Johnson, Sabrina O

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Tuesday, April 5, 2022 9:26 AM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Bob Bennett; Lebron, Carlo; Al-Khalaf, Laila
Subject: Manatee County Lena Road Landfill Monthly Report March 2022
Attachments: March 2022 Report.pdf

EXTERNAL MESSAGE
This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Mr. Tafuni,

Attached is the Manatee County Lena Road Landfill Monthly Report (for March 2022) which includes the following:

- Monthly Water Balance Report (Exhibit A)
- Monthly Leachate Tracking Summary - 2022 (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) 503-1044.

Thanks

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

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April 5, 2022
File No. 09217088.24

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 – March 2022

Dear Mr. Tafuni:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2022 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

Sincerely,

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

Andres Velosa
Staff Professional I
SCS Engineers

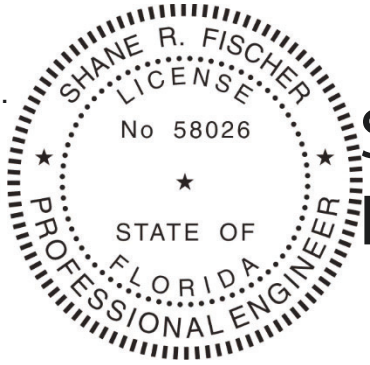
SRF/AFV

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: 2022.04.05 09:18:13 -04'00'

EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
March 2022

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-Mar-22	24,752	11,063	35,815	65,792	27,520	129,127	0.00	0
2-Mar-22	21,284	9,688	30,972	60,605	22,368	113,945	0.00	0
3-Mar-22	26,364	9,406	35,770	58,529	22,256	116,555	0.00	0
4-Mar-22	23,816	8,716	32,532	59,595	23,464	115,591	0.00	0
5-Mar-22	0	0	0	0	0	0	0.00	0
6-Mar-22	0	0	0	0	0	0	0.00	0
7-Mar-22	61,656	25,236	86,892	180,447	84,504	351,843	0.00	0
8-Mar-22	23,612	9,707	33,319	57,411	29,448	120,178	0.00	0
9-Mar-22	21,788	8,618	30,406	58,931	25,496	114,833	0.00	0
10-Mar-22	27,284	11,179	38,463	67,625	28,304	134,392	0.08	621,329
11-Mar-22	20,600	8,264	28,864	51,103	26,488	106,455	0.01	77,666
12-Mar-22	0	0	0	0	0	0	0.55	4,271,639
13-Mar-22	0	0	0	0	0	0	0.00	0
14-Mar-22	58,340	24,574	82,914	167,444	72,888	323,246	0.00	0
15-Mar-22	19,144	8,169	27,313	54,793	20,336	102,442	0.95	7,378,285
16-Mar-22	25,128	10,531	35,659	62,819	26,840	125,318	0.01	77,666
17-Mar-22	24,984	10,227	35,211	65,089	25,496	125,796	0.00	0
18-Mar-22	18,156	7,554	25,710	6,465	18,024	50,199	0.00	0
19-Mar-22	0	0	0	0	0	0	0.00	0
20-Mar-22	0	0	0	0	0	0	0.00	0
21-Mar-22	64,844	27,938	92,782	0	65,880	158,662	0.00	0
22-Mar-22	20,312	8,940	29,252	178,668	27,200	235,120	0.00	0
23-Mar-22	26,412	11,559	37,971	102,837	30,792	171,600	0.00	0
24-Mar-22	18,232	7,141	25,373	66,813	20,176	112,362	0.15	1,164,992
25-Mar-22	20,424	8,426	28,850	73,755	21,808	124,413	0.00	0
26-Mar-22	0	0	0	0	0	0	0.00	0
27-Mar-22	0	0	0	0	0	0	0.00	0
28-Mar-22	56,256	22,619	78,875	207,721	66,944	353,540	0.00	0
29-Mar-22	15,844	6,604	22,448	64,835	18,640	105,923	0.00	0
30-Mar-22	3,912	7,277	11,189	62,937	22,448	96,574	0.00	0
31-Mar-22	204	7,741	7,945	60,080	19,528	87,553	0.00	0
TOTAL	**623,348**	**271,177**	**894,525**	**1,834,294**	**746,848**	**3,475,667**	**1.75**	**13,591,578**
Leachate Pumped as Percentage of Rainfall				18.5%	32.7%	23.8%		

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).

	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**

Comments

"0" = no data recorded

EXHIBIT B

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY LEACHATE TRACKING SUMMARY -- 2022

	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	854,893	2,517,185	658,552	3,791,519	0.66	5,125,967	46.8%	119.0%	55.7%
FEBRUARY	833,064	2,470,917	723,872	4,027,853	0.81	6,290,959	37.1%	95.2%	49.9%
MARCH	894,525	1,834,294	746,848	3,475,667	1.75	13,591,578	18.5%	32.7%	23.8%
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	**2,582,482**	**6,822,396**	**2,129,272**	**11,295,039**	**3.22**	**25,008,504**	**29.0%**	**76.5%**	**23.9%**

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		
3/1/22	49598572	15080527	81051952	6322947	32.20	DRY	OK	DEK
3/2/22	49619856	15090215	81074320	6383552	32.19	DRY	OK	DEK
3/3/22	49646220	15099621	81096576	6442081	32.18	DRY	OK	DEK
3/4/22	49670036	15108337	81120040	6501676	32.18	DRY	OK	DEK
3/5/22								
3/6/22								
3/7/22	49731692	15133573	81204544	6682123	32.12	DRY	OK	DEK
3/8/22	49755304	15143280	8133992	6739534	32.11	DRY	OK	DEK
3/9/22	49777092	15151898	81259488	6798465	32.11	DRY	OK	DEK
3/10/22	49804376	15163077	81287792	6866090	32.11	DRY	OK	DEK
3/11/22	49824976	15171341	81314280	6917193	32.10	DRY	OK	DEK
3/12/22								
3/13/22								
3/14/22	49883316	15195915	81387168	7084637	32.09	DRY	OK	DEK
3/15/22	49902460	15204084	81407504	7139430	32.08	DRY	OK	DEK
3/16/22	49927588	15214615	81434344	7207249	32.10	DRY	OK	DEK
3/17/22	49952572	15224842	81459840	7267338	32.20	DRY	OK	DEK
3/18/22	49970728	15232396	81477864	7273803	32.20	DRY	OK	DEK
3/19/22								
3/20/22								
3/21/22	50035572	15260334	81543744	7273803	32.19	DRY	ALL BAROMETER HAND TREPAD OVER THE WEEKEND / FIXED NOW	DEK
3/22/22	50055584	15269274	81570944	7452471	32.18	DRY	OK	DEK
3/23/22	50082296	15280833	81601736	7555308	32.16	DRY	OK	DEK
3/24/22	50100528	15287974	81621912	7622121	32.16	DRY	OK	DEK
3/25/22	50120952	15296400	81643720	7695876	32.15	DRY	OK	DEK
3/26/22								
3/27/22								
3/28/22	50177208	15319019	81710664	7903597	32.09	DRY	OK	DEK
3/29/21	50193052	15325623	81729304	7968432	32.07	DRY	OK	DEK
3/30/22	50196964	15332900	81751752	8031369	32.05	DRY	OK	DEK
3/31/22	50197168	15340641	81771280	8091449	32.00	DRY	OK	DEK

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2022 Mar	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.117	18.80	40.80
2	0.00	0.115	18.80	40.80
3	0.00	0.121	18.80	40.80
4	0.00	0.115	18.80	40.80
5	0.00	0.111	18.80	40.80
6	0.00	0.118	18.80	40.80
7	0.00	0.123	18.80	40.80
8	0.00	0.120	18.80	40.80
9	0.00	0.115	18.80	40.80
10	0.08	0.118	18.80	40.80
11	0.01	0.122	18.80	40.80
12	0.55	0.112	18.80	40.80
13	0.00	0.099	18.80	40.80
14	0.00	0.107	18.80	40.80
15	0.95	0.112	18.80	40.80
16	0.01	0.118	18.80	40.80
17	0.00	0.110	18.80	40.80
18	0.00	0.110	18.80	40.80
19	0.00	0.110	18.80	40.80
20	0.00	0.110	18.80	40.80
21	0.00	0.183	18.80	40.80
22	0.00	0.162	18.80	40.80
23	0.00	0.141	18.80	40.80
24	0.15	0.129	18.80	40.80
25	0.00	0.121	18.80	40.80
26	0.00	0.117	18.80	40.80
27	0.00	0.114	18.80	40.80
28	0.00	0.108	18.80	40.80
29	0.00	0.102	18.80	40.80
30	0.00	0.093	18.80	40.80
31	0.00	0.095	18.80	40.80
TOTAL	1.75	3.648		
AVG		0.118		
MIN				
MAX	0.95	0.183		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: March 2022

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	24.31	*inward*	GW-3	39.40	31.65
P-4	40.78	22.17	*inward*	GW-4	40.53	31.11
P-5	40.73	20.82	*inward*	GW-5	39.90	30.62
P-6	40.74	19.94	*inward*	GW-6	38.95	29.81
P-7	40.60	19.18	*inward*	GW-7	39.49	27.82
P-8	40.21	19.09	*inward*	GW-8	39.75	27.33
P-9	NA	NA	*NA*	*NA*	*NA*	*NA*
P-9A	39.83	22.77	*inward*	GW-9	39.65	30.55
P-10	39.86	19.29	*inward*	GW-10	38.34	27.78
P-11	40.52	22.01	*inward*	GW-11	38.26	28.30
P-12	43.28	29.40	*inward*	GW-12	42.09	30.79
P-13	44.78	30.69	*inward*	GW-13	44.79	32.14
P-14	45.09	29.66	*inward*	GW-14	39.63	33.10
P-15	45.57	30.76	*inward*	GW-15	42.33	31.39
P-16	44.67	31.07	*inward*	GW-16	44.41	31.71
P-17	44.28	30.23	*inward*	GW-17	42.19	33.31
P-18	43.16	24.08	*inward*	GW-18	41.76	31.31
P-19	42.91	23.02	*inward*	GW-19	41.20	28.86
P-20	42.54	25.29	*inward*	GW-20	41.00	27.55
P-21	42.23	24.64	*inward*	GW-21	40.94	25.60
P-22	42.06	23.74	*inward*	GW-22	41.53	25.33
P-23	42.08	22.39	*inward*	GW-23	40.91	26.71
P-24	42.03	19.90	*inward*	GW-24	41.37	27.52
P-25	42.16	19.21	*inward*	GW-25	41.11	29.65
P-26	42.50	19.22	*inward*	GW-26	41.44	31.17
P-27R	42.73	19.79	*inward*	GW-27R	40.90	31.63

NA = Not Applicable - wells and piezometers abondoned in March 2016
Wells (GW-18 through GW-27R) and piezometers (P-18 through P-27R) installed in April 2016
Piezometer P-9 abandoned and P-9A installed August 25, 2020
Date Data Collected: 3/25/2022