

From: [Fischer, Shane](#)
To: [SWD_Waste; Tafuni, Steven](#)
Cc: [Anthony Debeiler; Bryan White; Bob Bennett; Cooper, Dan; Lebron, Carlo; Velosa, Andres](#)
Subject: Manatee County Lena Road Landfill Monthly Report April 2020
Date: Friday, May 08, 2020 8:12:55 AM
Attachments: [April 2020 Report.pdf](#)

Mr. Tafuni,

Attached is the Manatee County Lena Road Landfill Monthly Report (for April 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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May 8, 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 – April 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: 2020.05.08
07:58:57 -04'00'

EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY LENA ROAD LANDFILL MONTHLY WATER BALANCE REPORT April 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-Apr-20	29,546	5,055	34,601	71,488	21,844	127,933	0.07	543,663
2-Apr-20	23,780	3,941	27,721	144,880	20,496	193,097	0.00	0
3-Apr-20	23,474	4,110	27,584	112,784	21,512	161,880	0.00	0
4-Apr-20	0	0	0	0	0	0	0.00	0
5-Apr-20	0	0	0	0	0	0	0.00	0
6-Apr-20	71,508	11,289	82,797	325,056	64,352	472,205	0.17	1,320,325
7-Apr-20	21,192	54	21,246	103,968	20,640	145,854	0.00	0
8-Apr-20	22,040	53	22,093	97,200	20,924	140,217	0.00	0
9-Apr-20	22,702	52	22,754	98,944	19,460	141,158	0.00	0
10-Apr-20	27,278	58	27,336	110,384	23,408	161,128	0.00	0
11-Apr-20	0	0	0	0	0	0	0.00	0
12-Apr-20	0	0	0	0	0	0	0.00	0
13-Apr-20	65,298	158	65,456	300,752	61,624	427,832	0.00	0
14-Apr-20	41,326	26,880	68,206	199,808	40,780	308,794	0.00	0
15-Apr-20	220	6,056	6,276	93,408	21,124	120,808	0.00	0
16-Apr-20	0	0	0	0	0	0	0.07	543,663
17-Apr-20	75,686	4,443	80,129	92,672	18,432	191,233	0.00	0
18-Apr-20	0	0	0	0	0	0	0.49	3,805,642
19-Apr-20	0	0	0	0	0	0	0.10	776,662
20-Apr-20	40,628	15,999	56,627	306,544	68,992	432,163	1.10	8,543,278
21-Apr-20	21,176	3,795	24,971	82,784	17,656	125,411	0.00	0
22-Apr-20	21,556	4,131	25,687	147,632	20,692	194,011	0.00	0
23-Apr-20	20,264	3,831	24,095	107,520	19,316	150,931	0.00	0
24-Apr-20	25,422	4,764	30,186	113,008	23,040	166,234	2.14	16,620,558
25-Apr-20	0	0	0	0	0	0	0.17	1,320,325
26-Apr-20	0	0	0	0	0	0	0.00	0
27-Apr-20	72,152	14,162	86,314	368,528	126,396	581,238	0.03	232,998
28-Apr-20	21,430	3,254	24,684	113,264	36,212	174,160	0.00	0
29-Apr-20	22,778	4,314	27,092	113,328	32,764	173,184	0.00	0
30-Apr-20	24,296	4,457	28,753	114,368	10,031,336	10,174,457	1.32	10,251,933
1-May-20	0	0	0	0	0	0	0.00	0
TOTAL	693,752	120,856	814,608	3,218,320	10,731,000	14,763,928	5.66	43,959,047
Leachate Pumped as Percentage of Rainfall				5.2%	17.7%	105.8%		

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 (acres)	Stage II (acres)	Stage III (acres)	TOTAL (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	10,731,000	14,763,928	5.66	43,959,047	5.2%	17.7%	105.8%
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	3,325,750	24,629,760	13,145,324	41,100,834	8.76	68,035,556	13.7%	101.5%	54.2%

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				STORMWATER		COMMENTS	NAME (Initials)
	METERS				S.G.			
	#1	#2	#3	#4	#1	#2		
4/1/20	32457170	6889515	51130788	241599264	33.46	29.82	OK	JTB
4/2/20	32520950	6893456	51151284	24170444	33.46	29.78	OK	JTB
4/3/20	3254424	6897566	51172796	24184928	33.44	29.72	OK	JTB
4/4/20								
4/5/20								
4/6/20	32615932	6908855	51237148	24244984	33.44	29.66	OK	JTB
4/7/20	32637124	6908909	51257788	242245952	33.44	29.62	OK	JTB
4/8/20	32659164	6908962	51278712	242343152	33.42	29.60	OK	JTB
4/9/20	3268186	690914	5128172	24244296	33.33	29.53	OK	JTB
4/10/20	3270544	6909072	51321586	24255248	33.35	29.53	OK	JTB
4/11/20								
4/12/20								
4/13/20	3272442	6909230	51382264	24285322	33.30	Dry	OK	JTB
4/14/20	32815768	6936110	51423984	243053040	33.23	Dry	OK	JTB
4/15/20	32815988	6942166	51445108	24314648	33.21	Dry	OK	JTB
4/16/20	32815988	6942166	51445108	24314648	33.21	Dry	OK	JTB
4/17/20	32845674	6946609	51463540	243239120	33.22	Dry	OK	JTB
4/18/20								
4/19/20								
4/20/20	32932302	6962608	51532532	243524664	33.15	Dry	OK	JTB
4/21/20	32953478	6966403	51550188	24362848	33.28	29.58	OK	JTB
4/22/20	32975034	6970534	51570880	243776086	33.28	29.58	OK	JTB
4/23/20	32995298	6974365	51590196	243883600	33.25	Dry	OK	JTB
4/24/20	33020720	6979129	51613236	243996608	33.25	29.58	OK	JTB
4/25/20								
4/26/20								
4/27/20	33052822	6993291	51739632	244245136	33.80	31.87	OK	JTB
4/28/20	33114302	6996545	51775844	244478400	33.78	31.78	OK	JTB
4/29/20	33137680	7000859	51808608	244591728	33.78	31.68	OK	JTB
4/30/20	33161376	7005316	51839944	244706096	33.90	31.82	OK	JTB
4/31/2020								

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2020 Apr	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.07	0.035	42.80	40.80
2	0.00	0.032	42.80	40.80
3	0.00	0.034	42.80	40.80
4	0.00	0.032	42.80	40.80
5	0.17	0.032	42.80	40.80
6	0.00	0.030	42.80	40.80
7	0.00	0.031	42.80	40.80
8	0.00	0.030	42.80	40.80
9	0.00	0.033	42.80	40.80
10	0.00	0.030	42.80	40.80
11	0.00	0.030	42.80	40.80
12	0.00	0.030	42.80	40.80
13	0.00	0.031	42.80	40.80
14	0.00	0.032	42.80	40.80
15	0.00	0.028	42.80	40.80
16	0.07	0.030	42.80	40.80
17	0.00	0.032	42.80	40.80
18	0.49	0.030	42.80	40.80
19	0.10	0.032	42.80	40.80
20	1.10	0.031	42.80	40.80
21	0.00	0.039	42.80	40.80
22	0.00	0.036	42.80	40.80
23	0.00	0.034	42.80	40.80
24	2.14	0.035	42.80	40.80
25	0.17	0.043	42.80	40.80
26	0.00	0.043	42.80	40.80
27	0.03	0.041	42.80	40.80
28	0.00	0.037	42.80	40.80
29	0.00	0.038	42.80	40.80
30	1.32	0.041	42.80	40.80
31				
TOTAL	5.66	1.012		
AVG		0.034		
MIN				
MAX	2.14	0.043		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: April 2020

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	25.43	<i>inward</i>	GW-3	39.40	33.10
P-4	40.78	22.18	<i>inward</i>	GW-4	40.53	32.77
P-5	40.73	20.83	<i>inward</i>	GW-5	39.90	31.99
P-6	40.74	19.79	<i>inward</i>	GW-6	38.95	31.15
P-7	40.60	19.22	<i>inward</i>	GW-7	39.49	30.39
P-8	40.21	19.12	<i>inward</i>	GW-8	39.75	29.40
P-9	39.97	19.37	<i>inward</i>	GW-9	39.65	28.99
P-10	39.86	19.34	<i>inward</i>	GW-10	38.34	29.51
P-11	40.52	22.22	<i>inward</i>	GW-11	38.26	31.56
P-12	43.28	29.48	<i>inward</i>	GW-12	42.09	32.74
P-13	44.78	30.78	<i>inward</i>	GW-13	44.79	33.69
P-14	45.09	29.89	<i>inward</i>	GW-14	39.63	34.23
P-15	45.57	30.97	<i>inward</i>	GW-15	42.33	34.63
P-16	44.67	31.04	<i>inward</i>	GW-16	44.41	34.11
P-17	44.28	30.23	<i>inward</i>	GW-17	42.19	34.09
P-18	43.16	24.01	<i>inward</i>	GW-18	41.76	31.86
P-19	42.91	23.11	<i>inward</i>	GW-19	41.20	31.05
P-20	42.54	25.84	<i>inward</i>	GW-20	41.00	30.10
P-21	42.23	24.98	<i>inward</i>	GW-21	40.94	25.14
P-22	42.06	23.91	<i>inward</i>	GW-22	41.53	26.57
P-23	42.08	22.47	<i>inward</i>	GW-23	40.91	32.71
P-24	42.03	19.98	<i>inward</i>	GW-24	41.37	31.64
P-25	42.16	19.23	<i>inward</i>	GW-25	41.11	32.51
P-26	42.50	19.15	<i>inward</i>	GW-26	41.44	33.64
P-27R	42.73	19.63	<i>inward</i>	GW-27R	40.90	33.60

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: 4/28/2020