

Smith, George

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Friday, May 13, 2022 9:01 AM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Lebron, Carlo; Al-Khalaf, Laila
Subject: Manatee County Lena Road Landfill Monthly Report April 2022
Attachments: April 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 April 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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May 13, 2022
File No. 09217088.24

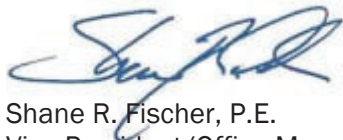
Mr. Steven Tafuni
Florida Department of Environmental Protection
Southwest District Office - Solid Waste Section
130501 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

Subject: Manatee County Lena Road Landfill
Monthly Report – April 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

SRF/YP



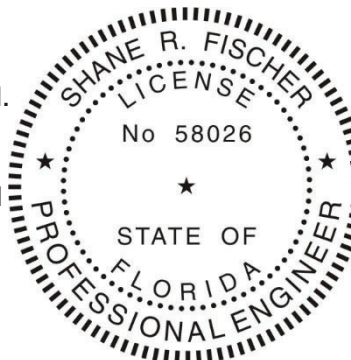
Wadhvi Patel
Staff Professional
SCS Engineers

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: 2022.05.13
08:52:49 -04'00'

EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
April 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-Apr-22	552	8,245	8,797	64,227	24,256	97,280	0.38	2,951,314
2-Apr-22	0	0	0	0	0	0	0.40	3,106,646
3-Apr-22	0	0	0	0	0	0	0.00	0
4-Apr-22	4,992	24,249	29,241	181,745	68,008	278,994	0.02	155,332
5-Apr-22	2,124	8,597	10,721	60,987	24,240	95,948	0.00	0
6-Apr-22	2,162	9,918	12,080	68,966	25,152	106,198	0.00	0
7-Apr-22	1,402	7,887	9,289	50,524	19,576	79,389	0.60	4,659,970
8-Apr-22	1,928	8,368	10,296	56,879	21,288	88,463	0.00	0
9-Apr-22	0	0	0	0	0	0	0.00	0
10-Apr-22	0	0	0	0	0	0	0.00	0
11-Apr-22	5,284	23,199	28,483	176,983	65,496	270,962	0.00	0
12-Apr-22	2,004	7,943	9,947	58,545	21,976	90,468	0.00	0
13-Apr-22	2,028	9,147	11,175	59,529	23,031	93,735	0.00	0
14-Apr-22	1,812	11,737	13,549	55,896	20,937	90,382	0.00	0
15-Apr-22	2,076	12,447	14,523	57,643	20,792	92,958	0.00	0
16-Apr-22	0	0	0	0	0	0	0.00	0
17-Apr-22	0	0	0	0	0	0	0.00	0
18-Apr-22	6,064	43,118	49,182	174,416	65,936	289,534	0.00	0
19-Apr-22	2,000	14,749	16,749	58,567	21,536	96,852	0.00	0
20-Apr-22	1,620	12,969	14,589	64,453	23,896	102,938	0.00	0
21-Apr-22	1,404	11,270	12,674	55,534	22,128	90,336	0.00	0
22-Apr-22	1,154	10,733	11,887	50,159	19,520	81,566	0.00	0
23-Apr-22	0	0	0	0	0	0	0.00	0
24-Apr-22	0	0	0	0	0	0	0.00	0
25-Apr-22	3,462	44,679	48,141	164,021	60,768	272,930	0.00	0
26-Apr-22	492	16,479	16,971	58,672	20,376	96,019	0.00	0
27-Apr-22	528	17,251	17,779	57,833	17,560	93,172	0.00	0
28-Apr-22	740	18,098	18,838	57,076	17,312	93,226	0.02	155,332
29-Apr-22	1,384	17,980	19,364	58,125	19,440	96,929	0.85	6,601,624
30-Apr-22	0	0	0	0	0	0	0.91	7,067,621
TOTAL	45,212	339,063	384,275	1,690,780	623,224	2,698,279	3.18	24,697,839
Leachate Pumped as Percentage of Rainfall			4.4%	16.6%	10.9%			

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).

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 -- 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	384,275	1,690,780	623,224	2,698,279	3.18	24,697,839	4.4%	16.6%	10.9%
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	2,966,757	8,513,176	2,752,496	13,993,318	6.40	49,706,342	16.7%	48.0%	15.5%

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		
4/1/22	50197720	15348886	81795536	8155676	32.00	DRY	OK	DEK
4/2/22								
4/3/22								
4/4/22	50202712	15373135	81963544	8337421	32.00	DRY	OK	DEK
4/5/22	50204836	15381732	81887784	8398408	32.00	DRY	OK	DEK
4/6/22	50206948	15391650	81912936	8467374	32.00	DRY	OK	DEK
4/7/22	50208400	15399537	81932512	8517898	32.00	DRY	OK	DEK
4/8/22	50210328	15407905	81953800	8574777	32.02	DRY	OK	DEK
4/9/22								
4/10/22								
4/11/22	50215612	15431104	82019296	8751760	32.00	DRY	OK	DEK
4/12/22	50217616	15439047	82041272	8810305	32.00	DRY	OK	DEK
4/13/22	50219644	15448194	82064308	8869834	32.00	DRY	OK	DEK
4/14/22	50221456	15459931	82085240	8925730	32.00	DRY	OK	DEK
4/15/22	50223532	15472378	82106032	8983373	32.00	DRY	OK	DEK
4/16/22								
4/17/22								
4/18/22	50225596	15515496	82171968	9157789	32.00	DRY	OK	DEK
4/19/22	50231596	15530245	82193504	9216356	32.00	DRY	OK	DEK
4/20/22	50233216	15543214	82217400	9280809	32.00	DRY	OK	DEK
4/21/22	50234620	15554484	82239528	9336343	32.00	DRY	OK	DEK
4/22/22	50235776	15565217	82259048	9386502	32.00	DRY	OK	DEK
4/23/22								
4/24/22								
4/25/22	50239236	15609896	82319816	9550526	32.00	DRY	OK	DEK
4/26/22	50239728	15621375	82340992	9609195	32.00	DRY	OK	DEK
4/27/22	50240256	15643626	82357752	9667028	32.00	DRY	OK	DEK
4/28/22	50240996	15661724	82375064	9724104	32.00	DRY	OK	DEK
4/29/22	50242380	15679704	82394504	9782229	32.00	DRY	OK	DEK
4/30/22								
4/31/2022								

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2022 Apr	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.38	0.094	18.80	40.80
2	0.40	0.092	18.80	40.80
3	0.00	0.093	18.80	40.80
4	0.02	0.094	18.80	40.80
5	0.00	0.092	18.80	40.80
6	0.00	0.093	18.80	40.80
7	0.60	0.093	18.80	40.80
8	0.00	0.089	18.80	40.80
9	0.00	0.089	18.80	40.80
10	0.00	0.089	18.80	40.80
11	0.00	0.090	18.80	40.80
12	0.00	0.092	18.80	40.80
13	0.00	0.093	18.80	40.80
14	0.00	0.095	18.80	40.80
15	0.00	0.094	18.80	40.80
16	0.00	0.095	18.80	40.80
17	0.00	0.098	18.80	40.80
18	0.00	0.095	18.80	40.80
19	0.00	0.092	18.80	40.80
20	0.00	0.088	18.80	40.80
21	0.00	0.092	18.80	40.80
22	0.00	0.092	18.80	40.80
23	0.00	0.094	18.80	40.80
24	0.00	0.093	18.80	40.80
25	0.00	0.091	18.80	40.80
26	0.00	0.075	18.80	40.80
27	0.00	0.110	18.80	40.80
28	0.02	0.096	18.80	40.80
29	0.85	0.095	18.80	40.80
30	0.91	0.097	18.80	40.80
31				
TOTAL	3.18	2.785		
AVG		0.093		
MIN				
MAX	0.91	0.110		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: April 2022

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	24.22	<i>inward</i>	GW-3	39.40	30.78
P-4	40.78	22.17	<i>inward</i>	GW-4	40.53	30.05
P-5	40.73	20.85	<i>inward</i>	GW-5	39.90	29.62
P-6	40.74	20.02	<i>inward</i>	GW-6	38.95	28.89
P-7	40.60	19.26	<i>inward</i>	GW-7	39.49	26.74
P-8	40.21	19.12	<i>inward</i>	GW-8	39.75	25.61
P-9	NA	NA	NA	NA	NA	NA
P-9A	39.83	22.77	<i>inward</i>	GW-9	39.65	30.55
P-10	39.86	19.38	<i>inward</i>	GW-10	38.34	25.75
P-11	40.52	22.10	<i>inward</i>	GW-11	38.26	27.93
P-12	43.28	30.71	<i>inward</i>	GW-12	42.09	31.26
P-13	44.78	30.93	<i>inward</i>	GW-13	44.79	31.60
P-14	45.09	29.75	<i>inward</i>	GW-14	39.63	32.62
P-15	45.57	30.77	<i>inward</i>	GW-15	42.33	31.39
P-16	44.67	31.07	<i>inward</i>	GW-16	44.41	31.71
P-17	44.28	30.95	<i>inward</i>	GW-17	42.19	32.60
P-18	43.16	24.10	<i>inward</i>	GW-18	41.76	30.02
P-19	42.91	23.03	<i>inward</i>	GW-19	41.20	27.70
P-20	42.54	25.22	<i>inward</i>	GW-20	41.00	26.71
P-21	42.23	24.56	<i>inward</i>	GW-21	40.94	24.65
P-22	42.06	23.71	<i>inward</i>	GW-22	41.53	24.42
P-23	42.08	22.42	<i>inward</i>	GW-23	40.91	25.72
P-24	42.03	19.92	<i>inward</i>	GW-24	41.37	26.31
P-25	42.16	19.23	<i>inward</i>	GW-25	41.11	28.28
P-26	42.50	19.24	<i>inward</i>	GW-26	41.44	30.18
P-27R	42.73	19.64	<i>inward</i>	GW-27R	40.90	30.25

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

Piezometer P-9 abandoned and P-9A installed August 25, 2020

Date Data Collected: 4/26/2022