

Dorsinvil, Diane

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Tuesday, December 13, 2022 5:11 PM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Lebron, Carlo; Al-Khalaf, Laila; Curtis, Bob
Subject: Manatee County Lena Road Landfill Monthly Report November 2022
Attachments: November 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 November 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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December 13, 2022
File No. 09217088.28

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 – November 2022

Dear Mr. Tafuni:

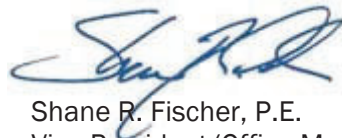
This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2022 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

Sincerely,



Robert Curtis, P.E.
Project Director
SCS Engineers

SRF/AFV



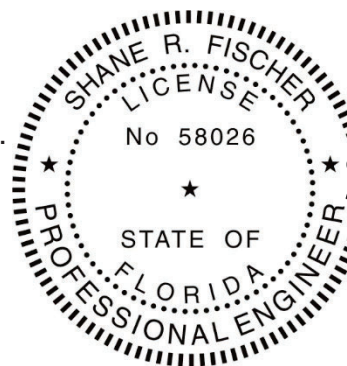
Shane R. Fischer, P.E.
Vice President/Office Manager
SCS Engineers

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:
2022.12.13
17:03:33 -05'00'

EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
November 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-Nov-22	38,800	9,502	0	116,903	70,899	187,802	0.00	0
2-Nov-22	38,732	11,294	50,026	120,471	72,600	243,097	0.00	0
3-Nov-22	36,032	12,132	48,164	122,271	76,672	247,107	0.05	388,331
4-Nov-22	37,234	12,966	50,200	120,859	78,016	249,075	0.00	0
5-Nov-22	0	0	0	0	0	0	0.02	155,332
6-Nov-22	0	0	0	0	0	0	0.02	155,332
7-Nov-22	67,466	36,582	104,048	355,621	214,728	674,397	0.00	0
8-Nov-22	7,492	14,342	21,834	108,581	78,944	209,359	0.01	77,666
9-Nov-22	7,064	5,326	12,390	109,676	48,632	170,698	0.10	776,662
10-Nov-22	0	0	0	0	0	0	2.29	17,785,551
11-Nov-22	10,280	5,852	16,132	236,496	181,200	433,828	0.00	0
12-Nov-22	0	0	0	0	0	0	0.00	0
13-Nov-22	0	0	0	0	0	0	0.00	0
14-Nov-22	5,736	2,770	8,506	398,357	200,472	607,335	0.00	0
15-Nov-22	6,264	3,262	9,526	129,266	80,328	219,120	0.02	155,332
16-Nov-22	6,420	3,582	10,002	129,277	80,272	219,551	0.00	0
17-Nov-22	6,336	3,936	10,272	122,451	78,592	211,315	0.00	0
18-Nov-22	6,168	3,652	9,820	121,961	76,848	208,629	0.00	0
19-Nov-22	0	0	0	0	0	0	0.00	0
20-Nov-22	0	0	0	0	0	0	0.25	1,941,654
21-Nov-22	10,432	6,776	17,208	341,037	209,504	567,749	0.00	0
22-Nov-22	5,860	4,156	10,016	119,389	80,472	209,877	0.00	0
23-Nov-22	5,596	3,872	9,468	113,961	77,040	200,469	0.00	0
24-Nov-22	0	0	0	0	0	0	0.00	0
25-Nov-22	6,456	4,454	10,910	223,925	141,416	376,251	0.00	0
26-Nov-22	0	0	0	0	0	0	0.00	0
27-Nov-22	0	0	0	0	0	0	0.33	2,562,983
28-Nov-22	15,092	9,672	24,764	294,279	203,952	522,995	0.00	0
29-Nov-22	4,764	3,196	7,960	104,747	72,648	185,355	0.00	0
30-Nov-22	0	0	0	0	0	0	0.00	0
TOTAL	322,224	157,324	431,246	3,389,528	2,123,235	5,944,009	3.09	23,998,843
Leachate Pumped as Percentage of Rainfall			5.0%	34.2%	38.3%			

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

	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

"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	384,275	1,690,780	623,224	2,698,279	3.18	24,697,839	4.4%	16.6%	10.9%
MAY	660,819	2,009,224	876,984	3,547,027	4.07	31,610,127	5.9%	15.4%	12.0%
JUNE	660,474	1,877,952	612,376	3,150,802	7.07	54,909,975	3.4%	8.3%	4.8%
JULY	856,932	5,044,292	1,321,856	7,223,080	11.92	92,578,063	2.6%	13.2%	6.2%
AUGUST	967,926	4,026,066	1,572,656	6,566,648	8.08	62,754,257	4.3%	15.5%	10.9%
SEPTEMBER	1,975,806	5,717,776	2,311,192	10,004,774	17.50	135,915,780	4.1%	10.2%	7.4%
OCTOBER	1,737,772	6,704,721	2,763,541	11,206,034	1.65	12,814,916	38.0%	126.8%	93.4%
NOVEMBER	431,246	3,389,528	2,123,235	5,944,009	3.09	23,998,843	5.0%	34.2%	38.3%
DECEMBER									
TOTAL	10,257,732	37,282,735	14,334,336	61,635,692	59.78	464,288,304	6.2%	22.5%	8.7%

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		
11/1/22	53759784	19365390	91872704	5122036	34.48	30.70	OK	DIK
11/2/22	53798516	19376684	91945304	5242507	34.46	30.65	OK	DIK
11/3/22	53834548	19388816	92021976	5364778	34.48	30.67	OK	DIK
11/4/22	53871782	19401782	92099992	5485637	34.48	30.59	OK	DIK
11/5/22								
11/6/22								
11/7/22	53939248	19438364	92314720	5841258	34.47	30.29	OK	DIK
11/8/22	53946740	19452706	92393664	5949839	34.47	30.25	OK	DIK
11/9/22	53953804	19458032	92442296	6059515	34.43	30.18	OK	DIK
11/10/22							HURRICANE	DIK
11/11/22	53964084	19463884	92623496	6296011	34.62	31.71	OK	DIK
11/12/22								
11/13/22								
11/14/22	53969820	19466654	92823968	6694368	34.57	31.47	OK	DIK
11/15/22	53976084	19469916	92904296	6823634	34.48	31.48	OK	DIK
11/16/22	53980504	19473498	92984568	6952911	34.48	31.39	OK	DIK
11/17/22	53988840	19477434	93063160	7075362	34.48	31.18	OK	DIK
11/18/22	53995008	19481086	93140008	7197323	34.48	31.07	OK	DIK
11/19/22								
11/20/22								
11/21/22	54005440	19487862	93349512	7538360	34.48	30.81	OK	DIK
11/22/22	54011300	19492018	93429984	7657749	34.48	30.72	OK	DIK
11/23/22	54016896	19495890	93507024	7771710	34.48	30.64	OK	DIK
11/24/22								
11/25/22	54023352	19500344	93648440	7995635	34.48	30.57	OK	DIK
11/26/22								
11/27/22	54028444							
11/28/22	54028444	19510016	93852392	8289914	34.48	30.31	OK	DIK
11/29/22	54043208	19513212	93925040	8394661	34.48	30.30	OK	DIK
11/30/22								
11/31/2022								

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2022 Nov	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.181	18.80	40.80
2	0.00	0.178	18.80	40.80
3	0.05	0.180	18.80	40.80
4	0.00	0.178	18.80	40.80
5	0.02	0.174	18.80	40.80
6	0.02	0.144	18.80	40.80
7	0.00	0.135	18.80	40.80
8	0.01	0.135	18.80	40.80
9	0.10	0.130	18.80	40.80
10	2.29	0.132	18.80	40.80
11	0.00	0.143	18.80	40.80
12	0.00	0.149	18.80	40.80
13	0.00	0.149	18.80	40.80
14	0.00	0.147	18.80	40.80
15	0.02	0.150	18.80	40.80
16	0.00	0.142	18.80	40.80
17	0.00	0.140	18.80	40.80
18	0.00	0.138	18.80	40.80
19	0.00	0.132	18.80	40.80
20	0.25	0.127	18.80	40.80
21	0.00	0.129	18.80	40.80
22	0.00	0.131	18.80	40.80
23	0.00	0.130	18.80	40.80
24	0.00	0.123	18.80	40.80
25	0.00	0.123	18.80	40.80
26	0.00	0.125	18.80	40.80
27	0.33	0.122	18.80	40.80
28	0.00	0.118	18.80	40.80
29	0.00	0.118	18.80	40.80
30	0.00	0.116	18.80	40.80
31				
TOTAL	3.09	4.219		
AVG		0.141		
MIN				
MAX	2.29	0.181		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: November 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	25.56	<i>inward</i>	GW-3	39.40	33.45
P-4	40.78	22.38	<i>inward</i>	GW-4	40.53	32.93
P-5	40.73	21.31	<i>inward</i>	GW-5	39.90	32.35
P-6	40.74	20.00	<i>inward</i>	GW-6	38.95	31.25
P-7	40.60	25.80	<i>inward</i>	GW-7	39.49	29.19
P-8	40.21	19.01	<i>inward</i>	GW-8	39.75	28.35
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	26.31	<i>inward</i>	GW-10	38.34	29.04
P-11	40.52	22.50	<i>inward</i>	GW-11	38.26	30.56
P-12	43.28	31.53	<i>inward</i>	GW-12	42.09	32.95
P-13	44.78	31.88	<i>inward</i>	GW-13	44.79	34.49
P-14	45.09	31.54	<i>inward</i>	GW-14	39.63	34.83
P-15	45.57	31.57	<i>inward</i>	GW-15	42.33	33.35
P-16	44.67	31.07	<i>inward</i>	GW-16	44.41	31.71
P-17	44.28	31.58	<i>inward</i>	GW-17	42.19	35.33
P-18	43.16	24.31	<i>inward</i>	GW-18	41.76	33.31
P-19	42.91	23.16	<i>inward</i>	GW-19	41.20	32.70
P-20	42.54	25.94	<i>inward</i>	GW-20	41.00	31.18
P-21	42.23	25.23	<i>inward</i>	GW-21	40.94	28.19
P-22	42.06	24.04	<i>inward</i>	GW-22	41.53	28.28
P-23	42.08	22.53	<i>inward</i>	GW-23	40.91	31.11
P-24	42.03	20.13	<i>inward</i>	GW-24	41.37	30.69
P-25	42.16	19.24	<i>inward</i>	GW-25	41.11	31.81
P-26	42.50	19.20	<i>inward</i>	GW-26	41.44	32.99
P-27R	42.73	18.61	<i>inward</i>	GW-27R	40.90	33.20

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: 11/21/2022