

Smith, George

From: Wiesman, Ronald <WiesmanR@hillsboroughcounty.org>
Sent: Friday, April 15, 2022 3:10 PM
To: Madden, Melissa; SWD_Waste
Cc: Cope, Ronald; Byer, Kimberly; Ruiz, Larry; O'Neill, Joseph; Spradlin, Kollan (KSpradlin@scsengineers.com); Curtis, Bob
Subject: WACS ID 41193 - Qtr. 1 2022 Water Balance & Waste Tire Report for Southeast County
Attachments: 1Q2022 Water Balance Report.pdf; 1Q2022 Waste Tire Report.pdf

EXTERNAL MESSAGE

This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Ms. Madden,

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 Department
Public Utilities Department

P: (813) 671-7707 VOIP 42801

M: (813) 455-2194

E: wiesmanr@HCFLGov.net

W: <http://HCFLGOV.net>

Hillsborough County

15960 County Road 672 Lithia, FL 33547

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Hillsborough County Florida

SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110
813-612-7718

April 15, 2022

Ms. Melissa Madden
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 Ms. Madden:

In accordance with Rule 62-711, F.A.C. and Permit No 126787-007-WT/02, the Solid Waste Management Department (SWMD) is submitting the Quarterly Report for the Waste Tire Facility for the period January 1, 2022 through March 31, 2022. 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 Department

LER/rw

Attachments

xc: Ron Cope, EPC

Kimberly Byer, SWMD

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**WASTE TIRE FACILITY
QUARTERLY TONNAGE REPORT
FIRST QUARTER 2022**

		FIRST QUARTER	Beginning Tonnage (Jan. 1, 2022)	
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS	Tons Adjusted
Jan. 2022	154.68	11.14	0.00	0.00
Beginning Tons	725.42			
	880.10	-11.14	0.00	0.00
			Ending Tonnage	868.96
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS	Tons Adjusted
Feb. 2022	198.43	391.77	0.00	9.78
Beginning Tons	868.96			
	1,067.39	-391.77	0.00	-9.78
			Ending Tonnage	665.84
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS	Tons Adjusted
Mar. 2022	70.64	110.43	139.96	23.23
Beginning Tons	665.84			
	736.48	-110.43	-139.96	-23.23
			Ending Tonnage	462.86
Month	Tires Received	Tires Removed by Contractor	Tires to SCTS	Tons Adjusted
Jan. 2022	154.68	11.14	0.00	0.00
Feb. 2022	198.43	391.77	0.00	9.78
Mar. 2022	70.64	110.43	139.96	23.23
Sub-Total	423.75	513.34	139.96	33.01
Beginning Tons	725.42			
TOTAL	1,149.17	-513.34	-139.96	-33.01
			Ending Tonnage	462.86



Department of Environmental Protection

DEP Form # 62-701.900(21)
Waste Tire Processing Facility
Form Title <u>Quarterly Report</u>
Effective Date <u>3/22/00</u>
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 1/1/22 thru 3/31/22 (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	725.42	423.75			653.30	33.01	462.86
Other whole Tires							
Processed tires							
Processing Waste							
Other							
Total	725.42	423.75			653.30	33.01	462.86

- a. Explain all inventory adjustments. 33.01
33.01 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

Signature of Authorized Agent

4/15/2022

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
813-612-7718

April 15, 2022

Ms. Melissa Madden
Solid Waste Section
Florida Department of Environmental
Protection
Southwest District
13051 N. Telecom Pkwy
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George Cassidy

RE: Southeast County Landfill –Leachate Data Quarterly Report

Dear Ms. Madden:

In accordance with Specific Condition No. C.12.d of Permit No. 35435-022-SO/01, the Solid Waste Management Department (SWMD) is submitting the Quarterly Leachate Water Balance summary for the Southeast County Landfill for the quarter ending March 31, 2022. The data is being submitted as separate monthly reports for January, February, and March 2022.

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

Sincerely,

Larry E. Ruiz
Manager Landfill Operations
Solid Waste Management Department

LER/rw

Attachments

xc: Ron Cope, EPC

Kimberly Byer, SWMD



SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110

MEMORANDUM

DATE: February 15, 2022

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 January 2022
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 2022 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 1.94 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 1.3 feet.

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George Cassady

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 leachate 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 22.7 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 20.8 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 24.8 inches.

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

Column VIII 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 95,053 gallons. A total of 2,946,654 gallons of leachate was pumped this month.

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

Column IX 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 1,032 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 X 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 237,637 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column XI 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 3,184,291 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

Column XII 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 267,904 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

Column XIII 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 gallons of leachate was removed from the leak detection system.

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

Column XIV 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 295,677 gallons of leachate was stored in the tank.

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

Column XV 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 228,774 gallons of leachate was stored in the tank.

Leachate Treated at LEF (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, treated at the LEF (Leachate Evaporator Facility). On September 1, 2021, Hillsborough County started treating leachate at the LEF. This month a total of 1,281,386 gallons of leachate was treated at the evaporator.

Leachate Treated at LTRF (Column XVII)

Column XVII 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 310,423 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVIII)

Column XVIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,665,014 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XIX)

Column XIX 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 zero gallons of leachate was used for dust control.

Pond A Storage (Column XX)

Column XX 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 36,161 gallons of effluent was stored in Pond A.

Pond B Storage (Column XXI)

Column XXI presents the daily amount of leachate, 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 pumped from the pond to the evaporator, hauled from the pond, used for dust control or evaporated. This month a daily average of 268,258 gallons of leachate was stored in Pond B.

Effluent Irrigation (Column XXII)

Column XXII 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 327,064 gallons of effluent was sprayed.

Effluent Dust Control Sprayed (Column XXIII)

Column XXIII 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 XXIV 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 XXV 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 1,415,000 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 3,452,373 gallons. Total outflow quantity from the LTRF was 3,256,823 gallons. The change in storage for the month increased by 195,550 gallons. Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM																									
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 LEF (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond Storage A (gal.)	Pond Storage B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)	
1	0.00	1.4	3.3	19.6	21.5	25.3	98,097	37	7,533	105,630	13,149	0	254,000	392,000	48,433	13,227	48,433	0	36,000	277,000	0	0	0	0	43,600
2	0.00	1.7	3.3	25.3	20.3	25.3	98,585	37	7,533	106,118	13,149	0	290,000	403,000	48,433	13,227	6,003	0	48,000	277,000	0	0	0	0	43,600
3	0.00	1.9	3.2	15.0	22.6	25.0	100,178	37	7,198	107,376	13,349	0	348,000	394,000	22,688	13,227	73,133	0	57,000	265,000	16,512	0	0	0	33,600
4	0.00	1.8	3.2	20.4	22.6	24.9	98,314	62	7,997	106,311	4,619	0	319,000	389,000	43,351	11,419	100,142	0	52,000	265,000	19,567	0	0	0	54,700
5	0.00	1.6	3.2	22.8	21.4	25.5	84,458	31	7,992	92,050	8,747	0	295,000	358,000	48,859	10,979	136,592	0	44,000	265,000	49,926	0	0	0	83,900
6	0.00	1.3	3.2	24.0	18.8	24.9	114,008	30	7,623	121,631	14,008	0	281,000	297,000	41,376	10,771	130,186	0	36,000	265,000	11,036	0	0	0	46,100
7	0.00	1.2	3.2	24.0	22.5	25.3	99,318	32	7,284	106,602	7,929	0	238,000	247,000	48,970	10,683	129,755	0	32,000	265,000	0	0	0	0	44,100
8	0.00	1.3	3.2	26.4	16.9	24.7	84,030	32	7,300	91,330	6,696	0	211,000	242,000	41,780	10,683	26,783	0	36,000	265,000	28,359	0	0	0	60,100
9	0.00	1.3	3.2	25.2	18.5	24.7	87,100	45	7,061	94,160	7,289	0	228,000	242,000	47,660	10,683	12,363	0	32,000	265,000	0	0	0	0	42,900
10	0.00	1.2	3.2	24.0	20.1	25.0	89,775	240	7,061	96,836	7,289	0	245,000	242,000	47,660	10,683	38,784	0	32,000	265,000	0	0	0	0	42,900
11	0.00	1.3	3.2	22.8	15.1	24.6	88,468	26	7,214	95,682	7,468	0	288,000	185,000	47,977	9,559	112,976	0	36,000	265,000	23,781	0	0	0	62,200
12	0.00	1.1	3.2	24.1	19.1	24.6	92,421	32	5,905	98,326	6,768	0	238,000	185,000	47,371	10,387	80,672	0	28,000	265,000	0	0	0	0	42,600
13	0.00	1.3	3.2	17.4	22.5	25.3	108,061	33	7,605	115,666	5,869	0	204,000	185,000	39,203	10,264	75,251	0	36,000	265,000	0	0	0	0	35,100
14	0.00	1.5	3.2	25.6	14.1	25.1	108,156	33	7,158	115,314	2,103	0	192,000	185,000	48,060	10,190	39,502	0	40,000	265,000	0	0	0	0	43,100
15	0.00	1.4	3.2	26.2	16.4	25.6	100,942	33	8,000	108,942	16,627	0	216,000	185,000	50,830	9,934	21,075	0	36,000	265,000	39,226	0	0	0	77,100
16	0.65	1.4	3.2	26.9	26.9	25.4	95,008	43	10,244	105,252	11,912	0	259,000	185,000	24,707	9,934	43,076	0	36,000	265,000	0	0	0	0	22,200
17	0.57	1.5	3.2	24.6	24.6	24.8	97,334	43	10,244	107,578	11,912	0	302,000	185,000	24,707	9,934	43,076	0	40,000	265,000	0	0	0	0	22,200
18	0.00	1.5	3.3	23.9	16.2	24.3	76,917	44	10,183	87,100	11,913	0	350,000	185,000	24,708	9,934	43,441	0	40,000	277,000	35,817	0	0	0	50,900
19	0.00	1.0	3.1	27.6	18.3	24.1	47,613	37	17,246	64,859	3,840	0	319,000	185,000	45,405	10,252	68,834	0	24,000	254,000	0	0	0	0	40,900
20	0.00	1.2	2.7	26.4	18.3	25.7	119,798	30	3,150	122,948	9,442	0	281,000	185,000	49,861	10,683	68,609	0	32,000	210,000	25,661	0	0	0	65,400
21	0.00	1.1	3.3	12.6	18.3	25.1	139,202	31	7,619	146,821	13,418	0	288,000	185,000	41,912	10,584	55,252	0	28,000	277,000	0	0	0	0	37,700
22	0.00	1.3	3.3	25.8	18.3	24.6	80,723	32	5,875	86,598	13,708	0	278,000	185,000	53,120	9,929	13,894	0	36,000	277,000	0	0	0	0	47,800
23	0.00	1.5	3.3	24.9	18.3	24.4	45,312	40	6,233	51,545	15,200	0	299,000	185,000	33,090	9,929	0	0	40,000	277,000	0	0	0	0	29,800
24	0.00	1.6	3.3	24.0	18.3	24.8	42,765	40	6,233	48,998	15,200	0	319,000	185,000	33,090	9,929	57,297	0	44,000	277,000	34,789	0	0	0	57,600
25	0.40	1.0	3.2	16.2	18.3	24.4	169,726	46	8,049	177,775	9,679	0	326,000	185,000	29,966	9,544	49,573	0	24,000	265,000	0	0	0	0	27,000
26	0.32	1.3	3.6	18.0	25.5	24.6	107,624	45	6,068	113,692	2,915	0	360,000	185,000	45,573	9,196	69,046	0	36,000	312,000	0	0	0	0	41,000
27	0.00	1.6	3.3	19.2	27.4	24.5	102,955	1	6,726	109,521	6,517	0	374,000	185,000	49,122	9,643	29,310	0	44,000	277,000	0	0	0	0	44,200
28	0.00	1.6	3.3	19.8	28.7	24.7	90,783	0	6,311	97,094	5,135	0	379,000	186,000	48,487	9,311	57,476	0	44,000	277,000	42,390	0	0	0	77,600
29	0.00	1.0	3.3	21.6	26.2	24.1	99,313	28	6,648	105,961	1,939	0	358,000	185,000	51,225	6,055	42,792	0	24,000	277,000	0	0	0	0	46,100
30	0.00	1.0	3.3	23.7	25.4	23.9	89,746	30	8,373	98,119	109	1	395,000	185,000	26,882	6,055	0	0	24,000	265,000	0	0	0	0	24,200
31	0.00	1.0	3.2	25.8	24.6	24.4	90,087	30	8,373	98,459	109	1	432,000	185,000	26,882	6,055	83,197	0	24,000	265,000	0	0	0	0	24,200
Total	1.94						2,946,654	1,032	237,637	3,184,291	267,904	1	295,677	228,774	1,281,386	310,423	1,665,014	0	36,161	268,258	7	0	0	0	1,415,000
Daily Average		1.3	3.2	22.7	20.8	24.8	95,053						295,677	228,774				0	36,161	268,258	7				32
Mo. Average																									

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 is 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 as 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 leak, detection pumped into Section 7 leachate sump riser.

10. Columns XIV and XV, calculated from depth in 575000 gal. tanks.

11. Columns VIII-XIII, XVI-XXI, and XXII-XXIV, quantites from flow meters.

12. Column XXV includes 80% of the daily values from Columns XIX, XXII, XXIII, plus 90% of Column XVI.

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. True is less than 0.01 inches and is not included in total.
6. Columns II 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 CO 2-1.
9. Column IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
10. Column XIV and XV, calculated from depth in 575,000 gal. tanks.
11. Columns VIII-XIII, XVI-XXI, and XXIII-XXIV, quantities from flow meters.
12. Column XXV includes 80% of the daily values from Columns XIX, XXII, XXIII, plus 90% of Column XVI.

TABLE 2. FIELD DATA ENTRY FORM
JANUARY 2022
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

MONTH/YEAR

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pumps (gal.)	Section 9 LDS (gal.)	Section 7-8 Pump (gal.)	Section 7-8 LDS (gal.)	MLPS to Pond B (gal.)	Pond B to LEF (gal.)	Pond B Depth (ft.)	Pond A Depth (ft.)	Effluent Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Hauled (gal.)	Dust Control (Sprayed) (gal.)	Effluent Hauled (gal.)	Dust Control (Spreyed) (gal.)
1	0.00	25,592,844	19.6	2,522,567	45,659	6,140,995	5,585	2,877,010	5,670,703	3.3	1.4	0	8.83	13.63	13,227	0			
2	0.00	25,666,886	25.3	2,535,716	45,659	6,148,528	5,622	2,932,374	5,718,536	3.3	1.7	0	10.08	14.00	13,227	6,003			
3	0.00	25,747,444	15.0	2,549,065	45,659	6,155,726	5,659	2,958,408	5,741,224	3.2	1.9	16,512	12.08	13.67	13,227	73,133			
4	0.00	25,820,044	20.4	2,553,684	45,659	6,163,723	5,721	2,997,774	5,784,575	3.2	1.8	19,567	11.08	13.50	11,419	100,142			
5	0.00	25,879,056	22.8	2,562,431	45,659	6,171,315	5,752	3,043,478	5,833,434	3.2	1.6	49,926	10.25	12.42	10,979	136,592			
6	0.00	25,968,574	24.0	2,576,439	45,659	6,178,938	5,782	3,091,830	5,874,810	3.2	1.3	11,036	9.75	10.33	10,771	130,186			
7	0.00	26,050,315	24.0	2,584,368	45,659	6,186,222	5,814	3,133,855	5,923,780	3.2	1.2	0	8.25	8.58	10,068	129,755			
8	0.00	26,116,190	26.4	2,591,064	45,659	6,193,522	5,846	3,183,715	5,965,560	3.2	1.3	28,359	7.33	8.42	10,068	26,783			
9	0.00	26,185,135	25.2	2,598,333	45,659	6,200,583	5,891	3,233,432	6,013,220	3	1.3	0	7.92	8.42	10,068	12,363			
10	0.00	26,254,080	24.0	2,605,641	45,659	6,207,643	5,935	3,283,149	6,060,879	3.2	1.2	0	8.50	8.42	10,068	38,784			
11	0.00	26,325,596	22.8	2,613,109	45,659	6,214,857	5,961	3,336,581	6,108,856	3.2	1.3	23,781	10.00	6.42	9,559	112,976			
12	0.00	26,391,404	24.1	2,619,877	45,659	6,220,762	5,993	3,381,219	6,156,227	3.2	1.1	0	8.25	6.42	10,387	80,672			
13	0.00	26,470,422	17.4	2,625,746	45,659	6,228,367	6,026	3,419,948	6,195,430	3.2	1.3	0	7.08	6.42	10,264	75,251			
14	0.00	26,551,500	25.6	2,627,849	45,659	6,235,525	6,059	3,471,754	6,243,490	3.2	1.5	0	6.67	6.42	10,190	39,502			
15	0.00	26,631,844	26.2	2,644,476	45,659	6,243,525	6,092	3,518,350	6,294,320	3.2	1.4	39,226	7.50	6.42	9,934	21,075			
16	0.65	26,706,254	26.9	2,656,388	45,659	6,253,769	6,135	3,566,892	6,343,734	3.2	1.5	0	10.30	6.42	9,934	43,076			
17	0.57	26,780,664	24.6	2,668,300	45,659	6,264,013	6,178	3,542,621	6,319,027	3.2	1.4	0	9.00	6.42	9,934	0			
18	0.00	26,855,074	23.9	2,680,213	45,659	6,274,196	6,222	3,591,164	6,368,442	3.3	1.5	35,817	12.17	6.42	9,934	43,441			
19	0.00	26,902,170	27.6	2,684,053	45,659	6,291,442	6,259	3,619,615	6,413,847	3.1	1.0	0	11.08	6.42	10,252	68,834			
20	0.00	26,973,222	26.4	2,693,395	45,659	6,294,592	6,259	3,667,141	6,463,708	2.7	1.2	25,661	9.75	6.42	10,683	68,609			
21	0.00	27,066,930	12.6	2,706,813	45,659	6,302,211	6,290	3,735,627	6,505,620	3.3	1.1	0	10.00	6.42	10,584	55,252			
22	0.00	27,127,678	25.8	2,720,521	45,659	6,308,086	6,322	3,781,626	6,558,740	3.3	1.3	0	9.67	6.42	9,929	13,894			
23	0.00	27,153,015	24.9	2,735,721	45,659	6,314,319	6,362	3,799,481	6,591,830	3	1.5	0	10.38	6.42	9,929	0			
24	0.00	27,178,352	24.0	2,750,920	45,659	6,320,552	6,401	3,817,336	6,624,919	3.3	1.6	34,789	11.08	6.42	9,929	57,297			
25	0.40	27,304,374	16.2	2,760,599	45,659	6,328,601	6,447	3,894,789	6,654,885	3.2	1.0	0	11.33	6.42	9,544	49,573			
26	0.32	27,387,468	18.0	2,763,514	45,659	6,334,669	6,492	3,929,363	6,700,458	3.6	1.3	0	12.50	6.42	9,196	69,046			
27	0.00	27,463,834	19.2	2,770,031	45,659	6,341,395	6,493	3,971,026	6,749,580	3.3	1.6	0	13.00	6.42	9,643	29,310			
28	0.00	27,535,416	19.8	2,775,166	45,659	6,347,706	6,493	4,022,366	6,798,067	3.3	1.6	42,390	13.17	6.45	9,311	57,476			
29	0.00	27,610,306	21.6	2,777,105	45,659	6,354,354	6,521	4,076,648	6,849,292	3.3	1.0	0	12.42	6.42	6,055	42,792			
30	0.00	27,675,629	23.7	2,777,214	45,660	6,362,727	6,551	4,107,434	6,876,174	3.3	1.0	0	13.71	6.42	6,055	0			
31	0.00	27,740,952	25.8	2,777,322	45,660	6,371,099	6,580	4,138,219	6,903,056	3.2	1.0	0	15.00	6.42	6,055	83,197			
Totals	1.94											327,064			310,423	1,665,014			0

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 I include quantities from leak detection system.
- Column B, trace is less than 0.01 inches.
- Columns C-K, N, and Q-U are quantities from flow meters.

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

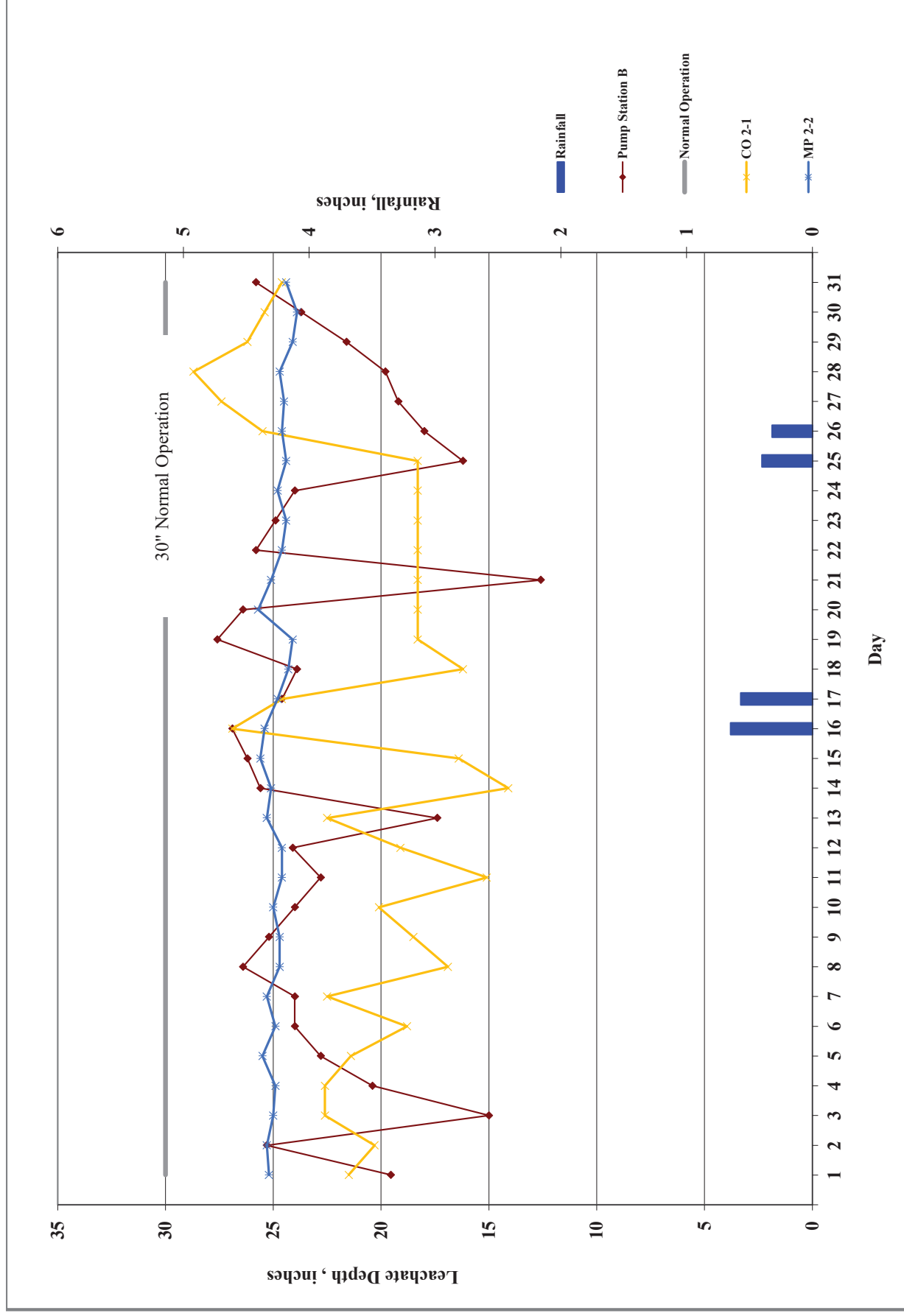


Figure 1. Leachate Levels in Pump Station B and Rainfall for January 2022

TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2022

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			LEF Leachate Treated at LEF (gal.)	Effluent Disposal			Inflow / Outflow For	
		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.)
January	1.94	177	267,905	237,637	2,946,654	0	0	310,423	1,281,386	0	0	327,064	3,452,373	1,591,809
February														
March														
April														
May														
June														
July														
August														
September														
October														
November														
December														
YTD Total														

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.



**Hillsborough
County Florida**

SOLID WASTE MANAGEMENT

PO Box 1110, Tampa, FL 33601-1110

MEMORANDUM

DATE: March 15, 2022

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 February 2022
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 2022 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 .6 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 .7 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 leachate 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 20.0 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 26.5 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 24.4 inches.

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

Column VIII 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 81,500 gallons. A total of 2,282,000 gallons of leachate was pumped this month.

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

Column IX 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 834 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 X 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 171,218 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column XI 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 2,453,218 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

Column XII 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 205,867 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

Column XIII 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 1,736 gallons of leachate was removed from the leak detection system.

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

Column XIV 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 245,357 gallons of leachate was stored in the tank.

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

Column XV 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 221,679 gallons of leachate was stored in the tank.

Leachate Treated at LEF (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, treated at the LEF (Leachate Evaporator Facility). On September 1, 2021, Hillsborough County started treating leachate at the LEF. This month a total of 1,024,398 gallons of leachate was treated at the evaporator.

Leachate Treated at LTRF (Column XVII)

Column XVII 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 390,783 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVIII)

Column XVIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,658,498 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XIX)

Column XIX 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 zero gallons of leachate was used for dust control.

Pond A Storage (Column XX)

Column XX 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 17,243 gallons of effluent was stored in Pond A.

Pond B Storage (Column XXI)

Column XXI presents the daily amount of leachate, 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 pumped from the pond to the evaporator, hauled from the pond, used for dust control or evaporated. This month a daily average of 263,143 gallons of leachate was stored in Pond B.

Effluent Irrigation (Column XXII)

Column XXII 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 39,931 gallons of effluent was sprayed.

Effluent Dust Control Sprayed (Column XXIII)

Column XXIII 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 XXIV 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 XXV 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 953,900 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 2,660,891 gallons. Total outflow quantity from the LTRF was 3,073,679 gallons. The change in storage for the month decreased by 412,788 gallons. Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM																								
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 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 LEF (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond A Storage (gal.)	Pond B Storage (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)	
1	0.00	1.1	3.2	28.2	26.6	24.5	93,377	31	17,692	111,069	3,471	0	396,000	202,000	49,466	13,936	75,313	0	28,000	265,000	0	0	0	44,500
2	0.00	1.0	3.2	28.2	28.4	24.5	86,656	0	0	86,656	0	0	350,000	214,000	50,837	15,163	75,828	0	24,000	265,000	0	0	0	45,500
3	0.00	0.7	3.3	19.8	24.3	24.6	87,105	63	9,026	96,131	22,530	0	302,000	214,000	39,808	10,201	82,919	0	13,000	277,000	0	0	0	35,500
4	0.00	0.8	3.0	21.6	26.9	24.5	93,609	33	5,854	99,463	7,706	89	317,000	216,000	48,775	7,914	83,499	0	17,000	242,000	0	0	0	43,000
5	0.00	1.0	3.1	25.8	28.4	24.6	76,691	32	7,245	83,936	8,743	0	266,000	216,000	23,350	4,760	42,933	0	24,000	254,000	0	0	0	21,000
6	0.00	1.1	3.2	22.8	28.0	24.3	32,924	15	3,255	36,179	1,697	163	294,000	216,000	17,445	4,760	0	0	28,000	254,000	0	0	0	15,700
7	0.00	1.2	3.2	19.8	27.6	24.3	27,874	15	3,255	31,129	1,697	163	322,000	216,000	17,445	4,760	39,817	0	32,000	265,000	0	0	0	15,700
8	0.10	1.3	3.3	13.8	27.6	24.3	144,638	41	10,159	154,797	3,395	325	332,000	221,000	45,263	5,962	76,332	0	36,000	277,000	0	0	0	40,700
9	0.32	1.5	3.2	21.6	25.3	24.7	101,614	60	6,743	108,357	3,303	1	302,000	221,000	51,392	6,019	90,161	0	40,000	265,000	0	0	0	46,300
10	0.00	1.6	3.2	23.4	28.0	24.9	96,528	27	6,709	103,237	8,302	0	259,000	216,000	52,405	6,019	82,693	0	44,000	265,000	0	0	0	47,200
11	0.00	1.6	3.2	24.0	26.9	25.0	91,305	29	6,555	97,860	3,143	1	185,000	238,000	51,605	26,551	89,316	0	44,000	265,000	0	0	0	46,400
12	0.00	1.2	3.2	17.4	26.5	24.6	83,840	31	6,228	90,068	10,156	0	144,000	264,000	40,920	26,551	49,489	0	32,000	265,000	0	0	0	36,500
13	0.18	1.2	3.2	22.5	27.6	24.2	77,751	30	5,256	83,007	6,472	1	180,000	286,000	7,725	26,551	0	0	28,000	265,000	0	0	0	7,000
14	0.00	1.1	3.2	27.6	28.6	23.8	73,316	30	5,256	78,572	6,472	1	216,000	307,000	7,725	26,551	95,582	0	28,000	265,000	0	0	0	7,000
15	0.00	0.6	3.2	14.4	25.2	23.8	70,664	28	4,884	75,548	4,635	0	216,000	242,000	46,031	15,607	92,900	0	10,000	265,000	0	0	0	41,400
16	0.00	0.0	3.2	20.4	27.6	24.2	75,894	30	6,278	82,172	15,771	0	149,000	259,000	48,733	8,106	62,927	0	800	265,000	0	0	0	43,900
17	0.00	0.0	3.2	13.2	28.7	24.5	86,635	31	5,816	92,451	7,913	0	166,000	221,000	51,146	14,480	74,411	0	800	265,000	0	0	0	46,000
18	0.00	0.0	3.3	13.8	27.5	24.6	86,916	0	5,600	92,516	4,652	0	202,000	182,000	22,375	15,556	60,951	0	800	277,000	0	0	0	20,100
19	0.00	0.0	3.3	25.2	23.3	24.7	84,825	37	6,987	91,812	12,359	0	247,000	149,000	27,980	13,860	13,849	0	800	277,000	0	0	0	25,500
20	0.00	0.0	3.3	20.4	24.2	24.3	75,091	34	5,040	80,130	8,303	3	270,000	164,000	23,614	13,860	0	0	800	265,000	0	0	0	21,500
21	0.00	0.0	3.2	15.6	25.0	24.4	58,767	34	5,040	63,807	8,303	3	295,000	180,000	23,614	13,860	68,405	0	800	265,000	0	0	0	21,500
22	0.00	0.0	3.2	10.8	24.2	24.3	85,518	33	5,317	90,835	13,426	11	274,000	194,000	28,143	15,639	61,003	0	800	265,000	0	0	0	25,500
23	0.00	0.0	3.1	24.0	25.2	24.3	79,852	33	5,383	85,235	5,952	977	266,000	209,000	36,032	15,639	82,376	0	800	254,000	0	0	0	32,400
24	0.00	0.0	3.1	13.8	24.7	24.4	83,333	32	5,440	88,773	8,819	0	240,000	216,000	30,097	14,970	75,003	0	800	254,000	0	0	0	27,100
25	0.00	0.0	3.1	22.8	28.6	24.4	81,120	0	5,672	87,182	7,410	0	189,000	235,000	48,590	14,842	75,624	0	800	254,000	0	0	0	43,700
26	0.00	0.0	3.1	13.2	27.0	24.4	81,124	38	5,602	86,726	7,347	0	156,000	235,000	55,405	16,222	27,910	0	800	254,000	9,316	0	0	57,500
27	0.00	0.7	3.2	15.9	25.7	24.5	82,485	34	5,464	87,949	6,940	0	167,000	236,000	39,239	16,222	6,395	0	10,000	254,000	0	0	0	35,500
28	0.00	1.3	3.2	18.6	24.3	24.6	82,161	34	5,464	87,624	6,940	0	178,000	238,000	39,239	16,222	74,862	0	36,000	265,000	30,615	0	0	59,900
29																								
30																								
31																								
Total	0.60						2,282,000	834	171,218	2,453,218	205,867	1,736	245,357	221,679	1,024,398	390,783	1,658,498	0	17,243	263,143	39,931	0	0	953,900
Daily Average		0.7	3.2	20.0	26.5	24.4	81,500																	34,068

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, True is less than 0.01 inches and is not included in total.
6. Columns II 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. Column IX, Section 7-8 leak detection pumped into Section 7 leachate sump/riser.
10. Column XIV and XV, calculated from depth in 575,000 gal. tanks.
11. Columns VIII-XIII, XVI-XXI, and XXII-XXIV, quantities from flow meters.
12. Column XXV includes 80% of the daily values from Columns XIX, XXII, XXIII, plus 90% of Column XVI.

TABLE 2. FIELD DATA ENTRY FORM
February 2022
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

MONTH/YEAR

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pumps (gal.)	Section 9 LDS (gal.)	Section 7-8 Pump (gal.)	Section 7-8 LDS (gal.)	MLPS to Pond B (gal.)	Pond B to LEF (gal.)	Pond B Depth (ft.)	Pond A Depth (ft.)	Effluent Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Hauled (gal.)	Dust Control (Sprayed) (gal.)	Effluent Hauled (gal.)	Dust Control (Spreyed) (gal.)
1	0.00	27,808,250	28.2	2,780,793	45,660	6,388,791	6,611	4,180,694	6,952,222	3.2	1.1	0	13.75	7.00	13,936	75,313			
2	0.00	27,867,720	28.2	2,780,793	45,660	6,388,791	6,611	4,180,694	7,003,359	3.2	1.0	0	12.17	7.42	15,163	75,828			
3	0.00	27,933,786	19.8	2,803,323	45,660	6,397,817	6,674	4,294,649	7,043,167	3.3	0.7	0	10.50	7.42	10,201	82,919			
4	0.00	28,001,806	21.6	2,811,029	45,749	6,403,671	6,707	4,294,607	7,091,942	3.0	0.8	0	11.00	7.50	7,914	83,499			
5	0.00	28,070,386	25.8	2,819,772	45,749	6,410,916	6,739	4,366,160	7,115,292	3.1	1.0	0	9.25	7.50	4,760	42,933			
6	0.00	28,095,199	22.8	2,821,469	45,912	6,414,171	6,754	4,387,722	7,132,737	3.2	1.1	0	10.21	7.50	4,760	0			
7	0.00	28,120,012	19.8	2,823,166	46,074	6,417,426	6,769	4,409,283	7,150,182	3.2	1.2	0	11.17	7.50	4,760	39,817			
8	0.10	28,221,954	13.8	2,826,561	46,399	6,427,585	6,810	4,409,283	7,195,445	3.3	1.3	0	11.17	7.67	5,962	76,332			
9	0.32	28,295,582	21.6	2,829,864	46,400	6,434,328	6,870	4,474,555	7,246,837	3.2	1.5	0	10.50	7.67	6,019	90,161			
10	0.00	28,365,902	23.4	2,838,176	46,400	6,441,037	6,897	4,547,839	7,299,242	3.2	1.6	0	9.00	7.50	6,019	82,693			
11	0.00	28,431,576	24.0	2,841,319	46,401	6,447,592	6,926	4,615,625	7,350,847	3.2	1.6	0	6.42	8.25	26,551	89,316			
12	0.00	28,499,790	17.4	2,851,475	46,401	6,453,820	6,957	4,674,230	7,391,767	3.2	1.2	0	5.00	9.17	26,551	49,489			
13	0.18	28,561,915	22.5	2,857,947	46,402	6,459,076	6,987	4,708,117	7,399,492	3.2	1.2	0	6.25	9.92	26,551	0			
14	0.00	28,624,040	27.6	2,864,419	46,402	6,464,332	7,017	4,742,004	7,407,217	3.2	1.1	0	7.50	10.67	26,551	93,582			
15	0.00	28,680,616	14.4	2,869,054	46,402	6,469,216	7,045	4,795,294	7,453,248	3.2	0.6	0	7.58	8.42	15,607	92,900			
16	0.00	28,735,924	20.4	2,884,825	46,402	6,475,494	7,075	4,853,213	7,501,981	3.2	0.0	0	5.17	9.00	8,106	62,927			
17	0.00	28,797,028	13.2	2,892,738	46,402	6,481,310	7,106	4,909,244	7,553,127	3.2	0.0	0	5.75	7.67	14,480	74,411			
18	0.00	28,859,774	13.8	2,897,390	46,402	6,486,910	7,106	4,944,806	7,575,502	3.3	0.0	0	7.00	6.33	15,556	60,951			
19	0.00	28,926,654	25.2	2,909,749	46,402	6,493,897	7,143	4,973,063	7,603,482	3.3	0.0	0	8.58	5.17	13,860	13,849			
20	0.00	28,983,800	20.4	2,918,052	46,405	6,498,937	7,177	4,999,434	7,627,096	3.3	0.0	0	9.38	5.71	13,860	0			
21	0.00	29,040,946	15.6	2,926,355	46,408	6,503,976	7,210	5,025,805	7,650,710	3.2	0.0	0	10.17	6.25	13,860	68,405			
22	0.00	29,098,496	10.8	2,939,781	46,419	6,509,293	7,243	5,041,302	7,678,853	3.2	0.0	0	9.50	6.75	15,639	61,003			
23	0.00	29,156,852	24.0	2,945,733	47,396	6,514,676	7,276	5,078,195	7,714,885	3.1	0.0	0	9.25	7.25	15,639	82,376			
24	0.00	29,215,972	13.8	2,954,552	47,396	6,520,116	7,308	5,108,471	7,744,982	3.1	0.0	0	8.33	7.50	14,970	75,003			
25	0.00	29,275,850	22.8	2,961,962	47,396	6,525,788	7,308	5,168,955	7,793,572	3.1	0.0	0	6.58	8.17	14,842	75,624			
26	0.00	29,333,998	13.2	2,969,309	47,396	6,531,390	7,346	5,227,603	7,848,977	3.1	0.0	9,316	5.42	8.17	16,222	27,910			
27	0.00	29,393,052	15.9	2,976,249	47,396	6,536,854	7,380	5,273,797	7,888,216	3.2	0.7	0	5.80	8.21	16,222	6,395			
28	0.00	29,452,106	18.6	2,983,189	47,396	6,542,317	7,414	5,319,991	7,927,454	3.2	1.3	30,615	6.17	8.25	16,222	74,862			
29	0.00															0			
30	0.00															0			
31	0.00																		
Totals	0.60											39,931			390,783	1,658,498			0

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 I include quantities from leak detection system.
- Column B, trace is less than 0.01 inches.
- Columns C-K, N, and Q-U are quantities from flow meters.

Type of Cover	Phases 1-VI acres	Section 7-9 acres
Open	5	0
Intermediate	134.4	34.5
Final	23	0
Not Opened	0	0

PHASE 2 ADDITIONAL LEACHATE REMOVAL
February 2022

DAY	DW 1-1 READING	DW 1-1 GALLONS	DW 1-2 READING	DW 1-2 GALLONS	DW 2-1 READING	DW 2-1 GALLONS	DW 2-2 READING	DW 2-2 GALLONS	PS-2 (CO 2-1) READING	PS-2 (CO 2-1) GALLONS	TOTAL GALLONS
1	261,825	767	6,813	1,967	446,140	0	1,700	380	6,157,279	22,966	26,079
2	264,894	724	14,679	2,037	446,140	0	3,218	452	6,180,245	23,973	27,186
3	267,790	67	22,826	521	446,140	0	5,026	42	6,204,218	20,409	21,039
4	268,058	834	24,911	2,144	446,140	0	5,194	1	6,224,627	22,611	25,589
5	271,392	258	33,485	715	446,140	0	5,199	0	6,247,238	7,139	8,111
6	272,423	258	36,344	715	446,140	0	5,199	0	6,254,377	7,139	8,111
7	273,453	638	39,203	2,379	446,140	0	5,199	0	6,261,515	44	3,061
8	276,004	713	48,718	2,167	446,140	0	5,199	0	6,261,559	39,816	42,696
9	278,856	664	57,386	2,094	446,140	0	5,199	0	6,301,375	25,228	27,986
10	281,512	626	65,762	1,956	446,140	0	5,199	353	6,326,603	23,272	26,208
11	284,017	628	73,587	2,251	446,140	0	6,612	100	6,349,875	22,652	25,631
12	286,530	669	82,591	1,737	446,140	0	7,011	0	6,372,527	13,220	15,626
13	289,205	669	89,539	1,737	446,140	0	7,011	0	6,385,747	13,220	15,626
14	291,880	582	96,487	1,984	446,140	0	7,011	0	6,398,967	8,624	11,191
15	294,209	551	104,424	1,995	446,140	0	7,011	0	6,407,591	11,543	14,088
16	296,412	562	112,402	2,081	446,140	0	7,011	0	297	17,944	20,586
17	298,659	552	120,724	1,070	446,140	0	7,011	-1,667	18,241	25,575	25,531
18	300,868		125,005	542	446,140	0	344	111	43,816	23,517	24,170
19	301,400	74	127,173	316	446,140	0	786	0	67,333	17,555	17,945
20	301,697	74	128,437	316	446,140	0	786	0	84,888	17,555	17,945
21	301,994	0	129,701	0	446,140	0	786	0	102,442	1,621	1,621
22	301,994	0	129,701	0	446,140	0	786	0	104,063	27,968	27,968
23	301,994	0	129,701	0	446,140	0	786	0	132,031	21,496	21,496
24	301,994	836	129,701	3,251	446,140	0	786	502	153,527	19,625	24,213
25	305,336	783	142,704	2,630	446,140	0	2,793	481	173,152	17,738	21,632
26	308,468	615	153,225	2,362	446,140	0	4,717	0	190,890	19,999	22,976
27	310,927	615	162,674	2,362	446,140	0	6,538	455	210,889	19,999	23,431
28	313,385	693	172,122	2,387	446,140	2	8,359	0	230,888	20,025	23,107
29	316,157	-79,039	181,668	-45,417	446,148	-111,537	10,263	-2,566	250,913	-250,913	-489,472
30		0		0		0		0		0	0
31		0		0		0		0		0	0

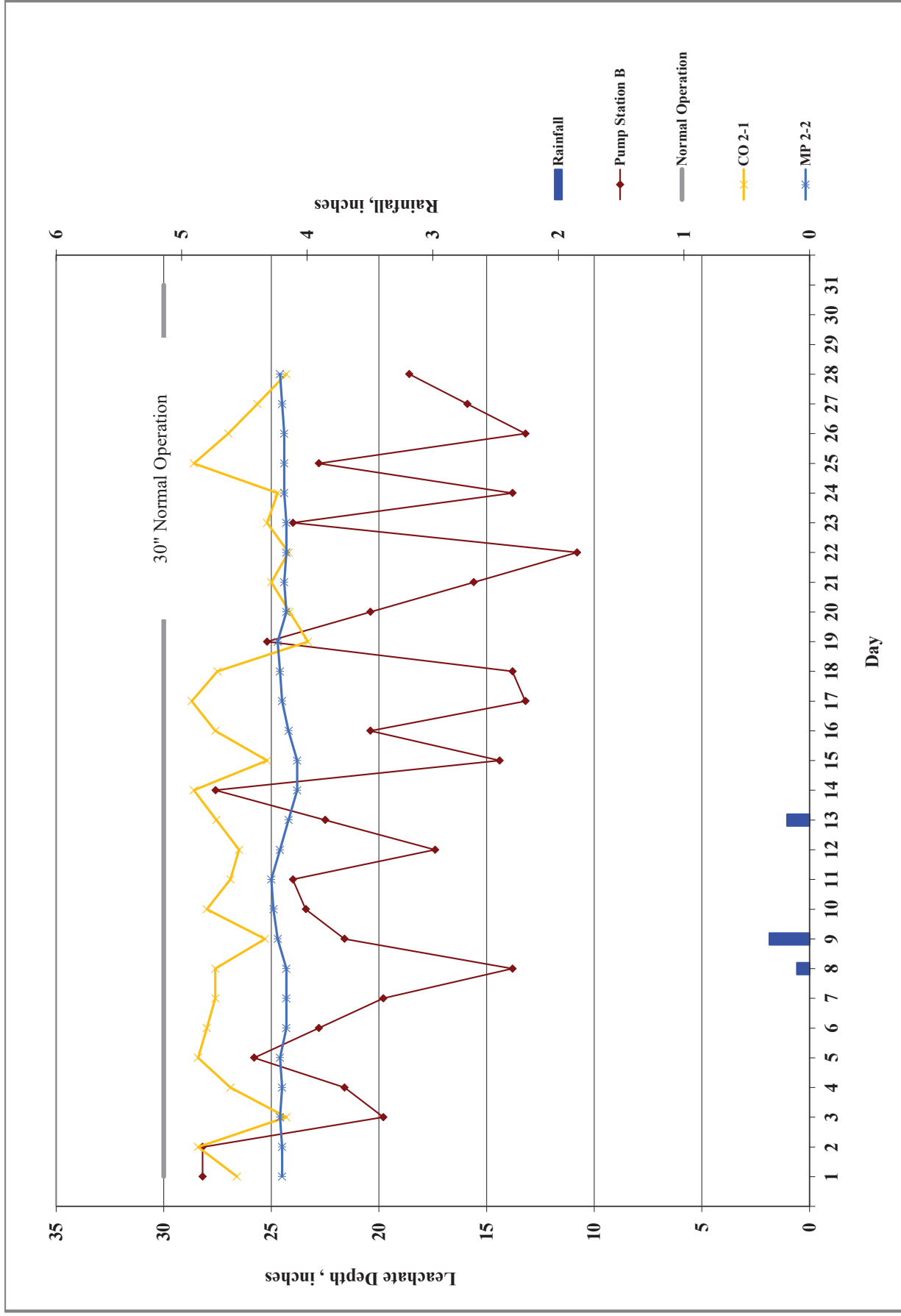


Figure 1. Leachate Levels in Pump Station B and Rainfall for February 2022.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2022**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF				LEF Leachate Treated at LEF (gal.)	Effluent Disposal			Inflow / Outflow For	
		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.)	
January	1.94	177	267,905	237,637	2,946,654	1,665,014	0	310,423	1,281,386	0	0	327,064	3,452,373	3,256,823	
February	0.60	70	207,603	171,218	2,282,000	1,658,498	0	390,783	1,024,398	0	0	39,931	2,660,891	3,073,679	
March															
April															
May															
June															
July															
August															
September															
October															
November															
December															
YTD Total															

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: April 15, 2022

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 March 2022
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 2022 Summary (Table 3). Also, attached find Figure 1 showing leachate levels in Pump Station B sump of Phases I-VI and rainfall for the month.

TABLE 1

Day (Column I)

Column I presents the calendar days for the month.

Rainfall (Column II)

Column II presents the average rainfall, in inches, as measured in the field from rainfall stations at the site. This month there was 3.0 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 1.3 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 leachate 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 18.1 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 22.9 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 VIII 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 76,129 gallons. A total of 2,360,014 gallons of leachate was pumped this month.

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

Column IX 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 839 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 X 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 184,958 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column XI)

Column XI 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 2,544,972 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column XII)

Column XII 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 186,843 gallons of leachate was pumped this month.

Leachate Pumped from Section 9 LDS (Column XIII)

Column XIII 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 260 gallons of leachate was removed from the leak detection system.

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

Column XIV 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 241,387 gallons of leachate was stored in the tank.

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

Column XV 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 146,774 gallons of leachate was stored in the tank.

Leachate Treated at LEF (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, treated at the LEF (Leachate Evaporator Facility). On September 1, 2021, Hillsborough County started treating leachate at the LEF. This month a total of 1,108,913 gallons of leachate was treated at the evaporator.

Leachate Treated at LTRF (Column XVII)

Column XVII 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 573,348 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XVIII)

Column XVIII presents the daily amount of leachate, in gallons, hauled off site. This month a total of 1,305,276 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XIX)

Column XIX 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 zero gallons of leachate was used for dust control.

Pond A Storage (Column XX)

Column XX 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 35,955 gallons of effluent was stored in Pond A.

Pond B Storage (Column XXI)

Column XXI presents the daily amount of leachate, 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 pumped from the pond to the evaporator, hauled from the pond, used for dust control or evaporated. This month a daily average of 264,710 gallons of leachate was stored in Pond B.

Effluent Irrigation (Column XXII)

Column XXII 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 374,378 gallons of effluent was sprayed.

Effluent Dust Control Sprayed (Column XXIII)

Column XXIII 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 XXIV 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 XXV 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 1,297,400 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 2,732,347 gallons. Total outflow quantity from the LTRF was 2,987,537 gallons. The change in storage for the month decreased by 255,191 gallons. Please advise should you have any questions concerning the information provided.

TABLE 1. LEACHATE WATER BALANCE REPORT FORM

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 PS-B (in)	Depth in CO 2-1 (ft.)	Depth in MP 2-2 (in.)	Leachate Pumped to MLPS from Phases I-VI (gal.)	Leachate Pumped to MLPS from Sections 7-8 LDS (gal.)	Leachate Pumped to MLPS from Sections 5-8 (gal.)	Leachate Pumped to LTRF from MPLS (gal.)	Leachate Pumped to LTRF from Section 9 (gal.)	Leachate Pumped from Section 9 LDS (gal.)	Effluent in 575K Tank (gal.)	Effluent in 575K Tank (gal.)	Leachate Treated at LEF (gal.)	Leachate Treated at LTRF (gal.)	Total Leachate Hauled (gal.)	Leachate Dust Control (Sprayed) (gal.)	Pond Storage A (gal.)	Pond Storage B (gal.)	Effluent Irrigation (gal.)	Effluent Dust Control (Sprayed) (gal.)	Total Effluent Hauled (gal.)	Total Evaporation (gal.)	
1	0.00	0.8	3.2	23.4	26.6	24.3	82,160	32	5,537	87,697	7,081	0	153,000	225,000	39,471	21,612	94,992	0	17,000	265,000	0	0	0	0	35,500
2	0.00	1.1	3.2	21.0	24.0	24.3	76,595	31	5,768	82,363	8,708	0	182,000	134,000	51,690	15,528	73,673	0	28,000	265,000	19,581	0	0	0	62,200
3	0.00	1.0	3.2	21.6	28.1	24.7	78,253	30	5,601	83,854	7,000	0	146,000	132,000	52,112	9,920	60,841	0	24,000	265,000	0	0	0	0	46,900
4	0.00	1.3	3.2	21.0	27.6	24.2	75,945	0	5,173	81,118	9,900	0	120,000	130,000	49,815	9,920	35,552	0	36,000	265,000	0	0	0	0	44,800
5	0.00	1.6	3.2	28.2	26.0	24.5	79,715	37	5,200	84,915	3,114	5	103,000	130,000	56,835	5,608	13,905	0	44,000	265,000	39,828	0	0	0	83,100
6	0.00	0.0	3.2	23.1	25.7	24.3	73,316	34	5,291	78,607	15,367	0	134,000	161,000	45,989	5,608	0	0	800	265,000	0	0	0	0	41,400
7	0.22	0.0	3.2	18.0	25.4	24.4	77,021	34	5,291	82,312	13,801	0	166,000	192,000	45,989	5,608	14,855	0	800	265,000	0	0	0	0	41,400
8	0.28	0.9	3.3	21.0	25.5	24.6	87,144	35	7,253	94,397	13,801	0	192,000	134,000	17,408	12,264	29,335	0	21,000	277,000	0	0	0	0	15,700
9	0.00	1.3	3.1	14.4	18.5	24.6	82,437	0	17,391	99,828	6,292	0	221,000	134,000	39,168	13,806	35,927	0	36,000	254,000	0	0	0	0	35,300
10	0.17	1.5	3.2	16.8	20.9	24.5	82,516	37	5,688	88,204	6,839	0	211,000	144,000	23,360	15,116	43,889	0	40,000	265,000	30,828	0	0	0	45,700
11	0.00	1.1	3.2	21.0	25.1	24.5	84,150	34	5,904	90,054	1,168	0	218,000	144,000	43,697	18,600	43,311	0	28,000	265,000	0	0	0	0	39,300
12	0.37	1.4	3.2	12.6	20.2	24.7	81,074	34	5,805	86,879	16,416	255	209,000	144,000	49,270	20,180	28,873	0	36,000	265,000	0	0	0	0	44,300
13	0.03	1.7	3.2	16.2	22.5	23.0	63,292	29	3,920	67,212	428	0	220,000	144,000	24,197	20,180	0	0	48,000	265,000	0	0	0	0	21,800
14	0.00	1.9	3.2	19.8	24.7	23.7	67,142	29	3,920	71,062	428	0	230,000	144,000	24,197	20,180	50,882	0	57,000	265,000	0	0	0	0	21,800
15	1.73	1.3	3.2	18.6	24.3	24.4	75,410	0	5,823	81,233	8,978	0	238,000	144,000	46,542	17,700	21,155	0	36,000	265,000	24,494	0	0	0	61,500
16	0.12	1.4	3.3	24.0	20.8	24.8	81,168	36	5,207	86,375	5,722	0	269,000	144,000	21,638	20,726	33,463	0	36,000	277,000	0	0	0	0	19,500
17	0.00	1.8	3.2	17.4	20.8	24.6	82,399	31	5,757	88,156	4,520	0	281,000	144,000	45,421	25,088	60,954	0	52,000	265,000	0	0	0	0	40,900
18	0.00	1.6	3.2	13.8	22.4	24.3	77,961	30	5,653	83,614	4,623	0	250,000	144,000	33,835	17,354	55,252	0	44,000	265,000	42,933	0	0	0	64,800
19	0.00	1.3	3.2	10.8	20.9	24.2	69,054	33	3,945	72,999	3,390	0	269,000	144,000	0	24,096	25,012	0	36,000	265,000	36,772	0	0	0	29,400
20	0.00	1.3	3.2	14.1	22.5	24.1	70,592	17	4,632	75,224	4,040	0	318,000	144,000	44	24,096	0	0	36,000	265,000	0	0	0	0	0
21	0.00	1.3	3.2	17.4	24.1	24.0	70,860	17	4,632	75,492	4,040	0	367,000	144,000	44	24,096	39,197	0	36,000	265,000	30,258	0	0	0	24,200
22	0.00	0.9	3.2	9.0	23.9	24.5	74,919	37	5,259	80,178	4,515	0	394,000	144,000	110	20,842	57,963	0	21,000	265,000	0	0	0	0	100
23	0.00	1.5	3.2	24.0	21.5	24.6	78,648	34	6,324	84,972	4,790	0	389,000	144,000	42,181	21,356	33,351	0	40,000	265,000	38,357	0	0	0	68,600
24	0.08	1.1	3.2	21.6	21.0	24.5	77,694	0	4,609	82,303	4,454	0	374,000	144,000	52,681	20,502	66,468	0	28,000	265,000	0	0	0	0	47,400
25	0.00	1.5	3.2	18.8	21.1	24.2	77,372	34	5,142	82,514	2,903	0	338,000	144,000	22,330	25,564	47,585	0	40,000	265,000	0	0	0	0	20,000
26	0.00	1.9	3.2	18.6	19.6	24.2	70,113	37	5,513	75,626	3,455	0	322,000	144,000	49,735	23,564	39,537	0	57,000	265,000	58,535	0	0	0	91,600
27	0.00	1.8	3.2	16.2	21.0	24.0	70,882	34	11,120	82,002	4,291	0	309,000	144,000	50,364	23,564	0	0	52,000	265,000	0	0	0	0	45,300
28	0.00	1.6	3.2	13.8	22.4	23.9	70,032	34	11,120	81,152	4,291	0	297,000	144,000	50,364	23,564	72,706	0	44,000	265,000	0	0	0	0	45,300
29	0.00	1.8	3.2	9.0	18.3	24.1	68,447	33	3,154	71,601	2,918	0	233,000	144,000	47,007	23,424	90,566	0	52,000	265,000	33,247	0	0	0	68,900
30	0.00	1.4	3.1	19.8	21.4	24.3	73,680	0	4,090	77,770	3,895	0	166,000	144,000	49,926	22,834	65,371	0	36,000	254,000	0	0	0	0	44,900
31	0.00	1.8	3.1	15.0	24.2	24.9	80,026	38	5,236	85,262	4,021	0	144,000	144,000	33,595	21,148	71,351	0	52,000	254,000	19,445	0	0	0	45,800
Total	3.00						2,360,014	839	184,958	2,544,972	186,843	260			1,108,913	573,548	1,305,276	0			374,378	0	0	0	1,297,400
Daily Average		1.3	3.2	18.1	22.9	24.3	76,129						241,387	146,774							264,710	12,077			41,852
Mto. Average																									

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 is calculated by dividing the total by the number of days of the month.
5. Column I, 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. Column IX, Section 7-8 leak detection pumped into Section 7 leachate sump riser.
10. Column XIV and XV, calculated from depth in 575,000 gal. tanks.
11. Columns VII-XIII, XVI-XX, and XXII-XXIV - quantities from flow meters.
12. Column XXV includes 80% of the daily values from Columns XIX-XXII - XXIII, plus 99% of Column XVI.

TABLE 2. FIELD DATA ENTRY FORM
March 2022
SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

MONTH/YEAR

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Day	Rainfall (in.)	Flow Meter Pump Sta. A (gal.)	Reading PS-B (in.)	Section 9 Pumps (gal.)	Section 9 LDS (gal.)	Section 7-8 Pump (gal.)	Section 7-8 LDS (gal.)	MLPS to Pond B (gal.)	Pond B to LEF (gal.)	Pond B Depth (ft.)	Pond A Depth (ft.)	Effluent Irrigation (gal.)	Depth in 575K Tank Leachate (ft.)	Depth in 575K Tank Effluent (ft.)	Leachate Treated at LTRF (gal.)	Leachate Hauled (gal.)	Leachate Dust Control (Spreayed) (gal.)	Effluent Hauled (gal.)	Dust Control (Spreayed) (gal.)
1	0.00	29,512,978	23.4	2,900,270	47,396	6,547,854	7,446	5,349,722	7,966,925	3.2	0.8	0	5.33	8.17	21,612	94,592			
2	0.00	29,568,222	21.0	2,998,978	47,396	6,553,622	7,477	5,407,025	8,018,615	3.2	1.1	19,581	6.33	4.67	15,528	73,673			
3	0.00	29,625,692	21.6	3,005,978	47,396	6,559,223	7,507	5,465,951	8,070,727	3.2	1.0	0	5.08	4.58	9,920	60,841			
4	0.00	29,681,926	21.0	3,015,968	47,396	6,564,396	7,507	5,512,547	8,120,542	3.2	1.3	0	4.17	4.50	9,920	35,552			
5	0.00	29,741,904	28.2	3,019,082	47,401	6,569,596	7,544	5,571,867	8,177,377	3.2	1.6	39,928	3.58	4.50	5,608	13,805			
6	0.00	29,795,483	23.1	3,034,449	47,401	6,574,887	7,578	5,626,145	8,223,366	3.2	0.0	0	4.67	5.59	5,608	0			
7	0.22	29,849,062	18.0	3,049,815	47,401	6,580,178	7,611	5,680,423	8,269,354	3.2	0.0	0	5.75	6.67	5,608	14,855			
8	0.28	29,909,214	21.0	3,063,616	47,401	6,587,431	7,646	5,705,323	8,286,762	3.3	0.9	0	6.67	4.67	12,264	29,335			
9	0.00	29,969,538	14.4	3,069,908	47,401	6,604,822	7,646	5,726,199	8,325,930	3.1	1.3	0	7.67	4.67	13,806	35,927			
10	0.17	30,029,654	16.8	3,076,747	47,401	6,610,510	7,683	5,764,187	8,349,290	3.2	1.5	30,828	7.33	5.00	15,116	43,389			
11	0.00	30,087,202	21.0	3,077,915	47,401	6,616,414	7,717	5,796,762	8,392,987	3.2	1.1	0	7.58	5.00	18,600	43,311			
12	0.37	30,153,510	12.6	3,094,331	47,656	6,622,219	7,751	5,858,230	8,442,257	3.2	1.4	0	7.25	5.00	20,180	28,873			
13	0.03	30,202,036	16.2	3,094,759	47,656	6,626,139	7,780	5,886,499	8,466,454	3.2	1.7	0	7.63	5.00	20,180	0			
14	0.00	30,250,562	19.8	3,095,187	47,656	6,630,059	7,809	5,914,767	8,490,651	3.2	1.9	0	8.00	5.00	20,180	50,682			
15	1.73	30,302,792	18.6	3,104,165	47,656	6,635,882	7,809	5,950,902	8,537,193	3.2	1.3	24,494	8.25	5.00	17,700	21,155			
16	0.12	30,361,210	24.0	3,109,887	47,656	6,641,089	7,845	5,980,076	8,558,831	3.3	1.4	0	9.33	5.00	20,726	33,563			
17	0.00	30,421,064	17.4	3,114,407	47,656	6,646,846	7,876	5,998,154	8,604,252	3.2	1.8	0	9.75	5.00	25,088	60,954			
18	0.00	30,480,862	13.8	3,119,030	47,656	6,652,499	7,906	6,045,555	8,638,087	3.2	1.6	42,933	8.67	5.00	17,354	55,252			
19	0.00	30,531,174	10.8	3,122,420	47,656	6,656,444	7,939	6,045,555	8,638,087	3.2	1.3	36,772	9.33	5.00	24,096	25,012			
20	0.00	30,583,024	14.1	3,126,460	47,656	6,661,076	7,956	6,046,260	8,638,131	3.2	1.3	0	11.04	5.00	24,096	0			
21	0.00	30,634,874	17.4	3,130,499	47,656	6,665,708	7,972	6,046,964	8,638,175	3.2	1.3	30,258	12.75	5.00	24,096	39,197			
22	0.00	30,687,300	9.0	3,135,014	47,656	6,670,967	8,009	6,046,964	8,638,285	3.2	0.9	0	13.67	5.00	20,542	57,963			
23	0.00	30,744,024	24.0	3,139,804	47,656	6,677,291	8,043	6,085,996	8,680,466	3.2	1.5	38,357	13.50	5.00	21,356	33,351			
24	0.08	30,800,406	21.6	3,144,258	47,656	6,681,900	8,043	6,144,735	8,733,147	3.2	1.1	0	13.00	5.00	20,502	66,468			
25	0.00	30,859,402	18.8	3,147,161	47,656	6,687,042	8,077	6,179,112	8,755,377	3.2	1.5	0	12.42	5.00	25,564	47,585			
26	0.00	30,911,610	18.6	3,150,616	47,656	6,692,555	8,114	6,218,279	8,805,112	3.2	1.9	58,535	11.17	5.00	23,564	39,557			
27	0.00	30,964,587	16.2	3,154,907	47,656	6,703,675	8,148	6,466,537	8,855,476	3.2	1.8	0	10.75	5.00	23,564	0			
28	0.00	31,017,564	13.8	3,159,198	47,656	6,714,795	8,182	6,714,795	8,905,839	3.2	1.6	0	10.33	5.00	23,564	72,706			
29	0.00	31,067,488	9.0	3,162,116	47,656	6,717,949	8,215	6,377,209	8,952,846	3.2	1.8	33,247	8.08	5.00	23,424	90,956			
30	0.00	31,119,414	19.8	3,166,011	47,656	6,722,039	8,215	6,430,185	9,002,772	3.1	1.4	0	5.75	5.00	22,834	65,371			
31	0.00	31,176,946	15.0	3,170,032	47,656	6,727,275	8,253	6,466,139	9,036,367	3.1	1.8	19,445	5.00	5.00	21,148	71,351			
Totals	3.00											374,378			573,348	1,305,276			0

- 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 I include quantities from leak detection system.
 - Column B, trace is less than 0.01 inches.
 - Columns C-K, N, and Q-U are quantities from flow meters.

Type of Cover	Phases 1-VI acres	Section 7-9 acres
Open	5	0
Intermediate	134.4	34.5
Final	23	0
Not Opened	0	0

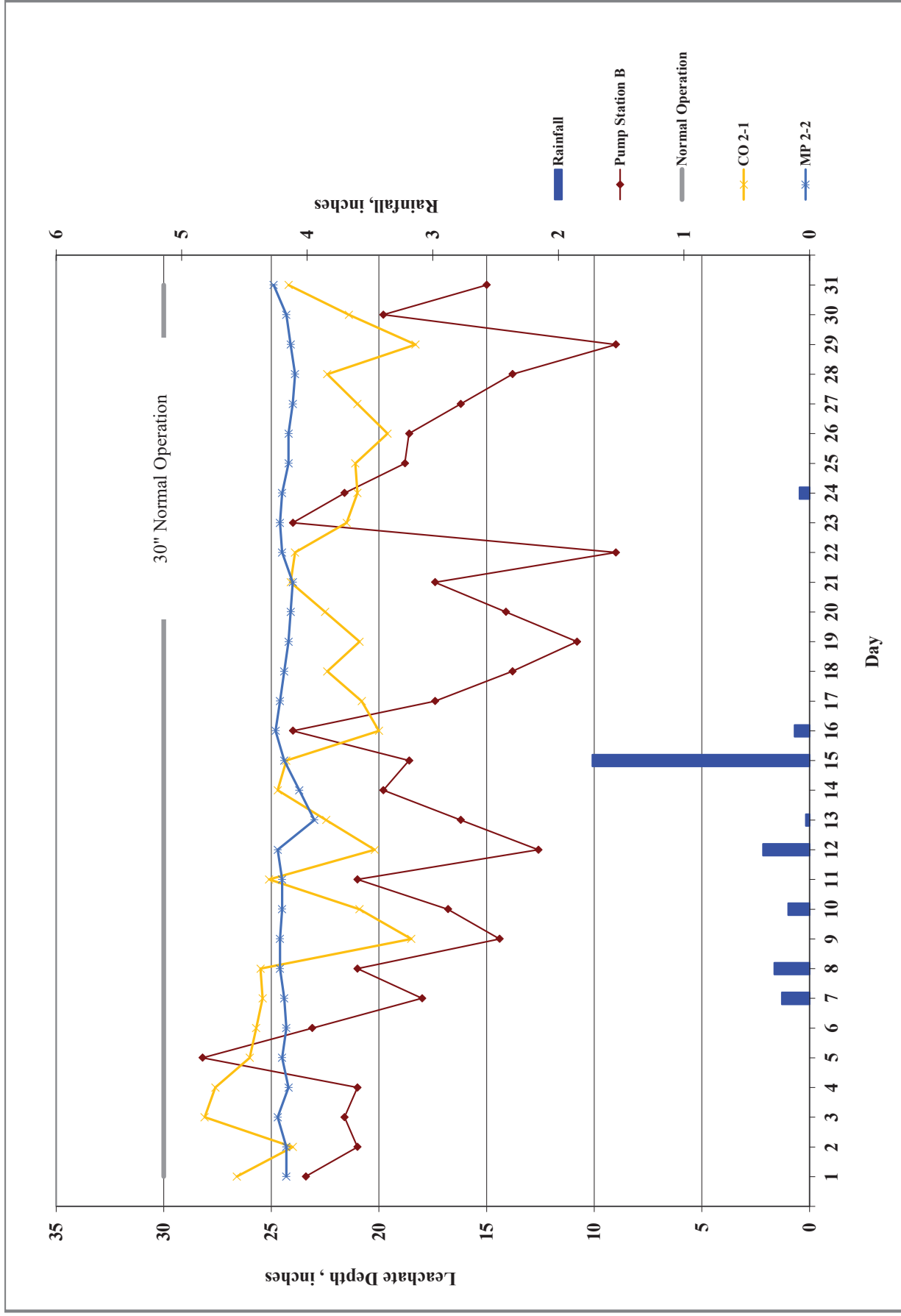


Figure 1. Leachate Levels in Pump Station B and Rainfall for March 2022.

**TABLE 3. LEACHATE BALANCE SUMMARY
SOUTHEAST COUNTY LANDFILL
HILLSBOROUGH COUNTY, FLORIDA
YEAR-2022**

Month	Rainfall (in.)	Leachate Arriving at LTRF				Leachate Leaving LTRF			LEF Leachate Treated at LEF (gal.)	Effluent Disposal			Inflow / Outflow For	
		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.)
January	1.94	177	267,905	237,637	2,946,654	1,665,014	0	310,423	1,281,386	0	0	327,064	3,452,373	3,256,823
February	0.60	70	207,603	171,218	2,282,000	1,658,498	0	390,783	1,024,398	0	0	39,931	2,660,891	3,073,679
March	3.00	272	187,103	184,958	2,360,014	1,305,276	0	573,348	1,108,913	0	0	374,378	2,732,347	2,987,537
April														
May														
June														
July														
August														
September														
October														
November														
December														
YTD Total														

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.