

Smith, George

From: Wiesman, Ronald <WiesmanR@hillsboroughcounty.org>
Sent: Thursday, July 15, 2021 2:56 PM
To: Morgan, Steve; SWD_Waste
Cc: Madden, Melissa; Cope, Ronald; Byer, Kimberly; Ruiz, Larry; O'Neill, Joseph; Spradlin, Kollan; Curtis, Bob
Subject: WACS ID 41193 - Qtr. 2 2021 Water Balance & Waste Tire Report for Southeast County
Attachments: 2Q2021 Water Balance Report.pdf; 2Q2021 Waste Tire Report.pdf

Mr. Morgan,

The Quarterly Water Balance and Waste Tire Report for the Southeast County Landfill are attached (WACS ID 41193).

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

Ron Wiesman II

Manager

Solid Waste Management Division
Public Utilities Department

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Hillsborough County

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Hillsborough County Florida

SOLID WASTE MANAGEMENT

PO Box 1110 Tampa, FL 33601-1110
813-272-5680

July 15, 2021

Mr. Steve Morgan
Solid Waste Section
Florida Department of Environmental Protection
Southwest District
13051 N. Telecom Pkwy
Temple Terrace, Florida 33637

RE: Waste Tire Facility Quarterly Report - Permit No. 126787-
007-WT/02

Dear Mr. Morgan:

In accordance with Rule 62-711, F.A.C. and Permit No 126787-007-WT/02, the Solid Waste Management Division (SWMD) is submitting the Quarterly Report for the Waste Tire Facility for the period April 1, 2021 through June 30, 2021. The SWMD staff compiled the information from the site's daily reports for this Quarterly Report.

Should you have any questions or require additional information concerning this submittal, please contact me at (813) 671-7707.

Sincerely,

Larry E. Ruiz
Manager Landfill Operations
Solid Waste Management Division

LER/rw
Attachments
xc: Ron Cope, EPC
Kimberly Byer, SWMD

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**WASTE TIRE FACILITY
QUARTERLY TONNAGE REPORT
SECOND QUARTER 2021**

		SECOND QUARTER	Beginning Tonnage (Apr. 1, 2021)	
				790.87
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS & RR	Tons Adjusted
Apr. 2021	226.32	56.33	111.38	10.39
Beginning Tons	790.87			
	1,017.19	-56.33	-111.38	0.00
			Ending Tonnage	849.48
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS & RR	Tons Adjusted
May 2021	225.00	123.66	102.73	18.38
Beginning Tons	849.48			
	1,074.48	-123.66	-102.73	-18.38
			Ending Tonnage	829.71
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS & RR	Tons Adjusted
Jun. 2021	208.01	98.16	0.00	16.52
Beginning Tons	829.71			
	1,037.72	-98.16	0.00	-16.52
			Ending Tonnage	939.56
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS & RR	Tons Adjusted
Apr. 2021	226.32	56.33	111.38	10.39
May 2021	225.00	123.66	102.73	18.38
Jun. 2021	208.01	98.16	0.00	16.52
Sub-Total	659.33	278.15	214.11	45.29
Beginning Tons	790.87			
TOTAL	1,450.20	-278.15	-214.11	-45.29
			Ending Tonnage	912.65



Department of Environmental Protection

DEP Form # 62-701.900(21)
Waste Tire Processing Facility
Form Title Quarterly Report
Effective Date 3/22/00
DEP Application No. (Filled in by DEP)

Waste Tire Processing Facility Quarterly Report

Pursuant to Rule 62-711.530, Florida Administrative Code, the owner or operator of a waste tire processing facility shall submit the following information to the Department quarterly.

Quarter covered by this report 4/1/21 thru 6/30/21 (First quarter begins on January 1 of any given year)

1. Facility name: Hillsborough County Southeast Landfill Waste Tire Facility
2. Facility mailing address: 332 N. Falkenburg Road
City: Tampa County: Hillsborough Zip: 33619
3. Facility permit number: 126787-007-WT/02
4. Facility telephone number (813) 671-7707
5. Authorized person preparing report: Larry E. Ruiz
6. Affiliation with facility: Owner Representative - Manager Landfill Operations
7. Telephone number (if different from above): ()
8. Activity: Report in tons

	Beginning Inventory	Received	Processed	Consumed	Removed	Adjustments	Ending Inventory
Used Tires	790.87	659.33			492.30	45.29	912.65
Other whole Tires							
Processed tires							
Processing Waste							
Other							
Total	790.87	659.33			492.30	45.29	912.65

- a. Explain all inventory adjustments. 45.29
45.29 tons of unprocessed truck tires.
- b. List any period in which one or more category of inventory exceeded the permitted maximum for that category. How was that condition relieved?

For any excess inventory at the end of the quarter, state how and when this condition will be relieved. Attach Additional sheets, if necessary.

9. Certification:

To the best of my knowledge and belief, I certify the information provided in this report is true, accurate, and complete.

Larry E. Ruiz
Print Name of Authorized Agent

Larry E. Ruiz
Signature of Authorized Agent

7/15/2021
Date

Mail complete form to
the appropriate district office

Northwest District
160 Governmental Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. 200 B
Jacksonville, FL 32256-7590
904-448-4300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
3804 Coconut Palm Dr.
Tampa, FL 33619
813-744-6100

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33902-2549
941-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600



Hillsborough County Florida

SOLID WASTE MANAGEMENT
PO Box 1110 Tampa, FL 33601-1110
813-272-5680

July 15, 2021

Mr. Steve Morgan
Solid Waste Section
Florida Department of Environmental Protection, Southwest
District
13051 N. Telecom Pkwy
Temple Terrace, Florida 33637

RE: Southeast County Landfill – Leachate Data Quarterly Report

Dear Mr. Morgan:

In accordance with Specific Condition No. C.12.d of Permit No. 35435-022-SO/01, the Solid Waste Management Division (SWMD) is submitting the Quarterly Leachate Water Balance summary for the Southeast County Landfill for the quarter ending June 30, 2021. The data is being submitted as separate monthly reports for April, May and June 2021.

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

Sincerely,


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

LER/rw
Attachment
xc: Kollan Spradlin, SCS
Ron Cope, EPC

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SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110

MEMORANDUM

DATE: May 18, 2021

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

FROM: Ron W. Wiesman, Manager, Solid Waste
Management Division

SUBJECT: Leachate Water Balance Report Forms for April 2021
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2021 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 4.18 inches of rainfall recorded at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average of effluent stored in Pond A was 3.2 feet.

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Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent 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. The average recorded depth of leachate in the PS-B sump was 21.8 inches.

Depth in Clean Out 2-1 (CO 2-1) (Column VI)

Column VI presents the depth of leachate, in inches, in the East side of the landfill. Daily depth readings from the CO 2-1 are included in this column. The average recorded depth of leachate in the CO 2-1 was 21.2 inches.

Depth in Monitoring Port 2-2 (MP 2-2) (Column VII)

Column VII presents the depth of leachate, in inches, in the South East side of the landfill. Daily depth readings from the MP 2-2 are included in this column. The average recorded depth of leachate in the MP 2-2 was 24.5 inches.

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

Column VI 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. This column also includes the Phase II data from the dewatering wells and PS-2. The average daily amount of leachate pumped from PS-A was 72,200 gallons. A total of 2,166,002 gallons of leachate was pumped this month.

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

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month 386 gallons of leachate was removed from the leak detection system of Sections 7-8.

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

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VII). This month a total of 142,727 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI (including condensate removed from LFG Wells and Condensate Traps), and Sections 7-8. This month a total of 2,308,729 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 89,861 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month 1,435 gallons of leachate was removed from the leak detection system.

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

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank T1 at the LTRF. The amount of leachate stored in T1 is calculated based on the circumference of the tank and the daily level reading. This month an average of 257,300 gallons of leachate was stored in the tank.

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

Column XIII typically presents the daily amount of effluent, in gallons, stored in the 575,000- gallon effluent holding tank T6 at the LTRF. The amount of effluent/leachate stored in T6 is calculated based on the circumference of the tank and the daily level reading. This month an average of 263,100 gallons of leachate was stored in the tank.

Leachate Treated at LTRF (Column XVI)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. On September 15, 2019, plant staff restarted treatment operations. This month a total of 829,417 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVII)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,595,033 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVIII)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month a total of 3,700 gallons of leachate was used for dust control.

Pond A Storage (Column XIX)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column III). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 122,300 gallons of effluent was stored in Pond A.

Pond B Storage (Column XX)

Column XVIII 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 liquid in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of leachate/effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated; was stored in Pond B. This month a daily average of 103,800 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XXI)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XX. This month zero gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXII)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases IV-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 590,194 gallons of effluent was sprayed.

Effluent Dust Control Sprayed (Column XXIII)

Column XXI 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 zero gallons of effluent was sprayed as dust control.

Total Effluent Hauled (Column XXIV)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month zero gallons of effluent was hauled off site.

Total Evaporation (Column XXV)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 475,000 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 2,402,119 gallons. Total outflow quantity from the LTRF was 2,428,150 gallons. The change in storage for the month decreased by 26,031 gallons. Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
APRIL 2021
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in)	Depth in CO 2-1 (in)	Depth in MP 2-2 (in.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sections 7-8 LDS (gal.)	Leachate Pumped to MLPS from Sections 7-8 (gal.)	Leachate Pumped to LTRF from MPLS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Leachate in 575K Tank (gal.)	Effluent in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.93	3.3	2.5	20.4	26.0	24.7	80,835	0	1,959	82,794	2,980	0	233,000	127,000	30,687	104,801	0	123,000	124,000	0	20,709	0	0	16,600
2	0.00	3.4	2.6	28.2	25.6	24.3	72,002	33	5,817	77,819	3,109	0	204,000	127,000	28,312	52,798	0	129,000	133,000	0	29,758	0	0	23,800
3	0.00	3.2	2.6	26.2	24.5	24.0	68,553	33	5,135	73,688	3,210	1,403	209,000	127,000	29,447	14,518	0	118,000	133,000	0	43,059	0	0	34,400
4	0.00	3.0	2.6	24.3	21.7	24.4	69,001	31	6,310	75,311	3,050	1	250,000	127,000	29,447	0	0	108,000	133,000	0	25,317	0	0	20,300
5	0.00	3.0	2.5	21.6	22.9	24.6	75,271	30	2,469	77,740	3,186	1	274,000	127,000	29,447	80,440	0	108,000	124,000	0	22,663	0	0	18,100
6	0.00	3.0	2.5	20.4	14.3	24.6	79,626	0	6,810	86,436	2,984	0	185,000	214,000	28,839	84,564	0	108,000	124,000	0	43,685	0	0	34,900
7	0.00	2.6	2.6	21.6	14.2	24.7	78,959	35	7,183	86,142	2,728	1	91,000	295,000	28,822	99,318	0	88,000	133,000	0	27,503	0	0	22,000
8	0.00	2.5	2.5	24.0	24.9	24.7	76,209	32	3,428	79,717	3,243	1	192,000	189,000	5,768	93,008	0	83,000	124,000	0	0	0	0	0
9	0.00	2.8	2.4	22.0	25.2	24.7	81,131	30	4,665	85,796	3,845	2	204,000	214,000	23,217	111,000	0	98,000	115,000	0	16,366	0	0	13,100
10	0.37	3.1	1.6	21.6	11.9	24.8	65,426	0	4,137	69,563	3,135	0	130,000	288,000	18,137	0	0	113,000	51,000	0	45,147	0	0	36,100
11	1.78	3.0	1.8	20.7	17.4	25.1	42,781	0	4,960	47,741	2,339	2	115,000	317,000	18,137	0	0	108,000	57,000	0	0	0	0	0
12	0.00	2.9	1.9	19.8	22.9	24.7	44,283	0	4,960	49,243	2,339	2	101,000	345,000	18,137	47,556	0	103,000	72,000	0	0	0	0	0
13	0.00	3.0	1.9	21.4	19.5	24.2	85,309	0	7,379	92,688	3,140	0	223,000	333,000	7,093	54,773	0	108,000	72,000	0	0	0	0	0
14	0.00	3.3	1.8	19.8	16.1	24.2	78,795	0	5,772	84,567	3,333	1	252,000	290,000	29,180	59,694	0	123,000	64,000	0	18,039	0	0	14,400
15	0.00	3.5	1.7	24.0	24.8	24.3	79,226	0	1,697	80,923	2,922	1	261,000	290,000	31,268	64,885	0	140,000	57,000	0	22,176	0	0	17,700
16	0.00	3.4	1.7	16.2	23.5	24.8	85,823	0	7,660	93,483	4,078	2	271,000	271,000	31,115	79,636	0	129,000	57,000	0	26,944	0	0	21,600
17	0.00	3.4	1.7	24.6	14.8	24.8	80,748	0	2,200	82,948	2,507	1	288,000	271,000	31,941	0	0	129,000	57,000	0	40,225	0	0	32,200
18	0.33	3.1	1.6	24.0	23.4	24.8	83,405	0	4,874	88,279	4,199	1	307,000	295,000	31,941	0	0	113,000	51,000	0	25,656	0	0	20,500
19	0.78	3.3	1.7	22.8	23.1	24.6	67,973	0	548	68,521	1,184	0	350,000	300,000	31,941	51,992	0	123,000	57,000	0	0	0	0	0
20	0.07	3.5	1.9	19.8	24.1	24.5	72,498	0	8,570	81,068	3,933	1	350,000	300,000	31,442	57,322	0	140,000	72,000	0	0	0	0	0
21	0.00	3.5	2.2	18.6	12.6	24.5	69,660	0	6,605	76,265	2,495	2	350,000	286,000	36,590	66,944	0	140,000	97,000	0	0	0	0	0
22	0.00	3.5	2.5	25.6	24.4	24.2	65,494	0	4,075	69,569	2,835	0	350,000	269,000	27,555	72,811	0	140,000	124,000	0	15,277	0	0	12,200
23	0.00	3.4	2.5	17.4	24.3	24.2	72,589	31	6,172	78,761	2,643	3	266,000	324,000	30,537	76,239	0	129,000	124,000	0	24,555	0	0	19,600
24	0.00	3.5	2.6	19.3	15.4	24.7	75,673	29	1,829	77,502	3,024	0	274,000	317,000	31,883	12,348	3,700	140,000	133,000	0	33,886	0	0	30,100
25	0.00	3.5	2.6	23.8	21.1	24.8	71,234	0	4,586	75,820	3,052	1	324,000	317,000	31,883	0	0	140,000	133,000	0	28,211	0	0	22,600
26	0.00	3.3	2.6	24.0	23.0	24.4	70,665	32	3,678	74,343	3,092	2	355,000	317,000	31,883	37,256	0	123,000	133,000	0	21,600	0	0	17,400
27	0.00	3.4	2.5	18.0	22.9	24.2	65,883	29	7,794	73,677	2,885	2	350,000	317,000	30,863	56,438	0	145,000	124,000	0	22,754	0	0	18,200
28	0.00	3.5	2.6	18.6	23.9	24.3	66,447	12	3,693	70,140	2,736	2	336,000	314,000	29,219	72,372	0	140,000	133,000	0	17,182	0	0	13,700
29	0.00	3.5	2.8	25.2	22.4	24.5	67,085	29	3,463	70,548	2,716	1	326,000	300,000	31,397	66,141	0	140,000	152,000	0	19,413	0	0	15,500
30	0.00	3.5	2.8	18.6	24.6	24.5	73,340	0	4,299	77,639	2,940	3	297,000	286,000	31,289	78,079	0	140,000	152,000	0	0	0	0	0
Total	4.18				635	736	2,166,002	386	142,727	2,308,729	89,861	1,435			829,417	1,595,033	3,700			0	590,194	0	0	475,000
Daily Average		3.2	2.3	21.8	21.2	24.5	72,200	13	4,758	76,958	2,995	48	257,300	263,100				122,300	103,800					
Mo. Average					20	20											100				19,700	0	0	15,830

- Notes:
- NR – No Records, NA – Not Available.
 - Values in bold are estimated; values in *italic* are substitute for missing data and are based on averaged values.
 - Daily average is calculated by dividing the total by the actual days measured in the month.
 - Monthly average calculated by dividing the total by the number of days of the month.
 - Column II, Trace is less than 0.01 inches and is not included in total.
 - Columns III and IV, field measured at staff gauges.
 - Column VI is recorded from the pressure liquid level sensor in CO 2-1.
 - Column VII is recorded from the pressure liquid level sensor in MP 2-2.
 - Columns IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 - Columns XIV and XV, calculated from depth in 575,000 gal. tanks.
 - Columns VIII-XI, XVI, XVII, XVIII and XXI-XXIV, quantities from flow meters.
 - Column XXV includes 80% of the daily values from Columns XVIII, XXII – XXIV, plus 5% of the daily values from column XXII.

**TABLE 2. FIELD DATA ENTRY FORM
APRIL 2021
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A	B	C	D	E	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pump 1 (gal.)	Section 9 LDS (gal.)	Sections 7-8 Pump (gal.)	Sections 7-8 LDS (gal.)	Pond B Depth (ft.)	Pond B Effluent Sprayed (gal)	Pond A Depth (ft.)	Effluent Spray Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Contractor (gal.)	Hauled County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled Contractor (gal.)	Hauled County (gal.)	Effluent Dust Control (Sprayed) (gal.)
1	0.93	3,719,550	20.4	201,889	10,705	2,896,048	8,657	2.5	0.0	3.3	20,709	8.08	4.42	30,687	85,396	19,405	0	0	0	0
2	0.00	3,783,251	28.2	204,998	10,706	2,901,865	8,690	2.6	0.0	3.4	29,758	7.08	4.42	28,312	33,481	19,317	0	0	0	0
3	0.00	3,841,058	26.2	208,208	12,109	2,907,000	8,723	2.6	0.0	3.2	43,059	7.25	4.42	29,447	14,518	0	0	0	0	0
4	0.00	3,896,567	24.3	211,258	12,110	2,913,310	8,754	2.6	0	3.0	25,317	8.67	4.42	29,447	0	0	0	0	0	0
5	0.00	3,958,306	21.6	214,444	12,111	2,915,779	8,784	2.5	0.0	3.0	22,663	9.50	4.42	29,447	67,388	13,052	0	0	0	0
6	0.00	4,022,749	20.4	217,428	12,111	2,922,589	8,784	2.5	0	3.0	43,685	6.42	7.42	28,839	66,308	18,256	0	0	0	0
7	0.00	4,086,999	21.6	220,156	12,112	2,929,772	8,819	2.6	0	2.6	27,503	3.17	10.25	28,822	79,075	20,243	0	0	0	0
8	0.00	4,149,307	24.0	223,399	12,113	2,933,200	8,851	2.5	0.0	2.5	0	6.67	6.58	5,768	86,599	6,409	0	0	0	0
9	0.00	4,213,868	22.0	227,244	12,115	2,937,865	8,881	2.4	0.0	2.8	16,366	7.08	7.42	25,217	92,529	18,471	0	0	0	0
10	0.37	4,276,200	21.6	230,379	12,115	2,942,002	8,881	1.6	0	3.1	45,147	4.50	10.00	18,137	0	0	0	0	0	0
11	1.70	4,315,888	20.7	232,718	12,117	2,946,962	8,881	1.8	0.0	3.0	0	4.00	11.00	18,137	0	0	0	0	0	0
12	0.00	4,355,575	19.8	235,056	12,118	2,951,922	8,881	1.9	0.0	2.9	0	3.50	12.00	18,137	31,853	15,703	0	0	0	0
13	0.00	4,438,912	21.4	238,196	12,118	2,959,301	8,881	1.9	0	3.0	0	7.75	11.58	7,093	38,886	15,887	0	0	0	0
14	0.00	4,505,319	19.8	241,529	12,119	2,965,073	8,881	1.8	0.0	3.3	18,039	8.75	10.08	29,180	38,616	21,078	0	0	0	0
15	0.00	4,565,508	24.0	244,451	12,120	2,966,770	8,881	1.7	0.0	3.5	22,176	9.08	10.08	31,268	45,228	19,657	0	0	0	0
16	0.00	4,633,305	16.2	248,529	12,122	2,974,430	8,881	1.7	0.0	3.4	26,944	9.42	9.42	31,115	58,574	21,062	0	0	0	0
17	0.00	4,698,891	24.6	251,036	12,123	2,976,630	8,881	1.7	0.0	3.4	40,225	10.00	9.42	31,941	0	0	0	0	0	0
18	0.33	4,769,350	24.0	255,235	12,124	2,981,504	8,881	1.6	0.0	3.1	25,656	10.67	10.25	31,941	0	0	0	0	0	0
19	0.78	4,824,839	22.8	256,419	12,124	2,982,052	8,881	1.7	0.0	3.3	0	12.17	10.42	31,941	32,231	19,761	0	0	0	0
20	0.07	4,882,237	19.8	260,352	12,125	2,990,622	8,881	1.9	0.0	3.5	0	12.17	10.42	31,442	38,847	18,475	0	0	0	0
21	0.00	4,942,252	18.6	262,847	12,127	2,997,227	8,881	2.2	0.0	3.5	0	12.17	9.92	36,590	45,861	21,083	0	0	0	0
22	0.00	4,997,972	25.6	265,682	12,127	3,001,302	8,881	2.5	0.0	3.5	15,277	12.17	9.33	27,555	51,733	21,078	0	0	0	0
23	0.00	5,055,545	17.4	268,325	12,130	3,007,474	31	2.5	0.0	3.4	24,555	9.25	11.25	30,537	57,863	18,376	0	0	0	0
24	0.00	5,114,617	19.3	271,349	12,130	3,009,303	60	2.6	0.0	3.5	33,886	9.50	11.00	31,883	12,348	0	3,700	0	0	0
25	0.00	5,173,148	23.8	274,401	12,131	3,013,889	60	2.6	0.0	3.5	28,211	11.25	11.00	31,883	0	0	0	0	0	0
26	0.00	5,234,444	24.0	277,493	12,133	3,017,567	92	2.6	0.0	3.3	21,689	12.33	11.00	31,883	18,939	18,417	0	0	0	0
27	0.00	5,290,458	18.0	280,378	12,135	3,025,361	121	2.5	0.0	3.6	22,754	12.17	11.00	30,863	38,036	18,402	0	0	0	0
28	0.00	5,344,210	18.6	283,114	12,137	3,029,054	133	2.6	0.0	3.5	17,162	11.67	10.92	29,219	51,299	21,073	0	0	0	0
29	0.00	5,399,707	25.2	285,830	12,138	3,032,517	162	2.8	0.0	3.5	19,413	11.33	10.42	31,397	45,064	21,077	0	0	0	0
30	0.00	5,460,201	18.6	288,770	12,141	3,036,816	162	2.8	0.0	3.5	0	10.33	9.92	31,289	57,014	21,065	0	0	0	0
Totals	4.18								0		590,194			829,417	1,187,686	407,347	3,700	0	0	0

balance\2020\4-20bal.xls

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

Type of Cover	Phases I-VI acres	Section 7-9 acres
Open	5	0
Intermediate	134.4	34.5
Final	23	0
Not Opened	0	0

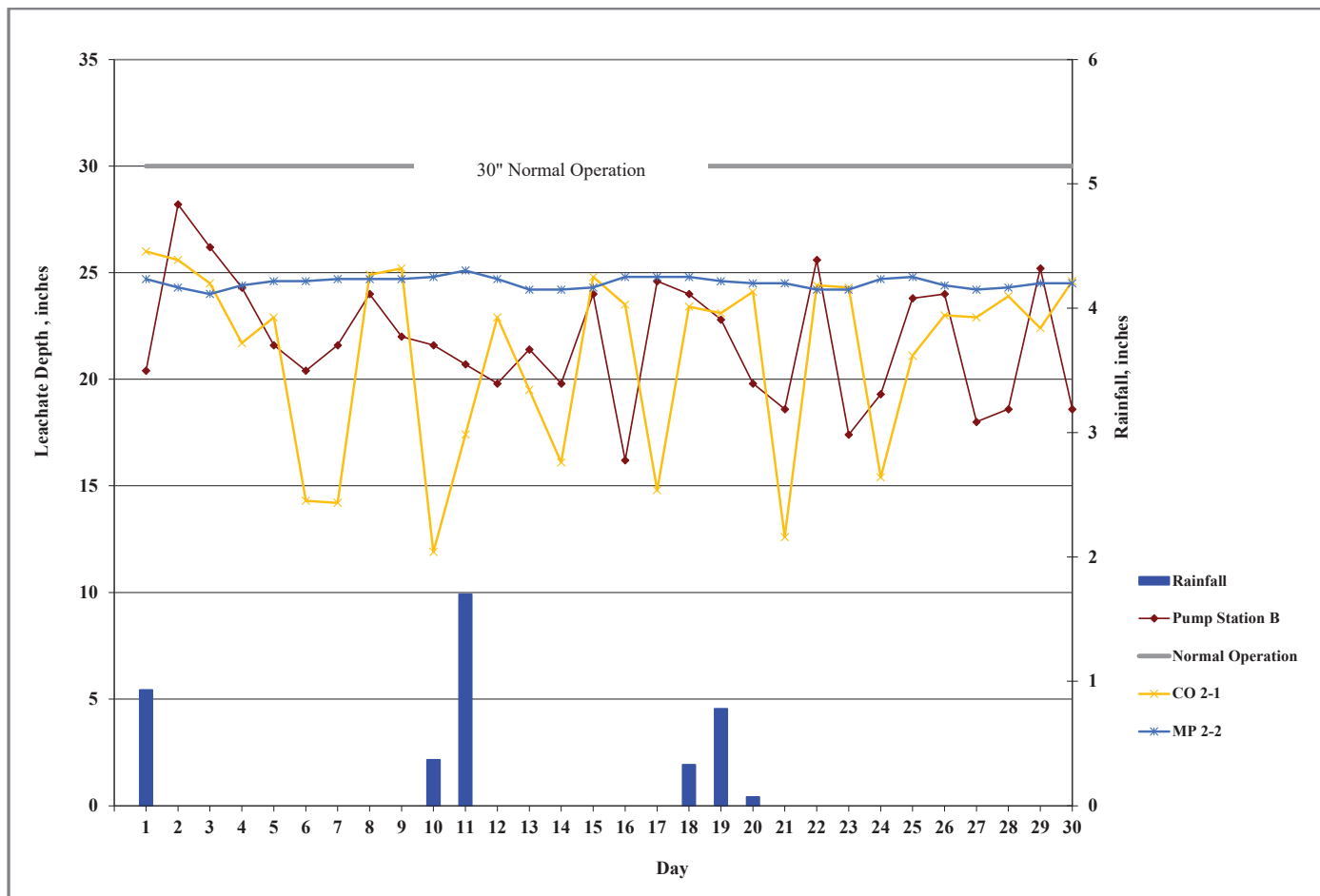


Figure 1. Leachate Levels in Pump Station B and Rainfall for April 2021.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2021**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Condensate from LFG CS-1 (gal.)	Leachate from Section 9 Pumped to LTRF (gal.)	Leachate from Section 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage ³ (gal.)
January	1.38	240	151,803	252,214	2,851,511	2,492,589	7,043	867,500	0	0	933,772	3,255,768	3,367,132	-111,365
February	4.53	532	128,100	184,450	2,334,983	1,989,793	3,048	515,325	0	0	402,814	2,648,065	2,508,166	139,899
March	1.75	290	123,318	194,837	2,431,421	2,249,071	3,534	816,961	0	0	791,751	2,749,866	3,069,566	-319,701
April	4.18	522	92,868	142,727	2,166,002	1,595,033	3,700	829,417	0	0	590,194	2,402,119	2,428,150	-26,031
May														
June														
July														
August														
September														
October														
November														
December														
YTD Total	11.84	1,584	496,089	774,228	9,783,916	8,326,486	17,325	3,029,203	0	0	2,718,531	11,055,817	11,373,014	-317,197

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Change in storage represents total inflow to LTRF minus total outflow from LTRF.



SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110

MEMORANDUM

DATE: June 11, 2021

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

FROM: Ron W. Wiesman, Manager, Solid Waste
Management Division

SUBJECT: Leachate Water Balance Report Forms for May 2021
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2021 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was .77 inches of rainfall recorded at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average of effluent stored in Pond A was 3.3 feet.

**BOARD OF COUNTY
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Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent in Pond B was 3.2 feet.

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

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. The average recorded depth of leachate in the PS-B sump was 21.9 inches.

Depth in Clean Out 2-1 (CO 2-1) (Column VI)

Column VI presents the depth of leachate, in inches, in the East side of the landfill. Daily depth readings from the CO 2-1 are included in this column. The average recorded depth of leachate in the CO 2-1 was 21.7 inches.

Depth in Monitoring Port 2-2 (MP 2-2) (Column VII)

Column VII presents the depth of leachate, in inches, in the South East side of the landfill. Daily depth readings from the MP 2-2 are included in this column. The average recorded depth of leachate in the MP 2-2 was 24.3 inches.

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

Column VI 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. This column also includes the Phase II data from the dewatering wells and PS-2. The average daily amount of leachate pumped from PS-A was 65,042 gallons. A total of 2,016,306 gallons of leachate was pumped this month.

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

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month 604 gallons of leachate was removed from the leak detection system of Sections 7-8.

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

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VII). This month a total of 127,374 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI (including condensate removed from LFG Wells and Condensate Traps), and Sections 7-8. This month a total of 2,143,679 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 113,097 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month 1,532 gallons of leachate was removed from the leak detection system.

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

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank T1 at the LTRF. The amount of leachate stored in T1 is calculated based on the circumference of the tank and the daily level reading. This month an average of 340,300 gallons of leachate was stored in the tank.

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

Column XIII typically presents the daily amount of effluent, in gallons, stored in the 575,000- gallon effluent holding tank T6 at the LTRF. The amount of effluent/leachate stored in T6 is calculated based on the circumference of the tank and the daily level reading. This month an average of 315,300 gallons of leachate was stored in the tank.

Leachate Treated at LTRF (Column XVI)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. On September 15, 2019, plant staff restarted treatment operations. This month a total of 811,156 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVII)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,535,387 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVIII)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month a total of 2,981 gallons of leachate was used for dust control.

Pond A Storage (Column XIX)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column III). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 127,200 gallons of effluent was stored in Pond A.

Pond B Storage (Column XX)

Column XVIII 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 liquid in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of leachate/effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated; was stored in Pond B. This month a daily average of 188,600 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XXI)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XX. This month zero gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXII)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases IV-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 546,887 gallons of effluent was sprayed.

Effluent Dust Control Sprayed (Column XXIII)

Column XXI 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 zero gallons of effluent was sprayed as dust control.

Total Effluent Hauled (Column XXIV)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month zero gallons of effluent was hauled off site.

Total Evaporation (Column XXV)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 439,800 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 2,258,412 gallons. Total outflow quantity from the LTRF was 2,349,524 gallons. The change in storage for the month decreased by 91,112 gallons. Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM
MAY 2021
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV
Day	Rainfall (in.)	Depth in Pond A (ft.)	Depth in Pond B (ft.)	Estimated Depth at PS-B (in.)	Depth in CO 2-1 (in.)	Depth in MP 2-2 (in.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped from Sections 7-8 LDS (gal.)	Leachate Pumped to MLPS from Sections 7-8 (gal.)	Leachate Pumped to LTRF from MLPS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Leachate in 575K Tank (gal.)	Effluent in 575K Tank (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Sprayed Pond B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)
1	0.00	3.5	3.0	25.4	24.1	24.5	68,240	32	4	68,244	2,915	0	307,000	281,000	31,702	21,077	0	140,000	172,000	0	0	0	0	0
2	0.00	3.5	3.2	24.6	23.2	24.5	72,956	31	92	73,048	3,000	0	333,000	281,000	31,702	6	0	140,000	192,000	0	26,271	0	0	21,000
3	0.00	3.4	3.2	19.8	22.6	24.5	72,956	0	9,823	81,879	3,159	4	381,000	288,000	31,702	44,811	0	129,000	192,000	0	0	0	0	0
4	0.00	3.6	3.3	21.6	24.2	24.3	30,932	32	7,180	38,112	1,274	3	319,000	314,000	30,661	71,619	2,981	145,000	202,000	0	0	0	0	2,400
5	0.20	3.5	3.5	19.2	24.5	24.2	94,144	29	5,173	99,317	2,998	1	300,000	343,000	30,372	71,307	0	140,000	223,000	0	13,486	0	0	10,800
6	0.00	3.5	3.5	21.6	25.0	24.4	71,571	0	7,324	78,895	3,021	1	297,000	314,000	30,972	52,552	0	140,000	223,000	0	13,035	0	0	10,400
7	0.00	3.4	3.8	25.8	25.4	24.3	66,457	31	2,513	68,970	2,941	3	297,000	302,000	30,078	66,434	0	129,000	256,000	0	17,546	0	0	14,000
8	0.00	3.4	3.8	21.6	26.0	24.2	67,417	25	5,146	72,563	2,870	3	302,000	293,000	30,531	21,071	0	129,000	256,000	0	34,323	0	0	27,900
9	0.37	3.5	3.9	20.7	21.0	24.5	66,499	16	2,972	69,469	2,487	3	331,000	290,000	30,531	6	0	140,000	256,000	0	0	0	0	0
10	0.20	3.5	3.9	19.8	15.9	24.3	75,552	16	2,972	78,524	2,487	3	360,000	288,000	30,531	44,468	0	140,000	267,000	0	16,436	0	0	13,100
11	0.00	3.5	4.0	22.8	14.9	24.3	58,215	0	5,706	63,921	2,935	1	379,000	286,000	27,524	49,901	0	140,000	267,000	0	0	0	0	0
12	0.00	3.4	4.0	20.4	12.4	24.4	67,497	35	4,041	71,538	3,134	2	336,000	317,000	24,570	58,461	0	129,000	267,000	0	18,142	0	0	14,500
13	0.00	3.5	4.0	21.0	18.6	24.4	66,544	29	4,718	71,262	2,238	1	276,000	377,000	23,880	72,418	0	140,000	267,000	0	16,266	0	0	13,000
14	0.00	3.5	3.5	19.8	26.4	24.2	60,237	0	4,329	64,566	2,750	2	309,000	362,000	20,956	89,637	0	140,000	223,000	0	16,352	0	0	13,100
15	0.00	3.4	3.1	19.6	25.8	24.1	61,507	32	4,164	65,671	3,009	1	348,000	350,000	24,061	21,095	0	129,000	182,000	0	33,107	0	0	26,500
16	0.00	3.4	3.1	21.0	23.4	24.0	66,737	28	7,629	74,366	20,983	1,436	379,000	353,000	24,061	6	0	129,000	182,000	0	24,335	0	0	19,500
17	0.00	3.2	3.0	20.4	21.6	24.2	63,029	0	2,008	65,037	3,387	1	408,000	353,000	24,061	77,756	0	118,000	172,000	0	0	0	0	0
18	0.00	3.6	3.0	20.4	15.4	24.3	64,327	31	5,066	69,393	2,984	0	391,000	343,000	24,579	90,564	0	145,000	172,000	0	27,350	0	0	21,900
19	0.00	3.3	3.0	19.8	26.0	24.3	62,088	0	2,645	64,733	3,283	1	377,000	324,000	25,816	76,912	0	123,000	172,000	0	23,089	0	0	18,500
20	0.00	3.3	3.0	17.4	25.2	24.2	60,534	34	3,809	64,343	1,211	0	360,000	300,000	22,708	97,160	0	123,000	172,000	0	12,881	0	0	10,300
21	0.00	3.4	2.9	24.6	20.9	24.0	58,342	29	7,083	65,425	3,157	2	302,000	319,000	23,553	71,676	0	129,000	162,000	0	14,064	0	0	11,300
22	0.00	3.5	2.9	26.2	24.5	23.9	59,750	0	1,275	61,025	2,825	0	250,000	360,000	23,685	21,016	0	140,000	162,000	0	0	0	0	0
23	0.00	3.4	2.7	21.6	15.6	24.2	67,483	32	4,112	71,595	3,784	0	312,000	360,000	23,685	6	0	129,000	143,000	0	34,057	0	0	27,200
24	0.00	3.2	2.6	21.6	24.4	24.2	57,855	27	4,878	62,733	1,937	0	360,000	358,000	23,685	71,864	0	118,000	133,000	0	0	0	0	0
25	0.00	3.4	2.7	27.2	23.4	24.1	61,458	0	0	61,458	2,852	0	358,000	341,000	24,272	71,867	0	129,000	143,000	0	24,561	0	0	19,600
26	0.00	3.3	2.6	21.9	25.4	24.1	65,303	30	3,665	68,968	2,981	0	355,000	317,000	23,418	91,015	0	123,000	133,000	0	31,157	0	0	24,900
27	0.00	3.2	2.4	25.8	24.6	24.3	68,669	0	6,665	75,305	2,820	0	345,000	288,000	23,878	89,918	0	118,000	133,000	0	20,743	0	0	16,400
28	0.00	3.2	2.6	17.4	14.5	24.5	71,184	33	2,371	73,555	3,001	0	338,000	266,000	23,749	90,788	0	118,000	133,000	0	34,641	0	0	27,200
29	0.00	2.9	2.6	24.6	14.6	24.6	68,637	0	6,827	75,464	3,120	9	355,000	247,000	23,411	6	0	103,000	133,000	0	52,047	0	0	41,600
30	0.00	2.2	2.6	23.4	21.1	24.4	70,326	35	1,248	71,574	5,379	54	403,000	250,000	23,411	6	0	70,000	133,000	0	21,701	0	0	17,400
31	0.00	2.4	2.6	22.8	21.3	24.0	50,521	15	1,956	52,476	8,175	0	380,000	309,000	23,411	6	0	79,000	124,000	0	20,797	0	0	16,600
Total	0.77						2,016,306	604	127,374	2,143,679	113,097	1,532			811,156	1,535,387	2,981			0	546,887	0	0	439,800
Daily Average		3.3	3.2	21.9	21.7	24.3	65,042	19	4,109	69,151	3,648	49	340,300	315,300				127,200	188,600					
Mo. Average																	100				17,600	0	0	14,190

- Notes:
- NR – No Records, NA – Not Available.
 - Values in bold are estimated; values in *italic* are substitute for missing data and are based on averaged values.
 - Daily average is calculated by dividing the total by the actual days measured in the month.
 - Monthly average calculated by dividing the total by the number of days of the month.
 - Column II, Trace is less than 0.01 inches and is not included in total.
 - Columns III and IV, field measured at staff gauges.
 - Column VI is recorded from the pressure liquid level sensor in CO 2-1.
 - Column VII is recorded from the pressure liquid level sensor in MP 2-2.
 - Columns IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
 - Columns XIV and XV, calculated from depth in 575,000 gal. tanks.
 - Columns VIII-XI, XVI, XVII, XVIII and XXI-XXIV, quantities from flow meters.
 - Column XXV includes 80% of the daily values from Columns XVIII, XXII - XXIV, plus 5% of the daily values from column XXII.

**TABLE 2. FIELD DATA ENTRY FORM
MAY 2021
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A	B	C	D	E	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pump 1 (gal.)	Section 9 LDS (gal.)	Sections 7-8 Pump (gal.)	Sections 7-8 LDS (gal.)	Pond B Depth (ft.)	Pond B Effluent Sprayed (gal.)	Pond A Depth (ft.)	Effluent Spray Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Contractor (gal.)	Hauled County (gal.)	Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled Contractor (gal.)	County (gal.)	Effluent Dust Control (Sprayed) (gal.)
1	0.00	5,512,345	25.4	291,685	12,145	3,036,820	194	3.0	0.0	3.5	0	10.67	9.75	31,702	0	21,077	0	0	0	0
2	0.00	5,571,533	24.0	294,685	12,151	3,036,912	225	3.2	0.0	3.5	26,271	11.58	9.75	31,702	0	0	0	0	0	0
3	0.00	5,631,297	19.8	297,844	12,155	3,046,735	225	3.2	0.0	3.4	0	13.25	10.00	31,702	32,525	12,286	0	0	0	0
4	0.00	5,652,041	21.6	299,118	12,158	3,053,915	257	3.3	0	3.6	0	11.08	10.92	30,661	51,679	19,940	2,981	0	0	0
5	0.20	5,733,917	19.2	302,116	12,159	3,059,088	286	3.5	0.0	3.5	13,486	10.42	11.92	30,372	50,259	21,048	0	0	0	0
6	0.00	5,792,468	21.6	305,137	12,160	3,066,412	286	3.5	0	3.5	13,035	10.33	10.92	30,972	32,499	20,053	0	0	0	0
7	0.00	5,848,841	25.6	308,078	12,163	3,068,925	317	3.8	0	3.4	17,546	10.33	10.50	30,078	45,385	21,049	0	0	0	0
8	0.00	5,904,040	21.6	310,948	12,168	3,074,071	345	3.8	0.0	3.4	34,823	10.50	10.17	30,531	0	21,071	0	0	0	0
9	0.37	5,958,517	20.7	313,435	12,171	3,077,043	361	3.9	0.0	3.5	0	11.50	10.09	30,531	0	0	0	0	0	0
10	0.20	6,012,993	19.8	315,922	12,173	3,080,015	376	3.9	0	3.5	16,436	12.50	10.00	30,531	25,935	18,533	0	0	0	0
11	0.00	6,067,993	22.8	318,857	12,174	3,085,721	376	4.0	0.0	3.5	0	13.17	9.92	27,524	31,868	18,033	0	0	0	0
12	0.00	6,121,860	20.4	321,991	12,176	3,089,762	411	4.0	0.0	3.4	18,142	11.67	11.00	24,570	38,405	20,056	0	0	0	0
13	0.00	6,179,079	21.0	324,229	12,177	3,094,480	440	4.0	0	3.5	16,266	9.58	13.08	23,880	51,363	21,055	0	0	0	0
14	0.00	6,229,420	19.8	326,979	12,179	3,098,809	440	3.5	0.0	3.5	16,352	10.75	12.58	20,956	68,606	21,031	0	0	0	0
15	0.00	6,280,876	19.6	329,988	12,180	3,102,973	472	3.1	0.0	3.4	33,107	12.08	12.17	24,061	0	21,095	0	0	0	0
16	0.00	6,334,716	21.0	350,971	13,616	3,110,602	500	3.1	0.0	3.4	24,335	13.17	12.25	24,061	0	0	0	0	0	0
17	0.00	6,386,024	20.4	354,358	13,617	3,112,610	500	3.0	0.0	3.2	0	14.17	12.25	24,061	56,866	20,890	0	0	0	0
18	0.00	6,439,004	20.4	357,342	13,617	3,117,676	531	3.0	0.0	3.6	27,350	13.58	11.92	24,579	69,679	20,885	0	0	0	0
19	0.00	6,491,025	19.8	360,625	13,618	3,120,321	531	3.0	0.0	3.3	23,089	13.08	11.25	25,816	62,872	14,040	0	0	0	0
20	0.00	6,541,800	17.4	361,836	13,618	3,124,130	565	3.0	0.0	3.3	12,881	12.50	10.42	22,708	76,107	21,053	0	0	0	0
21	0.00	6,593,182	24.6	364,993	13,620	3,131,213	594	2.9	0.0	3.4	14,064	10.50	11.08	23,553	50,647	21,029	0	0	0	0
22	0.00	6,641,091	26.2	367,818	13,620	3,132,488	594	2.9	0.0	3.5	0	8.67	12.50	23,685	0	21,016	0	0	0	0
23	0.00	6,697,514	21.6	371,602	13,620	3,136,600	626	2.7	0.0	3.4	34,057	10.83	12.50	23,685	0	0	0	0	0	0
24	0.00	6,745,306	21.6	373,539	13,620	3,141,478	653	2.6	0.0	3.2	0	12.50	12.42	23,685	50,748	21,116	0	0	0	0
25	0.00	6,797,001	27.2	376,391	13,620	3,145,463	653	2.7	0.0	3.4	24,561	12.42	11.83	24,272	50,802	21,065	0	0	0	0
26	0.00	6,849,995	21.6	379,372	13,620	3,149,128	683	2.6	0.0	3.3	31,157	12.33	11.00	23,418	69,932	21,083	0	0	0	0
27	0.00	6,903,874	25.8	382,192	13,620	3,155,773	683	2.6	0.0	3.2	20,743	12.00	10.00	23,878	75,878	14,040	0	0	0	0
28	0.00	6,959,130	17.4	385,193	13,620	3,158,144	716	2.6	0.0	3.2	34,641	11.75	9.25	23,749	69,695	21,093	0	0	0	0
29	0.00	7,014,600	24.6	388,313	13,629	3,164,971	716	2.6	0.0	2.9	52,047	12.33	8.58	23,411	0	0	0	0	0	0
30	0.00	7,068,699	23.4	393,692	13,683	3,166,219	751	2.6	0.0	2.2	21,701	14.00	8.67	23,411	0	0	0	0	0	0
31	0.00	7,119,220	22.8	401,867	13,683	3,168,175	766	2.6	0	2.4	20,797	13.21	10.75	23,411	0	0	0	0	0	0
Totals	0.77								0		546,887			811,156	1,061,750	473,637	2,981	0	0	0

balance\2021\5-21bal.xls

Notes:

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

Type of Cover	Phases I-VI acres	Section 7-9 acres
Open	5	0
Intermediate	134.4	34.5
Final	23	0
Not Opened	0	0

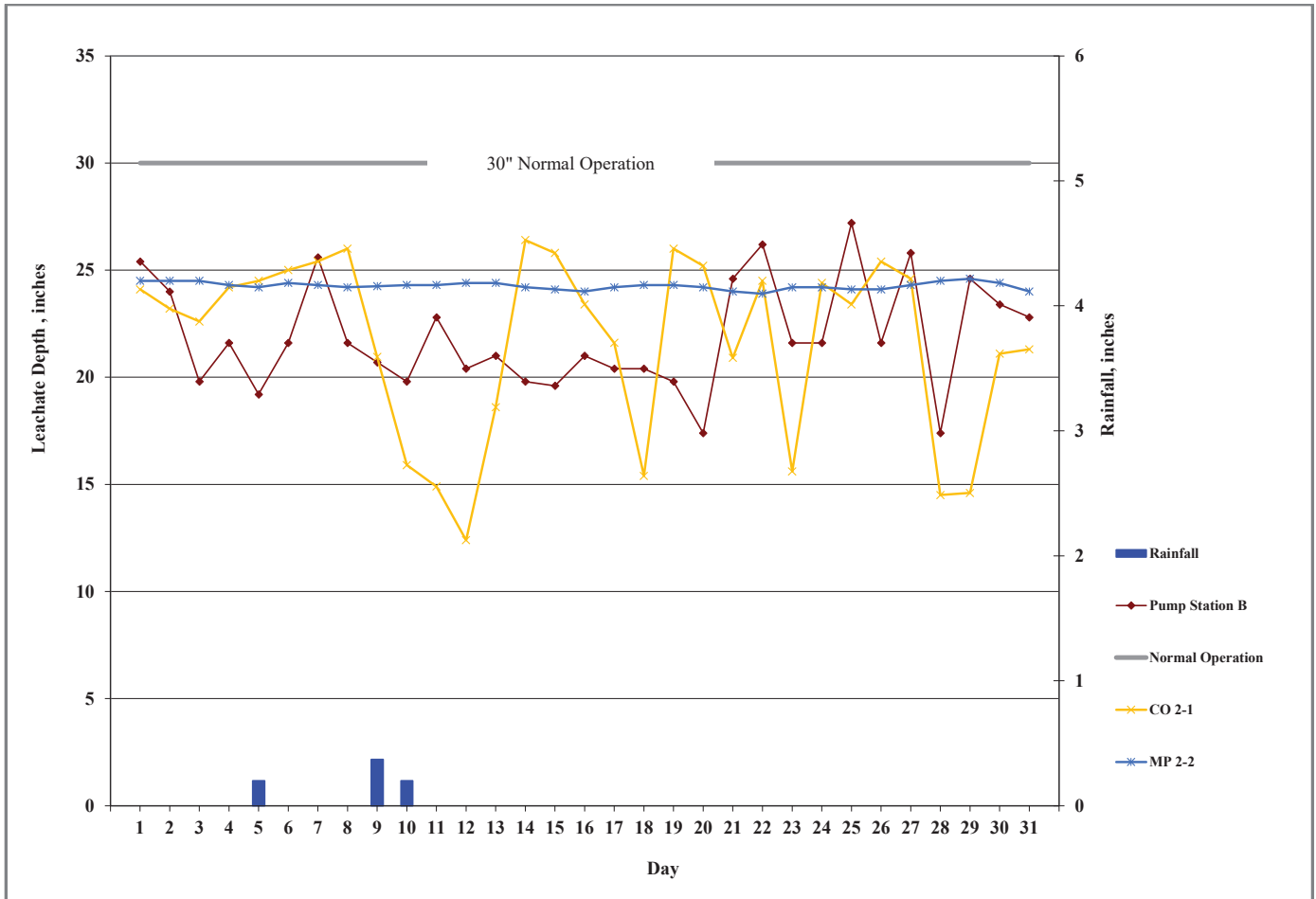


Figure 1. Leachate Levels in Pump Station B and Rainfall for May 2021.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2021**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Condensate from LFG CS-1 (gal.)	Leachate from Section 9 Pumped to LTRF (gal.)	Leachate from Section 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage ³ (gal.)
January	1.38	240	151,803	252,214	2,851,511	2,492,589	7,043	867,500	0	0	933,772	3,255,768	3,367,132	-111,365
February	4.53	532	128,100	184,450	2,334,983	1,989,793	3,048	515,325	0	0	402,814	2,648,065	2,508,166	139,899
March	1.75	290	123,318	194,837	2,431,421	2,249,071	3,534	816,961	0	0	791,751	2,749,866	3,069,566	-319,701
April	4.18	522	91,296	142,727	2,166,002	1,595,033	3,700	829,417	0	0	590,194	2,400,547	2,428,150	-27,603
May	0.77	104	-300,921	-3,040,801	-5,102,914	1,468,953	2,981	811,156	0	0	526,090	-8,444,532	2,283,090	-10,727,622
June														
July														
August														
September														
October														
November														
December														
YTD Total	12.61	1,688	193,596	-2,266,573	4,681,002	9,795,439	20,306	3,840,359	0	0	3,244,621	2,609,713	13,656,104	-11,046,391

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Change in storage represents total inflow to LTRF minus total outflow from LTRF.



SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110

MEMORANDUM

DATE: July 15, 2021

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

FROM: Ron W. Wiesman, Manager, Solid Waste
Management Division

SUBJECT: Leachate Water Balance Report Forms for June 2021
Southeast County Landfill, Hillsborough County, Florida

The Solid Waste Management Division (SWMD) staff has compiled and reviewed the leachate management operational data from the Southeast County Landfill Phases I-VI, Sections 7-8, and Section 9. Attached are the Leachate Water Balance Report Form (Table 1), the Leachate Field Data Entry Form (Table 2), and the 2021 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 5.96 inches of rainfall recorded at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average of effluent stored in Pond A was 3.0 feet.

**BOARD OF COUNTY
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ADMINISTRATOR**

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Depth in Pond B (Column IV)

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of effluent in Pond B was 2.9 feet.

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

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. The depth recorded on the fifth was due to a pump malfunction, the pump was fixed and the level returned to normal range in a few hours. The average recorded depth of leachate in the PS-B sump was 21.3 inches.

Depth in Clean Out 2-1 (CO 2-1) (Column VI)

Column VI presents the depth of leachate, in inches, in the East side of the landfill. Daily depth readings from the CO 2-1 are included in this column. The average recorded depth of leachate in the CO 2-1 was 21.5 inches.

Depth in Monitoring Port 2-2 (MP 2-2) (Column VII)

Column VII presents the depth of leachate, in inches, in the South East side of the landfill. Daily depth readings from the MP 2-2 are included in this column. The average recorded depth of leachate in the MP 2-2 was 24.2 inches.

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

Column VI 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. This column also includes the Phase II data from the dewatering wells and PS-2. The average daily amount of leachate pumped from PS-A was 60,617 gallons. A total of 1,818,520 gallons of leachate was pumped this month.

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

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. This month 502 gallons of leachate was removed from the leak detection system of Sections 7-8.

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

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VII). This month a total of 132,370 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI (including condensate removed from LFG Wells and Condensate Traps), and Sections 7-8. This month a total of 1,950,889 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 106,577 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month 634 gallons of leachate was removed from the leak detection system.

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

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank T1 at the LTRF. The amount of leachate stored in T1 is calculated based on the circumference of the tank and the daily level reading. This month an average of 259,300 gallons of leachate was stored in the tank.

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

Column XIII typically presents the daily amount of effluent, in gallons, stored in the 575,000- gallon effluent holding tank T6 at the LTRF. The amount of effluent/leachate stored in T6 is calculated based on the circumference of the tank and the daily level reading. This month an average of 258,300 gallons of leachate was stored in the tank.

Leachate Treated at LTRF (Column XVI)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. On September 15, 2019, plant staff restarted treatment operations. This month a total of 754,519 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVII)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,783,721 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVIII)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for

dust control in the active area of the landfill. This month a total of 3,697 gallons of leachate was used for dust control.

Pond A Storage (Column XIX)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column III). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 106,700 gallons of effluent was stored in Pond A.

Pond B Storage (Column XX)

Column XVIII 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 liquid in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of leachate/effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated; was stored in Pond B. This month a daily average of 166,900 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XXI)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XX. This month zero gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XXII)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases IV-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 416,077 gallons of effluent was sprayed.

Effluent Dust Control Sprayed (Column XXIII)

Column XXI 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 zero gallons of effluent was sprayed as dust control.

Total Effluent Hauled (Column XXIV)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month zero gallons of effluent was hauled off site.

Total Evaporation (Column XXV)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 335,900 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 2,059,240 gallons. Total outflow quantity from the LTRF was 2,541,937 gallons. The change in storage for the month decreased by 482,697 gallons. Please advise should you have any questions concerning the information provided.

SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

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Notes:

1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in *italics* 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 VI is recorded from the pressure liquid level sensor in CO-2-1.
8. Column VII is recorded from the pressure liquid level sensor in MP 2-2.
9. Columns IX, Section 7-8 lead detection pumped into Section 7 leachate sump riser.
10. Column XIV and XV, calculated from depth in 575,000 gal. tanks.
11. Columns VIII-IX, XVI, XVII, XVIII and XIX-XXIV, quantities from flow meters.
12. Column XXV includes 80% of the daily values from Columns XVIII, XXII, XXIII, XXIV, plus 5% of the daily values from column XXII.

**TABLE 2. FIELD DATA ENTRY FORM
JUNE 2021
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

A	B	C	D	E	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pump 1 (gal.)	Section 9 LDS (gal.)	Sections 7-8 Pump (gal.)	Sections 7-8 LDS (gal.)	Pond B Depth (ft.)	Pond B Effluent Sprayed (gal)	Pond A Depth (ft.)	Effluent Spray Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Hauled		Leachate Dust Control (Sprayed) (gal.)	Effluent Hauled		Effluent Dust Control (Sprayed) (gal.)
															Contractor (gal.)	County (gal.)		Contractor (gal.)	County (gal.)	
1	0.00	7,169,740	22.2	410,042	13,683	3,170,130	780	2.5	0.0	2.5	19,893	12.42	12.83	23,411	62,800	20,565	0	0	0	0
2	0.40	7,223,095	17.4	414,233	13,688	3,177,527	811	2.5	0.0	2.5	0	9.25	14.75	19,331	63,303	21,033	0	0	0	0
3	1.13	7,277,050	18.6	415,400	13,688	3,185,301	812	2.6	0.0	2.9	16,809	8.50	14.08	23,096	56,986	21,038	0	0	0	0
4	0.25	7,328,665	27.8	418,572	13,688	3,186,532	844	2.7	0.0	3.1	0	8.58	12.42	23,096	57,507	20,571	0	0	0	0
5	0.33	7,373,790	39.6	422,221	13,688	3,193,455	844	2.8	0.0	3.4	40,246	8.00	11.67	21,810	0	21,024	0	0	0	0
6	0.00	7,425,158	25.0	429,091	13,688	3,196,091	877	2.8	0.0	3.1	27,628	8.50	11.67	21,810	0	0	0	0	0	0
7	0.00	7,479,972	22.2	431,603	13,688	3,201,981	877	2.8	0.0	3.0	0	10.08	11.42	21,810	37,479	21,056	0	0	0	0
8	0.00	7,527,404	21.6	435,615	13,688	3,205,361	911	2.8	0.0	3.2	11,298	10.33	11.50	20,865	63,160	21,069	0	0	0	0
9	0.00	7,578,421	17.4	438,260	14,087	3,208,244	940	2.7	0.0	3.3	34,664	9.50	11.00	22,469	69,308	20,148	3,697	0	0	0
10	0.00	7,632,207	18.2	444,833	14,164	3,210,745	940	2.7	0.0	3.0	15,674	9.42	10.00	19,762	69,604	19,515	0	0	0	0
11	0.00	7,675,496	18.6	446,876	14,316	3,214,738	971	2.7	0.0	3.0	15,569	7.75	10.00	21,613	63,536	21,158	0	0	0	0
12	0.00	7,734,598	18.6	449,351	14,316	3,218,816	971	2.7	0.0	3.0	0	8.00	9.58	29,613	0	14,081	0	0	0	0
13	0.00	7,796,978	21.4	453,062	14,316	3,225,848	1,002	2.7	0.0	2.8	33,704	10.25	9.58	29,613	0	0	0	0	0	0
14	0.23	7,846,033	18.0	455,424	14,316	3,226,645	1,002	2.7	0.0	2.8	0	11.50	9.67	29,613	50,197	11,227	0	0	0	0
15	0.01	7,896,652	21.0	458,366	14,316	3,232,991	1,035	2.6	0.0	2.2	0	11.42	9.00	31,851	62,949	20,521	0	0	0	0
16	0.00	7,946,365	18.6	460,505	14,316	3,236,959	1,035	2.6	0.0	2.6	0	10.33	8.75	25,645	63,093	21,027	0	0	0	0
17	0.00	7,995,895	26.2	463,388	14,316	3,240,976	1,067	2.6	0.0	3.0	0	9.08	8.17	25,645	69,658	21,040	0	0	0	0
18	0.00	8,044,479	21.6	467,827	14,316	3,245,078	1,067	2.8	0.0	3.5	0	8.00	7.58	28,832	69,425	21,037	0	0	0	0
19	0.00	8,093,654	23.1	472,051	14,319	3,249,874	1,101	3.0	0.0	3.4	42,123	7.42	7.25	26,447	0	21,013	0	0	0	0
20	0.00	8,141,741	16.8	474,948	14,320	3,252,385	1,101	3.0	0.0	3.1	37,949	8.50	7.25	26,447	0	0	0	0	0	0
21	0.08	8,191,778	21.0	476,595	14,320	3,257,491	1,135	3.1	0.0	3.1	0	9.75	7.42	26,447	57,404	21,070	0	0	0	0
22	0.02	8,240,483	12.6	481,109	14,320	3,260,904	1,135	3.2	0.0	3.2	0	9.25	6.67	26,500	69,141	21,023	0	0	0	0
23	1.43	8,289,284	21.0	486,322	14,320	3,264,146	1,168	3.0	0.0	3.4	24,347	8.42	6.00	25,666	63,686	20,542	0	0	0	0
24	0.60	8,336,196	28.6	493,076	14,320	3,268,309	1,168	3.2	0.0	3.5	0	7.58	5.67	26,549	63,683	20,550	0	0	0	0
25	0.01	8,382,210	26.8	496,142	14,320	3,272,273	1,202	3.4	0.0	3.5	0	6.67	5.25	27,363	62,951	21,013	0	0	0	0
26	0.40	8,430,875	22.4	498,195	14,320	3,276,746	1,202	3.6	0.0	3.3	63,854	6.58	5.00	27,363	0	0	0	0	0	0
27	0.00	8,488,989	19.4	501,392	14,321	3,281,077	1,234	3.6	0.0	2.6	32,319	9.00	5.00	27,363	0	0	0	0	0	0
28	0.00	8,531,394	14.4	504,422	14,321	3,285,064	1,234	3.6	0.0	2.2	0	10.33	5.00	27,363	37,627	21,060	0	0	0	0
29	0.87	8,579,052	19.8	505,820	14,322	3,291,228	1,268	3.6	0.0	2.4	0	9.17	6.42	25,094	50,602	6,715	0	0	0	0
30	0.20	8,625,725	18.0	508,444	14,322	3,300,544	1,268	3.6	0.0	2.0	0	6.67	8.50	22,032	31,007	19,519	0	0	0	0
Totals	5.96								0		416,077			754,519	1,295,106	488,615	3,697	0	0	0

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Notes:

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

Type of Cover	Phases I-VI acres	Section 7-9 acres
Open	5	0
Intermediate	134.4	34.5
Final	23	0
Not Opened	0	0

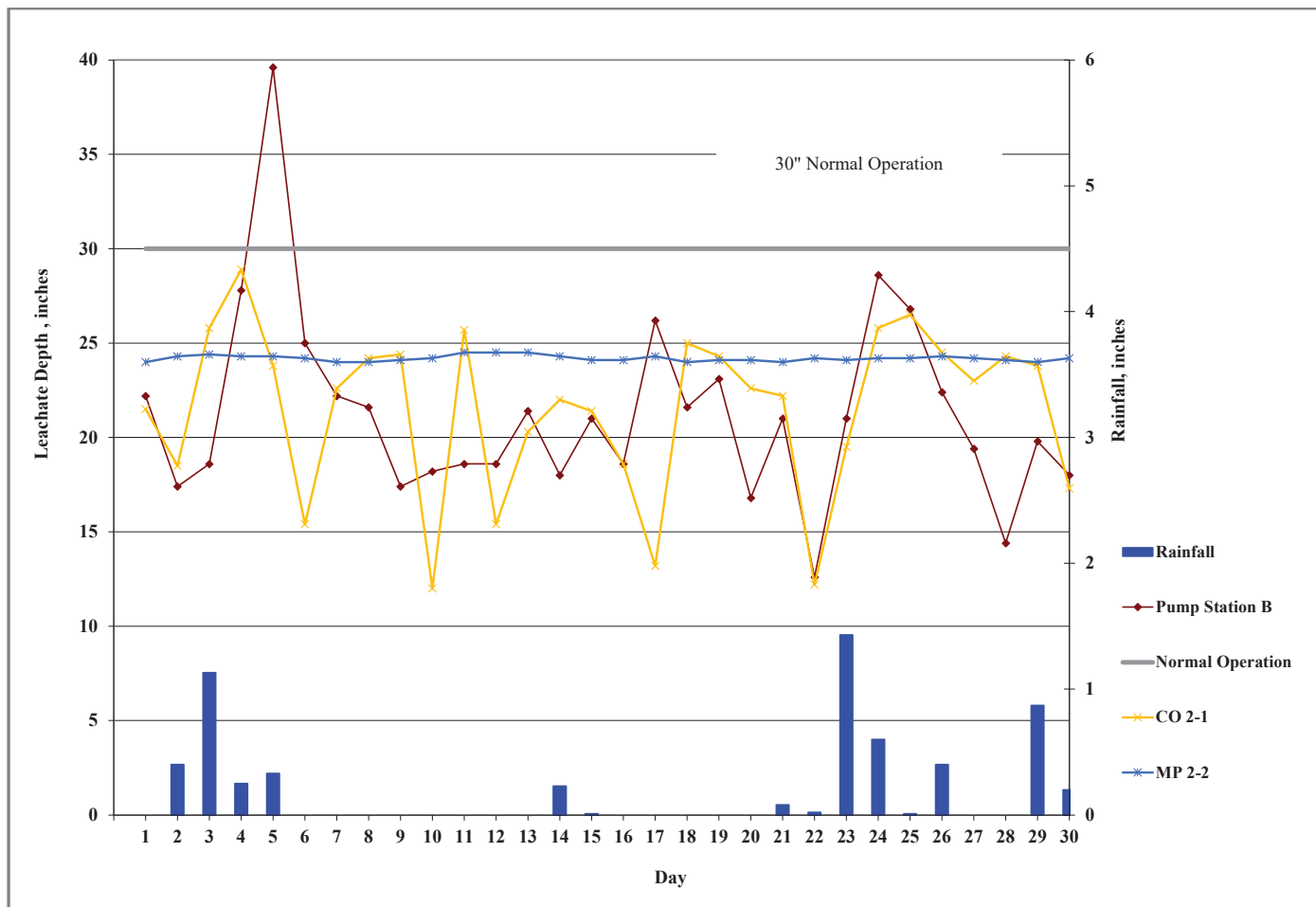


Figure 1. Leachate Levels in Pump Station B and Rainfall for June 2021.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2021**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			Effluent Disposal			Inflow / Outflow For LTRF		
		Condensate from LFG CS-1 (gal.)	Leachate from Section 9 Pumped to LTRF (gal.)	Leachate from Section 7-8 Pumped to LTRF (gal.)	Leachate from Phases I-VI Pumped to LTRF (gal.)	Total Leachate Hauled from LTRF (gal.)	Leachate Dust Control (Sprayed) (gal.)	Leachate Treated at LTRF (gal.)	Total Effluent Hauled (gal.)	Effluent Dust Control (Sprayed) (gal.)	Effluent Irrigation (gal.)	Total Inflow to LTRF (gal.)	Total Outflow from LTRF (gal.)	Change in Storage ³ (gal.)
January	1.38	240	151,803	252,214	2,851,511	2,492,589	7,043	867,500	0	0	933,772	3,255,768	3,367,132	-111,365
February	4.53	532	128,100	184,450	2,334,983	1,989,793	3,048	515,325	0	0	402,814	2,648,065	2,508,166	139,899
March	1.75	290	123,318	194,837	2,431,421	2,249,071	3,534	816,961	0	0	791,751	2,749,866	3,069,566	-319,701
April	4.18	522	91,296	142,727	2,166,002	1,595,033	3,700	829,417	0	0	590,194	2,400,547	2,428,150	-27,603
May	0.77	104	114,629	127,374	2,016,306	1,535,387	2,981	811,156	0	0	546,887	2,258,412	2,349,524	-91,112
June	5.76	1,140	107,211	128,406	1,818,010	1,554,240	3,697	411,053	0	0	416,077	2,054,766	1,968,990	85,776
July														
August														
September														
October														
November														
December														
YTD Total	18.37	2,828	716,357	1,030,007	13,618,231	11,416,113	24,003	4,251,412	0	0	3,681,495	15,367,423	15,691,528	-324,105

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.
2. Change in storage represents total inflow to LTRF minus total outflow from LTRF.