

From: [Fischer, Shane](#)
To: [SWD Waste; Tafuni, Steven](#)
Cc: [Anthony Detweiler](#); [Bryan White](#); [Bob Bennett](#); [Cooper, Dan](#); [Lebron, Carlo](#); [Velosa, Andres](#)
Subject: Manatee County Lena Road Landfill Monthly Report July 2020
Date: Monday, August 10, 2020 3:49:41 PM
Attachments: [July 2020 Report.pdf](#)

Mr. Tafuni,

Attached is the Manatee County Lena Road Landfill Monthly Report (for July 2020) which includes the following:

- Monthly Water Balance Report (Exhibit A)
- Monthly Leachate Tracking Summary - 2020 (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.

Vice President/Office Manager

SCS Engineers

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August 10, 2020
File No. 09217088.15

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 – July 2020

Dear Mr. Tafuni:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2020 (Exhibit B),

Sincerely,



Shane R. Fischer, P.E.
Vice President/Office Manager
SCS Engineers



Andres Velosa
Associate Professional
SCS Engineers

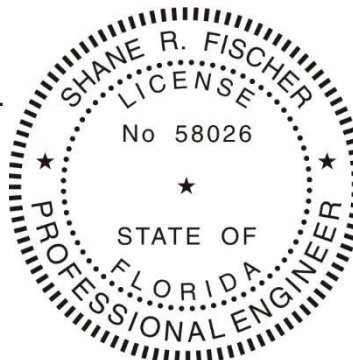
SRF/AFV

cc: Bryan White, Manatee County Landfill Superintendent
Anthony Detweiler, Manatee County Landfill Operations Supervisor
Bob Bennett, 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: 2020.08.10
15:41:56 -04'00'

EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
July 2020**

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-Jul-20	232	12,163	12,395	123,482	36,308	172,185	0.01	77,666
2-Jul-20	226	12,378	12,604	129,904	37,672	180,180	0.00	0
3-Jul-20	206	11,411	11,617	116,560	34,742	162,919	0.00	0
4-Jul-20	0	0	0	0	0	0	0.14	1,087,326
5-Jul-20	0	0	0	0	0	0	0.14	1,087,326
6-Jul-20	740	46,047	46,787	392,136	112,648	551,571	0.00	0
7-Jul-20	248	18,145	18,393	118,888	34,214	171,495	0.00	0
8-Jul-20	106,596	11,124	117,720	114,688	31,844	264,252	0.01	77,666
9-Jul-20	45,880	9,642	55,522	96,112	27,944	179,578	0.00	0
10-Jul-20	45,036	11,204	56,240	117,706	31,688	205,634	0.00	0
11-Jul-20	0	0	0	0	0	0	0.00	0
12-Jul-20	0	0	0	0	0	0	0.04	310,665
13-Jul-20	113,588	33,130	146,718	341,318	95,016	583,052	0.00	0
14-Jul-20	35,932	11,960	47,892	76,144	35,076	159,112	0.00	0
15-Jul-20	24,120	8,178	32,298	138,944	24,172	195,414	2.05	15,921,563
16-Jul-20	28,428	9,981	38,409	106,592	31,296	176,297	0.02	155,332
17-Jul-20	28,652	10,572	39,224	111,776	33,500	184,500	1.20	9,319,939
18-Jul-20	0	0	0	0	0	0	0.05	388,331
19-Jul-20	0	0	0	0	0	0	0.05	388,331
20-Jul-20	85,324	31,674	116,998	329,424	107,272	553,694	0.13	1,009,660
21-Jul-20	27,368	10,936	38,304	104,992	37,648	180,944	1.10	8,543,278
22-Jul-20	28,022	11,869	39,891	108,608	35,836	184,335	0.44	3,417,311
23-Jul-20	26,430	11,286	37,716	101,408	34,776	173,900	1.06	8,232,613
24-Jul-20	27,468	0	27,468	113,296	37,868	178,632	0.68	5,281,299
25-Jul-20	0	0	0	0	0	0	0.00	0
26-Jul-20	0	0	0	0	0	0	0.05	388,331
27-Jul-20	84,076	43,987	128,063	332,689	144,944	605,696	0.04	310,665
28-Jul-20	22,348	12,888	35,236	129,071	53,708	218,015	0.00	0
29-Jul-20	37,320	10,623	47,943	112,448	42,100	202,491	0.71	5,514,297
30-Jul-20	24,116	9,664	33,780	100,032	36,236	170,048	0.00	0
31-Jul-20	33,024	13,097	46,121	131,296	46,648	224,065	0.00	0
TOTAL	825,380	361,959	1,187,339	3,547,514	1,143,156	5,878,009	7.92	61,511,599
Leachate Pumped as Percentage of Rainfall				5.4%	14.0%	8.1%		

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 -- 2020

	B	C	D	E	F	G	H	I	J
MONTH	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	227,433	11,377,632	954,028	12,559,093	1.14	8,853,942	7.2%	311.5%	46.7%
FEBRUARY	1,281,599	5,749,824	723,184	7,754,607	1.96	15,222,567	23.6%	91.5%	20.6%
MARCH	1,002,110	4,283,984	737,112	6,023,206	0.00	0	0.0%	0.0%	0.0%
APRIL	814,608	3,218,320	731,000	4,763,928	5.66	43,959,047	5.2%	17.7%	7.2%
MAY	1,058,495	3,103,328	942,856	5,104,679	3.24	25,163,836	11.8%	29.9%	16.2%
JUNE	1,279,207	4,585,126	1,850,808	7,715,141	10.07	78,225,356	4.6%	14.2%	10.3%
JULY	1,187,339	3,547,514	1,143,156	5,878,009	7.92	61,511,599	5.4%	14.0%	8.1%
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	6,850,791	35,865,728	7,082,144	49,798,663	29.99	232,936,347	8.2%	43.2%	8.5%

Notes:

1. (B) Total leachate pumped from Stage I.
2. (C) Total leachate pumped from Stage II
3. (D) Total leachate pumped from Stage III
4. (E) Total leachate (Column B+C+D) pumped to WWTP storage tank.
5. (F) Total rainfall in inches.
6. (G) Total rainfall in gallons (Stage I, II, and III Open Area of 286-acres x Rainfall)
7. (H) Stage I leachate as a percentage of rainfall.
8. (I) Stage II leachate pumped as a percentage of rainfall.
9. (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		
7/1/20	34710356	7806433	54669916	25251802	33.89	33.33	OK	dw
7/2/20	34710582	7818811	54707888	252647836	33.88	31.23	OK	BW
7/3/20	34710798	7830222	54792336	252764496	33.80	31.10	OK	cm
7/4/20								
7/5/20								
7/6/20	34711528	7826269	54854978	25315632	33.78	30.69	OK	
7/7/20	34711776	7894414	54889192	253275520	33.75	30.59	OK	
7/8/20	34818372	7905538	54921036	253390208	33.72	30.42	OK	
7/9/20	34864252	7915180	54948980	253486320	33.72	30.37	OK	
7/10/20	34909288	7926384	54980668	253604016	33.70	30.30	OK	
7/11/20								
7/12/20								
7/13/20	35022876	7959514	55075384	253945344	33.65	29.72	OK	
7/14/20	35058808	7971474	55110760	254021488	33.65	29.65	OK	
7/15/20	35082928	7979652	55134932	254160432	33.62	29.53	OK	
7/16/20	35111356	7989633	55166228	254267024	34.52	31.25	OK	
7/17/20	35140008	8000205	55199722	254378800	34.40	31.13	OK	
7/18/20								
7/19/20								
7/20/20	35225332	8031872	55309000	254708224	33.92	32.12	OK	
7/21/20	35252200	8042815	55344648	254813216	33.90	32.02	OK	
7/22/20	35280222	8054684	55380484	254921248	33.90	31.97	OK	
7/23/20	35307152	8065970	55415260	255023232	33.91	31.59	OK	
7/24/20	35334620	8077187	55453128	255136528	34.02	32.33	OK	
7/25/20								
7/26/20								
7/27/20	35418696	8109957	55598072	255469217	34.20	32.20	OK	
7/28/20	3541044	8122845	55651780	255598288	34.20	32.02	OK	
7/29/20	35478344	8133468	55693880	255710736	34.15	31.95	OK	
7/30/20	35502480	8143132	55730116	255810768	34.18	32.05	OK	
7/31/20	35535564	8156229	55776764	25592064	34.05	31.90	OK	

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2020 Jul	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.01	0.038	42.80	40.80
2	0.00	0.037	42.80	40.80
3	0.00	0.037	42.80	40.80
4	0.14	0.037	42.80	40.80
5	0.14	0.036	42.80	40.80
6	0.00	0.036	42.80	40.80
7	0.00	0.050	42.80	40.80
8	0.01	0.046	42.80	40.80
9	0.00	0.043	42.80	40.80
10	0.00	0.042	42.80	40.80
11	0.00	0.041	42.80	40.80
12	0.04	0.040	42.80	40.80
13	0.00	0.038	42.80	40.80
14	0.00	0.038	42.80	40.80
15	2.05	0.039	42.80	40.80
16	0.02	0.038	42.80	40.80
17	1.20	0.039	42.80	40.80
18	0.05	0.043	42.80	40.80
19	0.05	0.040	42.80	40.80
20	0.13	0.040	42.80	40.80
21	1.10	0.038	42.80	40.80
22	0.44	0.039	42.80	40.80
23	1.06	0.040	42.80	40.80
24	0.68	0.043	42.80	40.80
25	0.00	0.046	42.80	40.80
26	0.05	0.045	42.80	40.80
27	0.04	0.044	42.80	40.80
28	0.00	0.044	42.80	40.80
29	0.71	0.042	42.80	40.80
30	0.00	0.042	42.80	40.80
31	0.00	0.042	42.80	40.80
TOTAL	7.92	1.263		
AVG		0.041		
MIN				
MAX	2.05	0.050		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill
Monthly Groundwater Gradient Report
 Month and Year: July 2020

Piezometers Inside Slurry Wall			Gradient Flow	Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation		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	25.76	<i>inward</i>	GW-3	39.40	34.40
P-4	40.78	22.18	<i>inward</i>	GW-4	40.53	33.73
P-5	40.73	20.93	<i>inward</i>	GW-5	39.90	33.00
P-6	40.74	19.79	<i>inward</i>	GW-6	38.95	32.35
P-7	40.60	19.10	<i>inward</i>	GW-7	39.49	31.29
P-8	40.21	18.91	<i>inward</i>	GW-8	39.75	30.45
P-9	39.97	19.37	<i>inward</i>	GW-9	39.65	30.60
P-10	39.86	24.66	<i>inward</i>	GW-10	38.34	30.99
P-11	40.52	22.37	<i>inward</i>	GW-11	38.26	31.71
P-12	43.28	29.48	<i>inward</i>	GW-12	42.09	32.94
P-13	44.78	30.78	<i>inward</i>	GW-13	44.79	34.14
P-14	45.09	30.09	<i>inward</i>	GW-14	39.63	34.18
P-15	45.57	30.87	<i>inward</i>	GW-15	42.33	34.63
P-16	44.67	30.87	<i>inward</i>	GW-16	44.41	34.11
P-17	44.28	30.28	<i>inward</i>	GW-17	42.19	34.24
P-18	43.16	24.36	<i>inward</i>	GW-18	41.76	33.16
P-19	42.91	23.11	<i>inward</i>	GW-19	41.20	32.90
P-20	42.54	25.74	<i>inward</i>	GW-20	41.00	30.60
P-21	42.23	25.08	<i>inward</i>	GW-21	40.94	26.14
P-22	42.06	23.96	<i>inward</i>	GW-22	41.53	27.03
P-23	42.08	22.38	<i>inward</i>	GW-23	40.91	30.51
P-24	42.03	19.93	<i>inward</i>	GW-24	41.37	30.47
P-25	42.16	19.16	<i>inward</i>	GW-25	41.11	32.31
P-26	42.50	19.10	<i>inward</i>	GW-26	41.44	33.54
P-27R	42.73	19.73	<i>inward</i>	GW-27R	40.90	34.75

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: 7/30/2020