

Johnson, Sabrina O

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Wednesday, July 10, 2019 10:55 AM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Cooper, Dan; Lebron, Carlo
Subject: Manatee County Lena Road Landfill Monthly Report June 2019
Attachments: June 2019 Report.pdf

Mr. Tafuni,

Attached is the Manatee County Lena Road Landfill Monthly Report (for June 2019) which includes the following:

- Monthly Water Balance Report (Exhibit A)
- Monthly Leachate Tracking Summary - 2019 (Exhibit B)
- Monthly Leachate Meter Readings
- Monthly Rainfall
- Monthly Groundwater Gradient Report

If you should have any questions concerning this report, please contact me at (813) 804-6714.

Thanks

Shane R. Fischer, P.E.
Office Manager/Project Director
SCS Engineers
3922 Coconut Palm Drive, Suite 102
Tampa, Florida 33619
(813) 804-6714 (W)
(813) 503-1044 (C)
sfischer@scsengineers.com

Driven by Client Success
www.scsengineers.com

July 10, 2019
File No. 09217088.10

Mr. Steven Tafuni
Florida Department of Environmental Protection
Southwest District Office - Solid Waste Section
130501 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

Subject: Manatee County Lena Road Landfill
Monthly Report - June 2019

Dear Mr. Tafuni:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2019 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

Sincerely,



Shane R. Fischer, P.E.
Office Manager/Project Director
SCS Engineers



Daniel R. Cooper, P.E.
Project Director/Vice President
SCS Engineers

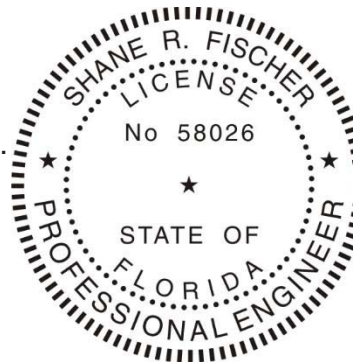
SRF/CED

cc: Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor

Enclosures

This item has been digitally signed and sealed by
Shane R. Fischer, PE on the date adjacent to the seal.

Printed copies of this document are not considered
signed and sealed and the signature must be verified
on any electronic copies.



Shane
Fischer

Digitally signed
by Shane Fischer
Date: 2019.07.10
10:50:45 -04'00'

EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
June 2019**

A	B	C	D	E	F	G	H	I
DATE	LEACHATE STAGE I Lift Station 1 (gallons)	LEACHATE STAGE I Lift Station 2 (gallons)	LEACHATE STAGE I TOTAL (gallons)	LEACHATE STAGE II TOTAL (gallons)	LEACHATE STAGE III TOTAL (gallons)	TOTAL LEACHATE PUMPED (gallons)	RAINFALL (inches)	RAINFALL (gallons)
1-Jun-19	0	0	0	0	0	0	0.00	0
2-Jun-19	0	0	0	0	0	0	0.00	0
3-Jun-19	610	12,794	13,404	310,944	108,448	432,796	0.00	0
4-Jun-19	280	3,674	3,954	100,144	35,748	139,846	0.00	0
5-Jun-19	84,472	3,893	88,365	97,360	34,176	219,901	0.00	0
6-Jun-19	40,384	3,998	44,382	100,128	35,448	179,958	0.05	388,331
7-Jun-19	34,254	4,266	38,520	34,112	34,560	107,192	0.00	0
8-Jun-19	0	0	0	0	0	0	0.00	0
9-Jun-19	0	0	0	0	0	0	0.00	0
10-Jun-19	65,618	11,928	77,546	338,960	106,492	522,998	0.23	1,786,322
11-Jun-19	26,934	3,469	30,403	87,264	32,340	150,007	0.44	3,417,311
12-Jun-19	27,252	4,038	31,290	91,088	35,448	157,826	0.03	232,998
13-Jun-19	25,980	3,757	29,737	89,040	32,884	151,661	1.30	10,096,601
14-Jun-19	20,358	3,739	24,097	100,320	35,808	160,225	0.37	2,873,648
15-Jun-19	0	0	0	0	0	0	2.11	16,387,560
16-Jun-19	0	0	0	0	0	0	0.09	698,995
17-Jun-19	64,300	11,973	76,273	286,192	148,996	511,461	0.00	0
18-Jun-19	22,808	4,470	27,278	88,288	59,652	175,218	0.21	1,630,989
19-Jun-19	22,778	4,467	27,245	98,688	55,496	181,429	0.27	2,096,986
20-Jun-19	26,540	4,843	31,383	120,560	58,334	210,277	0.00	0
21-Jun-19	20,568	3,572	24,140	87,232	47,994	159,366	0.00	0
22-Jun-19	0	0	0	0	0	0	0.00	0
23-Jun-19	0	0	0	0	0	0	0.00	0
24-Jun-19	67,070	12,023	79,093	316,400	143,204	538,697	0.00	0
25-Jun-19	20,958	3,748	24,706	96,928	40,544	162,178	0.00	0
26-Jun-19	22,134	3,891	26,025	108,000	44,392	178,417	0.00	0
27-Jun-19	19,664	3,730	23,394	97,344	39,146	159,884	0.00	0
28-Jun-19	20,870	3,874	24,744	96,944	40,150	161,838	2.15	16,698,224
29-Jun-19	0	0	0	0	0	0	0.15	1,164,992
30-Jun-19	0	0	0	0	0	0	0.43	3,339,645
TOTAL	633,832	112,147	745,979	2,745,936	1,169,260	4,661,175	7.83	60,812,603
Leachate Pumped as Percentage of Rainfall				3.4%	10.9%	8.3%		

Column Notes:

A - Date of reading.

B - Leachate pumped (gallons) from Stage I by lift station 1.

C - Leachate pumped (gallons) from Stage I by lift station 2.

D - Total Stage I leachate pumpage (B+C).

E - Leachate pumped (gallons) from Stage II.

F - Leachate pumped (gallons) from Stage III.

G - Total leachate pumped to WWTP storage tank (D+E+F).

H - Rainfall (inches) recorded on this date.

I - Rainfall (gallons) calculated based on open area (H x Area x 27,156 gal/acre-in).

Comments

"0" = no data recorded

	Stage I	Stage II	Stage III	TOTAL
	(acres)	(acres)	(acres)	(acres)
Initial Cover	102.0	113.0	66.0	281.0
Interm. Cover	0.0	5.0	--	5.0
Closed	30.0	0.0	--	30.0
TOTAL	132.0	118.0	66.0	316.0
Open Area	102.0	118.0	66.0	286.0

EXHIBIT B

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
 LENA ROAD LANDFILL
 MONTHLY LEACHATE TRACKING SUMMARY -- 2019

MONTH	B	C	D	E	F	G	H	I	J
	STAGE I LEACHATE (gallons)	STAGE II LEACHATE (gallons)	STAGE III LEACHATE (gallons)	TOTAL LEACHATE (gallons)	RAINFALL (inches)	RAINFALL (gallons)	STAGE I LEACHATE/ RAINFALL (%)	STAGE II LEACHATE/ RAINFALL (%)	STAGE III LEACHATE/ RAINFALL (%)
JANUARY	985,946	3,653,440	924,189	5,563,575	3.48	27,027,824	10.2%	32.8%	14.8%
FEBRUARY	881,333	3,006,288	1,745,237	5,632,858	2.23	17,319,554	14.3%	42.1%	43.7%
MARCH	779,697	3,388,032	1,910,490	6,078,219	2.06	15,999,229	13.7%	51.3%	51.7%
APRIL	819,304	3,945,872	1,355,972	6,121,148	2.04	15,843,897	14.5%	60.4%	37.1%
MAY	699,681	7,390,560	2,560,600	10,650,841	2.41	18,717,545	10.5%	95.7%	59.3%
JUNE	745,979	2,745,936	1,169,260	4,661,175	7.83	60,812,603	3.4%	10.9%	8.3%
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	4,911,940	24,130,128	9,665,748	38,707,816	20.05	155,720,651	8.8%	43.4%	17.4%

Notes:

- (B) Total leachate pumped from Stage I.
- (C) Total leachate pumped from Stage II
- (D) Total leachate pumped from Stage III
- (E) Total leachate (Column B+C+D) pumped to WWTP storage tank.
- (F) Total rainfall in inches.
- (G) Total rainfall in gallons (Stage I, II, and III Open Area of 286-acres x Rainfall)
- (H) Stage I leachate as a percentage of rainfall.
- (I) Stage II leachate pumped as a percentage of rainfall.
- (J) Stage III leachate pumped as a percentage of rainfall.

Landfill Stage Land Area

	Stage I (acres)	Stage II (acres)	Stage III (acres)	TOTAL (acres)
Initial Cover	102.0	113.0	66.0	281.0
Intermed. Cover	0.0	5.0	--	5.0
Closed	30.0	0.0	--	30.0
TOTAL	132.0	118.0	66.0	316.0
Open Area	102.0	118.0	66.0	286.0

LEACHATE METER READINGS

DATE	LEACHATE METERS				STORMWATER S.G.		COMMENTS	NAME (Initials)
	#1	#2	#3	#4	#1	#2		
	6/1/19							
6/2/19								
6/3/19	25303100	4184877	37215004	210126976	33.88	Dry	OK	R.B.
6/4/19	25303380	41818551	37250752	210227120	33.87	Dry	OK	R.B.
6/5/19	25387852	4702444	37284428	210324480	33.85	Dry	OK	R.B.
6/6/19	25428236	4706442	37320376	210424608	33.83	Dry	OK	R.B.
6/7/19	25462490	4710708	37354936	210456720	33.82	Dry	OK	R.B.
6/8/19								
6/9/19								
6/10/19	25528108	4722636	37461428	210747680	33.85	Dry	OK	R.B.
6/11/19	25555042	4726105	37493768	21088444	33.82	Dry	OK	A.K.
6/12/19	25582294	4730143	37522216	210971600	33.86	Dry	OK	R.B.
6/13/19	25608874	4733900	37562100	211065072	33.85	Dry	OK	R.B.
6/14/19	25628638	47376390	37595488	211166392	33.80	30.11	OK	A.H.
6/15/19	25628638							
6/16/19								
6/17/19	25662932	4749612	37746904	211451584	34.33	32.39	OK	R.B.
6/18/19	25715740	4754083	3780688	21153872	34.30	32.30	OK	R.B.
6/19/19	25738518	4758549	37862052	211638560	34.29	32.30	OK	R.B.
6/20/19	25765058	4763392	37920388	211759120	34.26	32.28	OK	R.B.
6/21/19	25785626	4768164	37968380	21184632	34.23	32.26	OK	R.B.
6/22/19					34.23	32.26		
6/23/19								
6/24/19	25852696	4778987	38111584	212162784	34.15	32	OK	A.H.
6/25/19	25873654	4782735	38152128	212259680	34.19	31.92	OK	R.B.
6/26/19	25895788	4786622	38196520	212367680	34.16	31.78	OK	R.B.
6/27/19	25915452	4790356	38235216	212468024	34.01	31.64	OK	R.B.
6/28/19	25936322	4794230	38275816	212569680	33.99	31.50	OK	R.B.
6/29/19								
6/30/19								

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2019 Jun	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.030	42.50	40.50
2	0.00	0.030	42.50	40.50
3	0.00	0.030	42.50	40.50
4	0.00	0.044	42.50	40.50
5	0.00	0.038	42.50	40.50
6	0.05	0.030	42.50	40.50
7	0.00	0.031	42.50	40.50
8	0.00	0.029	42.50	40.50
9	0.00	0.039	42.50	40.50
10	0.23	0.035	42.50	40.50
11	0.44	0.032	42.50	40.50
12	0.03	0.031	42.50	40.50
13	1.30	0.034	42.50	40.50
14	0.37	0.032	42.50	40.50
15	2.11	0.036	42.50	40.50
16	0.09	0.040	42.50	40.50
17	0.00	0.040	42.50	40.50
18	0.21	0.041	42.50	40.50
19	0.27	0.040	42.50	40.50
20	0.00	0.037	42.50	40.50
21	0.00	0.038	42.50	40.50
22	0.00	0.036	42.50	40.50
23	0.00	0.035	42.50	40.50
24	0.00	0.037	42.50	40.50
25	0.00	0.035	42.50	40.50
26	0.00	0.034	42.50	40.50
27	0.00	0.036	42.50	40.50
28	2.15	0.035	42.50	40.50
29	0.15	0.039	42.50	40.50
30	0.43	0.038	42.50	40.50
31				
TOTAL	7.83	1.062		
AVG		0.035		
MIN				
MAX	2.15	0.044		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: June 2019

Piezometers Inside Slurry Wall				Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	NA	NA	GW-1	38.68	NA
P-2	42.32	NA	NA	GW-2	40.92	NA
P-3	40.36	25.21	<i>inward</i>	GW-3	39.40	32.71
P-4	40.78	22.11	<i>inward</i>	GW-4	40.53	31.94
P-5	40.73	20.89	<i>inward</i>	GW-5	39.90	31.61
P-6	40.74	19.90	<i>inward</i>	GW-6	38.95	30.87
P-7	40.60	19.39	<i>inward</i>	GW-7	39.49	30.66
P-8	40.21	19.26	<i>inward</i>	GW-8	39.75	29.63
P-9	39.97	19.49	<i>inward</i>	GW-9	39.65	28.83
P-10	39.86	19.28	<i>inward</i>	GW-10	38.34	30.29
P-11	40.52	22.44	<i>inward</i>	GW-11	38.26	31.21
P-12	43.28	29.51	<i>inward</i>	GW-12	42.09	32.74
P-13	44.78	30.75	<i>inward</i>	GW-13	44.79	34.04
P-14	45.09	29.87	<i>inward</i>	GW-14	39.63	33.83
P-15	45.57	30.99	<i>inward</i>	GW-15	42.33	34.95
P-16	44.67	31.07	<i>inward</i>	GW-16	44.41	34.90
P-17	44.28	30.21	<i>inward</i>	GW-17	42.19	34.01
P-18	43.16	24.24	<i>inward</i>	GW-18	41.76	31.67
P-19	42.91	23.21	<i>inward</i>	GW-19	41.20	30.29
P-20	42.54	26.04	<i>inward</i>	GW-20	41.00	29.22
P-21	42.23	25.19	<i>inward</i>	GW-21	40.94	25.63
P-22	42.06	23.98	<i>inward</i>	GW-22	41.53	26.16
P-23	42.08	22.51	<i>inward</i>	GW-23	40.91	29.66
P-24	42.03	19.99	<i>inward</i>	GW-24	41.37	28.97
P-25	42.16	19.29	<i>inward</i>	GW-25	41.11	30.13
P-26	42.50	19.23	<i>inward</i>	GW-26	41.44	31.84
P-27R	42.73	19.73	<i>inward</i>	GW-27R	40.90	31.08

NA = Not Applicable - wells and piezometers abandoned in March 2016

Wells (GW-18 through GW-27R) and piezometers (P-18 through P-27R) installed in April 2016

Date Data Collected: 06/27/2019