Johnson, Sabrina O

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Monday, March 7, 2022 1:20 PM
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 February 2022
Attachments: February 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 February 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.
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www.scsengineers.com

March 7, 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 – February 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

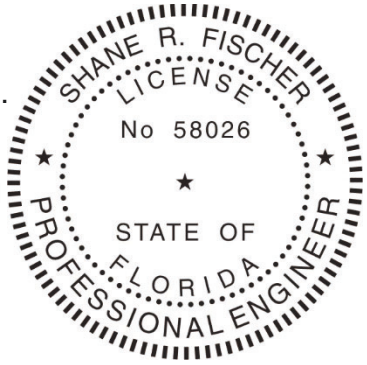
SRF/AFV

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: 2022.03.07 13:12:11 -05'00'

EXHIBIT A

MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
February 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-Feb-22	20,584	8,562	29,146	63,512	21,016	113,674	0.00	0
2-Feb-22	22,840	11,685	34,525	78,390	22,112	135,027	0.00	0
3-Feb-22	25,860	12,543	38,403	91,666	22,888	152,957	0.00	0
4-Feb-22	20,432	9,620	30,052	93,250	22,880	146,182	0.00	0
5-Feb-22	0	0	0	0	0	0	0.00	0
6-Feb-22	0	0	0	0	0	0	0.00	0
7-Feb-22	65,772	23,809	89,581	249,039	82,360	420,980	0.00	0
8-Feb-22	22,688	7,094	29,782	75,632	28,000	133,414	0.46	3,572,643
9-Feb-22	20,512	6,834	27,346	67,228	26,608	121,182	0.00	0
10-Feb-22	21,164	7,092	28,256	68,460	27,064	123,780	0.00	0
11-Feb-22	21,992	7,365	29,357	71,925	29,624	130,906	0.01	77,666
12-Feb-22	0	0	0	0	0	0	0.00	0
13-Feb-22	0	0	0	0	0	0	0.23	1,786,322
14-Feb-22	65,860	20,619	86,479	217,125	89,080	392,684	0.10	776,662
15-Feb-22	15,828	4,749	20,577	59,655	23,928	104,160	0.00	0
16-Feb-22	18,496	6,075	24,571	67,930	28,904	121,405	0.00	0
17-Feb-22	20,980	7,920	28,900	64,952	26,056	119,908	0.00	0
18-Feb-22	23,344	9,827	33,171	65,758	24,928	123,857	0.00	0
19-Feb-22	0	0	0	0	0	0	0.00	0
20-Feb-22	0	0	0	0	0	0	0.00	0
21-Feb-22	0	0	0	0	0	0	0.00	0
22-Feb-22	81,400	35,090	116,490	258,963	98,752	474,205	0.00	0
23-Feb-22	21,948	9,473	31,421	66,450	28,384	126,255	0.00	0
24-Feb-22	21,144	9,352	30,496	63,645	23,592	117,733	0.00	0
25-Feb-22	20,760	9,955	30,715	61,667	25,480	117,862	0.00	0
26-Feb-22	0	0	0	0	0	0	0.00	0
27-Feb-22	0	0	0	0	0	0	0.00	0
28-Feb-22	64,652	29,144	93,796	685,670	72,216	851,682	0.01	77,666
	0	0	0	0	0	0	0.00	0
	0	0	0	0	0	0	0.00	0
	0	0	0	0	0	0	0.00	0
TOTAL	**596,256**	**236,808**	**833,064**	**2,470,917**	**723,872**	**4,027,853**	**0.81**	**6,290,959**
Leachate Pumped as Percentage of Rainfall				37.1%	95.2%	49.9%		

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									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	**1,687,957**	**4,988,102**	**1,382,424**	**7,819,372**	**1.47**	**11,416,926**	**41.5%**	**122.5%**	**34.0%**

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		
2/1/22	48998148	14841218	80321576	4349750	32.77	DRY	OK	DEK
2/2/22	49020988	14852903	80343688	4428140	32.76	DRY	OK	DEK
2/3/22	49046848	14865446	80366576	4519806	32.74	DRY	OK	DEK
2/4/22	49067280	14875066	80389456	4613056	32.74	DRY	OK	DEK
2/5/22								
2/6/22								
2/7/22	49133052	14898875	80477816	4862095	32.71	DRY	OK	DEK
2/8/22	49155740	14905969	80499816	4937727	32.65	DRY	OK	DEK
2/9/22	49176252	14912803	80526424	5004955	32.68	DRY	OK	DEK
2/10/22	49197416	14919895	80553488	5073415	32.68	Dry	OK	AVK
2/11/22	49219408	14927260	80583112	5145340	32.68	DRY	OK	DEK
2/12/22								
2/13/22								
2/14/22	49285268	14947879	80672192	53624465	32.65	DRY	OK	DEK
2/15/22	49301096	14952628	80696120	5422120	32.64	DRY	OK	DEK
2/16/22	49319592	14958703	80725024	5490050	32.60	DRY	OK	DEK
2/17/22	49340572	14966623	80751080	5555002	32.29	DRY	OK	DEK
2/18/22	49363916	14976450	80776008	5620760	32.29	DRY	OK	DEK
2/19/22								
2/20/22								
2/21/22								
2/22/22	49445316	15011540	80874760	5879723	32.28	DRY	OK	DEK
2/23/22	49467264	15021013	80903144	5946173	32.28	DRY	OK	DEK
2/24/22	49488408	15030365	80926736	6009818	32.24	DRY	OK	DEK
2/25/22	49509168	15040320	80952216	6071485	32.24	DRY	OK	DEK
2/26/22								
2/27/22								
2/28/22	49537520.00	15049461.00	80974432.00	6757155	32.20	DRY	OK	DEK
2/29/2022								
2/30/2022								
2/31/2022								

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2022 Feb	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.115	38.80	40.80
2	0.00	0.121	38.80	40.80
3	0.00	0.171	38.80	40.80
4	0.00	0.150	38.80	40.80
5	0.00	0.140	38.80	40.80
6	0.00	0.131	38.80	40.80
7	0.00	0.131	38.80	40.80
8	0.46	0.133	38.80	40.80
9	0.00	0.133	38.80	40.80
10	0.00	0.127	38.80	40.80
11	0.01	0.130	38.80	40.80
12	0.00	0.129	38.80	40.80
13	0.23	0.124	38.80	40.80
14	0.10	0.116	38.80	40.80
15	0.00	0.119	38.80	40.80
16	0.00	0.115	38.80	40.80
17	0.00	0.133	38.80	40.80
18	0.00	0.129	38.80	40.80
19	0.00	0.120	38.80	40.80
20	0.00	0.117	38.80	40.80
21	0.00	0.116	38.80	40.80
22	0.00	0.120	38.80	40.80
23	0.00	0.118	38.80	40.80
24	0.00	0.120	38.80	40.80
25	0.00	0.118	38.80	40.80
26	0.00	0.118	38.80	40.80
27	0.00	0.119	38.80	40.80
28	0.01	0.120	38.80	40.80
29				
30				
31				
TOTAL	0.81	3.533		
AVG		0.126		
MIN				
MAX	0.46	0.171		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: February 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	24.30	*inward*	GW-3	39.40	30.88
P-4	40.78	22.14	*inward*	GW-4	40.53	30.38
P-5	40.73	20.83	*inward*	GW-5	39.90	29.87
P-6	40.74	19.96	*inward*	GW-6	38.95	29.13
P-7	40.60	19.26	*inward*	GW-7	39.49	26.92
P-8	40.21	19.11	*inward*	GW-8	39.75	25.81
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	19.35	*inward*	GW-10	38.34	26.59
P-11	40.52	22.07	*inward*	GW-11	38.26	28.28
P-12	43.28	29.48	*inward*	GW-12	42.09	30.41
P-13	44.78	30.74	*inward*	GW-13	44.79	32.44
P-14	45.09	29.87	*inward*	GW-14	39.63	34.20
P-15	45.57	30.99	*inward*	GW-15	42.33	32.89
P-16	44.67	31.07	*inward*	GW-16	44.41	31.71
P-17	44.28	30.30	*inward*	GW-17	42.19	34.69
P-18	43.16	24.17	*inward*	GW-18	41.76	30.58
P-19	42.91	23.11	*inward*	GW-19	41.20	28.46
P-20	42.54	25.48	*inward*	GW-20	41.00	27.65
P-21	42.23	24.77	*inward*	GW-21	40.94	25.18
P-22	42.06	23.85	*inward*	GW-22	41.53	25.24
P-23	42.08	22.44	*inward*	GW-23	40.91	26.64
P-24	42.03	19.94	*inward*	GW-24	41.37	27.17
P-25	42.16	19.25	*inward*	GW-25	41.11	28.85
P-26	42.50	19.21	*inward*	GW-26	41.44	31.00
P-27R	42.73	19.73	*inward*	GW-27R	40.90	30.94

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: 2/22/2022