Hsu, Benjamin

From: Madden, Melissa

Sent: Thursday, August 24, 2017 12:43 PM

To: Hsu, Benjamin

Subject: FW: WACS ID 41193 - October 216 Water Balance for Southeast County Landfill

Attachments: Leachate Balance October 2016.pdf

Please feel free to contact me with any questions or concerns.

Thanks, Melissa



Melissa Madden

Environmental Consultant – Solid Waste Florida Department of Environmental Protection, Southwest District 13051 N Telecom Parkway, Suite 101, Temple Terrace, FL 33637 NEW! (813) 470-5795 Phone | (813) 470-5995 Fax melissa.madden@dep.state.fl.us

From: Pelley, Cindy [mailto:PelleyCA@HillsboroughCounty.ORG]

Sent: Tuesday, November 15, 2016 9:34 AM

To: Madden, Melissa < Melissa. Madden@dep.state.fl.us>

Cc: Morgan, Steve <Steve.Morgan@dep.state.fl.us>; Ruiz, Larry <RuizLE@HillsboroughCounty.ORG>; Byer, Kimberly <ByerK@hillsboroughcounty.org>; 'bclark@scsengineers.com'; Morris, John R. <John.R.Morris@dep.state.fl.us>

Subject: WACS ID 41193 - October 216 Water Balance for Southeast County Landfill

Melissa,

Please see the attached October 2016 Water Balance for Southeast County Landfill.

Please let me know if you have any questions or concerns.

Thank you, Cindy

Cindy A. Pelley

General Manager II

Solid Waste Management Division Public Works Department

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Public Works

Board of County Commissioners

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Lesley "Les" Miller, Jr.
Sandra L. Murman
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County Administrator
Michael S. Merrill

County Administrator Executive Team

> Lucia E. Garsys Carl S. Harness Gregory S. Horwedel Ramin Kouzehkanani Liana Lopez Bonnie M. Wise

Interim Internal Auditor Peggy Caskey

> County Attorney Chip Fletcher

Public Works PO Box 1110 Tampa, FL 33601-1110 Phone: (813) 272-5912 Fax: (813) 272-5811 DATE: November 7, 2016

:49)) Vag from

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

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

SUBJECT: Leachate Water Balance Report Forms for October 2016 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 2016 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

TO:

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 3.48 inches of rainfall at the Southeast County Landfill (SCLF).

Depth in Pond A (Column III)

Column III presents the daily depth, in feet, of effluent stored in effluent pond (Pond A). The daily depth in Pond A varies as a function of the spray irrigation frequency/duration and effluent hauled from the pond. This month the daily average depth of effluent stored in Pond A was 2.7 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 effluent stored in Pond B was 3.1 feet.

Memorandum November 7, 2016 Page 2 of 5

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

Column V presents the depth of leachate, in inches, in the PS-B sump. Leachate from Phases I-VI flows to the PS-B sump for removal from the landfill. PS-B then pumps the leachate to Pump Station A (PS-A). Daily depth readings from the PS-B sump are included in this column. This month PS-B was below the normal operation level of 24-inches. The average recorded depth of leachate in the PS-B sump was 13.4 inches.

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

Column VI presents the daily amount of leachate, in gallons, collected from PS-A and pumped through the MLPS to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. The average daily amount of leachate pumped from PS-A was 99,925 gallons. A total of 3,097,682 gallons of leachate was pumped this month.

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

Column VII presents the quantity of leachate removed from the leak detection system (LDS) of Sections 7-8. The quantity is measured by a flow meter before being pumped for removal with Sections 7-8 leachate. The removal rate did not exceed 1,930 gallons per day. On August 31, the LDS pump went down and a temporary pump was installed. We had anticipated installing the new pump in mid-October however the new pump was not sized appropriately. Another pump will be ordered. This month the LDS was pumped manually and we estimate that a total of 1,200 gallons of leachate was removed from the leak detection system of Sections 7-8.

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

Column VIII presents the quantity of leachate collected at Sections 7-8 and pumped to the MLPS. The quantity is measured by a flow meter and includes any leachate removed from the leak detection system of Sections 7-8 (Column VIII). On October 17th a new replacement pump was installed at this pump station. This month a total of 282,434 gallons was removed.

Leachate Pumped to LTRF from the MLPS (Column IX)

Column IX presents the total quantity of leachate pumped to the LTRF from Phases I-VI and Sections 7-8. This month a total of 3,380,116 gallons of leachate was pumped to the LTRF.

Leachate Pumped to LTRF from Section 9 (Column X)

Column X presents the daily amount of leachate, in gallons, collected from Section 9 and pumped to the 575,000-gallon storage tank at the Leachate Treatment and Reclamation Facility (LTRF) for treatment or disposal. A total of 148,897 gallons of leachate was pumped this month.

Memorandum November 7, 2016 Page 3 of 5

Leachate Pumped from Section 9 LDS (Column XI)

Column XI presents the daily amount of leachate, in gallons, collected from the LDS of Section 9 and pumped to the 575,000-gallon storage tank at the LTRF for treatment or disposal. The removal rate did not exceed 4,651 gallons per day. This month a total 322 gallons of leachate was removed from the leak detection system.

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

Column XII presents the daily amount of leachate, in gallons, stored in the 575,000-gallon leachate holding tank at the LTRF. The amount of leachate stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 370,000 gallons of leachate was stored in the tank.

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

Column XIII presents the daily amount of effluent, in gallons, stored in the 575,000-gallon effluent holding tank at the LTRF. The amount of effluent stored in the tank is calculated based on the circumference of the tank and the daily level reading. This month an average of 405,800 gallons of effluent was stored in the tank.

Leachate Treated at LTRF (Column XIV)

Column XIV presents the daily amount of leachate, in gallons, treated at the LTRF. This month a total of 880,300 gallons of leachate was treated at the plant.

Total Leachate Hauled (Column XV)

Column XV presents the daily amount of leachate, in gallons, hauled off site. This month a total of 2,507,491 gallons of leachate was hauled off site.

Leachate Dust Control Sprayed (Column XVI)

Column XVI presents the daily amount of leachate, in gallons, measured from the flow meter at the bypass-loading arm at the leachate storage tank. The leachate is used for dust control in the active area of the landfill. This month leachate was not used for dust control.

Memorandum November 7, 2016 Page 4 of 5

Pond A Storage (Column XVII)

Column XVII presents the daily amount of effluent, in gallons, stored in Pond A. The daily amount stored in the pond is calculated by using the daily depth of effluent in the Pond A (Column IV). Under normal operating conditions, the daily amount of effluent stored in the pond varies depending upon the daily amount of leachate treated at the LTRF, the daily rainfall, daily effluent hauling operations, daily spray irrigation operations, and the daily amount of effluent used for dust control/evaporation. This month a daily average of 94,800 gallons of effluent was stored in Pond A.

Pond B Storage (Column XVIII)

Column XVIII presents the daily amount of effluent, in gallons, stored in Pond B. The daily amount stored in the pond is calculated by using the daily depth of effluent in Pond B (Column IV). Under normal operating conditions, the amount stored in the pond will vary depending upon the daily amount of effluent removed from the pond by the evaporation system, hauled from the pond, used for dust control or evaporated. This month a daily average of 183,200 gallons of effluent was stored in Pond B.

Effluent Sprayed at Pond B (Column XIX)

Column XIX presents the daily amount of effluent, in gallons, sprayed for evaporation at Pond B. The amount evaporated is calculated by using 5 percent of the daily flow meter quantity sprayed at Pond B and it is included in Column XXIII. This month 480,725 gallons of effluent was sprayed in Pond B.

Effluent Irrigation (Column XX)

Column XX presents the daily amount of effluent, in gallons, used for spray irrigation on top of Phases I-VI. The daily amount of effluent irrigation on Phases I-VI is measured from the flow meter at the irrigation pump station. This month a total of 979,296 gallons of effluent was used for spray irrigation.

Effluent Dust Control Sprayed (Column XXI)

Column XXI presents the daily amount of effluent, in gallons, sprayed for dust control in the active areas of the SCLF. The daily amount of effluent used for dust control, is measured from the flow meter at the bypass-loading arm. This month effluent was not sprayed as dust control.

Total Effluent Hauled (Column XXII)

Column XXII presents the daily amount of effluent, in gallons, hauled off site, as measured from the flow meter at the bypass-loading arm. This month 153,720 gallons of effluent was hauled off site.

Memorandum November 7, 2016 Page 5 of 5

Total Evaporation (Column XXIII)

Column XXIII presents the daily amount of leachate and effluent, in gallons, that evaporates and therefore will not be returned to the SCLF and/or requires treatment. Evaporation rates of 80 percent and 5 percent evaporation rate for spray in Pond B are assumed. Total evaporation estimated for this month was 807,600 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 3,540,248 gallons. Total outflow quantity from the LTRF was 3,387,791 gallons. The change in storage for the month increased by 152,457 gallons.

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

TABLE I, LEACHATE WATER BALANCE REPORT FORM OCTOBER 2016 SOUTHEAST COUNTY, FLORIDA

A u u u u u u u u u u u u u u u u u u u	ŀ	ŀ	>	ŀ	Λί	ΛΙΙ	NIII	X	×	XI	XII	XIII	XIV	λX	IAX	XVR	XVIII	XIX	XX	XXI	XXII	IIIXX
with size of the control of	Estimated Leachate	Estimated Leachate	Leachute Leachute		Leachate		Lexelante	Leschate	Leachate	Leachate	Leachate	Effluent	Leachate					Effluent				
Harris Receive 1,33 Harris 1,35 Ha	Depth Pumped	Depth Pumped	Pumped		Punped from		Puniped	Pumped	Pumped	Pumped from	.9	.5	Treated	Total	Leachate	Pond	Pond	Sprayed	Effluent	Effluent	Total	
M. 1.5.3 Section 9 LL13 Track Track (F17.5) (F49.4) (F49.4) State (F49.4) (F49	to MLPS Sc	at to MLPS	to MLPS		Sections 7-8		to MI.PS from	to LTRF from	to LTRF from	Section 9	575K	575K	Ħ	Leachate	Dust Control	∢	a	Pond	Impation	Dust Control	Effluent	Total
5.59 (19,77) 4.51 20. 135,000 473,000 13,000 473,000 13,000 473,000 13,000 473,000 13,000 </td <td>P.S-B from Phases I-VI LDS (in.) (gal.)</td> <td>P.S-B from Phases I-VI LDS (in.) (gal.)</td> <td>from Phases I-VI LDS (gal.)</td> <td>SCP (col.)</td> <td></td> <td>-,</td> <td>sections 7-8 (gal.)</td> <td>MPLS</td> <td>Section 9</td> <td>SCI</td> <td>Tank (oal.)</td> <td>Tank</td> <td>LTRF (aul.)</td> <td>Hauted (graf.)</td> <td>(Sprayed)</td> <td>Storage (cat.)</td> <td>Storage</td> <td>E (ea)</td> <td>Clean</td> <td>(Sprayed)</td> <td>Hauled (aal)</td> <td>Evaporation</td>	P.S-B from Phases I-VI LDS (in.) (gal.)	P.S-B from Phases I-VI LDS (in.) (gal.)	from Phases I-VI LDS (gal.)	SCP (col.)		-,	sections 7-8 (gal.)	MPLS	Section 9	SCI	Tank (oal.)	Tank	LTRF (aul.)	Hauted (graf.)	(Sprayed)	Storage (cat.)	Storage	E (ea)	Clean	(Sprayed)	Hauled (aal)	Evaporation
147,044 147,044 147,040 147,	12.1 104,277	12.1 104,277	2.1 104,277	104,277	Ш		5,500		4.571		345,000	473,000	23,800	105,847	0	118,000	223,000	0	50,294	0	0	40.2
14,543 5,432 14 441,000 17,000 12,540 12,541 10 14,000 12,540 12,541 10 14,000 12,540 12,541 10 12,541	3.6 14.7 101,973	14.7 (01,373	[BL,873]		₩.	1	7,999	109,872	4,889	0	393,000	475,000	23,300	0	*	113,000	234,000	0	8	0	0	
		17.2 101,873	101,873		M.		7,999	109,872		0	441,000	477,000	23,800	71,037	o	108,000	245,000	0	0	0	21.958	
114,049 6.73 1.4	3.7 10.4	10.4 105,434	105,434		NR	-	11,500	116,934		811	161,000	466,000	25,500	129,084	Þ	108,000	245,000	o	0	0	44,192	
13.25 1.25	3.8 11.0 106,526	11.0 106,526	106,526		NR		8,276	114,802		0	422,000	453,000	22,300	136,691	0	108,000	256,000	0	0	0	36,571	
113.113 1.24	12.5 106,800	12.5 106,800	106,800		NR		0	106,800		0	379,000	427,000	20,300	129,494	O	000'86	256,000	0	0	0	36,557	
1941 1946 1946 1940 1	3.8 15.8	15.8	109,033		N.		23,360	132,393		0	345,000	417,000	25,800	136,499	٥	98,000	256,000	٥	0	0	0	
116,635 4,765 0 274,040 275,040 17	15.5 107,507	15.5 107,507	702,701		M		11,606	119,113		0	331,000	437,000	25,700	82,926	0	00)86	256,000	0	9	0	7,139	
116,635 4,765 0.6 141,200 143,200 25,200 18,644 0.0 118,500 25,600 49,948 49,44 49,4	3.8 13.9 101,580	025'101 6'E1	101,580		WR		14,473	116,053		0	374,000	445,000	25,700	0	0	108,000	256,000	0	0	0	0	
106,427 167	3.2 3.8 12.2 101,580 NR	12.2	085,101		NR		14,473	116,053		0	417,000	453,000	25,700	123,817	0	118,000	256,000	0	Þ	0	0	
19,456 5,564 6, 24,000 13,20	3.8 10.9	10.9	006'56		NR		10,527	106,427		0	374,000	175,000	26,200	86,746	0	118,000	256,000	49,048	47,305	0	0	10,30
96.60 3.868 2 38,000 438,000 23,500 428,000 23,500 43,500 43,500 23,500 43,500		16.3 107,468	107,468		NR		11,967	119,435		0	372,000	453,000	25,700	114,296	8	129,000	234,000	0	54,674	С	0	43,70
16,346 7372 73.0	3.3 11.5 94,332	11.5 94,332	94,332		NR		2,268	009'96		2	336,000	458,000	25,200	128,658	0	123,000	202,000	0	36,122	0	0	28,90
99.560 315 6 285,000 405,000 84,100 61,100 74,000 24,500 84,110 0 74,000 24,500 74,000 74,500 74,700 74,500 74,700	3.4 t6.4 99,459	16.4 99,459	99,459		NR		16,902	116,361		0	305,000	132,000	22,000	84,748	0	129,000	213 000	61 392	59,628	0	7,303	50,80
	19.0 98,542	19.0 98,542	98,542		NR		1,018	99,560		0	295,000	405,000	24,500	89,110	0	74,000	245,000	30,427	45,672	0	0	38,14
111.534 6.489 0 334,000 413,000 21,300 18,790 0 413,000 13,000	3.7 15.1	15.1	908'00Y		NR		382	101,181		0	335,000	409,000	24,500	0	0	70,000	234,000	0	0	3	0	
134,19	3.6 11.1 100,800	11.11	100,800		M.		382	101,181		0	374,000	413,000	24,500	78,790	0	65,000	234,000	0	59,257	0	0	47,40
11,534 4,264 0.6 4465,000 4165,000 13,700 13,	11.6 102,106	11.6 102,106	102,106		æ		26,094	128,194	1,413	٥	389,000	437,000	27,900	49,188	0	123,000	143,000	87,393	67,417	0	0	58,30
145,622 6,070 0 352,000 317,900 317,400 106,938 0 113,000 155,000 0 34,366 0 0 0 0 0 0 0 0 0	2.8 13.6	13.6 98,700	98,700		æ		12,834	111,534	4,264	0	405,000	000'801	31,900	128,742	0	83,000	152,000	0	48,093	0	0	38,50
12,486 2,692 0 313,000 318,000 84,784 0 113,000 133,000 0 30,618 0 0 0 0 0 0 0 0 0	2.8 11.6 99,300	11.6 99,300	906,906		ĸ		9.322	108,622	6,070	0	362,000	379,000	31,400	106,958	ō	113,000	152,000	0	54,266	0	0	43,40
101-757 14.21	2.6 18.0 102,554	18.0 102,554	102,554		NR		9,932	112,486	2,692	0	331,000	358,000	32,000	84,784	0	113,000	133,000	a	30,618	0	0	24.50
181,476 5,452 0 345,000 35,500 29,800 4,512 0 5,700 15,000 15,000 37,128 0 0 0 0 0 0 0 0 0	2.0 15.8 160,312	15.8 100,312	100,312		N.		1,667	626,791	4,219	0	324,000	336,000	29,800	89,854	0	000'19	80,000	O	43,742	0	0	35,00
101-1456 54.52 0 449,500 374,500 22,800 42,152 0 57,600 16,000 36,129 66,232 0 0 0 0 0 0 0 0 0	2.5 13.8	13.4	71976		A/R		7,839	101,456	5,452	0	363,000	355,000	79,800	0	0	61,000	115,000	0	0	ol	0	
802.235 69 0 443,500 358,000 79,687 0 70,000 131,600 37,500 87,800 13,600 13,700	2.9 11.8	11.8 93,617	93,617		NR		7,839	101,456	5,452	0	403,000	374,000	29,800	42,152	0	57,000	162,000	36,129	63,252	9	0	52,40
101,723 4,902 0 398,000 311,000 11,500 13,500 11,5	94,400	94,400	91,100		ž		7,835	102,235	69	0	403,000	350,000	35,800	79,687	0	70,000	124,000	٥	32,569	0	0	26,10
97.147 6.181 0 379.000 317.500 37.500 37.5100 37.5	2.4 10.7 94,006	10.7 94,000	94,000		NA.		7,723	101,723	4,902	0	393,000	331,000	009'15	79,636	3	103,000	115,000	37,128	74,043	0	. 0	61,10
106,215 195 0 340,000 312,000 312,000 314,100 0 108,500 97,500 75,500 75,500 0 0 0 0 0 0 0 0 0	2.0 11.1	11.1	94,500		N.	- 1	2,667	97,167	6,183	Đ	379,000	317,000	37,500	87,590	ō	108,000	80,000	71,872	42,826	0	0	37,90
102.456 6.976 0 324,000 313,000 346,900 87,411 0 40,000 97,500 77,500 73,500 0 0 0 0 0 0 0 0 0	94,889	12.9 94,889	94,889		NR		11,326	106,215	195	0	360,000	302,000	37,100	94,110	o	108,000	000'16	22	50,509	0	0	40,40
185,072	2.2 13.3 94,925	13.3 94,925	94,925		Ĕ.		1,571	102,496	976'9	0	324,000	331,000	36,900	87,411	0	40,000	97,000	73,597	81118	Ö	0	54,20
193,071 4,572 0 379,000 379,000 379,000 379,000 379,000 379,000 379,000 379,000 370,000 37	J.8 2.0 J3.2 95,493 NP	13.2	95,493		854	4	7,578	103,071	4,572	0	352,000	355,000	36,990	G	ð	52,000	72,000	0	0	0	đ	
3,380,116 148,897 322 880,300 405,800 405,800 405,800 405,800 405,800 60 94,800 183,200 91,900 0 5,000 0 5,000	1.7 [3.1 95,493	13.1 95,493	95,493		EX.	ļ	7,578	103,071	4,572	ō	379,000	379,000	36,900	79,636	0	000'59	57,000	33,717	168,53	0	0	46.40
3.380,116 148,997 322 880,300 2.567,491 0 480,725 979,236 169,036 4,803 10 370,000 405,800 0 94,800 183,200 31,600														-								
(16) (17) (18) (18) (18) (18) (18) (18) (18) (18	7				1,200	1	282,434	3,380,116	148,897	322			880,300	2,507,491	0			\$80,725	979,296	0	153,720	807,60
31,600	2.7 3.1 13.4 99,925 39	13.4 99,925	526'66		39	- 1	111'6	109,036	4,803	01	370,000	405,800				94,800	183,200					
											_				0					0	5,000	26,05

Note:

1. RP: No Records, NA = Not Available.

2. Values in bedd are estimated, values in italic are substitute for missing data and are based on averaged values.

3. Daily average is colculated by driving the look lob the useful days ameasured in the month.

4. Monthy average is colculated by driving 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. Column II. Trace is less than 0.01 inches and is not included in total.

Colemnas VIII & DX, Section 7-8 beak detection pumped into Section 7 leachate sump river.
 Colemna MII and XIV redefinited from depth in 57500 pg. In marks.
 Colemna VI-XII, XV-XVII, quantifies from 16 meds.
 Colemna VI-XII, XV-XVIII, quantifies from 16 meds.
 Colemna XXIV includes 80% of the daily values from Colemna XVII, XXI, and XXII plus 5% of the daily values from Colemna XVII, XXI, and XXII plus 5% of the daily values from volemn XXI.

Form #6 - Leachate Balance Data

TABLE 2. FIELD DATA ENTRY FORM OCTOBER 2016 SOUTHEAST COUNTY LANDFILL, HILLSBOROUGH COUNTY, FLORIDA

W	Effluent Dust Control	(Sprayed)	(gal)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	С	0	0	0	0	0	Q	0	0	0	0	0	0	0	0	0	0	0
Λ	Hauled	County	(gal.)	0	0	21,958	44,192	36,571	36,557	0	7,139	0	0	0	0	0	7,303	0	0	0	0	0	0	٥	0	0	0	0	0	0	0	0	0	0	153,720
n	Effluent Hauled	Contractor	(gal.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 153,720 0
T	Leachate Dust Control	(Sprayed)	(gal.)	0	. 0	0	0	0	0	0	0	. 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.000	0	0	0	0	0	0	0	Q.	0
S		ج	(gal.)	49,629	0	14,691	42,612	42,805	42,729	49,779	40,757	. 0	44,027	0	72,159	86,556	35,532	46,918	0	43,732	0	86,556	64,842	42,644	47,682	0	0	0	0	0	0	0	0	0	853,650
Я	Leachate Hauled	Contractor	(gat.)	56,218	0	56,346	86,472	93,886	86,765	86,720	42,169	0	79,790	86,746	42,137	42,102	49,216	42,192	0	35,058	49,188	42,186	42,116	42,140	42,172	0	42,152	79,687	79,636	87,590	94,110	87,411	(o	79,636	1,653,841
ō	Leachate	-	(gal.)	23,772	23,772	23,772	25,513	22,272	20,281	25,797	25,706	25,706	25,705	26,213	25,659	25,226	22,016	24,460	24,460	24,461	27,852	31,898	31,363	32,018	29,756	29,756	29,755	35,793	31,638	37,508	37,098	36,930	36,930	36,930	880,016
Ь	Depth in 575K Tank	Effluent	(n)	16.42	16.50	16.58	16.17	15.75	14.83	14.50	15.17	15.46	15.75	16.50	15.75	15.92	15.00	14.08	14.21	14.33	15.17	14.17	13.17	12.42	11.67	12.34	13.00	12,17	11.50	11.00	10.50	11.50	12.34	13.17	
0	Depth in 575K Tank	Leachate	(f)	12.00	13.67	15,33	16.00	14.67	13.17	12.00	11.50	13.00	14.50	13.00	12.92	11.67	10.58	10.25	11.63	13.00	13.50	14.08	12.58	11.50	11,25	12.63	14.00	14.00	13.83	13.17	12.50	11.25	12,21	13.17	
z	Effluent	Imigation	(gal.)	50,294	0	0	0	0	0	0	0	0	0	47,305	54,674	36,122	59,628	45,672	0	59,257	67,417	48,093	54,266	30,618	43,742	o	63,252	32,569	74,043	42,826	50,509	63,118	. 0	55,891	919,296
M	Pond A	Depth	(H)	3.2	3.1	3.0	3.0	3.0	2.8	2.8	2.8	3.0	3.2	3.2	3.4	3.3	3.4	2.3	2.2	2,1	3.3	2.5	3.1	3.1	2.0	2.0	1.9	2.2	2.9	3.0	3.0	1.5	1.8	2.1	
Г	Pond B	Sprayed	(gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49048.0	0.0	0.0	61392.0	30427.0	0.0	0.0	87393.0	0.0	0.0	0.0	0.0	0.0	36129.0	0.0	37128.0	71872.0	22.0	73597.0	0.0	33717.0	480,725
K	Pond B	_	_	3.5	3.6	3.7	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.6	3.3	3.4	3.7	3.7	-		2.8	2.8	2.6	2.0	2.5	_	2.5	2.4		2.2	-	2.0	1.7	7
f	Sections 7-8		(gal.)	NR.	_ w	NR	Ħ	NK	NR	NR	N.	NR.	ž	ž	NR.	ž	NR.	N.	/VR	NR	NR	NK	NR	NR	NR	NR	NR.	NR	NR.	NR	NR	NR	NR	NR	
_	Sections 7-8		(gal.)	2,021,702	2,029,701	2,037,700	2,049,200	2,057,476	2,057,476	2,080,836	2,092,442	2,106,915	2,121,388	2,131,915	2,143,882	2,146,150	2,163,052	2,164,070	2,164,452	2,164,833	2,190,927	2,203,761	2,213,083	2,223,015	2,230,682	2,238,521	2,246,359	4,194	2,261,917	2,264,584	2,275,910	2,283,481	2,291,059	2,298,636	
	Secti	<u>a</u>	_	2,02	2,02	2,03	2,0%	2,05	2,05	2,08	2,05	2,16	2,12	2,13	2,14	2,14	2,16	2,16	2,16	2,16	2,15	2,20	2,21	2,22	2,23	2,23	2,24	2,25	2,26	2,26	2,27	2,28	2,29	2,29	
H	Section 9	TDS	(gal.)	5,829,974	2,829,990	5,830,005	5,830,123	5,830,127	5,830,130	5,830,134	5,830,136	5,830,136	5,830,136	5,830,136	5,830,136	5,830,138	5,830,138	5,830,138	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	5,830,139	:
G	Section 9	Pump 2	(gal.)	1,382,432	1,385,666	1,388,900	1,391,170	1,395,629	1,399,135	1,403,260	1,410,332	1,414,490	1,418,647	1,418,814	1,423,787	1,429,652	1,432,664	1,432,666	1,439,154	1,445,642	1,447,045	1,451,306	1,457,373	1,458,895	1,463,109	1,468,557	1,474,005	1,474,071	1,478,692	1,484,870	1,485,048	1,492,023	165'961	1,501,159	
F	Section 9	Pump 1	(gal.)	3,505,862	3,507,517	3,509,171	3,512,576	3,513,819	3,516,344	3,519,516	3,522,804	3,523,412	3,524,019	3,524,019	3,524,610	3,524,613	3,529,573	3,529,946	3,529,947	3,529,948	3,529,958	3,529,961	3,529,964	3,531,134	3,531,139	3,531,143	3,531,147	3,531,150	3,531,431	3,531,436	3,531,453	3,531,454	3,531,458	3,531,461	
E	Reading	PS-B	(in)	12.1	14.7	17.2	10.4	11.0	12.5	15.8	15.5	13.9	12.2	6.01	16.3	11.5	16.4	0.61	15.1	1.11	11.6	11.6	11.6	18.0	15.8	13.8	11.8	11.0	10.7	1.11	12.9	13.3	13.2	13.1	
Q	Flow Meter	Pum Sta. A	(gal.)	2,253,395	2,355,268	2,457,140	2,562,574	2,669,100	2,775,900	2,884,933	2,992,440	3,094,020	3,195,600	3,291,500	3,398,968	3,493,300	3,592,759	3,691,301	3,792,101	3,892,900	3,995,000	4,093,700	4,193,000	4,295,554	4,395,866	4,489,483	4,583,100	4,677,500	4,771,500	4,866,000	4,960,889	5,055,814	5,151,307	5,246,800	
В		Rainfall	(iii.)	- 50	0.75	0.55	00'0	10.0	0.34	0.33	00:0	000	00.0	0.00	0.00	00.00	0.00	0.00	000	00.0	0.00	00.0	0.00	000	0.00	000	00:0	00'0	000	000	00:0	00.00	000	00'0	3.48
Ą			Dav	_	2	ш	4	N	9	7	8	6	2	=	12	13	14	12	16	17	18	19	20	21	22	23	24	25	26	27	28	53	30	<u>=</u>	Totals

Notes:
1. NR = No Records, NA = Not Available.
2. Values in bold are estimated; values in italic are substitute for missing data and are based on averaged values.
3. Column IV includes quantities from leak detection system.

Sections 7-8 Phases I-VI 3 5 134.4 23 Type of Cover Open Intermediate Final Not Opened

Column B, trace is less than 0.01 inches.
 Columns C, D, F, G, H, I, J, L, N, Q, R-V and W are quantities from flow meters.
 Columns K and M measured from staff gages in each pond.

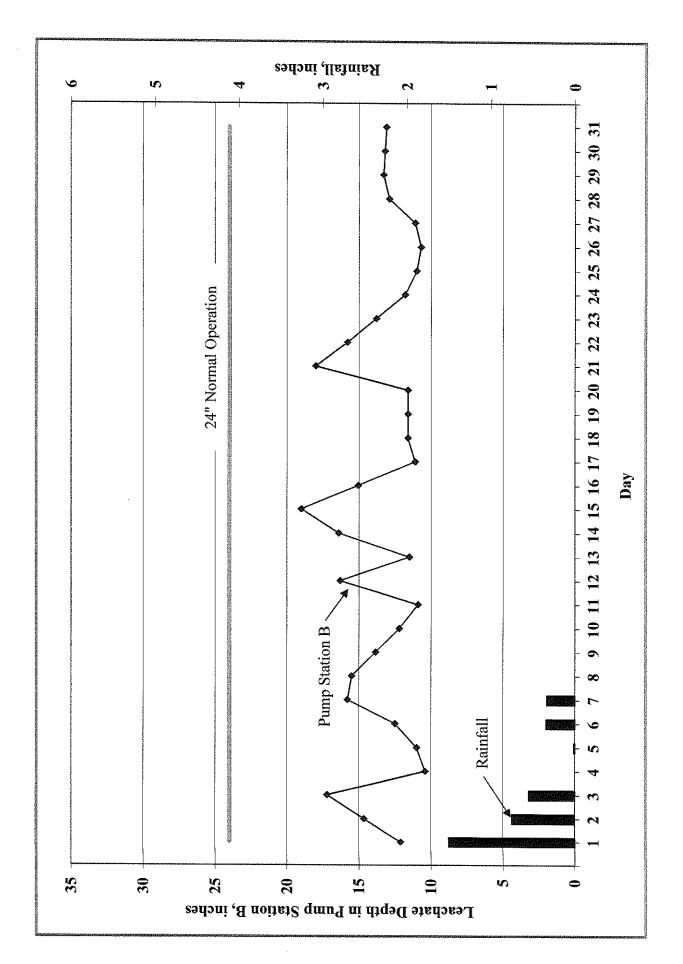


Figure 1. Leachate Levels in Pump Station B and Rainfall for October 2015.

TABLE 3. LEACHATE BALANCE SUMMARY SOUTHEAST COUNTY LANDFILL HILLSBOROUGH COUNTY, FLORIDA VEAR-2016

			Leachate A	Leachate Arriving at LTRF		I.eac	Leachate Leaving L'I'RF	'RJF		Effluent Disposal		Inflo	Inflow / Outflow For LTRF	TRF
		Condensate	Leachate	I.eachate	Leachate	Total Leachate	Leachate	Leachate	Total	Effluent	Effluent	Total Inflow	Total Outflow	Change
	Rainfall	from LFG	from Section 9	from Section 7-8	from Phases I-VI	Hauted	Dust Control	Treated at	Effluent	Dust Control	frrigation	to to	from	. E
	•	System	Pumped to LTRF	Pumped to LTRF Pumped to LTRF	Pumped to LTRF	from L.TRF	(Sprayed)	LTRF	Haufed	(Sprayed)		LTRF	LTRF	Storage ³
Month	(in.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)	(gal.)
January	7.36	13,493	720	155,274	2,520,135	2,382,887	0	183,500	0	0	36,630	2,689,622	2,566,387	123,235
February	19.1	9,430	511	218,755	2,493,661	1,353,187	0	1,061,000	0	0	353,350	2,722,357	2,414,187	308,170
March	2.31	8,864	410	120,310	2,157,400	1,738,430	27,118	360,800	0	0	443,343	2,286,984	2,126,348	160,636
April	2.50	5,771	195	102,931	2,268,165	1,607,452	0	743,800	0	0	649,650	2,377,062	2,351,252	25,810
May	8.03	12,092	228	53,694	2,719,435	1,652,011	0	948,800	0	0	771,435	2,785,449	2,600,811	184,638
June	11.46	13,747	236	1	2,472,400	1,650,372	5,293	853,400	21,936	9,579	1,097,101	2,486,384	2,509,065	-22,681
July	5.55	6,860	0	0	2,930,831	1,956,329	10,698	1,020,000	0	0	1,045,869	2,940,691	2,987,027	-46,336
August	11.00	11,158	458,958	340,165	3,352,655	2,804,839	33,420	1,184,800	22,005	0	708,321	4,162,936	4,023,059	139,877
September	5.27	3,343	322,087	816,089	3,529,312	3,564,637	0	936,400	108,019	0	630,452	4,535,660	4,501,037	34,623
October	3.48	10,913	149,219	282,434	3,097,682	2,507,491	0	880,300	153,720	0	946,296	3,540,248	3,387,791	152,457
November														
December														
YTD Total	58.57	98,671	932,564	1,954,482	27,541,676	21,217,635	76,529	8,172,800	305,680	6,579	6,715,447	30,527,393	29,466,964	1,060,429

Note:

1. If the bypass at the effluent pond is ever used to pump effluent back to the LTRF, this table must be modified.

2. Leachate from the Hillsborough Heights and Taylor Road landfills is being hauled to the Faulkenburg Road Wastewater Treatment Facility.

3. Change in storage represents total inflow to LTRF minus total outflow from LTRF.