## Ramey, Ashleigh

**From:** Wiesman, Ronald <WiesmanR@hillsboroughcounty.org>
**Sent:** Friday, October 14, 2022 3:32 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. 2 2022 Water Balance & Waste Tire Report for Southeast County
**Attachments:** 3Q2022 Water Balance Report.pdf; 3Q2022 Waste Tire Report.pdf



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

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Hillsborough County Florida
SOLID WASTE MANAGEMENT
PO Box 1110, Tampa, FL 33601-1110
813-612-7718



October 14, 2022

Ms. Melissa Madden
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 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 September 30, 2022. The data is being submitted as separate monthly reports for July, August and September 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

Hillsborough County Florida

**SOLID WASTE MANAGEMENT**
PO Box 1110, Tampa, FL 33601-1110



**MEMORANDUM**

**DATE:** August 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 July 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 8.54 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 2.3 feet.

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

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of 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 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 15.5 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 25.5 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 62,641 gallons. A total of 1,941,881 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 731 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 222,776 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 2,164,657 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 137,649 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 646 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 331,903 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 232,097 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 1,348,377 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 781,390 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 608,224 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 77,516 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 216,806 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 450,113 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 1,355,000 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 2,307,372 gallons. Total outflow quantity from the LTRF was 2,737,991 gallons. The change in storage for the month decreased by 430,619 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 A Storage (gal.) | Pond B Storage (gal) | Effluent Irrigation (gal.) | Effluent Dust Control (Sprayed) (gal.) | Total Effluent Hauled (gal.) | Total Evaporation (gal.) |
| 1 | 0.82 | 1.1 | 3.2 | 14.4 | 12.9 | 25.3 | 59,002 | 42 | 4,123 | 63,125 | 11,067 | 7 | 322,000 | 202,000 | 38,409 | 19,531 | 0 | 0 | 28,000 | 265,000 | 0 | 0 | 0 | 34,600 |
| 2 | 0.00 | 1.7 | 3.0 | 13.2 | 18.5 | 25.4 | 61,496 | 0 | 3,199 | 64,695 | 9,758 | 0 | 336,000 | 202,000 | 55,207 | 24,236 | 0 | 0 | 48,000 | 242,000 | 0 | 0 | 0 | 49,700 |
| 3 | 1.60 | 2.2 | 3.1 | 11.7 | *16.1* | *25.4* | 61,138 | 41 | 4,688 | 65,825 | 10,841 | 0 | 341,000 | 202,000 | 41,800 | 24,236 | 0 | 0 | 70,000 | 242,000 | 0 | 0 | 0 | 37,600 |
| 4 | 0.05 | 2.6 | 3.1 | 10.2 | 13.7 | 25.3 | 58,441 | 41 | 4,688 | 63,129 | 12,981 | 0 | 345,000 | 202,000 | 41,800 | 24,236 | 0 | 0 | 88,000 | 254,000 | 0 | 0 | 0 | 37,600 |
| 5 | 0.00 | 2.7 | 3.2 | 10.2 | 15.7 | 25.6 | 53,751 | 0 | 3,218 | 56,969 | 11,358 | 0 | 348,000 | 202,000 | 47,575 | 24,239 | 0 | 0 | 93,000 | 265,000 | 0 | 0 | 0 | 42,800 |
| 6 | 0.65 | 3.1 | 3.0 | 15.0 | 16.5 | 25.4 | 59,842 | 40 | 3,194 | 63,036 | 10,397 | 0 | 345,000 | 202,000 | 53,570 | 19,794 | 0 | 0 | 113,000 | 242,000 | 0 | 0 | 0 | 48,200 |
| 7 | 1.77 | 2.6 | 3.2 | 19.1 | 14.2 | 25.6 | 61,127 | 0 | 4,484 | 65,611 | 1,082 | 0 | 362,000 | 202,000 | 30,260 | 22,353 | 0 | 0 | 88,000 | 265,000 | 0 | 0 | 0 | 27,200 |
| 8 | 0.00 | 3.3 | 3.4 | 17.4 | 15.1 | 25.4 | 59,748 | 39 | 4,566 | 64,314 | 12,874 | 0 | 389,000 | 202,000 | 17,798 | 30,762 | 0 | 0 | 123,000 | 289,000 | 0 | 0 | 0 | 16,000 |
| 9 | 0.00 | 3.7 | 3.2 | 12.6 | 18.9 | 25.5 | 63,948 | 0 | 7,746 | 71,694 | 5,028 | 365 | 408,000 | 202,000 | 42,647 | 30,762 | 0 | 0 | 151,000 | 265,000 | 50,321 | 0 | 0 | 78,600 |
| 10 | 0.00 | 2.6 | 3.1 | 13.8 | 13.3 | 25.6 | 65,405 | 41 | 6,514 | 71,919 | 1,565 | 2 | 389,000 | 250,000 | 49,953 | 30,762 | 0 | 0 | 88,000 | 254,000 | 27,806 | 0 | 0 | 67,200 |
| 11 | 0.38 | 2.6 | 3.2 | 11.4 | 16.2 | *25.6* | 66,894 | 0 | 7,916 | 74,810 | 21 | 0 | 394,000 | 264,000 | 38,182 | 30,762 | 0 | 0 | 88,000 | 265,000 | 0 | 0 | 0 | 34,400 |
| 12 | 0.00 | 3.2 | 3.2 | 16.2 | 12.9 | 25.6 | 60,945 | 41 | 5,861 | 66,806 | 1,697 | 0 | 389,000 | 264,000 | 50,215 | 35,972 | 0 | 0 | 118,000 | 265,000 | 0 | 0 | 0 | 45,200 |
| 13 | 0.00 | 3.7 | 3.2 | 13.8 | 12.7 | 25.3 | 59,659 | 39 | 6,313 | 65,972 | 1,181 | 1 | 405,000 | 264,000 | 39,940 | 36,555 | 0 | 0 | 151,000 | 265,000 | 55,191 | 0 | 0 | 80,100 |
| 14 | 1.55 | 3.1 | 3.2 | 28.2 | 18.6 | 25.3 | 57,957 | 0 | 4,951 | 62,908 | 6 | 0 | 379,000 | 264,000 | 53,580 | 36,456 | 0 | 0 | 113,000 | 265,000 | 0 | 0 | 0 | 48,200 |
| 15 | 0.25 | 3.8 | 3.1 | 21.0 | 13.1 | 25.3 | 58,839 | 38 | 6,270 | 65,109 | 6,563 | 0 | 374,000 | 264,000 | 56,583 | 38,383 | 6,216 | 0 | 157,000 | 254,000 | 0 | 0 | 0 | 50,900 |
| 16 | 0.32 | 3.5 | 3.2 | 24.0 | 17.9 | 25.6 | 65,752 | 35 | 6,203 | 71,955 | 55 | 0 | 374,000 | 264,000 | 56,046 | 25,867 | 24,845 | 0 | 140,000 | 265,000 | 50,684 | 0 | 0 | 91,000 |
| 17 | 0.00 | 2.4 | 3.2 | 25.2 | 17.6 | 25.6 | 67,149 | 0 | 8,425 | 75,574 | 698 | 1 | 374,000 | 264,000 | 58,520 | 25,867 | 12,843 | 0 | 79,000 | 265,000 | 31,841 | 0 | 0 | 78,100 |
| 18 | 0.00 | 2.1 | 3.2 | 18.0 | 17.5 | 25.5 | 69,025 | 37 | 8,283 | 77,308 | 108 | 0 | 367,000 | 266,000 | 55,331 | 25,868 | 53,782 | 0 | 65,000 | 265,000 | 0 | 0 | 0 | 49,800 |
| 19 | 0.00 | 2.5 | 3.2 | 19.7 | 18.6 | 25.5 | 67,529 | 0 | 9,477 | 77,006 | 1,317 | 0 | 367,000 | 271,000 | 0 | 20,796 | 42,310 | 0 | 83,000 | 265,000 | 0 | 0 | 0 | 0 |
| 20 | 0.00 | 2.8 | 3.3 | 13.2 | 15.0 | 25.6 | 67,854 | 40 | 9,125 | 76,979 | 3,068 | 0 | 358,000 | 271,000 | 21,815 | 22,406 | 48,135 | 0 | 98,000 | 277,000 | 52,426 | 0 | 0 | 61,600 |
| 21 | 0.00 | 2.1 | 3.2 | 23.0 | 12.2 | 25.6 | 66,688 | 0 | 10,778 | 77,466 | 21,312 | 5 | 355,000 | 271,000 | 55,525 | 22,112 | 45,176 | 0 | 65,000 | 265,000 | 63,732 | 0 | 0 | 101,000 |
| 22 | 0.00 | 1.2 | 3.2 | 24.0 | 14.1 | 25.5 | 63,399 | 41 | 7,819 | 71,218 | 1,417 | 1 | 307,000 | 264,000 | 33,663 | 21,735 | 61,960 | 0 | 32,000 | 265,000 | 5,996 | 0 | 0 | 35,100 |
| 23 | 0.00 | 1.3 | 3.1 | 24.0 | 17.7 | 25.5 | 64,934 | 0 | 9,148 | 74,082 | 1,850 | 0 | 302,000 | 264,000 | 45,880 | 21,735 | 40,910 | 0 | 36,000 | 254,000 | 30,931 | 0 | 0 | 66,000 |
| 24 | 0.00 | 1.3 | 3.2 | 21.6 | 15.3 | 25.5 | 63,982 | 41 | 9,251 | 73,233 | 5 | 0 | 288,000 | 264,000 | 55,059 | 21,735 | 6,238 | 0 | 36,000 | 254,000 | 0 | 0 | 0 | 49,600 |
| 25 | 0.00 | 1.3 | 3.2 | 19.2 | 12.9 | 25.5 | 63,199 | 41 | 9,251 | 72,450 | 5 | 0 | 274,000 | 264,000 | 55,059 | 21,736 | 80,286 | 0 | 36,000 | 265,000 | 0 | 0 | 0 | 49,600 |
| 26 | 0.45 | 1.7 | 3.2 | 15.0 | 18.6 | 25.5 | 63,599 | 0 | 8,773 | 72,372 | 4,386 | 0 | 209,000 | 264,000 | 51,970 | 19,670 | 67,477 | 0 | 48,000 | 265,000 | 0 | 0 | 0 | 46,800 |
| 27 | 0.70 | 1.5 | 3.2 | 14.4 | 17.3 | 25.5 | 65,808 | 39 | 20,035 | 85,843 | 1,925 | 0 | 211,000 | 235,000 | 29,810 | 22,676 | 22,976 | 0 | 40,000 | 265,000 | 18,632 | 0 | 0 | 41,700 |
| 28 | 0.00 | 1.1 | 3.2 | 24.0 | 17.9 | 25.5 | 61,925 | 0 | 6,431 | 68,356 | 4,998 | 0 | 250,000 | 206,000 | 15,565 | 21,948 | 35,566 | 0 | 28,000 | 265,000 | 0 | 0 | 0 | 14,000 |
| 29 | 0.00 | 1.5 | 3.2 | 25.8 | 12.9 | 25.6 | 62,317 | 40 | 6,814 | 69,131 | 4 | 264 | 238,000 | 151,000 | 55,058 | 24,250 | 44,301 | 0 | 40,000 | 265,000 | 42,013 | 0 | 0 | 83,200 |
| 30 | 0.00 | 1.1 | 3.2 | 16.8 | 15.8 | 25.3 | 62,229 | 37 | 9,219 | 71,448 | 81 | 0 | 240,000 | 144,000 | 57,487 | 16,975 | 15,203 | 0 | 28,000 | 265,000 | 20,540 | 0 | 0 | 68,200 |
| 31 | 0.00 | 1.2 | 3.1 | 21.6 | 11.1 | 25.4 | 58,303 | 20 | 6,014 | 64,317 | 1 | 0 | 249,000 | 144,000 | 44,072 | 16,975 | 0 | 0 | 32,000 | 254,000 | 0 | 0 | 0 | 39,700 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 8.54 | | | | | | 1,941,881 | 731 | 222,776 | 2,164,657 | 137,649 | 646 | | | 1,348,377 | 781,390 | 608,224 | 0 | | | 450,113 | 0 | 0 | 1,573,700 |
| Daily Average | | 2.3 | 3.2 | 18.0 | 15.5 | 25.5 | 62,641 | | | | | | 331,903 | 232,097 | 43,496 | 25,206 | 19,620 | 0 | 77,516 | 261,806 | | 0 | 0 | 50,765 |
| 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 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 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-XIX, 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**

**MONTH/YEAR** **July 2022**

**SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Rainfall (in.) | Flow Meter Pump Sta. A (gal.) | Reading PS-B (in.) | Section 9 Pumps (gal.) | Section 9 LDS (gal.) | Sections 7-8 Pump (gal.) | Sections 7-8 LDS (gal.) | MLPS to Pond B (gal.) | Pond B to LEF (gal.) | Pond B Depth (ft.) | 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 (gal.) | Leachate Dust Control (Sprayed) (gal.) | Effluent Hauled (gal.) | Effluent Dust Control (Sprayed) (gal) |
| 1 | 0.82 | 35,661,436 | 14.4 | 3,478,167 | 52,297 | 7,152,183 | 539 | 493,679 | 13,239,691 | 3.2 | 1.1 | 0 | 11.17 | 7.00 | 19,531 | 0 | 0 | 0 | 0 |
| 2 | 0.00 | 35,709,216 | 13.2 | 3,487,925 | 52,297 | 7,155,382 | 539 | 535,228 | 13,294,898 | 3.0 | 1.7 | 0 | 11.67 | 7.00 | 24,236 | 0 | 0 | 0 | 0 |
| 3 | 1.60 | *35,756,638* | *11.7* | 3,498,766 | *52,297* | *7,160,070* | *580* | *566,355* | *13,336,698* | *3.1* | *2.2* | 0 | *11.84* | *7.00* | 24,236 | 0 | 0 | 0 | 0 |
| 4 | 0.05 | 35,804,060 | 10.2 | 3,511,747 | 52,297 | 7,164,757 | 620 | 597,481 | 13,378,497 | 3.1 | 2.6 | 0 | 12.00 | 7.00 | 24,236 | 0 | 0 | 0 | 0 |
| 5 | 0.00 | 35,844,532 | 10.2 | 3,523,105 | 52,297 | 7,167,975 | 620 | 651,121 | 13,426,072 | 3.2 | 2.7 | 0 | 12.08 | 7.00 | 24,239 | 0 | *0* | *0* | 0 |
| 6 | 0.65 | 35,891,544 | 15.0 | 3,533,502 | 52,297 | 7,171,169 | 660 | 699,990 | 13,479,642 | 3.0 | 3.1 | 0 | 12.00 | 7.00 | 19,794 | 0 | 0 | 0 | 0 |
| 7 | 1.77 | 35,939,944 | 19.1 | 3,534,584 | 52,297 | 7,175,653 | 660 | 722,483 | 13,509,902 | 3.2 | 2.6 | 0 | 12.58 | 7.00 | 22,353 | 0 | 0 | 0 | 0 |
| 8 | 0.00 | 35,987,172 | 17.4 | 3,547,458 | 52,297 | 7,180,219 | 699 | 735,706 | 13,527,700 | 3.4 | 3.3 | 0 | 13.50 | 7.00 | 30,762 | 0 | 0 | 0 | 0 |
| 9 | 0.00 | 36,036,428 | 12.6 | 3,552,486 | 52,662 | 7,187,965 | 699 | 758,070 | 13,570,347 | 3.2 | 3.7 | 50,321 | 14.17 | 7.00 | 30,762 | 0 | 0 | 0 | 0 |
| 10 | 0.00 | 36,086,728 | 13.8 | 3,554,051 | 52,664 | 7,194,479 | 740 | 812,960 | 13,620,300 | 3.1 | 2.6 | 27,806 | 13.50 | 8.67 | 30,762 | 0 | 0 | 0 | 0 |
| 11 | 0.38 | 36,139,084 | 11.4 | 3,554,072 | 52,664 | 7,202,395 | 740 | 850,662 | 13,658,482 | 3.2 | 2.6 | 0 | 13.67 | 9.17 | 30,762 | 0 | 0 | 0 | 0 |
| 12 | 0.00 | 36,186,672 | 16.2 | 3,555,769 | 52,664 | 7,208,256 | 781 | 891,387 | 13,708,697 | 3.2 | 3.2 | 0 | 13.50 | 9.17 | 35,972 | 0 | 0 | 0 | 0 |
| 13 | 0.00 | 36,234,420 | 13.8 | 3,556,950 | 52,665 | 7,214,569 | 820 | 927,303 | 13,748,637 | 3.2 | 3.7 | 55,191 | 14.08 | 9.17 | 36,555 | 0 | 0 | 0 | 0 |
| 14 | 1.55 | 36,279,664 | 28.2 | 3,556,956 | 52,665 | 7,219,520 | 820 | 984,017 | 13,802,217 | 3.2 | 3.1 | 0 | 13.17 | 9.17 | 36,456 | 0 | 0 | 0 | 0 |
| 15 | 0.25 | 36,325,260 | 21.0 | 3,563,519 | 52,665 | 7,225,790 | 858 | 1,011,066 | 13,858,800 | 3.1 | 3.8 | 0 | 13.00 | 9.17 | 38,383 | 6,216 | 0 | 0 | 0 |
| 16 | 0.32 | 36,375,024 | 24.0 | 3,563,574 | 52,665 | 7,231,993 | 893 | 1,031,066 | 13,914,846 | 3.2 | 3.5 | 50,684 | 13.00 | 9.17 | 25,867 | 24,845 | 0 | 0 | 0 |
| 17 | 0.00 | 36,427,912 | 25.2 | 3,564,272 | 52,666 | 7,240,418 | 893 | 1,073,834 | 13,973,366 | 3.2 | 2.4 | 31,841 | 13.00 | 9.17 | 25,867 | 12,843 | 0 | 0 | 0 |
| 18 | 0.00 | 36,482,736 | 18.0 | 3,564,380 | 52,666 | 7,248,701 | 930 | 1,128,830 | 14,028,697 | 3.2 | 2.1 | 0 | 12.75 | 9.25 | 25,868 | 53,782 | 0 | 0 | 0 |
| 19 | 0.00 | 36,534,956 | 19.7 | 3,565,697 | 52,666 | 7,258,178 | 930 | 1,135,902 | 14,028,697 | 3.2 | 2.5 | 0 | 12.75 | 9.42 | 20,796 | 42,310 | 0 | 0 | 0 |
| 20 | 0.00 | 36,586,780 | 13.2 | 3,568,765 | 52,666 | 7,267,303 | 970 | 1,157,595 | 14,050,512 | 3.3 | 2.8 | 52,426 | 12.42 | 9.42 | 22,406 | 48,135 | 0 | 0 | 0 |
| 21 | 0.00 | 36,639,044 | 23.0 | 3,590,077 | 52,671 | 7,278,081 | 970 | 1,203,285 | 14,106,037 | 3.2 | 2.1 | 63,732 | 12.33 | 9.42 | 22,112 | 45,176 | 0 | 0 | 0 |
| 22 | 0.00 | 36,688,572 | 24.0 | 3,591,494 | 52,672 | 7,285,900 | 1,011 | 1,248,543 | 14,139,700 | 3.2 | 1.2 | 5,996 | 10.67 | 9.17 | 21,735 | 61,960 | 0 | 0 | 0 |
| 23 | 0.00 | 36,739,144 | 24.0 | 3,593,344 | 52,672 | 7,295,048 | 1,011 | 1,280,311 | 14,185,580 | 3.1 | 1.3 | 30,931 | 10.50 | 9.17 | 21,735 | 40,910 | 0 | 0 | 0 |
| 24 | 0.00 | *36,788,764* | *21.6* | *3,593,349* | *52,672* | *7,304,299* | *1,052* | *1,334,877* | *14,240,639* | *3.2* | *1.3* | 0 | *10.00* | *9.17* | 21,735 | 6,238 | 0 | 0 | 0 |
| 25 | 0.00 | 36,838,384 | 19.2 | 3,593,354 | 52,672 | 7,313,550 | 1,092 | 1,389,442 | 14,295,697 | 3.2 | 1.3 | 0 | 9.50 | 9.17 | 21,736 | 80,286 | 0 | 0 | 0 |
| 26 | 0.45 | 36,887,784 | 15.0 | 3,597,740 | 52,672 | 7,322,323 | 1,092 | 1,441,515 | 14,347,667 | 3.2 | 1.7 | 0 | 7.25 | 9.17 | 19,670 | 67,477 | 0 | 0 | 0 |
| 27 | 0.70 | 36,939,164 | 14.4 | 3,599,665 | 52,672 | 7,342,358 | 1,131 | 1,479,250 | 14,377,477 | 3.2 | 1.5 | 18,632 | 7.33 | 8.17 | 22,676 | 22,976 | 0 | 0 | 0 |
| 28 | 0.00 | 36,987,048 | 24.0 | 3,604,663 | 52,672 | 7,348,789 | 1,131 | 1,488,618 | 14,393,042 | 3.2 | 1.1 | 0 | 8.67 | 7.17 | 21,948 | 35,566 | 0 | 0 | 0 |
| 29 | 0.00 | 37,034,988 | 25.8 | 3,604,667 | 52,936 | 7,355,603 | 1,171 | 1,544,398 | 14,448,100 | 3.2 | 1.5 | 42,013 | 8.25 | 5.25 | 24,250 | 44,301 | 0 | 0 | 0 |
| 30 | 0.00 | 37,086,288 | 16.8 | 3,604,748 | 52,936 | 7,364,822 | 1,208 | 1,602,322 | 14,505,587 | 3.2 | 1.1 | 20,540 | 8.33 | 5.00 | 16,975 | 15,203 | 0 | 0 | 0 |
| 31 | 0.00 | *37,133,662* | *21.6* | *3,604,749* | *52,936* | *7,370,836* | *1,228* | *1,640,195* | *14,549,659* | *3.1* | *1.2* | 0 | *8.67* | *5.00* | 16,975 | | | | |
| Totals | 8.54 | 37181036 | 26.4 | 3604749.0 | 0.0 | 7376850.0 | 1247.0 | 1678067.0 | 14593731.0 | 3 | 1.3 | 450,113 | 9 | 5.00 | 781,390 | 608,224 | | | 0 |

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. Columns G and I include quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. 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 |

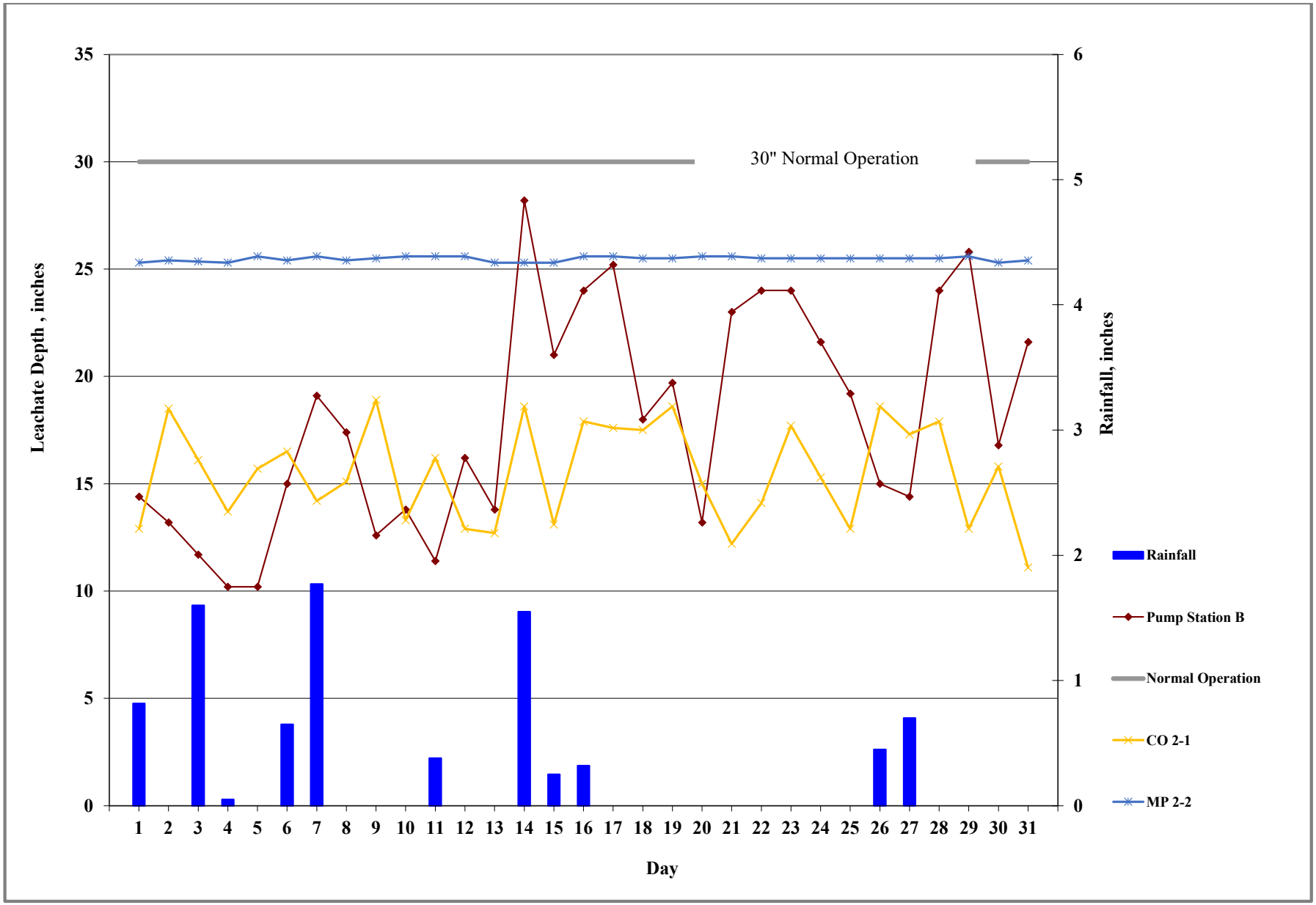


**Figure 1. Leachate Levels in Pump Station B and Rainfall for July 2022.**

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

| | | Leachate Arriving at LTRF | | | | Leachate Leaving LTRF | | | LEF | Effluent Disposal | | | Inflow / Outflow For LTRF | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Rainfall (in.) | 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.) | Leachate Treated at LEF (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[2] (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 | 195,550 |
| 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 | -412,788 |
| 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 | -255,191 |
| April | 5.16 | 587 | 130,992 | 151,989 | 2,006,957 | 654,652 | 0 | 355,573 | 1,388,533 | 0 | 0 | 242,565 | 2,290,525 | 2,398,758 | -108,233 |
| May | 3.26 | 455 | 121,539 | 145,455 | 1,965,984 | 243,391 | 0 | 401,147 | 1,444,252 | 0 | 0 | 275,271 | 2,233,433 | 2,088,790 | 144,643 |
| June | 6.84 | 4,289 | 49,171 | 123,341 | 1,872,286 | 338,274 | 0 | 502,013 | 1,332,130 | 0 | 0 | 195,057 | 2,049,087 | 2,172,417 | -123,331 |
| July | 8.54 | 4,420 | 138,295 | 222,776 | 1,941,881 | 608,224 | 0 | 781,390 | 1,348,377 | 0 | 0 | 450,113 | 2,307,372 | 2,737,991 | -430,619 |
| 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:** September 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 August 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 5.7 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 2.2 feet.

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

Column IV presents the daily depth, in feet, of effluent or leachate that is stored in the effluent/leachate storage pond (Pond B). The depth in Pond B varies as a function of the evaporation frequency/duration and effluent or leachate hauled from the pond. This month the daily average depth of leachate in Pond B was 3.3 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 21.3 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 18 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 26.2 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 66,953 gallons. A total of 2,008,596 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 751 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 181,260 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 2,189,856 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 127,345 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 32 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 352,700 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 194,267 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 1,173,508 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 764,531 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 443,507 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 70,627 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 272,800 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 503,739 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 1,459,200 gallons.

**TABLE 2**

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

**TABLE 3**

**Leachate Balance Summary**

The Leachate Balance Summary (see Table 3) presents a review of inflow and outflow quantities for the LTRF, as well as rainfall and effluent disposal quantities at the landfill. Total inflow quantity to the LTRF was 2,321,731 gallons. Total outflow quantity from the LTRF was 2,381,546 gallons. The change in storage for the month decreased by 59,815 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 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 | 1.3 | 3.0 | 26.4 | 6.4 | 25.4 | 17,120 | 19 | 6,014 | 23,134 | 0 | 0 | 259,000 | 144,000 | 44,072 | 16,976 | 0 | 0 | 36,000 | 242,000 | 45,289 | 0 | 0 | 75,900 |
| 2 | 0.00 | 1.6 | 3.2 | 21.6 | 18.2 | 25.5 | 67,905 | 0 | 6,532 | 74,437 | 2,099 | 0 | 264,000 | 144,000 | 48,891 | 13,273 | 0 | 0 | 44,000 | 265,000 | 54,193 | 0 | 0 | 87,400 |
| 3 | 0.00 | 0.6 | 3.2 | 16.2 | 18.3 | 25.7 | 72,476 | 40 | 8,232 | 80,708 | 1,989 | 18 | 302,000 | 144,000 | 50,130 | 22,617 | 0 | 0 | 10,000 | 265,000 | 0 | 0 | 0 | 45,100 |
| 4 | 0.00 | 1.1 | 3.2 | 24.2 | 15.8 | 25.5 | 67,851 | 38 | 6,018 | 73,869 | 1,533 | 0 | 336,000 | 144,000 | 13,145 | 23,523 | 0 | 0 | 28,000 | 265,000 | 0 | 0 | 0 | 11,800 |
| 5 | 0.00 | 1.7 | 3.2 | 19.8 | 17.0 | 25.5 | 66,894 | 0 | 6,378 | 73,272 | 432 | 0 | 348,000 | 144,000 | 33,930 | 23,798 | 0 | 0 | 48,000 | 265,000 | 29,887 | 0 | 0 | 54,400 |
| 6 | 0.00 | 1.5 | 3.2 | 25.4 | 18.6 | 25.2 | 65,220 | 39 | 6,908 | 72,128 | 51 | 0 | 386,000 | 144,000 | 8,965 | 26,781 | 0 | 0 | 40,000 | 265,000 | 0 | 0 | 0 | 8,100 |
| 7 | 0.28 | 1.6 | 3.3 | 20.5 | *17.8* | *25.4* | 61,984 | 21 | 5,955 | 67,939 | 383 | 0 | 404,000 | 144,000 | 17,513 | 26,781 | 0 | 0 | 44,000 | 265,000 | 0 | 0 | 0 | 15,800 |
| 8 | 0.00 | 1.7 | 3.3 | 15.6 | 16.9 | 25.5 | 64,647 | 21 | 5,955 | 70,602 | 383 | 0 | 422,000 | 144,000 | 17,513 | 26,783 | 0 | 0 | 48,000 | 277,000 | 0 | 0 | 0 | 15,800 |
| 9 | 0.00 | 2.5 | 3.4 | 25.8 | 18.0 | 25.4 | 65,771 | 38 | 7,359 | 73,130 | 1,338 | 1 | 437,000 | 144,000 | 38,935 | 40,001 | 0 | 0 | 83,000 | 289,000 | 38,935 | 0 | 0 | 66,200 |
| 10 | 0.00 | 2.2 | 3.2 | 18.0 | 16.2 | 25.3 | 66,930 | 0 | 5,681 | 72,611 | 1,996 | 0 | 415,000 | 144,000 | 54,635 | 43,154 | 41,766 | 0 | 70,000 | 265,000 | 17,504 | 0 | 0 | 63,200 |
| 11 | 0.00 | 2.7 | 3.2 | 13.2 | 15.7 | 25.4 | 66,807 | 40 | 1,513 | 68,320 | 492 | 0 | 365,000 | 144,000 | 29,980 | 38,075 | 58,826 | 0 | 93,000 | 265,000 | 0 | 0 | 0 | 27,000 |
| 12 | 0.27 | 2.3 | 3.2 | 18.6 | 18.8 | 25.5 | 71,026 | 38 | 2,429 | 73,455 | 326 | 0 | 322,000 | 144,000 | 37,195 | 28,453 | 68,188 | 0 | 74,000 | 265,000 | 51,552 | 0 | 0 | 74,700 |
| 13 | 0.00 | 1.6 | 3.2 | 26.3 | 13.9 | 25.5 | 72,004 | 0 | 12,233 | 84,237 | 205 | 0 | 281,000 | 144,000 | 52,775 | 28,453 | 54,390 | 0 | 44,000 | 265,000 | 49,772 | 0 | 0 | 87,300 |
| 14 | 0.00 | 1.7 | 3.2 | 25.2 | *21.0* | *25.6* | 71,066 | 19 | 6,562 | 77,627 | 386 | 0 | 272,000 | 144,000 | 49,745 | 28,453 | 0 | 0 | 48,000 | 265,000 | 0 | 0 | 0 | 44,800 |
| 15 | 0.00 | 1.7 | 3.2 | 24.0 | 14.2 | 25.5 | 70,877 | 19 | 6,562 | 77,439 | 386 | 0 | 264,000 | 144,000 | 49,745 | 28,455 | 0 | 0 | 48,000 | 265,000 | 0 | 0 | 0 | 44,800 |
| 16 | 0.00 | 2.2 | 3.2 | 23.0 | 15.6 | 25.5 | 68,265 | 39 | 4,798 | 73,063 | 2,006 | 0 | 266,000 | 144,000 | 50,585 | 23,119 | 0 | 0 | 70,000 | 265,000 | 0 | 0 | 0 | 45,500 |
| 17 | 0.00 | 1.5 | 3.2 | 23.4 | 14.6 | 25.4 | 69,389 | 38 | 6,604 | 75,993 | 833 | 0 | 271,000 | 144,000 | 46,505 | 21,725 | 0 | 0 | 40,000 | 265,000 | 36,802 | 0 | 0 | 71,300 |
| 18 | 0.00 | 1.2 | 3.2 | 25.8 | 15.1 | 25.5 | 66,201 | 0 | 4,791 | 70,992 | 41,525 | 0 | 302,000 | 144,000 | 53,060 | 23,414 | 0 | 0 | 32,000 | 265,000 | 27,840 | 0 | 0 | 70,000 |
| 19 | 0.00 | 1.1 | 3.2 | 26.4 | 15.1 | 25.2 | 66,248 | 39 | 6,262 | 72,510 | 35,934 | 2 | 322,000 | 144,000 | 53,223 | 22,259 | 0 | 0 | 28,000 | 265,000 | 0 | 0 | 0 | 47,900 |
| 20 | 1.10 | 1.6 | 3.2 | 20.3 | *15.2* | 25.0 | 58,743 | 37 | 4,741 | 63,484 | 11,549 | 3 | 355,000 | 144,000 | 33,400 | 7,819 | 0 | 0 | 44,000 | 265,000 | 0 | 0 | 0 | 30,100 |
| 21 | 0.00 | 1.7 | 3.2 | 19.2 | *26.2* | *25.1* | 56,969 | 20 | 5,845 | 62,814 | 1,286 | 1 | 402,000 | 144,000 | 33,524 | 7,819 | 0 | 0 | 48,000 | 265,000 | 0 | 0 | 0 | 30,200 |
| 22 | 0.00 | 1.7 | 3.2 | 18.0 | 22.0 | 25.4 | 71,201 | 20 | 5,845 | 77,045 | 1,286 | 1 | 449,000 | 144,000 | 33,524 | 7,819 | 0 | 0 | 48,000 | 265,000 | 0 | 0 | 0 | 30,200 |
| 23 | 0.00 | 2.2 | 3.1 | 13.8 | 22.7 | 25.5 | 56,278 | 0 | 5,606 | 61,884 | 669 | 5 | 422,000 | 192,000 | 25,975 | 29,668 | 0 | 0 | 70,000 | 254,000 | 0 | 0 | 0 | 23,400 |
| 24 | 2.40 | 2.3 | 3.2 | 22.0 | 24.4 | 25.1 | 65,990 | 41 | 4,660 | 70,650 | 14,681 | 0 | 396,000 | 214,000 | 54,170 | 29,863 | 0 | 0 | 74,000 | 265,000 | 45,458 | 0 | 0 | 85,100 |
| 25 | 0.42 | 2.5 | 3.1 | 16.8 | 18.1 | 24.9 | 60,951 | 38 | 3,916 | 64,867 | 814 | 0 | 367,000 | 278,000 | 53,355 | 39,852 | 0 | 0 | 83,000 | 254,000 | 0 | 0 | 0 | 48,000 |
| 26 | 0.90 | 3.3 | 3.1 | 19.8 | 17.6 | 25.3 | 62,899 | 0 | 0 | 62,899 | 1,873 | 0 | 336,000 | 307,000 | 18,505 | 40,195 | 0 | 0 | 123,000 | 254,000 | 10,002 | 0 | 0 | 24,700 |
| 27 | 0.23 | 3.3 | 3.2 | 24.0 | *18.1* | 25.4 | 63,943 | 42 | 11,812 | 75,755 | 676 | 1 | 295,000 | 367,000 | 53,048 | 20,278 | 25,128 | 0 | 123,000 | 265,000 | 0 | 0 | 0 | 47,700 |
| 28 | 0.00 | 3.6 | 3.2 | 19.2 | *24.8* | *25.4* | 69,603 | 18 | 5,456 | 75,059 | 429 | 0 | 307,000 | 367,000 | 35,706 | 20,278 | 6,005 | 0 | 145,000 | 265,000 | 0 | 0 | 0 | 32,100 |
| 29 | 0.00 | 3.8 | 3.2 | 14.4 | 13.3 | 25.2 | 68,412 | 18 | 5,456 | 73,868 | 429 | 0 | 319,000 | 367,000 | 35,706 | 20,278 | 68,354 | 0 | 157,000 | 265,000 | 38,998 | 0 | 0 | 63,300 |
| 30 | 0.00 | 3.6 | 3.1 | 16.2 | 13.1 | 25.4 | 67,370 | 36 | 5,476 | 72,846 | 858 | 0 | 333,000 | 309,000 | 45,915 | 13,535 | 70,019 | 0 | 145,000 | 254,000 | 0 | 0 | 0 | 41,300 |
| 31 | 0.10 | 3.5 | 3.2 | 16.8 | 16.8 | 25.3 | 67,559 | 36 | 5,663 | 73,222 | 500 | 0 | 362,000 | 259,000 | 140 | 21,034 | 50,831 | 0 | 140,000 | 265,000 | 57,507 | 0 | 0 | 46,100 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 5.70 | | | | | | 2,008,596 | 751 | 181,260 | 2,189,856 | 127,345 | 32 | | | 1,173,508 | 764,531 | 443,507 | 0 | | | 503,739 | 0 | 0 | 1,459,200 |
| Daily Average | | 2.2 | 3.3 | 21.3 | 18.0 | 26.2 | 66,953 | | | | | | 352,700 | 194,267 | | | | 0 | 70,933 | 272,800 | | | | |
| 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 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 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-XIX, 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**

**MONTH/YEAR** **August 2022**

**SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Rainfall (in.) | Flow Meter Pump Sta. A (gal.) | Reading PS-B (in.) | Section 9 Pumps (gal.) | Section 9 LDS (gal.) | Sections 7-8 Pump (gal.) | Sections 7-8 LDS (gal.) | MLPS to Pond B (gal.) | Pond B to LEF (gal.) | Pond B Depth (ft.) | 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 (gal.) | Leachate Dust Control (Sprayed) (gal.) | Effluent Hauled (gal.) | Effluent Dust Control (Sprayed) (gal) |
| 1 | 0.00 | 37,181,036 | 26.4 | 3,604,749 | 52,936 | 7,376,850 | 1,247 | 1,678,067 | 14,593,731 | 3.0 | 1.3 | 45,289 | 9.00 | 5.00 | 16,976 | 0 | 0 | 0 | 0 |
| 2 | 0.00 | 37,230,096 | 21.6 | 3,606,848 | 52,936 | 7,383,382 | 1,247 | 1,732,776 | 14,642,622 | 3.2 | 1.6 | 54,193 | 9.17 | 5.00 | 13,273 | 0 | 0 | 0 | 0 |
| 3 | 0.00 | 37,285,140 | 16.2 | 3,608,837 | 52,954 | 7,391,614 | 1,287 | 1,775,202 | 14,692,752 | 3.2 | 0.6 | 0 | 10.50 | 5.00 | 22,617 | 0 | 0 | 0 | 0 |
| 4 | 0.00 | 37,336,344 | 24.2 | 3,610,370 | 52,954 | 7,397,632 | 1,325 | 1,791,285 | 14,705,897 | 3.2 | 1.1 | 0 | 11.67 | 5.00 | 23,523 | 0 | 0 | 0 | 0 |
| 5 | 0.00 | 37,388,632 | 19.8 | 3,610,802 | 52,954 | 7,404,010 | 1,325 | 1,831,612 | 14,739,827 | 3.2 | 1.7 | 29,887 | 12.08 | 5.00 | 23,798 | 0 | *0* | *0* | 0 |
| 6 | 0.00 | 37,439,500 | 25.4 | 3,610,853 | 52,954 | 7,410,918 | 1,364 | 1,831,612 | 14,748,792 | 3.2 | 1.5 | 0 | 13.42 | 5.00 | 26,781 | 0 | 0 | 0 | 0 |
| 7 | 0.28 | *37,487,132* | *20.5* | *3,611,236* | *52,954* | *7,416,873* | *1,385* | *1,854,853* | *14,766,305* | *3* | *1.6* | *0* | *14.0* | *5.00* | *26,781* | *0* | *0* | *0* | *0* |
| 8 | 0.00 | 37,534,764 | 15.6 | 3,611,618 | 52,954 | 7,422,828 | 1,405 | 1,878,093 | 14,783,817 | 3.3 | 1.7 | 0 | 14.67 | 5.00 | 26,783 | 0 | 0 | 0 | 0 |
| 9 | 0.00 | 37,584,072 | 25.8 | 3,612,956 | 52,955 | 7,430,187 | 1,443 | 1,903,277 | 14,822,752 | 3.4 | 2.5 | 38,935 | 15.17 | 5.00 | 40,001 | 0 | 0 | 0 | 0 |
| 10 | 0.00 | 37,634,208 | 18.0 | 3,614,952 | 52,955 | 7,435,868 | 1,443 | 1,956,073 | 14,877,387 | 3.2 | 2.2 | 17,504 | 14.42 | 5.00 | 43,154 | 41,766 | 0 | 0 | 0 |
| 11 | 0.00 | 37,682,556 | 13.2 | 3,615,444 | 52,955 | 7,437,381 | 1,483 | 1,993,609 | 14,907,367 | 3.2 | 2.7 | 0 | 12.67 | 5.00 | 38,075 | 58,826 | 0 | 0 | 0 |
| 12 | 0.27 | 37,732,308 | 18.6 | 3,615,770 | 52,955 | 7,439,810 | 1,521 | 2,022,071 | 14,944,562 | 3.2 | 2.3 | 51,552 | 11.17 | 5.00 | 28,453 | 68,188 | 0 | 0 | 0 |
| 13 | 0.00 | 37,784,200 | 26.3 | 3,615,975 | 52,955 | 7,452,043 | 1,521 | 2,064,086 | 14,997,337 | 3.20 | 1.6 | 49,772 | 9.75 | 5.00 | 28,453 | 54,390 | 0 | 0 | 0 |
| 14 | 0.00 | *37,835,154* | *25.2* | *3,616,361* | *52,955* | *7,458,605* | *1,540* | *2,113,421* | *15,047,082* | *3.2* | *1.7* | *0* | *9.46* | *5.00* | 28,453 | 0 | 0 | 0 | 0 |
| 15 | 0.00 | 37,886,108 | 24.0 | 3,616,746 | 52,955 | 7,465,166 | 1,558 | 2,162,756 | 15,096,827 | 3.2 | 1.7 | 0 | 9.17 | 5.00 | 28,455 | 0 | 0 | 0 | 0 |
| 16 | 0.00 | 37,937,216 | 23.0 | 3,618,752 | 52,955 | 7,469,964 | 1,597 | 2,218,190 | 15,147,412 | 3.2 | 2.2 | 0 | 9.25 | 5.00 | 23,119 | 0 | 0 | 0 | 0 |
| 17 | 0.00 | 37,988,648 | 23.4 | 3,619,585 | 52,955 | 7,476,568 | 1,635 | 2,259,631 | 15,193,917 | 3.2 | 1.5 | 36,802 | 9.42 | 5.00 | 21,725 | 0 | 0 | 0 | 0 |
| 18 | 0.00 | 38,038,476 | 25.8 | 3,661,110 | 52,955 | 7,481,359 | 1,635 | 2,313,159 | 15,246,977 | 3.2 | 1.2 | 27,840 | 10.50 | 5.00 | 23,414 | 0 | | | |
| 19 | 0.00 | 38,087,252 | 26.4 | 3,697,044 | 52,957 | 7,487,621 | 1,674 | 2,355,808 | 15,300,200 | 3.2 | 1.1 | 0 | 11.17 | 5.00 | 22,259 | 0 | 0 | 0 | 0 |
| 20 | 1.10 | 38,135,800 | 20.3 | 3,708,593 | 52,960 | 7,492,362 | 1,711 | 2,387,849 | 15,333,600 | 3.2 | 1.6 | 0 | 12.33 | 5.00 | 7,819 | 0 | 0 | 0 | 0 |
| 21 | 0.00 | *38,182,574* | *19.2* | *3,709,879* | *52,961* | *7,498,207* | *1,731* | *2,411,431* | *15,367,124* | *3.2* | *1.7* | *0* | *13.96* | *5.00* | 7,819 | 0 | 0 | 0 | 0 |
| 22 | 0.00 | 38,229,348 | 18.0 | 3,711,165 | 52,962 | 7,504,051 | 1,751 | 2,435,013 | 15,400,647 | 3.2 | 1.7 | 0 | 15.58 | 5.00 | 7,819 | 0 | 0 | 0 | 0 |
| 23 | 0.00 | 38,279,336 | 13.8 | 3,711,834 | 52,967 | 7,509,657 | 1,751 | 2,463,742 | 15,426,622 | 3.1 | 2.2 | 0 | 14.67 | 6.67 | 29,668 | 0 | 0 | 0 | 0 |
| 24 | 2.40 | 38,329,084 | 22.0 | 3,726,515 | 52,967 | 7,514,317 | 1,792 | 2,518,871 | 15,480,792 | 3.2 | 2.3 | 45,458 | 13.75 | 7.42 | 29,863 | 0 | 0 | 0 | 0 |
| 25 | 0.42 | 38,379,468 | 16.8 | 3,727,329 | 52,967 | 7,518,233 | 1,830 | 2,537,986 | 15,534,147 | 3.1 | 2.5 | 0 | 12.75 | 9.67 | 39,852 | 0 | 0 | 0 | 0 |
| 26 | 0.90 | 38,427,916 | 19.8 | 3,729,202 | 52,967 | 7,518,233 | 1,830 | 2,564,732 | 15,552,652 | 3.1 | 3.3 | 10,002 | 11.67 | 10.67 | 40,195 | 0 | 0 | 0 | 0 |
| 27 | 0.23 | 38,476,120 | 24.0 | 3,729,878 | 52,968 | 7,530,045 | 1,872 | 2,593,188 | 15,605,700 | 3.2 | 3.3 | 0 | 10.25 | 12.75 | 20,278 | 25,128 | 0 | 0 | 0 |
| 28 | 0.00 | *38,529,984* | *19.2* | *3,730,307* | *52,968* | *7,535,501* | *1,890* | *2,627,902* | *15,641,406* | *3.2* | *3.6* | *0* | *10.67* | *12.75* | 20,278 | 6,005 | 0 | 0 | 0 |
| 29 | 0.00 | 38,583,848 | 14.4 | 3,730,736 | 52,968 | 7,540,957 | 1,907 | 2,662,616 | 15,677,112 | 3.2 | 3.8 | 38,998 | 11.08 | 12.75 | 20,278 | 68,354 | 0 | 0 | 0 |
| 30 | 0.00 | 38,636,028 | 16.2 | 3,731,594 | 52,968 | 7,546,433 | 1,943 | 2,695,787 | 15,723,027 | 3.1 | 3.6 | 0 | 11.58 | 10.75 | 13,535 | 70,019 | 0 | 0 | 0 |
| 31 | 0.10 | 38,688,600 | 16.8 | 3,732,094 | 52,968 | 7,552,096 | 1,979 | 2,708,427 | 15,723,167 | 3.2 | 3.5 | 57,507 | 12.6 | 9.0 | 21,034 | 50,831 | 0 | 0 | 0 |
| Totals | 5.70 | | | | | | | | | | | 503,739 | | | 764,531 | 443,507 | | | |

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. Columns G and I include quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. 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 |

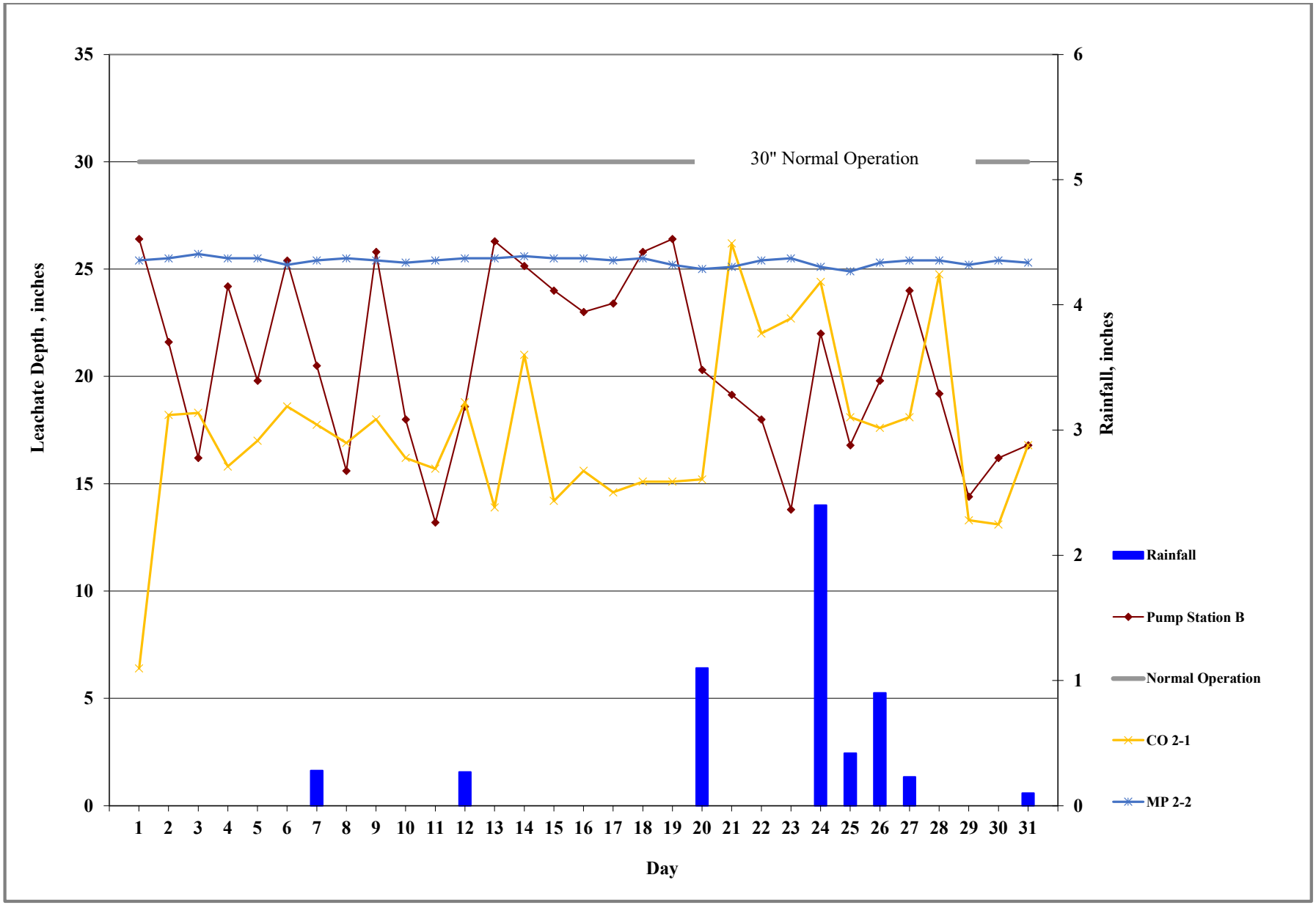


**Figure 1. Leachate Levels in Pump Station B and Rainfall for August 2022.**

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

| | | Leachate Arriving at LTRF | | | | Leachate Leaving LTRF | | | LEF | Effluent Disposal | | | Inflow / Outflow For LTRF | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Rainfall (in.) | 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.) | Leachate Treated at LEF (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[2] (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 | 195,550 |
| 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 | -412,788 |
| 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 | -255,191 |
| April | 5.16 | 587 | 130,992 | 151,989 | 2,006,957 | 654,652 | 0 | 355,573 | 1,388,533 | 0 | 0 | 242,565 | 2,290,525 | 2,398,758 | -108,233 |
| May | 3.26 | 455 | 121,539 | 145,455 | 1,965,984 | 243,391 | 0 | 401,147 | 1,444,252 | 0 | 0 | 275,271 | 2,233,433 | 2,088,790 | 144,643 |
| June | 6.84 | 4,289 | 49,171 | 123,341 | 1,872,286 | 338,274 | 0 | 502,013 | 1,332,130 | 0 | 0 | 195,057 | 2,049,087 | 2,172,417 | -123,331 |
| July | 8.54 | 4,420 | 138,295 | 222,776 | 1,941,881 | 608,224 | 0 | 781,390 | 1,348,377 | 0 | 0 | 450,113 | 2,307,372 | 2,737,991 | -430,619 |
| August | 5.70 | 4,498 | 127,377 | 181,260 | 2,008,596 | 443,507 | 0 | 764,531 | 1,173,508 | 0 | 0 | 503,739 | 2,321,731 | 2,381,546 | -59,815 |
| 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:** October 14, 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 September 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 14.76 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 2.3 feet.

**Depth inPond 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 3.0 feet.

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

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. The level recorded on the 30th was high to due to no power from hurricane Ian. The average recorded depth of leachate in the PS-B sump was 24.2 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 level recorded on the 30th was high to due to no power from hurricane Ian. The average recorded depth of leachate in the CO 2-1 was 16 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 22 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 75,948 gallons. A total of 2,278,454 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 2,756 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 296,981 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 2,575,435 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 9,767 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 2,391 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 296,300 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 204,133 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 1,177,033 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 663,815 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 1,192,324 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 82,020 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 249,467 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 598,107 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 1,538,000 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 2,602,358 gallons. Total outflow quantity from the LTRF was 3,033,172 gallons. The change in storage for the month decreased by 430,814 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 A Storage (gal.) | Pond B Storage (gal) | Effluent Irrigation (gal.) | Effluent Dust Control (Sprayed) (gal.) | Total Effluent Hauled (gal.) | Total Evaporation (gal.) |
| 1 | 0.08 | 2.8 | 3.2 | 25.8 | 17.1 | 25.4 | 66,750 | 1,979 | 5,530 | 72,280 | 359 | 0 | 348,000 | 259,000 | 52,085 | 21,142 | 40,782 | 0 | 98,000 | 265,000 | 52,682 | 0 | 0 | 89,000 |
| 2 | 0.33 | 1.7 | 3.2 | 25.2 | 18.7 | 25.3 | 66,924 | 38 | 4,693 | 71,617 | 586 | 0 | 309,000 | 257,000 | 52,448 | 22,497 | 43,500 | 0 | 48,000 | 265,000 | 49,224 | 0 | 0 | 86,600 |
| 3 | 0.00 | 1.0 | 3.3 | 24.0 | 17.0 | 25.2 | 63,206 | 0 | 4,621 | 67,827 | 384 | 0 | 293,000 | 257,000 | 30,400 | 22,497 | 6,417 | 0 | 24,000 | 277,000 | 0 | 0 | 0 | 27,400 |
| 4 | 0.00 | 1.4 | 3.3 | 25.2 | *17.0* | 25.3 | 66,452 | 27 | 5,345 | 71,797 | 877 | 0 | 305,000 | 257,000 | 42,849 | 22,497 | 6,421 | 0 | 36,000 | 277,000 | 0 | 0 | 0 | 38,600 |
| 5 | 0.00 | 1.8 | 3.3 | 26.4 | *18.0* | 25.3 | 67,795 | 27 | 5,345 | 73,140 | 1,754 | 0 | 319,000 | 261,000 | 42,849 | 22,497 | 0 | 0 | 52,000 | 277,000 | 0 | 0 | 0 | 38,600 |
| 6 | 0.00 | 2.2 | 3.2 | 20.4 | 17.5 | 25.4 | 67,459 | 27 | 5,346 | 72,805 | 0 | 1 | 333,000 | 259,000 | 42,849 | 22,497 | 61,704 | 0 | 70,000 | 265,000 | 0 | 0 | 0 | 38,600 |
| 7 | 0.25 | 2.5 | 3.2 | 26.4 | 17.5 | 25.4 | 71,262 | 39 | 5,489 | 76,751 | 1,927 | 1 | 295,000 | 259,000 | 26,965 | 22,598 | 58,331 | 0 | 83,000 | 265,000 | 34,453 | 0 | 0 | 51,800 |
| 8 | 0.60 | 2.3 | 3.2 | 26.2 | 13.6 | 25.7 | 73,198 | 38 | 5,616 | 78,814 | 824 | 2 | 324,000 | 214,000 | 17,435 | 18,571 | 71,135 | 0 | 74,000 | 265,000 | 38,281 | 0 | 0 | 46,300 |
| 9 | 1.47 | 1.0 | 3.2 | 27.0 | 18.0 | 9.0 | 72,268 | 0 | 6,241 | 78,509 | 6 | 0 | 309,000 | 180,000 | 57,255 | 25,401 | 53,235 | 0 | 24,000 | 265,000 | 7,699 | 0 | 0 | 57,700 |
| 10 | 0.00 | 2.6 | 3.2 | 25.8 | 17.1 | 11.1 | 68,216 | 37 | 4,524 | 72,740 | 0 | 0 | 326,000 | 144,000 | 33,598 | 26,401 | 14,471 | 0 | 88,000 | 265,000 | 0 | 0 | 0 | 30,200 |
| 11 | 0.00 | 3.0 | 3.2 | 25.5 | *17.1* | 12.7 | 67,606 | 17 | 5,396 | 73,002 | 48 | 0 | 323,000 | 144,000 | 47,636 | 26,401 | 0 | 0 | 108,000 | 265,000 | 0 | 0 | 0 | 42,900 |
| 12 | 0.45 | 3.4 | 3.2 | 25.2 | 17.1 | 12.0 | 72,027 | 17 | 5,396 | 77,423 | 48 | 0 | 319,000 | 144,000 | 47,636 | 26,403 | 51,806 | 0 | 129,000 | 265,000 | 17,486 | 0 | 0 | 56,900 |
| 13 | 0.22 | 3.5 | 3.2 | 24.0 | 17.7 | 11.1 | 74,678 | 38 | 6,078 | 80,756 | 12 | 0 | 288,000 | 144,000 | 47,150 | 24,752 | 51,739 | 0 | 140,000 | 265,000 | 0 | 0 | 0 | 42,400 |
| 14 | 0.42 | 3.8 | 3.1 | 23.0 | 17.2 | 11.3 | 73,271 | 36 | 4,905 | 78,176 | 10 | 0 | 261,000 | 144,000 | 51,732 | 24,752 | 7,256 | 0 | 157,000 | 254,000 | 58,660 | 0 | 0 | 93,500 |
| 15 | 0.18 | 3.1 | 3.1 | 24.6 | 11.5 | 12.0 | 69,150 | 0 | 6,501 | 75,651 | 12 | 0 | 274,000 | 144,000 | 37,878 | 24,936 | 0 | 0 | 113,000 | 254,000 | 46,743 | 0 | 0 | 71,500 |
| 16 | 0.00 | 2.7 | 3.1 | 25.7 | 12.6 | 12.6 | 70,328 | 38 | 6,695 | 77,023 | 368 | 1 | 317,000 | 144,000 | 19,975 | 25,620 | 0 | 0 | 93,000 | 254,000 | 25,551 | 0 | 0 | 38,400 |
| 17 | 2.55 | 2.9 | 3.1 | 26.4 | 18.2 | 25.7 | 78,659 | 0 | 5,854 | 84,513 | 2 | 1 | 362,000 | 144,000 | 49,685 | 27,180 | 0 | 0 | 103,000 | 254,000 | 0 | 0 | 0 | 44,700 |
| 18 | 0.00 | 3.3 | 3.2 | 24.0 | *15.0* | 26.1 | 101,291 | 38 | 16,847 | 118,138 | 1 | 0 | 429,000 | 144,000 | 26,448 | 27,180 | 0 | 0 | 123,000 | 254,000 | 0 | 0 | 0 | 23,800 |
| 19 | 0.00 | 3.6 | 3.2 | 21.6 | 11.8 | 26.0 | 99,960 | 38 | 16,847 | 116,807 | 1 | 0 | 497,000 | 144,000 | 26,448 | 27,182 | 25,037 | 0 | 145,000 | 265,000 | 0 | 0 | 0 | 23,800 |
| 20 | 0.28 | 4.0 | 3.2 | 22.8 | 15.3 | 25.8 | 109,373 | 0 | 17,753 | 127,126 | 1,356 | 148 | 444,000 | 223,000 | 50,041 | 26,175 | 81,864 | 0 | 168,000 | 265,000 | 42,100 | 0 | 0 | 78,700 |
| 21 | 0.00 | 3.7 | 3.2 | 24.0 | 12.3 | 25.9 | 103,524 | 39 | 18,150 | 121,674 | 320 | 203 | 348,000 | 329,000 | 54,099 | 26,647 | 85,218 | 0 | 151,000 | 265,000 | 66,216 | 0 | 0 | 101,700 |
| 22 | 0.00 | 2.9 | 3.1 | 18.0 | 14.4 | 25.8 | 104,358 | 36 | 16,241 | 120,599 | 146 | 536 | 324,000 | 329,000 | 53,745 | 25,423 | 125,576 | 0 | 103,000 | 254,000 | 69,014 | 0 | 0 | 103,600 |
| 23 | 0.27 | 2.1 | 3.2 | 14.4 | 15.4 | 25.6 | 97,367 | 0 | 16,369 | 113,736 | 78 | 0 | 283,000 | 288,000 | 48,719 | 25,691 | 105,457 | 0 | 65,000 | 265,000 | 66,391 | 0 | 0 | 97,000 |
| 24 | 0.00 | 1.1 | 3.2 | 24.0 | 12.8 | 25.6 | 91,213 | 42 | 14,762 | 105,975 | 68 | 0 | 245,000 | 274,000 | 35,009 | 24,927 | 107,294 | 0 | 28,000 | 265,000 | 23,607 | 0 | 0 | 50,400 |
| 25 | 0.00 | 1.4 | 3.2 | 20.7 | *15.6* | 25.7 | 94,401 | 39 | 14,078 | 108,478 | 33 | 0 | 239,000 | 276,000 | 52,648 | 24,927 | 6,398 | 0 | 36,000 | 265,000 | 0 | 0 | 0 | 47,400 |
| 26 | 2.55 | 1.6 | 3.2 | 17.4 | 18.4 | 25.8 | 95,382 | 39 | 14,078 | 109,459 | 33 | 0 | 233,000 | 278,000 | 52,648 | 24,929 | 95,313 | 0 | 44,000 | 265,000 | 0 | 0 | 0 | 47,400 |
| 27 | 1.28 | 1.7 | 3.6 | 20.4 | 14.0 | 26.1 | 96,174 | 36 | 13,532 | 109,706 | 96 | 705 | 240,000 | 242,000 | 23,382 | 24,092 | 79,970 | 0 | 48,000 | 312,000 | 0 | 0 | 0 | 21,000 |
| 28 | 3.83 | 0.0 | 0.0 | 0.0 | NA | 26.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 800 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0.00 | 0.0 | 0.0 | 0.0 | NA | 27.4 | 261 | 0 | 0 | 261 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 800 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0.00 | 3.0 | 3.6 | 91.9 | 50.7 | 26.5 | 95,907 | 93 | 44,750 | 140,657 | 419 | 793 | 302,000 | 242,000 | 53,422 | 0 | 13,400 | 0 | 108,000 | 312,000 | 0 | 0 | 0 | 48,100 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 14.76 | | | | | | 2,278,454 | 2,756 | 296,981 | 2,575,435 | 9,767 | 2,391 | | | 1,177,033 | 663,815 | 1,192,324 | 0 | | | 598,107 | 0.00 | 0.00 | 1,538,000 |
| Daily Average | | 2.3 | 3.0 | 24.2 | 16.0 | 22.0 | 75,948 | | | | | | 296,300 | 204,133 | | | | 0 | 82,020 | 249,467 | | 0 | 0 | 51,267 |
| 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 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 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-XIX, 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**

**MONTH/YEAR** **September 2022**

**SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA**

| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Day | Rainfall (in.) | Flow Meter Pump Sta. A (gal.) | Reading PS-B (in.) | Section 9 Pumps (gal.) | Section 9 LDS (gal.) | Sections 7-8 Pump (gal.) | Sections 7-8 LDS (gal.) | MLPS to Pond B (gal.) | Pond B to LEF (gal.) | Pond B Depth (ft.) | 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 (gal.) | Leachate Dust Control (Sprayed) (gal.) | Effluent Hauled (gal.) | Effluent Dust Control (Sprayed) (gal) |
| 1 | 0.08 | 38,740,644 | 25.8 | 3,732,453 | 52,968 | 7,557,626 | 1,979 | 2,749,574 | 15,775,252 | 3.2 | 2.8 | 52,682 | 12.08 | 9.00 | 21,142 | 40,782 | 0 | 0 | 0 |
| 2 | 0.33 | 38,794,576 | 25.2 | 3,733,039 | 52,968 | 7,562,319 | 2,017 | 2,775,498 | 15,827,700 | 3.2 | 1.7 | 49,224 | 10.75 | 8.92 | 22,497 | 43,500 | 0 | 0 | 0 |
| 3 | 0.00 | 38,843,848 | 24.0 | 3,733,423 | 52,968 | 7,566,940 | 2,017 | 2,781,359 | 15,858,100 | 3.3 | 1.0 | 0 | 10.17 | 8.92 | 22,497 | 6,417 | 0 | 0 | 0 |
| 4 | 0.00 | *38,896,366* | *25.2* | *3,734,300* | *52,968* | *7,572,285* | *2,044* | *2,808,982* | *15,900,949* | *3.3* | *1.4* | *0* | *10.58* | *8.92* | 22,497 | 6,421 | 0 | 0 | 0 |
| 5 | 0.00 | *38,948,884* | *26.4* | *3,736,054* | *52,968* | *7,577,630* | *2,071* | *2,836,605* | *15,943,798* | *3.3* | *1.8* | *0* | *11.08* | *9.08* | 22,497 | 0 | *0* | *0* | 0 |
| 6 | 0.00 | 39,001,404 | 20.4 | 3,736,054 | 52,969 | 7,582,976 | 2,098 | 2,864,228 | 15,986,647 | 3.2 | 2.2 | 0 | 11.58 | 9.00 | 22,497 | 61,704 | 0 | 0 | 0 |
| 7 | 0.25 | 39,052,424 | 26.4 | 3,737,981 | 52,970 | 7,588,465 | 2,137 | 2,897,103 | 16,013,612 | 3.2 | 2.5 | 34,453 | 10.25 | 9.00 | 22,598 | 58,331 | 0 | 0 | 0 |
| 8 | 0.60 | 39,106,044 | 26.2 | 3,738,805 | 52,972 | 7,594,081 | 2,175 | 2,912,208 | 16,031,047 | 3.2 | 2.3 | 38,281 | 11.25 | 7.42 | 18,571 | 71,135 | 0 | 0 | 0 |
| 9 | 1.47 | 39,163,378 | 27.0 | 3,738,811 | 52,972 | 7,600,322 | 2,175 | 2,947,717 | 16,088,302 | 3.2 | 1.0 | 7,699 | 10.75 | 6.25 | 25,401 | 53,235 | 0 | 0 | 0 |
| 10 | 0.00 | 39,216,880 | 25.8 | 3,738,811 | 52,972 | 7,604,846 | 2,212 | 2,963,356 | 16,121,900 | 3.2 | 2.6 | 0 | 11.33 | 5.00 | 26,401 | 14,471 | 0 | 0 | 0 |
| 11 | 0.00 | 39,269,772 | 25.5 | 3,738,859 | 52,972 | 7,610,242 | 2,229 | 3,009,041 | 16,169,536 | 3.2 | 3.0 | 0 | 11.21 | 5.00 | 26,401 | 0 | 0 | 0 | 0 |
| 12 | 0.45 | 39,322,664 | 25.2 | 3,738,907 | 52,972 | 7,615,638 | 2,245 | 3,054,726 | 16,217,172 | 3.2 | 3.4 | 17,486 | 11.08 | 5.00 | 26,403 | 51,806 | 0 | 0 | 0 |
| 13 | 0.22 | 39,378,868 | 24.0 | 3,738,919 | 52,972 | 7,621,716 | 2,283 | 3,095,438 | 16,264,322 | 3.2 | 3.5 | 0 | 10.00 | 5.00 | 24,752 | 51,739 | 0 | 0 | 0 |
| 14 | 0.42 | 39,434,936 | 23.0 | 3,738,929 | 52,972 | 7,626,621 | 2,319 | 3,113,324 | 16,316,054 | 3.1 | 3.8 | 58,660 | 9.08 | 5.00 | 24,752 | 7,256 | 0 | 0 | 0 |
| 15 | 0.18 | 39,488,920 | 24.6 | 3,738,941 | 52,972 | 7,633,122 | 2,319 | 3,130,146 | 16,353,932 | 3.1 | 3.1 | 46,743 | 9.50 | 5.00 | 24,936 | 0 | 0 | 0 | 0 |
| 16 | 0.00 | 39,542,704 | 25.7 | 3,739,309 | 52,973 | 7,639,817 | 2,357 | 3,157,888 | 16,373,907 | 3.1 | 2.7 | 25,551 | 11.00 | 5.00 | 25,620 | 0 | 0 | 0 | 0 |
| 17 | 2.55 | 39,597,500 | 26.4 | 3,739,311 | 52,974 | 7,645,671 | 2,357 | 3,175,756 | 16,423,592 | 3.1 | 2.9 | 0 | 12.58 | 5.00 | 27,180 | 0 | 0 | 0 | 0 |
| 18 | 0.00 | 39,674,928 | 24.0 | 3,739,312 | 52,974 | 7,662,518 | 2,395 | 3,197,454 | 16,450,040 | 3.2 | 3.3 | 0 | 14.92 | 5.00 | 27,180 | 0 | 0 | 0 | 0 |
| 19 | 0.00 | 39,752,356 | 21.6 | 3,739,313 | 52,974 | 7,679,365 | 2,433 | 3,219,152 | 16,476,487 | 3.2 | 3.6 | 0 | 17.25 | 5.00 | 27,182 | 25,037 | 0 | 0 | 0 |
| 20 | 0.28 | 39,837,064 | 22.8 | 3,740,669 | 53,122 | 7,697,118 | 2,433 | 3,259,392 | 16,526,528 | 3.2 | 4.0 | 42,100 | 15.42 | 7.75 | 26,175 | 81,864 | 0 | 0 | 0 |
| 21 | 0.00 | 39,918,668 | 24.0 | 3,740,989 | 53,325 | 7,715,268 | 2,472 | 3,295,571 | 16,580,627 | 3.2 | 3.7 | 66,216 | 12.08 | 11.42 | 26,647 | 85,218 | 0 | 0 | 0 |
| 22 | 0.00 | 39,999,472 | 18.0 | 3,741,135 | 53,861 | 7,731,509 | 2,508 | 3,342,128 | 16,634,372 | 3.1 | 2.9 | 69,014 | 11.25 | 11.42 | 25,423 | 125,576 | 0 | 0 | 0 |
| 23 | 0.27 | 40,079,044 | 14.4 | 3,741,213 | 53,861 | 7,747,878 | 2,508 | 3,390,536 | 16,683,091 | 3.2 | 2.1 | 66,391 | 9.83 | 10.00 | 25,691 | 105,457 | 0 | 0 | 0 |
| 24 | 0.00 | 40,149,632 | 24.0 | 3,741,281 | 53,861 | 7,762,640 | 2,550 | 3,423,052 | 16,718,100 | 3.2 | 1.1 | 23,607 | 8.50 | 9.50 | 24,927 | 107,294 | 0 | 0 | 0 |
| 25 | 0.00 | 40,223,408 | 20.7 | 3,741,314 | 53,861 | 7,776,718 | 2,589 | 3,468,742 | 16,770,748 | 3.2 | 1.4 | 0 | 8.29 | 9.59 | 24,927 | 6,398 | 0 | 0 | 0 |
| 26 | 2.55 | 40,297,184 | 17.4 | 3,741,346 | 53,861 | 7,790,795 | 2,627 | 3,514,431 | 16,823,396 | 3.2 | 1.6 | 0 | 8.08 | 9.67 | 24,929 | 95,313 | 0 | 0 | 0 |
| 27 | 1.28 | 40,371,712 | 20.4 | 3,741,442 | 54,566 | 7,804,327 | 2,663 | 3,534,861 | 16,846,778 | 3.6 | 1.7 | 0 | 8.33 | 8.42 | 24,092 | 79,970 | 0 | 0 | 0 |
| 28 | 3.83 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0.00 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.0 | 0.0 | 0 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0.00 | 40,467,424 | 91.9 | 3,741,861 | 55,359 | 7,849,077 | 2,756 | 3,534,861 | 16,900,200 | 3.6 | 3.0 | 0 | 10.50 | 8.42 | 0 | 13,400 | 0 | 0 | 0 |
| 31 | | | | | | | | | | | | | | | | | | | |
| Totals | 14.76 | | | | | | | | | | | 598,107 | | | 663,815 | 1,192,324 | | | 0 |

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. Columns G and I include quantities from leak detection system.
4. Column B, trace is less than 0.01 inches.
5. 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 |

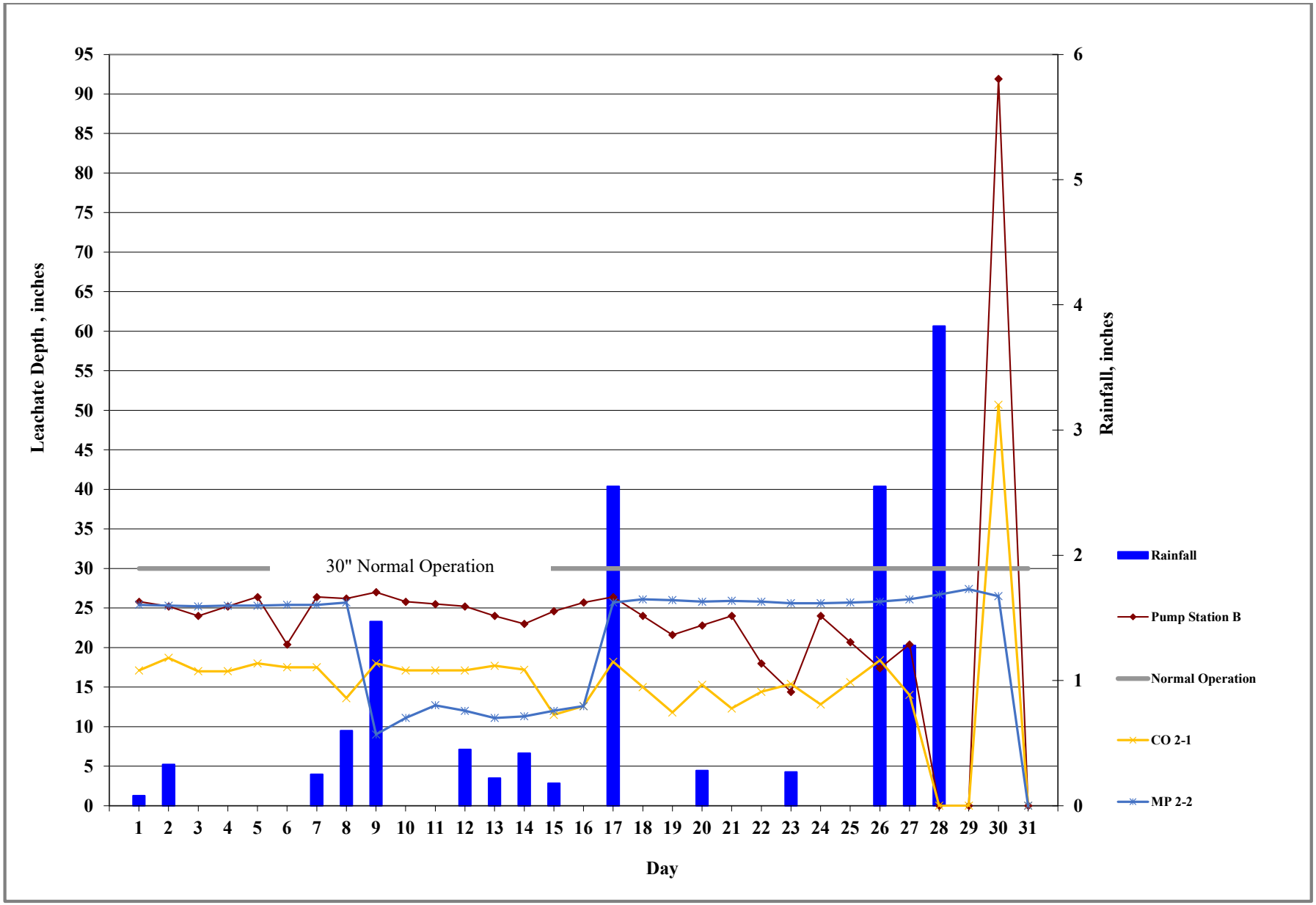


**Figure 1. Leachate Levels in Pump Station B and Rainfall for September 2022.**

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

| | | Leachate Arriving at LTRF | | | | Leachate Leaving LTRF | | | LEF | Effluent Disposal | | | Inflow / Outflow For LTRF | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Month | Rainfall (in.) | 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.) | Leachate Treated at LEF (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[2] (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 | 195,550 |
| 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 | -412,788 |
| 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 | -255,191 |
| April | 5.16 | 587 | 130,992 | 151,989 | 2,006,957 | 654,652 | 0 | 355,573 | 1,388,533 | 0 | 0 | 242,565 | 2,290,525 | 2,398,758 | -108,233 |
| May | 3.26 | 455 | 121,539 | 145,455 | 1,965,984 | 243,391 | 0 | 401,147 | 1,444,252 | 0 | 0 | 275,271 | 2,233,433 | 2,088,790 | 144,643 |
| June | 6.84 | 4,289 | 49,171 | 123,341 | 1,872,286 | 338,274 | 0 | 502,013 | 1,332,130 | 0 | 0 | 195,057 | 2,049,087 | 2,172,417 | -123,331 |
| July | 8.54 | 4,420 | 138,295 | 222,776 | 1,941,881 | 608,224 | 0 | 781,390 | 1,348,377 | 0 | 0 | 450,113 | 2,307,372 | 2,737,991 | -430,619 |
| August | 5.70 | 4,498 | 127,377 | 181,260 | 2,008,596 | 443,507 | 0 | 764,531 | 1,173,508 | 0 | 0 | 503,739 | 2,321,731 | 2,381,546 | -59,815 |
| September | 13.46 | 14,765 | -3,785,062 | -7,552,096 | -42,144,668 | 1,128,341 | 0 | 0 | -15,723,167 | 0 | 0 | 598,107 | -53,467,061 | -14,594,826 | -38,872,235 |
| 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.