897	0	0	0
25	6.3	147,499	2,062,381	5,627,105	9,661,087	10.88	0	0	0	0.13	2.7	2.6	0.0	31,403	0	0	0	0
26	6.3	147,547	2,063,852	5,629,790	9,707,084	11.50	0	0	0	0.00	3.1	2.6	0.0	31,403	45,190	0	0	0
27	10.3	147,592	2,066,117	5,632,620	9,742,948	12.00	0	0	0	0.00	2.8	2.6	0.0	32,453	46,379	0	0	0
28	8.4	147,642	2,066,117	5,635,735	9,781,250	12.42	0	12,050	0	0.00	2.5	2.1	0.0	31,162	0	0	0	0
29	9.0	147,685	2,068,921	5,636,140	9,828,700	12.42	0	12,034	0	0.00	3.0	2.1	0.0	32,113	79,926	0	0	0
30	8.3	147,730	2,071,424	5,639,010	9,872,104	12.67	0	6,016	0	0.00	2.6	1.8	0.0	32,056	60,409	0	0	0
31	11.0	147,773	2,071,424	5,641,070	9,910,938	12.33	0	0	0	0.00	2.8	1.5	0.0	44,273	69,573	0	0	0
Totals							0	222,780	0	1.31			0	1,150,588	1,204,081	0	0	0

projects\balance\2005\Dec-05bal.xls (Revised by ler 1/10/06)

**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 XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

**TABLE 3. 2005 MONTHLY LEACHATE BALANCE SUMMARY  
SOUTHEAST COUNTY LANDFILL  
HILLSBOROUGH COUNTY, FLORIDA**

Month	Rainfall (in.)	Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 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	3.12	0	26,407	1,170,350	114,332	26,213	1,165,300	0	0	1,025,621	1,196,757	1,305,845	-109,088
February	2.78	0	24,928	1,015,209	114,369	94,365	1,085,800	0	0	959,407	1,040,137	1,294,534	-254,397
March	6.32	0	24,262	1,125,629	246,830	82,172	975,500	0	0	921,043	1,149,891	1,304,502	-154,611
April	3.23	0	20,469	1,241,219	331,471	224,232	913,400	0	0	973,733	1,261,688	1,469,103	-207,415
May	6.07	0	23,126	1,242,278	271,030	14,069	1,123,900	0	0	827,998	1,265,404	1,408,999	-143,595
June	12.28	0	31,659	1,277,668	840,324	12,793	437,100	29,977	0	491,117	1,309,327	1,290,217	19,110
July	7.34	0	29,238	1,393,566	920,060	76,183	593,000	90,431	0	555,210	1,422,804	1,589,243	-166,439
August	7.90	0	28,229	1,393,583	553,165	97,492	972,500	78,578	0	886,950	1,421,812	1,623,157	-201,345
September	4.61	0	28,571	1,295,205	300,775	25,099	1,177,700	658,478	0	285,904	1,323,776	1,503,574	-179,798
October	5.82	0	148,523	1,270,712	470,826	56,313	1,015,200	229,377	0	1,074,803	1,419,235	1,542,339	-123,104
November	3.21	0	164,146	1,227,174	252,962	22,885	1,324,900	0	0	1,109,585	1,391,320	1,600,747	-209,427
December	1.31	0	152,320	1,215,610	222,780	24,990	1,150,900	0	0	1,204,081	1,367,930	1,398,670	-30,740
YTD Total	63.99	0	701,878	14,868,203	4,638,924	756,806	11,935,200	1,086,841	0	10,315,452	15,570,081	17,330,930	-1,760,849

projects\balance\2005\2005-summary.xls (Revised by ler 1/10/06)

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.

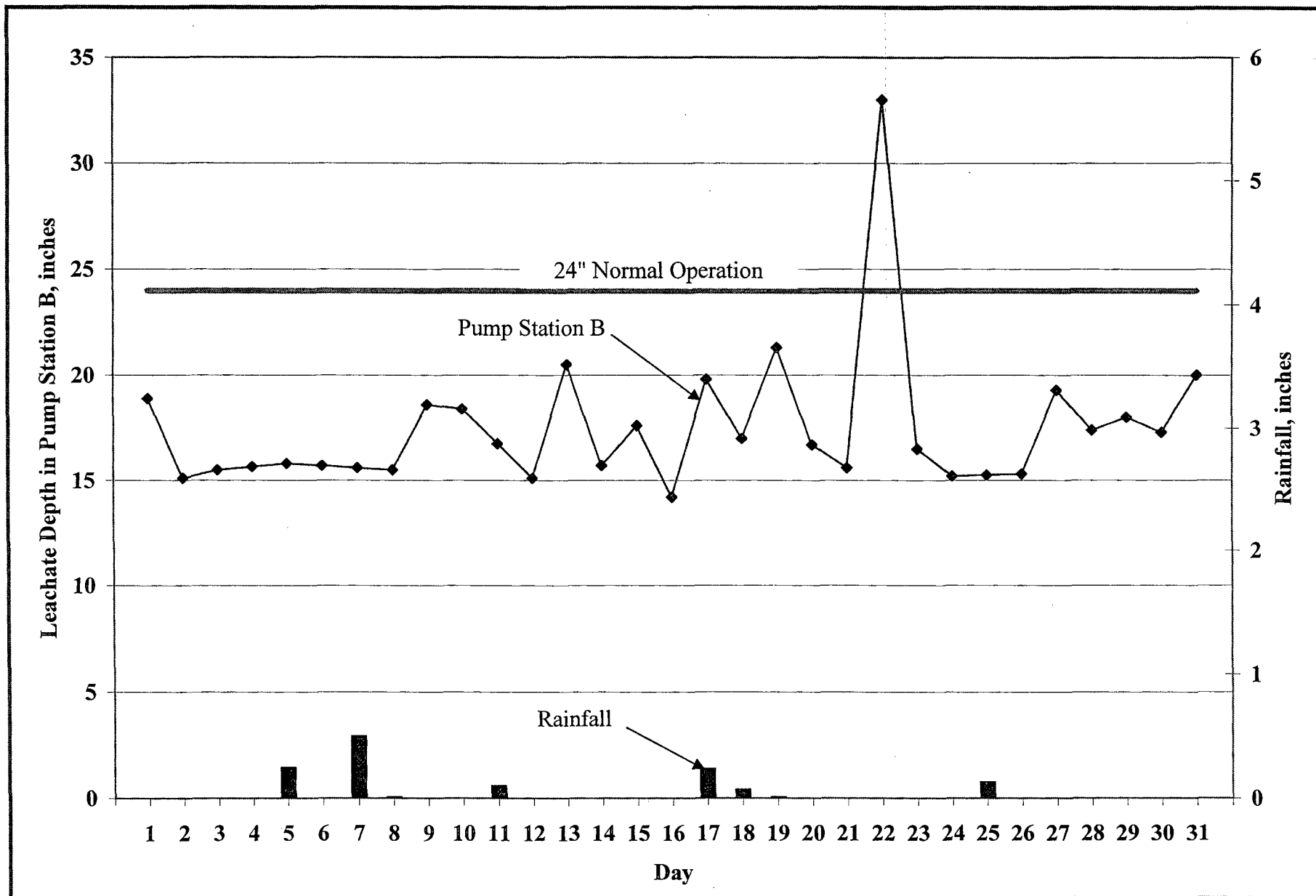


Figure 1. Leachate Levels in Pump Station B and Rainfall for December 2005.



**LEACHATE DEPTH/SUMMARY DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) December, 2005

Date	TPS-6		Depth <sup>1</sup> in Pond B (feet)	Pump <sup>2</sup> Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	1,500	0.00	9.9	41,215	32,907	84	9'3"	0	6,019	0	0.00
2	0.0	5,980	0.00	6.1	39,834	5,439	83	9'3"	0	12,066	0	0.00
3	0.0	5,320	0.00	6.5	35,966	5,372	166	8'11"	0	0	0	0.00
4	0.0	6,130	0.00	6.6	37,972	3,048	92	8'10"	0	0	0	0.00
5	0.0	6,640	0.00	6.8	40,088	4,742	92	9'0"	0	6,015	5,185	0.25
6	0.0	6,850	0.00	6.8	44,354	2,656	86	8'8"	0	18,048	0	0.00
7	0.0	4,630	0.00	6.6	35,626	6,087	90	8'6"	0	18,049	0	0.50
8	0.0	3,670	0.00	6.5	35,774	6,225	86	8'6"	0	6,016	0	0.01
9	0.0	4,980	0.00	9.6	32,706	12,061	80	9'0"	0	12,036	0	0.00
10	0.0	1,330	0.00	9.4	39,120	11,412	78	9'8"	0	0	0	0.00
11	0.0	6,284	0.00	9.6	39,436	6,930	77	10'4"	0	0	0	0.10
12	0.0	6,046	0.00	6.1	41,156	6,930	0	11'0"	0	12,041	0	0.00
13	0.0	5,020	0.00	11.5	39,772	10,186	132	11'4"	0	0	0	0.00
14	0.0	4,490	0.00	6.7	37,308	0	66	11'5"	0	12,041	0	0.00
15	0.0	4,650	0.00	8.6	41,024	2,841	66	11'2"	0	12,054	2,000	0.00
16	0.0	3,340	0.00	5.2	48,586	2,903	67	10'9"	0	6,022	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Prepared by:

*Raymond C. James*

Revised Jan. 16, 2004

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**LEACHATE DEPTH/SUMMARY DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) December, 2005

Date	TPS-6		Depth <sup>1</sup> in Pond B (feet)	Pump <sup>2</sup> Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	3,160	0.00	10.8	34,326	2,713	61	10'9"	0	0	0	0.24
18	0.0	2,775	0.00	8.0	37,617	2,864	59	11'1"	0	0	0	0.07
19	0.0	3,585	0.00	12.3	34,072	2,734	61	11'1"	0	12,040	0	0.01
20	0.0	440	0.00	7.7	35,926	2,725	55	11'5"	0	18,068	2,072	0.00
21	0.0	2,320	0.00	6.6	39,904	2,863	60	11'3"	0	12,046	0	0.00
22	0.0	1,710	0.00	24.0	22,752	3,069	48	10'5"	0	18,081	0	0.00
23	0.0	2,650	0.00	7.5	45,990	2,701	25	10'9"	0	12,038	11,179	0.00
24	0.0	2,750	0.00	6.2	42,150	2,397	55	10'3"	0	0	4,554	0.00
25	0.0	NR	0.00	NR	NR	NR	NR	NR	0	0	0	0.13
26	0.0	5,370	0.00	6.3	91,994	2,943	97	11'6"	0	0	0	0.00
27	0.0	2,830	0.00	10.3	35,864	2,265	45	12'0"	0	0	0	0.00
28	0.0	3,115	0.00	8.4	38,302	0	50	12'5"	0	12,050	0	0.00
29	0.0	405	0.00	9.0	47,450	2,804	43	12'5"	0	12,034	0	0.00
30	0.0	2,870	0.00	8.3	43,404	2,503	45	12'8"	0	6,016	0	0.00
31	0.0	2,060	0.00	11.0	38,834	0	43	12'4"	0	0	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Prepared by: Raymond C. Brown

Revised Jan. 16, 2004

09200020.24\Leachate Balance\LeachateData\_\LeachateData\_December,2005.xls

**EFFLUENT DEPTH/QUANTITIES DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year)

December, 2005

Date	Depth in Pond A <sup>1</sup> (feet)	Depth in Pond B <sup>2</sup> (feet)	Pond B Leak Detection <sup>3</sup> (gallons)	Leachate Treated (gallons)	Treated Effluent					Time at End of Rainfall	Effluent <sup>4</sup> Runoff to Retention Area (Y/N)	
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)			Effluent Stored (gallons)
Contractor (gallons)	County (gallons)											
1	3.60	2.60	0	45,675	0		0	0				
2	3.60	3.00	0	43,322	85,394		0	0				N
3	2.80	3.00	0	45,752	85,863		0	0				N
4	2.00	3.00	0	43,097	0		0	0				
5	2.80	3.00	0	45,550	84,384		0	0				N
6	2.10	3.00	0	47,443	0		0	0				
7	2.70	3.00	0	31,943	81,055		0	0				N
8	1.70	3.00	0	31,996	0		0	0				
9	2.30	3.00	11	32,982	0		0	0				
10	2.80	3.00	0	30,554	0		0	0				
11	3.30	3.00	0	31,080	0		0	0				
12	3.60	3.20	0	30,942	81,525		0	0				N
13	2.60	3.20	33	31,227	79,736		0	0				N
14	1.60	3.20	0	31,133	0		0	0				
15	2.60	3.20	0	56,896	86,283		0	0				N
16	1.80	3.20	0	52,574	45,140		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Prepared by: Raymond C. Fraws

**EFFLUENT DEPTH/QUANTITIES DATA FORM**  
**SOUTHEAST COUNTY LANDFILL**

(Month/Year) December, 2005

Date	Depth in Pond A <sup>1</sup>  (feet)	Depth in Pond B <sup>2</sup>  (feet)	Pond B Leak Detection <sup>3</sup> (gallons)	Leachate Treated (gallons)	Treated Effluent					Time at End of Rainfall	Effluent <sup>4</sup> Runoff to Retention Area (Y/N)	
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)			Effluent Stored (gallons)
							Contractor (gallons)	County (gallons)				
17	1.70	3.20	0	37,065	0		0	0				
18	2.50	3.20	0	39,816	0		0	0				
19	3.10	3.20	0	37,859	0		0	0				
20	3.40	3.20	0	22,851	89,994		0	0			N	
21	2.10	3.20	0	20,405	45,218		0	0			N	
22	2.80	3.00	0	45,645	44,887		0	0			N	
23	2.70	2.80	0	45,456	79,368		0	0			N	
24	2.30	2.60	6	34,462	58,897		0	0			N	
25	NR	NR	NR	31,403	0		0	0				
26	3.10	2.60	0	31,403	45,190		0	0			N	
27	2.80	2.60	0	32,453	46,379		0	0			N	
28	2.50	2.10	0	31,162	0		0	0				
29	3.00	2.10	3	32,113	79,926		0	0			N	
30	2.60	1.80	0	32,056	60,409		0	0			N	
31	2.80	1.50	0	44,273	69,573		0	0			N	

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

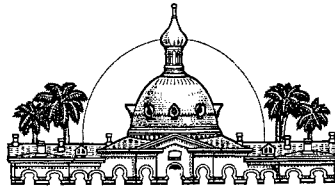
(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Prepared by: Raymond C. Turner



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

BOARD OF COUNTY COMMISSIONERS

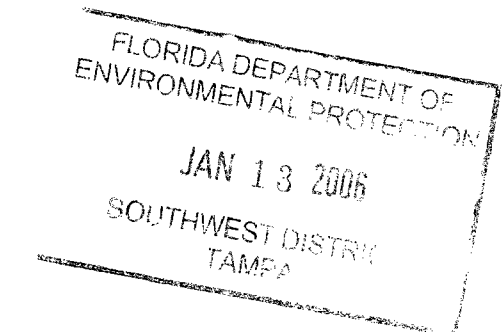
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January 4, 2006

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 –November 2005 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 Form for the month of November 2005. In addition, the SWMD is providing the November 2005 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 (DEP) 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. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for November 2005 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. The average depth of leachate in the PS-B sump for the recorded days in November 2005 was 18.8 inches.

Post Office Box 1110 • Tampa, Florida 33601

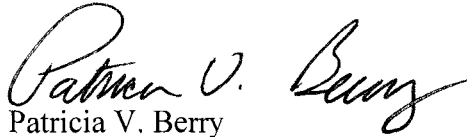
Web Site: [www.hillsboroughcounty.org](http://www.hillsboroughcounty.org)

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Ms. Susan J. Pelz  
January 4, 2006  
Page Two

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

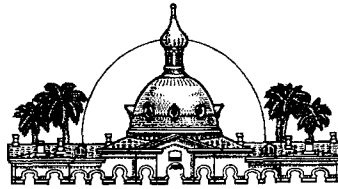
Sincerely,

A handwritten signature in black ink, reading "Patricia V. Berry". The signature is fluid and cursive, with the first name "Patricia" and last name "Berry" clearly legible.

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

Attachments

glfs/lea1105.dep



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

MEMORANDUM

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DATE: December 23, 2005

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

FROM: Larry Ruiz, General Manager, Solid Waste Management Department *fer*  
Raymond Graves, Eng. Tech. II, Solid Waste Management Department

SUBJECT: Leachate Water Balance Report Forms for November 2005  
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 and Section 7 of the Capacity Expansion for November 2005. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2005 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in the Pump Station B sump 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 3.2 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 the existing 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 average depth of effluent stored in Pond A was 2.9 feet.

**Depth in Pond B (Column IV)**

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the average depth of effluent stored in Pond B was 1.0 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. PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days was 18.8 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 MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 was 7,740 gallons. A total of 232,200 gallons was pumped from TPS-6 to PS-B 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 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 40,906 gallons. A total of 1,227,174 gallons of leachate was pumped to the storage tank this month.

**Leachate Pumped from Section 7 Leak Detection System (Column VIII)**

Column VIII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7 and 8. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. As stated in the Leachate Balance Report for September, due to the liner installation of Section 8, on September 26, the LDS was cut open on the northern perimeter of Section 7 to begin connecting both LDS. On November 12 and 13, the LDS was resealed and vacuum tested, respectively. During that time, stormwater intrusion into the LDS contributed to the high volume removed before November 12, 2005. The high volume removed through



that time is indication that the LDS is functioning and has no obstructions. Since the LDS was resealed, our current leakage action rate of 1,250 gallons per day has not been exceeded. This month a total of 4,054 gallons of leachate was removed from the leak detection system of Sections 7 and 8.

**Leachate Pumped to MLPS from Section 7 (Column IX)**

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. The quantity shown for November 27, 2005, represents a reading error. Normally the quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). This month 164,146 gallons of leachate was pumped to the MLPS from Section 7. The high rate of removal for this month was due to the LCRS installation of Section 8. In order to connect the LCRS of Sections 7 and 8, the northern cleanouts for Section 7 were uncapped and cut at the trench flow level thereby allowing stormwater from Section 8 to enter the LCRS of Section 7. On November 26, 2005, additional air plugs were installed at these locations to minimize stormwater intrusion from Section 8 into Section 7.

**Total Leachate Pumped to LTRF (Column X)**

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. This month a total of 1,391,320 gallons of leachate was pumped from Phases I-VI and Section 7.

**Leachate in 575,000-Gallon Tank (Column XI)**

Column XI 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. The average daily amount of leachate stored in the tank this month was estimated at 243,100 gallons.

**Leachate Treated at LTRF (Column XII)**

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 1,324,900 gallons of leachate was treated at the LTRF.

**Total Leachate Hauled (Column XIII)**

Column XIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 252,962 gallons of leachate was hauled off site.

**Leachate Dust Control (Sprayed) (Column XIV)**

Column XIV 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 Phases I-VI. This month a total of 22,885 gallons of leachate was used for dust control.

**Pond A Storage (Column XV)**

Column XV 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). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 105,500 gallons of effluent was stored in Pond A.

**Pond B Storage (Column XVI)**

Column XVI 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). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent 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 38,800 gallons of effluent was stored in Pond B.

**Effluent Sprayed at Pond B (Column XVII)**

Column XVII 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. No effluent was sprayed at Pond B this month.

**Effluent Irrigation (Column XVIII)**

Column XVIII 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 1,109,585 gallons of effluent was used as spray irrigation.

**Effluent Dust Control (Sprayed) (Column XIX)**

Column XIX 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 no effluent was sprayed as dust control.

**Total Effluent Hauled (Column XX)**

Column XX presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month no effluent was hauled off site.

**Total Evaporation (Column XXI)**

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation estimated for this month was 906,000 gallons.

**TABLE 2**

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

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 1,391,320 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,600,747 gallons. The change in storage for the month of November decreased by 209,427 gallons.

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

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM**  
**NOVEMBER 2005**  
**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
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	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 Leak Detection (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate 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	1.17	2.7	0.0	19.2	8,380	41,282	242	2,709	43,991	329,000	38,100	6,072	0	93,000	0	0	70,689	0	0	56,600
2	0.00	2.0	1.0	19.3	7,480	44,244	255	17,462	61,706	362,000	35,300	12,052	0	61,000	19,000	0	0	0	0	0
3	0.00	2.8	1.1	16.8	7,140	35,248	185	23,444	58,692	362,000	40,200	24,075	0	98,000	23,000	0	0	0	0	0
4	0.00	3.5	1.1	15.7	8,970	37,935	280	625	38,560	348,000	43,300	18,057	0	140,000	23,000	0	83,561	0	0	66,800
5	0.00	2.8	1.1	17.3	9,790	40,917	156	2,588	43,505	329,000	43,800	24,077	0	98,000	23,000	0	77,091	0	0	61,700
6	0.00	2.5	0.8	16.8	7,910	40,341	0	2,683	43,024	317,000	43,700	0	0	83,000	12,000	0	0	0	0	0
7	0.00	3.2	0.8	15.5	8,890	41,004	336	2,983	43,987	322,000	47,100	12,033	9,292	118,000	12,000	0	79,143	0	0	70,700
8	0.00	2.6	0.8	21.2	8,940	39,057	174	7,381	46,438	297,000	43,800	12,035	3,042	88,000	12,000	0	54,686	0	0	46,200
9	0.00	2.4	0.8	19.7	7,570	40,632	173	4,518	45,150	288,000	45,400	18,092	0	79,000	12,000	0	50,229	0	0	40,200
10	0.00	2.3	0.8	20.6	8,830	41,848	121	2,397	44,245	266,000	43,800	12,033	3,015	74,000	12,000	0	57,163	0	0	48,100
11	0.00	2.0	0.8	19.3	8,830	43,511	161	2,407	45,918	252,000	44,700	18,047	0	61,000	12,000	0	0	0	0	0
12	0.00	2.8	0.8	16.8	8,430	40,508	140	1	40,509	242,000	45,100	0	0	98,000	12,000	0	62,152	0	0	49,700
13	0.00	2.4	0.8	16.2	7,560	38,241	0	2,755	40,996	245,000	44,200	0	0	79,000	12,000	0	0	0	0	0
14	0.00	3.3	0.8	15.9	8,450	38,311	274	0	38,311	240,000	46,700	12,031	0	123,000	12,000	0	65,779	0	0	52,600
15	0.00	2.8	0.8	21.5	8,840	38,855	183	0	38,855	230,000	44,600	18,052	0	98,000	12,000	0	49,208	0	0	39,400
16	0.00	2.7	0.0	15.8	7,160	42,558	93	2,767	45,325	209,000	45,200	12,034	5,021	93,000	0	0	76,379	0	0	65,100
17	0.00	2.1	0.0	18.4	8,480	41,561	114	0	41,561	194,000	44,800	0	0	65,000	0	0	0	0	0	0
18	0.00	2.9	0.0	19.1	8,690	40,677	119	2,795	43,472	197,000	44,700	12,056	2,515	103,000	0	0	82,225	0	0	67,800
19	0.00	2.1	0.0	18.3	9,811	42,224	0	0	42,224	189,000	46,300	0	0	65,000	0	0	0	0	0	0
20	0.12	3.0	0.0	22.4	9,235	41,501	0	0	41,501	197,000	44,700	0	0	108,000	0	0	0	0	0	0
21	0.30	3.6	0.9	18.7	8,514	46,796	238	2,803	49,599	192,000	46,200	6,059	0	145,000	15,000	0	0	0	0	0
22	0.00	3.6	1.5	17.8	7,470	46,794	124	2,521	49,315	192,000	43,600	12,037	0	145,000	44,000	0	0	0	0	0
23	0.00	3.6	2.0	21.8	7,770	42,607	111	2,358	44,965	187,000	46,600	12,091	0	145,000	80,000	0	89,081	0	0	71,300
24	0.00	3.6	2.0	21.9	8,483	40,934	81	4,002	44,936	182,000	44,100	0	0	145,000	80,000	0	0	0	0	0
25	0.00	3.5	2.0	22.0	8,483	40,934	81	4,002	44,936	178,000	44,100	0	0	140,000	80,000	0	45,006	0	0	36,000
26	0.00	3.5	2.0	15.7	5,330	34,894	90	2,234	37,128	170,000	43,000	0	0	140,000	80,000	0	84,869	0	0	67,900
27	0.00	2.7	2.0	16.3	6,119	39,490	0	-7,261	32,229	173,000	46,500	0	0	93,000	80,000	0	0	0	0	0
28	0.70	3.5	2.0	22.2	4,366	42,150	122	0	42,150	163,000	44,200	0	0	140,000	80,000	0	82,324	0	0	65,900
29	0.92	2.9	2.1	20.7	0	43,284	111	22,274	65,558	192,000	45,500	0	0	103,000	88,000	0	0	0	0	0
30	0.00	3.6	2.2	20.0	6,280	38,836	90	53,699	92,535	250,000	45,600	12,029	0	145,000	97,000	0	0	0	0	0
Total	3.21				232,200	1,227,174	4,054	164,146	1,391,320		1,324,900	252,962	22,885				1,109,585	0	0	906,000
Daily Average		2.9	1.0	18.8	7,740	40,906	135	5,472	46,377	243,100				105,500	38,800	0				
Mo. Average													800				37,000	0	0	30,200

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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 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

**TABLE 2. FIELD DATA ENTRY FORM**  
**NOVEMBER 2005**  
**SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVI	XVIII	XIX
Day	Reading PS-B (in.)	Section 7-8 Leak Det. (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal.)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
							Contractor (gal.)	County (gal.)								Contractor (gal.)	County (gal.)	
1	10.2	141,952	1,757,667	5,300,390	7,509,436	11.42	0	6,072	0	1.17	2.7	0.0	0.0	38,111	70,689	0	0	0
2	10.3	142,207	1,775,129	5,307,870	7,553,680	12.58	0	12,052	0	0.00	2.0	1.0	0.0	35,294	0	0	0	0
3	7.8	142,392	1,798,573	5,315,010	7,588,928	12.58	0	24,075	0	0.00	2.8	1.1	0.0	40,193	0	0	0	0
4	6.7	142,672	1,799,198	5,323,980	7,626,863	12.08	0	18,057	0	0.00	3.5	1.1	0.0	43,345	83,561	0	0	0
5	8.3	142,828	1,801,786	5,333,770	7,667,780	11.42	0	24,077	0	0.00	2.8	1.1	0.0	43,841	77,091	0	0	0
6	7.8	142,828	1,804,469	5,341,680	7,708,121	11.00	0	0	0	0.00	2.5	0.8	0.0	43,716	0	0	0	0
7	6.5	143,164	1,807,452	5,350,570	7,749,125	11.17	0	12,033	9,292	0.00	3.2	0.8	0.0	47,053	79,143	0	0	0
8	12.2	143,338	1,814,833	5,359,510	7,788,182	10.33	0	12,035	3,042	0.00	2.6	0.8	0.0	43,837	54,686	0	0	0
9	10.7	143,511	1,819,351	5,367,080	7,828,814	10.00	0	18,092	0	0.00	2.4	0.8	0.0	45,370	50,229	0	0	0
10	11.6	143,632	1,821,748	5,375,910	7,870,662	9.25	0	12,033	3,015	0.00	2.3	0.8	0.0	43,816	57,163	0	0	0
11	10.3	143,793	1,824,155	5,384,740	7,914,173	8.75	0	18,047	0	0.00	2.0	0.8	0.0	44,654	0	0	0	0
12	7.8	143,933	1,824,156	5,393,170	7,954,681	8.42	0	0	0	0.00	2.8	0.8	0.0	45,089	62,152	0	0	0
13	7.2	143,933	1,826,911	5,400,730	7,992,922	8.50	0	0	0	0.00	2.4	0.8	0.0	44,156	0	0	0	0
14	6.9	144,207	1,826,911	5,409,180	8,031,233	8.33	0	12,031	0	0.00	3.3	0.8	0.0	46,651	65,779	0	0	0
15	12.5	144,390	1,826,911	5,418,020	8,070,088	8.00	0	18,052	0	0.00	2.8	0.8	0.0	44,633	49,208	0	0	0
16	6.8	144,483	1,829,678	5,425,180	8,112,646	7.25	0	12,034	5,021	0.00	2.7	0.0	0.0	45,248	76,379	0	0	0
17	9.4	144,597	1,829,678	5,433,660	8,154,207	6.75	0	0	0	0.00	2.1	0.0	0.0	44,752	0	0	0	0
18	10.1	144,716	1,832,473	5,442,350	8,194,884	6.83	0	12,056	2,515	0.00	2.9	0.0	0.0	44,733	82,225	0	0	0
19	9.3	144,716	1,832,473	5,452,161	8,237,108	6.58	0	0	0	0.00	2.1	0.0	0.0	46,255	0	0	0	0
20	13.4	144,716	1,832,473	5,461,396	8,278,609	6.83	0	0	0	0.12	3.0	0.0	0.0	44,715	0	0	0	0
21	9.7	144,954	1,835,276	5,469,910	8,325,405	6.67	0	6,059	0	0.30	3.6	0.9	0.0	46,216	0	0	0	0
22	8.8	145,078	1,837,797	5,477,380	8,372,199	6.67	0	12,037	0	0.00	3.6	1.5	0.0	43,578	0	0	0	0
23	12.8	145,189	1,840,155	5,485,150	8,414,806	6.50	0	12,091	0	0.00	3.6	2.0	0.0	46,552	89,081	0	0	0
24	12.9	145,270	1,844,157	5,493,633	8,455,740	6.3	0	0	0	0.00	3.6	2.0	0.0	44,104	0	0	0	0
25	13.0	145,351	1,848,158	5,502,115	8,496,674	6.17	0	0	0	0.00	3.5	2.0	0.0	44,104	45,006	0	0	0
26	6.7	145,441	1,850,392	5,507,445	8,531,568	5.92	0	0	0	0.00	3.5	2.0	0.0	42,992	84,869	0	0	0
27	7.5	145,441	1,843,131	5,513,564	8,571,058	6.00	0	0	0	0.00	2.7	2.0	0.0	46,465	0	0	0	0
28	13.2	145,563	1,843,131	5,517,930	8,613,208	5.67	0	0	0	0.70	3.5	2.0	0.0	44,158	82,324	0	0	0
29	11.7	145,674	1,865,405	5,517,930	8,656,492	6.67	0	0	0	0.92	2.9	2.1	0.0	45,544	0	0	0	0
30	11.0	145,764	1,919,104	5,524,210	8,695,328	8.67	0	12,029	0	0.00	3.6	2.2	0.0	45,628	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 XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

**TABLE 3. 2005 MONTHLY LEACHATE BALANCE SUMMARY  
SOUTHEAST COUNTY LANDFILL  
HILLSBOROUGH COUNTY, FLORIDA**

Month	Rainfall (in.)	Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 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	3.12	0	26,407	1,170,350	114,332	26,213	1,165,300	0	0	1,025,621	1,196,757	1,305,845	-109,088
February	2.78	0	24,928	1,015,209	114,369	94,365	1,085,800	0	0	959,407	1,040,137	1,294,534	-254,397
March	6.32	0	24,262	1,125,629	246,830	82,172	975,500	0	0	921,043	1,149,891	1,304,502	-154,611
April	3.23	0	20,469	1,241,219	331,471	224,232	913,400	0	0	973,733	1,261,688	1,469,103	-207,415
May	6.07	0	23,126	1,242,278	271,030	14,069	1,123,900	0	0	827,998	1,265,404	1,408,999	-143,595
June	12.28	0	31,659	1,277,668	840,324	12,793	437,100	29,977	0	491,117	1,309,327	1,290,217	19,110
July	7.34	0	29,238	1,393,566	920,060	76,183	593,000	90,431	0	555,210	1,422,804	1,589,243	-166,439
August	7.90	0	28,229	1,393,583	553,165	97,492	972,500	78,578	0	886,950	1,421,812	1,623,157	-201,345
September	4.61	0	28,571	1,295,205	300,775	25,099	1,177,700	658,478	0	285,904	1,323,776	1,503,574	-179,798
October	5.82	0	148,523	1,270,712	470,826	56,313	1,015,200	229,377	0	1,074,803	1,419,235	1,542,339	-123,104
November	3.21	0	164,146	1,227,174	252,962	22,885	1,324,900	0	0	1,109,585	1,391,320	1,600,747	-209,427
December													
YTD Total	62.68	0	549,558	13,652,593	4,416,144	731,816	10,784,300	1,086,841	0	9,111,371	14,202,151	15,932,260	-1,730,109

projects\balance\2005\2005-summary.xls (Revised by ler 12/23/05)

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.

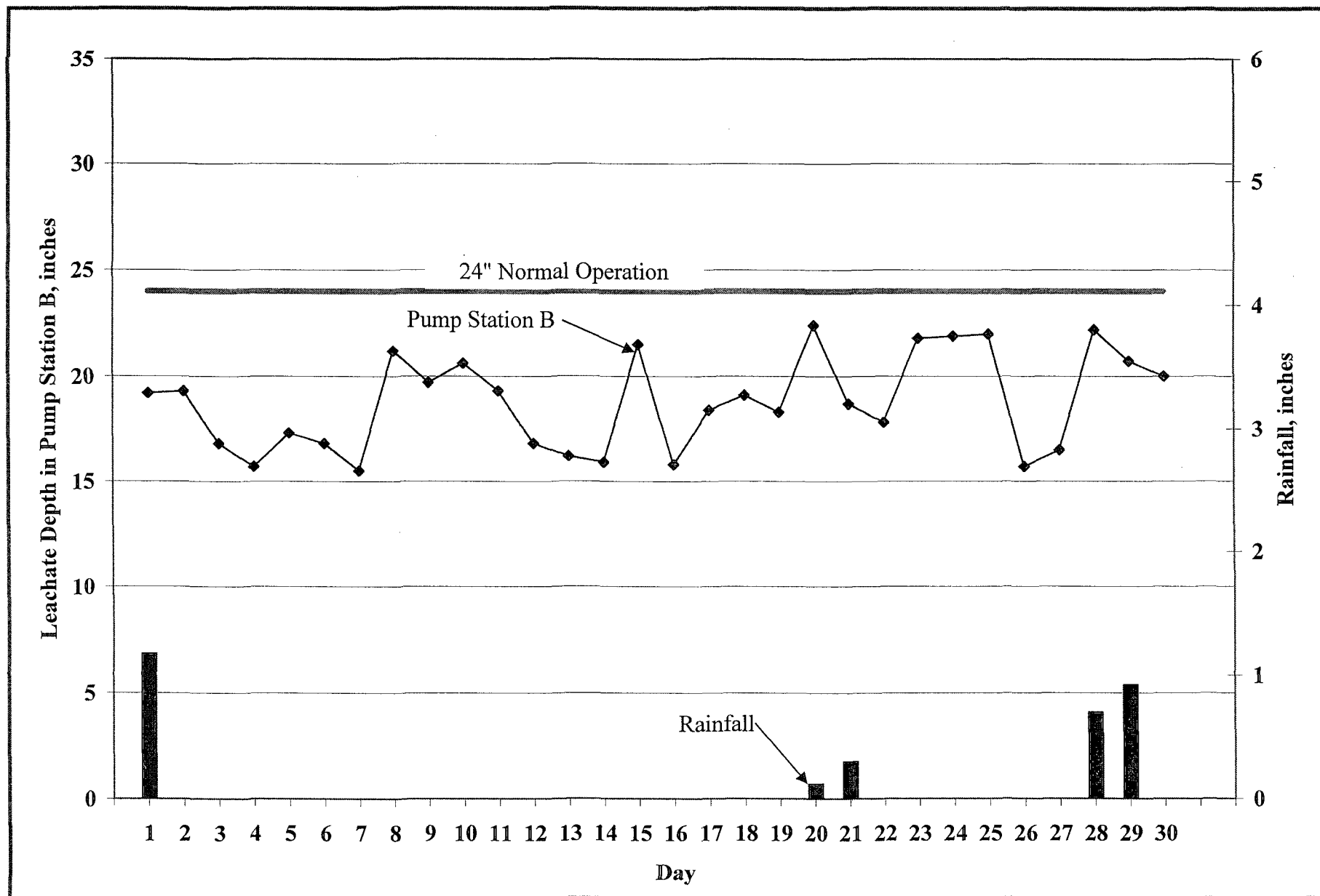


Figure 1. Leachate Levels in Pump Station B and Rainfall for November 2005.

**LEACHATE DEPTH/SUMMARY DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) November, 2005

Date	TPS-6		Depth <sup>1</sup> in Pond B (feet)	Pump <sup>2</sup> Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	8,380	0.00	10.2	41,282	2,709	242	11'5"	0	6,072	0	1.17
2	0.0	7,480	0.00	10.3	44,244	17,462	255	12'7"	0	12,052	0	0.00
3	0.0	7,140	0.00	7.8	35,240	23,444	185	12'7"	0	24,075	0	0.00
4	0.0	8,990	0.00	6.7	37,935	625	280	12'1"	0	18,057	0	0.00
5	0.0	9,790	0.00	8.3	40,917	2,588	156	11'5"	0	24,077	0	0.00
6	0.0	7,910	0.00	7.8	40,341	2,683	0	11'0"	0	0	0	0.00
7	0.0	8,890	0.00	6.5	41,004	2,983	336	11'2"	0	12,033	9,292	0.00
8	0.0	8,940	0.00	12.2	39,057	7,381	174	10'4"	0	12,035	3,042	0.00
9	0.0	7,570	0.00	10.7	40,632	4,518	173	10'0"	0	18,092	0	0.00
10	0.0	8,830	0.00	11.6	41,848	2,397	121	9'3"	0	12,033	3,015	0.00
11	0.0	8,830	0.00	10.3	43,511	2,407	161	8'9"	0	18,047	0	0.00
12	0.0	8,430	0.00	7.8	40,508	0	140	8'5"	0	0	0	0.00
13	0.0	7,560	0.00	7.2	38,241	2,755	0	8'5"	0	0	0	0.00
14	0.0	8,450	0.00	6.9	38,311	0	274	8'4"	0	12,031	0	0.00
15	0.0	8,840	0.00	12.5	38,855	0	183	8'0"	0	18,052	0	0.00
16	0.0	7,160	0.00	6.8	42,558	2,767	93	7'3"	0	12,034	5,021	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_

Prepared by: Raymond C. Jones

Revised Jan. 16, 2004

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**LEACHATE DEPTH/SUMMARY DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) November, 2005

Date	TPS-6		Depth <sup>1</sup> in Pond B (feet)	Pump <sup>2</sup> Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	8,480	0.00	9.4	41,561	0	114	6'9"	0	0	0	0.00
18	0.0	8,690	0.00	10.1	40,677	2,795	119	6'10"	0	12,056	2,515	0.00
19	0.0	9,811	0.00	9.3	42,224	0	0	6'7"	0	0	0	0.00
20	0.0	9,235	0.00	13.4	41,501	0	0	6'10"	0	0	0	0.12
21	0.0	8,514	0.00	9.7	46,796	0	38	6'8"	0	6,059	0	0.30
22	0.0	7,470	0.00	8.8	46,794	2,521	124	6'8"	0	12,037	0	0.00
23	0.0	7,770	0.00	12.8	42,607	2,358	111	6'6"	0	12,091	0	0.00
24	0.0	NR	0.00	NR	NR	NR	NR	NR	0	0	0	0.00
25	0.0	16,965	0.00	13.0	81,868	8,003	162	6'2"	0	0	0	0.00
26	0.0	5,330	0.00	6.7	34,894	2,234	93	5'11"	0	0	0	0.00
27	0.0	6,119	0.00	7.5	39,490	7,261	0	6'0"	0	0	0	0.00
28	0.0	4,366	0.00	13.2	42,150	0	122	5'8"	0	0	0	0.70
29	0.0	0	0.00	11.7	43,284	22,274	111	6'8"	0	0	0	0.92
30	0.0	6,280	0.00	11.0	38,836	53,699	90	8'8"	0	12,029	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Prepared by: \_\_\_\_\_

*Raymond C Brown*

Revised Jan. 16, 2004

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**EFFLUENT DEPTH/QUANTITIES DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year)

November, 2005

Date	Depth in Pond A <sup>1</sup>  (feet)	Depth in Pond B <sup>2</sup>  (feet)	Pond B Leak Detection <sup>3</sup> (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent <sup>4</sup> Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	2.10	0.00	0	44,752	0		0	0				
18	2.90	0.00	0	44,733	82,225		0	0				N
19	2.10	0.00	0	46,255	0		0	0				
20	3.00	0.00	0	44,715	0		0	0				
21	3.60	0.90	0	46,216	0		0	0				
22	3.60	1.50	0	43,578	0		0	0				
23	3.60	2.00	0	46,552	89,081		0	0				N
24	NR	NR	0	44,104	0		0	0				
25	3.50	2.00	0	44,104	45,006		0	0				N
26	3.50	2.00	0	42,992	84,869		0	0				N
27	2.70	2.00	0	46,465	0		0	0				
28	3.50	2.00	0	44,158	82,324		0	0				N
29	2.90	2.10	0	45,544	0		0	0				
30	3.60	2.20	0	45,628	0		0	0				

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments:

Prepared by:

*Raymond C. Arnes*

**EFFLUENT DEPTH/QUANTITIES DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) November, 2005

Date	Depth in Pond A <sup>1</sup> (feet)	Depth in Pond B <sup>2</sup> (feet)	Pond B Leak Detection <sup>3</sup> (gallons)	Leachate Treated (gallons)	Treated Effluent					Time at End of Rainfall	Effluent <sup>4</sup> Runoff to Retention Area (Y/N)	
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)			Effluent Stored (gallons)
							Contractor (gallons)	County (gallons)				
1	2.70	0.00	0	38,111	70,689		0	0			N	
2	2.00	1.00	0	35,294	0		0	0				
3	2.80	1.10	0	40,193	0		0	0				
4	3.50	1.10	0	43,345	83,561		0	0			N	
5	2.80	1.10	0	43,841	77,091		0	0			N	
6	2.50	0.80	0	43,716	0		0	0				
7	3.20	0.80	0	47,053	79,143		0	0			N	
8	2.60	0.80	0	43,837	54,686		0	0			N	
9	2.40	0.80	0	45,370	50,229		0	0			N	
10	2.30	0.80	0	43,816	57,163		0	0			N	
11	2.00	0.80	0	44,654	0		0	0				
12	2.80	0.80	0	45,089	62,152		0	0			N	
13	2.40	0.80	0	44,156	0		0	0				
14	3.30	0.80	0	46,651	65,779		0	0			N	
15	2.80	0.80	0	44,633	49,208		0	0			N	
16	2.70	0.00	0	45,248	76,379		0	0			N	

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

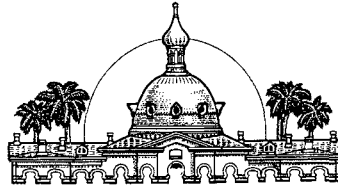
(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Prepared by: Raymond Jones



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

BOARD OF COUNTY COMMISSIONERS

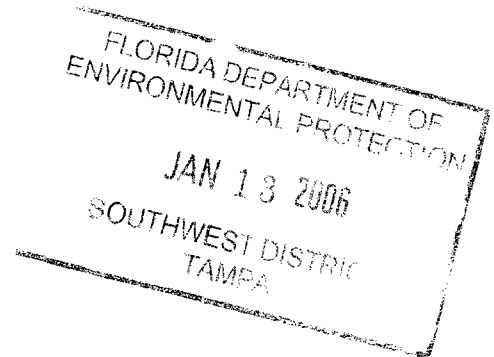
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December 2, 2005

Ms. Susan J. Pelz, P.E.  
Solid Waste Permitting  
Florida Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619



RE: Southeast County Landfill –October 2005 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 Form for the month of October 2005. In addition, the SWMD is providing the October 2005 field data forms for the Landfill, the daily leachate and collection system evaluation reports and the Year-to-Date Leachate Balance Summary.

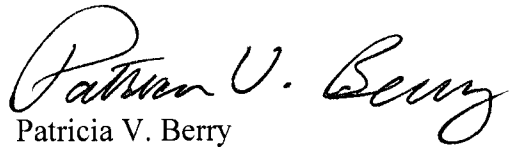
This information is being provided to the Florida Department of Environmental Protection (DEP) and the Hillsborough County Environmental Protection Commission as part of the quarterly Leachate Water Balance report on the Landfill leachate management efforts in accordance with Permit No. 35435-006-SO, Specific Condition No. 16.

As initiated with the April 1996 report, the Landfill leachate information for October 2005 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. The average depth of leachate in the PS-B sump for the recorded days in October 2005 was 16.3 inches.

Ms. Susan J. Pelz  
December 2, 2005  
Page Two

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

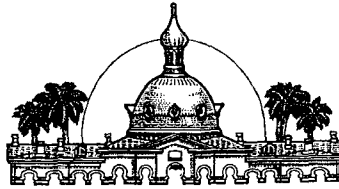
Sincerely,

A handwritten signature in black ink, reading "Patricia V. Berry". The signature is fluid and cursive, with the first name "Patricia" being more prominent and the last name "Berry" following in a similar style.

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

Attachments

glfs/lea1005.dep



Hillsborough County  
Florida

Office of the County Administrator  
Patricia G. Bean

MEMORANDUM

BOARD OF COUNTY COMMISSIONERS

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DATE: November 28, 2005

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

FROM: Larry Ruiz, General Manager, Solid Waste Management Department *LR*  
Raymond Graves, Eng. Tech. II, Solid Waste Management Department

SUBJECT: Leachate Water Balance Report Forms for October 2005  
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 and Section 7 of the Capacity Expansion for October 2005. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2005 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in the Pump Station B sump 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 5.8 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 the existing 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 average depth of effluent stored in Pond A was 3.1 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 average depth of effluent stored in Pond B was 2.3 feet.

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

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. PS-B was below the normal operation level of 24 inches. The average depth of leachate in the PS-B sump for the recorded days was 16.3 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 MLPS from Phases I-VI (Column VII). The average daily amount of leachate pumped from TPS-6 was 7,902 gallons. A total of 244,950 gallons was pumped from TPS-6 to PS-B 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 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 40,991 gallons. A total of 1,270,712 gallons of leachate was pumped to the storage tank this month.

**Leachate Pumped from Section 7 Leak Detection System (Column VIII)**

Column VIII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7 and 8. The quantity is measured by a flow meter before being pumped back into the Section 7 sump for removal with Section 7 leachate. As stated in the Leachate Balance Report for September, due to the liner installation of Section 8, on September 26, the LDS was cut open on the northern perimeter of Section 7 to begin connecting both LDS. On October 12 and 13, the LDS was resealed and vacuum tested, respectively. During that time, stormwater intrusion into the LDS contributed to the high volume removed before October 12, 2005. The high volume removed through that time

is a good indication that the LDS is functioning and has no obstructions. Since the LDS was resealed, our current leakage action rate of 1,250 gallons per day has not been exceeded. This month a total of 39,845 gallons of leachate was removed from the leak detection system of Sections 7 and 8.

**Leachate Pumped to MLPS from Section 7 (Column IX)**

Column IX presents the quantity of leachate collected at Section 7 and pumped to the MLPS. Normally the quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Section 7 (Column VIII). This month 148,523 gallons of leachate was pumped to the MLPS from Section 7. The high rate of removal for this month was due to the LCRS installation of Section 8. In order to connect the LCRS of Sections 7 and 8, the northern cleanouts for Section 7 were uncapped and cut at the trench flow level thereby allowing stormwater from Section 8 to enter the LCRS of Section 7. On October 26, 2005, additional air plugs were installed at these locations to minimize stormwater intrusion from Section 8 into Section 7.

**Total Leachate Pumped to LTRF (Column X)**

Column X presents the total quantity of leachate pumped to the LTRF through the MLPS from Phases I-VI and from Section 7. This month a total of 1,419,235 gallons of leachate was pumped from Phases I-VI and Section 7.

**Leachate in 575,000-Gallon Tank (Column XI)**

Column XI 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. The average daily amount of leachate stored in the tank this month was estimated at 335,500 gallons.

**Leachate Treated at LTRF (Column XII)**

Column XII presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 1,015,200 gallons of leachate was treated at the LTRF.

**Total Leachate Hauled (Column XIII)**

Column XIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 470,826 gallons of leachate was hauled off site.



**Leachate Dust Control (Sprayed) (Column XIV)**

Column XIV 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 Phases I-VI. This month a total of 56,313 gallons of leachate was used for dust control.

**Pond A Storage (Column XV)**

Column XV 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). The volume is estimated using AutoCAD software and is based on the cross-sectional area of the pond at varying depths. 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 117,200 gallons of effluent was stored in Pond A.

**Pond B Storage (Column XVI)**

Column XVI 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). The volume of the pond at varying depths is estimated using AutoCAD software and calculations based on the conic method for reservoir volumes. Under normal operating conditions, the daily amount of effluent 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 140,300 gallons of effluent was stored in Pond B.

**Effluent Sprayed at Pond B (Column XVII)**

Column XVII 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. No effluent was sprayed at Pond B this month.

**Effluent Irrigation (Column XVIII)**

Column XVIII 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 1,074,803 gallons of effluent was used as spray irrigation.

**Effluent Dust Control (Sprayed) (Column XIX)**

Column XIX 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 no effluent was sprayed as dust control.

**Total Effluent Hauled (Column XX)**

Column XX 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 229,377 gallons of leachate was hauled off site.

**Total Evaporation (Column XXI)**

Column XXI presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or require treatment. The landfill evaporation rate includes 80 percent of the daily values from Columns XIV, XVIII, and XIX plus 5 percent of the daily values from Column XVII. Evaporation rates of 80 percent (based on the HELP model water balance analysis for the site) and 5 percent evaporation rate for spray in Pond B are assumed. The total evaporation estimated for this month was 905,200 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 1,419,235 gallons. Total outflow quantity from the LTRF (hauled and evaporated) was 1,542,339 gallons. The change in storage for the month of October decreased by 123,104 gallons.

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

**TABLE 1. LEACHATE WATER BALANCE REPORT FORM**  
**OCTOBER 2005**  
**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
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (in.)	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 Leak Detection (gal.)	Leachate Pumped to MLPS from Section 7 (gal.)	Total Leachate Pumped to LTRF (gal.)	Leachate in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	3.4	3.5	15.4	9,231	41,140	5,550	5,778	46,918	240,000	39,600	0	0	129,000	223,000	0	0	0	18,110	0
2	0.10	3.6	3.7	15.8	3,999	38,841	1,393	0	38,841	250,000	40,000	0	0	145,000	245,000	0	0	0	0	0
3	0.00	3.5	4.0	16.7	9,340	41,526	0	2,479	44,005	250,000	41,900	12,032	0	140,000	267,000	0	0	0	30,185	0
4	0.18	3.6	4.1	19.5	9,240	42,195	3,391	0	42,195	247,000	51,700	6,016	2,996	145,000	267,000	0	0	0	0	2,400
5	0.00	3.6	4.3	18.2	9,150	47,447	346	0	47,447	266,000	23,200	6,019	3,000	145,000	267,000	0	51,663	0	18,116	43,700
6	0.90	2.4	4.3	18.0	10,290	49,304	1,130	2,871	52,175	302,000	17,800	0	7,007	79,000	267,000	0	39,080	0	18,114	36,900
7	0.35	3.2	3.8	15.7	8,330	47,173	1,045	0	47,173	324,000	20,600	6,024	0	118,000	256,000	0	0	0	54,309	0
8	0.38	3.0	3.6	15.6	7,800	46,214	1,873	5,298	51,512	362,000	19,100	0	0	108,000	234,000	0	0	0	66,394	0
9	0.07	3.3	3.3	15.5	7,799	42,857	4,861	0	42,857	396,000	21,300	0	0	123,000	202,000	0	0	0	0	0
10	0.00	3.3	3.3	15.4	6,671	42,080	0	2,605	44,685	425,000	21,000	24,309	0	123,000	202,000	0	0	0	24,149	0
11	0.00	3.4	3.3	15.5	8,000	41,120	9,074	2,720	43,840	417,000	19,300	48,491	0	129,000	202,000	0	50,589	0	0	40,500
12	0.00	3.4	2.9	15.4	8,820	42,688	670	5	42,693	403,000	20,600	42,167	0	129,000	162,000	0	65,217	0	0	52,200
13	0.06	3.4	2.5	15.5	8,360	41,158	1,104	2,653	43,811	394,000	22,800	18,109	0	129,000	124,000	0	24,712	0	0	19,800
14	0.00	3.6	2.8	15.5	3,200	40,504	1,245	0	40,504	336,000	65,300	48,082	0	145,000	152,000	0	76,696	0	0	61,400
15	0.00	3.5	2.4	15.4	8,290	40,810	909	0	40,810	317,000	32,500	24,082	0	140,000	115,000	0	77,027	0	0	61,600
16	0.00	3.1	2.0	21.3	8,813	41,575	790	2,533	44,108	326,000	27,000	0	0	113,000	80,000	0	0	0	0	0
17	0.00	3.6	2.2	15.4	8,247	40,150	0	5	40,155	324,000	45,000	42,086	8,585	145,000	97,000	0	79,731	0	0	70,700
18	0.00	3.0	1.9	15.5	8,020	39,425	1,150	0	39,425	309,000	21,200	12,096	4,041	108,000	72,000	0	62,448	0	0	53,200
19	0.00	3.3	1.2	15.8	8,020	39,057	1,053	2,539	41,596	309,000	21,900	12,206	8,077	123,000	28,000	0	61,662	0	0	55,800
20	0.00	3.0	0.0	15.9	8,650	39,127	412	11	39,138	322,000	23,000	12,042	4,044	108,000	0	0	87,025	0	0	72,900
21	0.00	2.0	0.0	15.6	8,990	40,787	374	0	40,787	307,000	38,200	12,039	0	61,000	0	0	47,862	0	0	38,300
22	0.32	1.8	0.0	15.8	9,590	42,792	354	0	42,792	297,000	38,700	24,069	0	52,000	0	0	47,998	0	0	38,400
23	1.03	1.5	0.8	15.8	7,952	47,606	8	8,780	56,386	305,000	39,000	0	0	40,000	12,000	0	0	0	0	0
24	2.43	2.8	1.4	16.0	10,638	57,470	673	27,123	84,593	372,000	37,900	0	0	98,000	38,000	0	0	0	0	0
25	0.00	3.2	1.4	15.7	4,660	30,725	275	24,282	55,007	403,000	37,900	18,305	0	118,000	38,000	0	0	0	0	0
26	0.00	3.6	1.6	15.3	5,050	33,818	632	23,747	57,565	401,000	38,900	18,157	0	145,000	51,000	0	0	0	0	0
27	0.00	3.6	2.0	16.8	4,550	31,472	464	13,680	45,152	396,000	25,200	24,218	6,123	145,000	80,000	0	80,967	0	0	69,700
28	0.00	3.1	1.8	16.1	8,240	35,582	288	8,023	43,605	374,000	48,000	18,109	6,368	113,000	64,000	0	77,785	0	0	67,300
29	0.00	3.0	1.2	18.6	8,150	36,229	324	7,972	44,201	353,000	37,600	24,099	0	108,000	28,000	0	71,575	0	0	57,300
30	0.00	2.6	0.9	18.6	6,877	34,734	0	2,672	37,406	345,000	39,600	0	0	88,000	15,000	0	0	0	0	0
31	0.00	3.5	0.0	15.5	9,983	35,106	457	2,747	37,853	329,000	39,400	18,069	6,072	140,000	0	0	72,766	0	0	63,100
Total	5.82				244,950	1,270,712	39,845	148,523	1,419,235		1,015,200	470,826	56,313				1,074,803	0	229,377	905,200
Daily Average		3.1	2.3	16.3	7,902	40,991	1,285	4,791	45,782	335,500				117,200	140,300	0				
Mo. Average													1,800				34,700	0	7,400	29,200

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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 leak detection pumped into Section 7 leachate sump riser.
9. Column XI, calculated from depth in 575,000 gal. leachate tank.
10. Columns VI, VII, VIII, IX, XII, XIII, XIV, XVIII, and XIX, quantities from flow meters.
11. Column XXI includes 80% of the daily values from Columns XIV, XVIII, and XIX plus 5% of the daily values from column XVII.

**TABLE 2. FIELD DATA ENTRY FORM  
OCTOBER 2005  
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
Day	Reading PS-B (in.)	Sections 7-8 Leak Det (gal.)	Section 7 Flow Meter (gal.)	Flow Meter TPS-6 (gal.)	Flow Meter Pump Sta. A (gal.)	Depth in 575K Tank (ft.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Effluent Sprayed (Pond B) (gal.)	Leachate Treated at LTRF (gal.)	Effluent Irrigation (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
							Contractor (gal.)	County (gal.)								Contractor (gal.)	County (gal.)	
1	6.4	107,415	1,612,213	5,056,291	6,238,582	8.33	0	0	0	0.00	3.4	3.5	0	39,582	0	18,110	0	0
2	6.8	108,808	1,612,213	5,060,290	6,277,423	8.67	0	0	0	0.10	3.6	3.7	0.0	39,952	0	0	0	0
3	7.7	108,808	1,614,692	5,069,630	6,318,949	8.67	0	12,032	0	0.00	3.5	4.0	0.0	41,905	0	30,185	0	0
4	10.5	112,199	1,614,692	5,078,870	6,361,144	8.58	0	6,016	2,996	0.18	3.6	4.1	0.0	51,653	0	0	0	0
5	9.2	112,545	1,614,692	5,088,020	6,408,591	9.25	0	6,019	3,000	0.00	3.6	4.3	0.0	23,246	51,663	18,116	0	0
6	9.0	113,675	1,617,563	5,098,310	6,457,895	10.50	0	0	7,007	0.90	2.4	4.3	0.0	17,794	39,080	6,040	12,074	0
7	6.7	114,720	1,617,563	5,106,640	6,505,068	11.25	0	6,024	0	0.35	3.2	3.8	0.0	20,576	0	42,242	12,067	0
8	6.6	116,593	1,622,861	5,114,440	6,551,282	12.58	0	0	0	0.38	3.0	3.6	0.0	19,084	0	42,257	24,137	0
9	6.5	121,454	1,622,861	5,122,239	6,594,139	13.75	0	0	0	0.07	3.3	3.3	0.0	21,266	0	0	0	0
10	6.4	121,454	1,625,466	5,128,910	6,636,219	14.75	12,202	12,107	0	0.00	3.3	3.3	0.0	21,001	0	24,149	0	0
11	6.5	130,528	1,628,186	5,136,910	6,677,339	14.50	36,098	12,393	0	0.00	3.4	3.3	0.0	19,332	50,589	0	0	0
12	6.4	131,198	1,628,191	5,145,730	6,720,027	14.00	30,053	12,114	0	0.00	3.4	2.9	0.0	20,640	65,217	0	0	0
13	6.5	132,302	1,630,844	5,154,090	6,761,185	13.67	0	18,109	0	0.06	3.4	2.5	0.0	22,799	24,712	0	0	0
14	6.5	133,547	1,630,844	5,157,290	6,801,689	11.67	36,037	12,045	0	0.00	3.6	2.8	0.0	65,310	76,696	0	0	0
15	6.4	134,456	1,630,844	5,165,580	6,842,499	11.00	0	24,082	0	0.00	3.5	2.4	0.0	32,490	77,027	0	0	0
16	12.3	135,246	1,633,377	5,174,393	6,884,074	11.33	0	0	0	0.00	3.1	2.0	0.0	27,026	0	0	0	0
17	6.4	135,246	1,633,382	5,182,640	6,924,224	11.25	36,065	6,021	8,585	0.00	3.6	2.2	0.0	44,996	79,731	0	0	0
18	6.5	136,396	1,633,382	5,190,660	6,963,649	10.75	0	12,096	4,041	0.00	3.0	1.9	0.0	21,243	62,448	0	0	0
19	6.8	137,449	1,635,921	5,198,680	7,002,706	10.75	0	12,206	8,077	0.00	3.3	1.2	0.0	21,890	61,662	0	0	0
20	6.9	137,861	1,635,932	5,207,330	7,041,833	11.17	0	12,042	4,044	0.00	3.0	0.0	0.0	23,006	87,025	0	0	0
21	6.6	138,235	1,635,932	5,216,320	7,082,620	10.67	0	12,039	0	0.00	2.0	0.0	0.0	38,243	47,862	0	0	0
22	6.8	138,589	1,635,932	5,225,910	7,125,412	10.33	0	24,069	0	0.32	1.8	0.0	0.0	38,707	47,998	0	0	0
23	6.8	138,597	1,644,712	5,233,862	7,173,018	10.58	0	0	0	1.03	1.5	0.8	0.0	39,017	0	0	0	0
24	7.0	139,270	1,671,835	5,244,500	7,230,488	12.92	0	0	0	2.43	2.8	1.4	0.0	37,866	0	0	0	0
25	6.7	139,545	1,696,117	5,249,160	7,261,213	14.00	0	18,305	0	0.00	3.2	1.4	0.0	37,866	0	0	0	0
26	6.3	140,177	1,719,864	5,254,210	7,295,031	13.92	0	18,157	0	0.00	3.6	1.6	0.0	38,920	0	0	0	0
27	7.8	140,641	1,733,544	5,258,760	7,326,503	13.75	0	24,218	6,123	0.00	3.6	2.0	0.0	25,162	80,967	0	0	0
28	7.1	140,929	1,741,567	5,267,000	7,362,085	13.00	0	18,109	6,368	0.00	3.1	1.8	0.0	47,954	77,785	0	0	0
29	9.6	141,253	1,749,539	5,275,150	7,398,314	12.25	0	24,099	0	0.00	3.0	1.2	0.0	37,586	71,575	0	0	0
30	9.6	141,253	1,752,211	5,282,027	7,433,048	12.00	0	0	0	0.00	2.6	0.90	0.0	39,591	0	0	0	0
31	6.5	141,710	1,754,958	5,292,010	7,468,154	11.42	0	18,069	6,072	0.00	3.5	0.0	0.0	39,383	72,766	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 XI, trace is less than 0.01 inches.
5. Columns III, IV, V, VI, VIII, IX, X, XIV, XV, XVI, XVII and XVIII are quantities from flow meters.
6. Columns XII and XIII measured from staff gages in each pond.

Type of Cover	Phases I-VI acres	Section 7 acres
Open	6	0
Intermediate	133.4	12.5
Final	23	0
Not Opened	0	0

**TABLE 3. 2005 MONTHLY LEACHATE BALANCE SUMMARY  
SOUTHEAST COUNTY LANDFILL  
HILLSBOROUGH COUNTY, FLORIDA**

Month	Rainfall (in.)	Leachate Arriving at LTRF			Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Leachate Hauled to LTRF from HHLF/TRLF (gal.)	Leachate from Section 7 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	3.12	0	26,407	1,170,350	114,332	26,213	1,165,300	0	0	1,025,621	1,196,757	1,305,845	-109,088
February	2.78	0	24,928	1,015,209	114,369	94,365	1,085,800	0	0	959,407	1,040,137	1,294,534	-254,397
March	6.32	0	24,262	1,125,629	246,830	82,172	975,500	0	0	921,043	1,149,891	1,304,502	-154,611
April	3.23	0	20,469	1,241,219	331,471	224,232	913,400	0	0	973,733	1,261,688	1,469,103	-207,415
May	6.07	0	23,126	1,242,278	271,030	14,069	1,123,900	0	0	827,998	1,265,404	1,408,999	-143,595
June	12.28	0	31,659	1,277,668	840,324	12,793	437,100	29,977	0	491,117	1,309,327	1,290,217	19,110
July	7.34	0	29,238	1,393,566	920,060	76,183	593,000	90,431	0	555,210	1,422,804	1,589,243	-166,439
August	7.90	0	28,229	1,393,583	553,165	97,492	972,500	78,578	0	886,950	1,421,812	1,623,157	-201,345
September	4.61	0	28,571	1,295,205	300,775	25,099	1,177,700	658,478	0	285,904	1,323,776	1,503,574	-179,798
October	5.82	0	148,523	1,270,712	470,826	56,313	1,015,200	229,377	0	1,074,803	1,419,235	1,542,339	-123,104
November													
December													
YTD Total	59.47	0	385,412	12,425,419	4,163,182	708,931	9,459,400	1,086,841	0	8,001,786	12,810,831	14,331,513	-1,520,682

projects\balance\2005\2005-summary.xls (Revised by ler 11/23/05)

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.

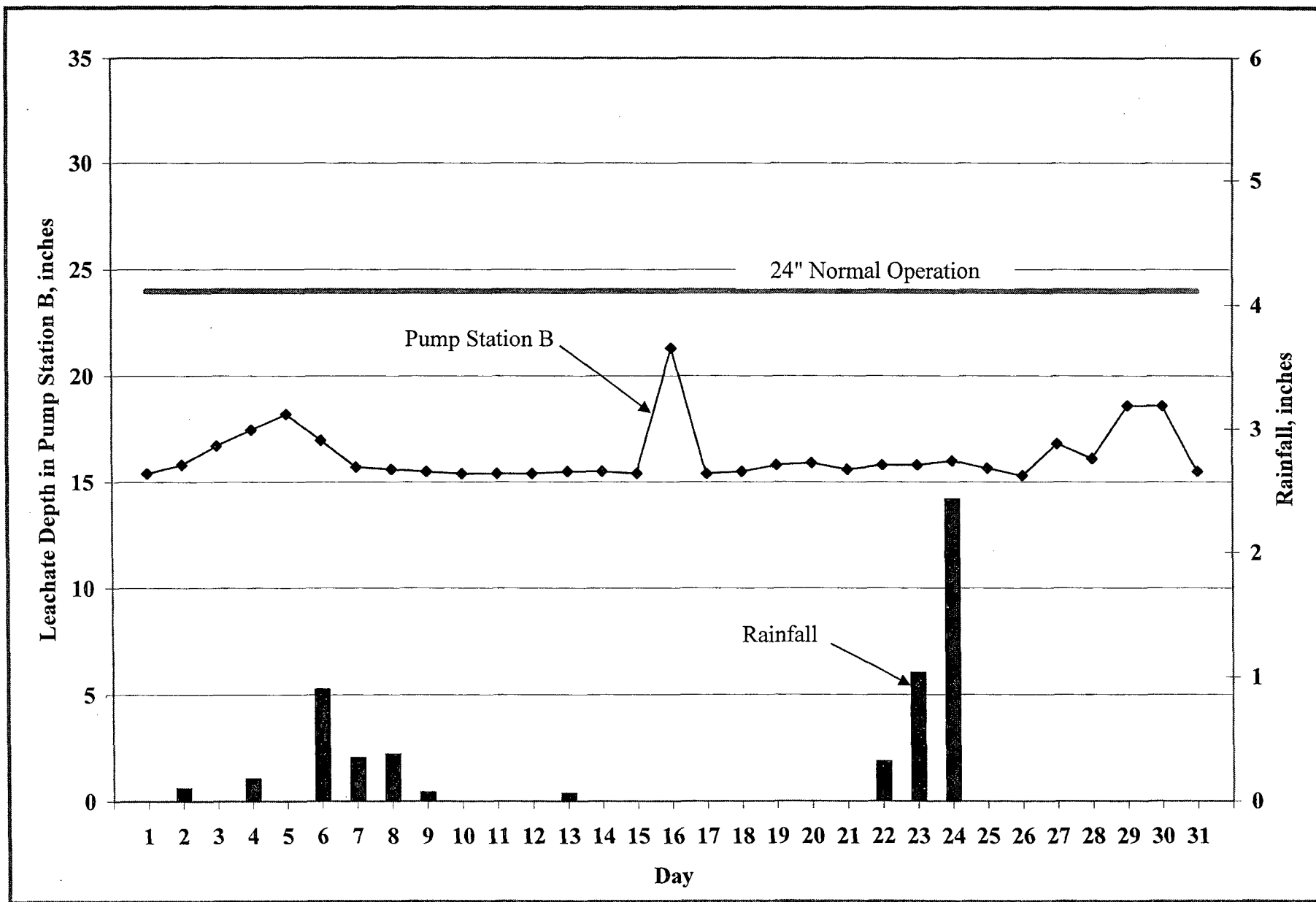


Figure 1. Leachate Levels in Pump Station B and Rainfall for October 2005.

**LEACHATE / EFFLUENT DISPOSAL LOCATION FORM**  
**SOUTHEAST COUNTY LANDFILL**  
**OCTOBER 2005**

Date	Contractor Hauled				County Hauled			
	Valrico Plant		Falkenburg Plant		Valrico Plant		Falkenburg Plant	
	Leachate	Effluent	Leachate	Effluent	Leachate	Effluent	Leachate	Effluent
1	0	0	0	18,110	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	30,185	12,032	0	0	0
4	0	0	0	0	6,016	0	0	0
5	0	0	0	18,116	6,019	0	0	0
6	0	0	0	6,040	0	12,074	0	0
7	0	0	0	42,242	6,024	12,067	0	0
8	0	0	0	42,257	0	24,137	0	0
9	0	0	0	0	0	0	0	0
10	0	0	12,202	24,149	12,107	0	0	0
11	0	0	36,098	0	12,393	0	0	0
12	0	0	30,053	0	12,114	0	0	0
13	0	0	0	0	18,109	0	0	0
14	0	0	36,037	0	12,045	0	0	0
15	0	0	0	0	24,082	0	0	0
16	0	0	0	0	0	0	0	0
17	0	0	36,065	0	6,021	0	0	0
18	0	0	0	0	12,096	0	0	0
19	0	0	0	0	12,206	0	0	0
20	0	0	0	0	12,042	0	0	0
21	0	0	0	0	12,039	0	0	0
22	0	0	0	0	24,069	0	0	0
23	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0
25	0	0	0	0	18,305	0	0	0
26	0	0	0	0	18,157	0	0	0
27	0	0	0	0	24,218	0	0	0
28	0	0	0	0	18,109	0	0	0
29	0	0	0	0	24,099	0	0	0
30	0	0	0	0	0	0	0	0
31	0	0	0	0	18,069	0	0	0
Grand Total	0	0	150,455	181,099	320,371	48,278	0	0

**LEACHATE DUST CONTROL/EVAPORATION**  
**SOUTHEAST COUNTY LANDFILL**

Date	A.M	P.M	Total
10/1/2005	0	0	0
10/2/2005	0	0	0
10/3/2005	0	0	0
10/4/2005	2,996	0	2,996
10/5/2005	3,000	0	3,000
10/6/2005	2,999	4,008	7,007
10/7/2005	0	0	0
10/8/2005	0	0	0
10/9/2005	0	0	0
10/10/2005	0	0	0
10/11/2005	0	0	0
10/12/2005	0	0	0
10/13/2005	0	0	0
10/14/2005	0	0	0
10/15/2005	0	0	0
10/16/2005	0	0	0
10/17/2005	4,513	4,072	8,585
10/18/2005	4,041	0	4,041
10/19/2005	4,024	4,053	8,077
10/20/2005	4,044	0	4,044
10/21/2005	0	0	0
10/22/2005	0	0	0
10/23/2005	0	0	0
10/24/2005	0	0	0
10/25/2005	0	0	0
10/26/2005	0	0	0
10/27/2005	3,078	3,045	6,123
10/28/2005	3,056	3,312	6,368
10/29/2005	0	0	0
10/30/2005	0	0	0
10/31/2005	3,035	3,037	6,072
TOTAL			56,313



**LEACHATE DEPTH/SUMMARY DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) October, 2005

Date	TPS-6		Depth <sup>1</sup> in Pond B (feet)	Pump <sup>2</sup> Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
1	0.0	9,231	0.00	6.4	41,140	5,778	5,550	8'4"	0	0	0	0.00
2	0.0	3,999	0.00	6.8	38,841	0	1,393	8'8"	0	0	0	0.10
3	0.0	9,340	0.00	7.7	41,526	2,474	0	8'8"	0	12,032	0	0.00
4	0.0	9,240	0.00	10.5	42,195	0	3,391	8'7"	0	6,016	2,996	0.18
5	0.0	9,150	0.00	9.2	47,447	0	346	9'3"	0	6,019	3,000	0.00
6	0.0	10,290	0.00	9.0	49,304	2,871	1,130	10'6"	0	0	7,007	0.90
7	0.0	8,330	0.00	6.7	47,173	0	1,045	11'3"	0	6,024	0	0.35
8	0.0	7,800	0.00	6.6	46,214	5,298	1,873	12'7"	0	0	0	0.38
9	0.0	7,799	0.00	6.5	42,857	0	4,861	13'9"	0	0	0	0.07
10	0.0	6,520	0.00	6.4	42,080	2,602	0	14'9"	12,202	12,107	0	0.00
11	0.0	8,000	0.00	6.5	41,120	2,720	9,074	14'6"	36,098	12,393	0	0.00
12	0.0	8,820	0.00	6.4	42,688	5	670	14'0"	30,053	12,114	0	0.00
13	0.0	8,360	0.00	6.5	41,158	2,653	1,104	13'8"	0	18,109	0	0.06
14	0.0	3,200	0.00	6.5	40,504	0	1,245	11'8"	36,037	12,045	0	0.00
15	0.0	8,290	0.00	6.4	40,810	0	909	11'0"	0	24,082	0	0.00
16	0.0	8,813	0.00	12.3	41,575	2,533	790	11'4"	0	0	0	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_

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Prepared by: Raymond C. Jara

Revised Jan. 16, 2004

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**LEACHATE DEPTH/SUMMARY DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) October, 2005

Date	TPS-6		Depth <sup>1</sup> in Pond B (feet)	Pump <sup>2</sup> Station B (inches)	PS-A Flow Meter (gallons)	Section 7		Depth in 575k Tank (feet)	Leachate Hauled		Leachate Dust Control/ Evap. (gallons)	Rainfall (inches)
	Depth (inches)	Flowmeter (gallons)				Flowmeter (gallons)	Leak Detection (gallons)		Contractor (gallons)	County (gallons)		
17	0.0	8,247	0.00	6.4	40,150	5	0	11'3"	36,065	6,021	8,585	0.00
18	0.0	8,020	0.00	6.5	39,425	0	1,130	10'9"	0	12,096	4,041	0.00
19	0.0	8,020	0.00	6.8	39,057	2,539	1,053	10'9"	0	12,206	8,077	0.00
20	0.0	8,650	0.00	6.9	39,127	11	412	11'2"	0	12,042	4,044	0.00
21	0.0	8,990	0.00	6.6	40,787	0	374	10'8"	0	12,039	0	0.00
22	0.0	9,590	0.00	6.8	42,792	0	354	10'4"	0	24,069	0	0.32
23	0.0	7,952	0.00	6.8	47,606	8,780	8	10'7"	0	0	0	1.03
24	0.0	10,638	0.00	7.0	57,470	27,123	673	12'11"	0	0	0	2.43
25	0.0	4,660	0.00	6.7	30,725	24,282	275	14'0"	0	18,305	0	0.00
26	0.0	5,050	0.00	6.3	33,818	23,747	632	13'11"	0	18,157	0	0.00
27	0.0	4,550	0.00	7.8	31,472	13,680	464	13'9"	0	24,218	6,123	0.00
28	0.0	8,240	0.00	7.1	35,582	8,023	288	13'0"	0	18,109	6,368	0.00
29	0.0	8,150	0.00	9.6	36,229	7,972	324	12'3"	0	24,099	0	0.00
30	0.0	6,877	0.00	9.6	34,734	2,672	0	12'0"	0	0	0	0.00
31	0.0	9,983	0.00	6.5	35,106	2,747	457	11'5"	0	18,069	6,072	0.00

Note: (1) If depth is 3.6 feet or greater, contact Supervisor immediately.

(2) If depth is greater than 24 inches (2.0 feet), contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_  
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 \_\_\_\_\_

Prepared by: Raymond C. Staves

Revised Jan. 16, 2004

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**EFFLUENT DEPTH/QUANTITIES DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year) October, 2005

Date	Depth in Pond A <sup>1</sup>  (feet)	Depth in Pond B <sup>2</sup>  (feet)	Pond B Leak Detection <sup>3</sup>  (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent <sup>4</sup> Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
1	3.40	3.50	0	39,582	0		18,110	0				
2	3.60	3.70	0	39,952	0		0	0				
3	3.50	4.00	0	41,905	0		30,185	0				
4	3.60	4.10	0	51,653	0		0	0				
5	3.60	4.30	0	23,246	51,663		18,116	0				N
6	2.40	4.30	0	17,794	39,080		6,040	12,074				N
7	3.20	3.80	0	20,576	0		42,242	12,067				
8	3.00	3.60	0	19,084	0		42,257	24,137				
9	3.30	3.30	0	21,266	0		0	0				
10	3.30	3.30	0	21,001	0		24,149	0				
11	3.40	3.30	0	19,332	50,589		0	0				N
12	3.40	2.90	0	20,640	65,217		0	0				N
13	3.40	2.50	0	22,799	24,712		0	0				N
14	3.60	2.80	0	65,310	76,696		0	0				N
15	3.50	2.40	0	32,490	77,027		0	0				N
16	3.10	2.00	0	27,026	0		0	0				

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments: \_\_\_\_\_  
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 \_\_\_\_\_

Prepared by: Raymond C. Silva

**EFFLUENT DEPTH/QUANTITIES DATA FORM  
SOUTHEAST COUNTY LANDFILL**

(Month/Year)

October, 2005

Date	Depth in Pond A <sup>1</sup>  (feet)	Depth in Pond B <sup>2</sup>  (feet)	Pond B Leak Detection <sup>3</sup> (gallons)	Leachate Treated (gallons)	Treated Effluent						Time at End of Rainfall	Effluent <sup>4</sup> Runoff to Retention Area (Y/N)
					Spray Irrigated (gallons)	Evaporated at Pond B (gallons)	Hauled		Dust Control/ Evap. (gallons)	Effluent Stored (gallons)		
							Contractor (gallons)	County (gallons)				
17	3.60	2.20	0	44,996	79,731		0	0				N
18	3.00	1.90	0	21,243	62,448		0	0				N
19	3.30	1.20	0	21,890	61,662		0	0				N
20	3.00	0.00	0	23,006	87,025		0	0				N
21	2.00	0.00	0	38,243	47,862		0	0				N
22	1.80	0.00	0	38,707	47,998		0	0				N
23	1.50	0.80	0	39,017	0		0	0				
24	2.80	1.40	0	37,866	0		0	0				
25	3.20	1.40	0	37,866	0		0	0				
26	3.60	1.60	0	38,920	0		0	0				
27	3.60	2.00	0	25,162	80,967		0	0				N
28	3.10	1.80	0	47,954	77,785		0	0				N
29	3.00	1.20	0	37,586	71,575		0	0				N
30	2.60	0.09	0	39,591	0		0	0				
31	3.50	0.00	0	39,383	72,766		0	0				N

Note (1) If depth is 4.5 feet or greater, contact Supervisor immediately.

(2) If depth is 3.6 feet or greater, contact Supervisor immediately.

(3) If rate is higher than 1,500 gallons per day, contact Supervisor immediately.

(4) If yes, contact Supervisor immediately. Complete Evaluation Report Form.

Comments:

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Prepared by:

*Raymond C. Shaw*