

From: [Fischer, Shane](#)
To: [SWD Waste; Tafuni, Steven](#)
Cc: [Anthony Detweiler](#); [Sarah Metcalfe](#); [Al-Khalaf, Laila](#); [Curtis, Bob](#)
Subject: Manatee County Lena Road Landfill Monthly Report January 2023
Date: Tuesday, February 14, 2023 2:11:47 PM
Attachments: [January 2023 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 January 2023) which includes the following:

- Monthly Water Balance Report (Exhibit A)
- Monthly Leachate Tracking Summary - 2023 (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

Driven by Client Success

www.scsengineers.com

February 14, 2023
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 – January 2023

Dear Mr. Tafuni:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2023 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

Sincerely,



Robert Curtis, P.E.
Project Director
SCS Engineers

SRF/RBC



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

cc: Anthony Detweiler, Manatee County Landfill Operations Supervisor
Sarah Metcalfe, Manatee County

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.

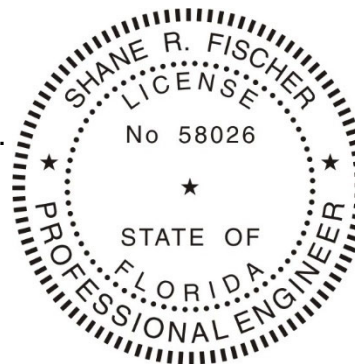


EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
January 2023**

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-Jan-23	0	0	0	0	0	0	0.00	0
2-Jan-23	0	0	0	0	0	0	0.02	155,332
3-Jan-23	21,456	21,988	43,444	305,974	239,672	589,090	0.00	0
4-Jan-23	6,680	6,934	13,614	79,518	66,248	159,380	0.05	388,331
5-Jan-23	6,352	7,090	13,442	74,927	63,720	152,089	0.75	5,824,962
6-Jan-23	6,568	7,232	13,800	78,959	61,743	154,502	0.00	0
7-Jan-23	0	0	0	0	0	0	0.00	0
8-Jan-23	0	0	0	0	0	0	0.00	0
9-Jan-23	22,316	23,592	45,908	229,876	194,241	470,025	0.00	0
10-Jan-23	988	1,174	2,162	74,372	43,144	119,678	0.00	0
11-Jan-23	1,184	1,304	2,488	72,271	44,736	119,495	0.00	0
12-Jan-23	2,168	2,406	4,574	79,659	52,344	136,577	0.00	0
13-Jan-23	3,588	2,810	6,398	76,117	52,112	134,627	0.94	7,300,619
14-Jan-23	0	0	0	0	0	0	0.00	0
15-Jan-23	0	0	0	0	0	0	0.00	0
16-Jan-23	493,776	175,548	669,324	215,235	116,936	1,001,495	0.00	0
17-Jan-23	0	0	0	0	0	0	0.00	0
18-Jan-23	0	0	0	0	0	0	0.00	0
19-Jan-23	283,140	3,450	286,590	212,703	130,032	629,325	0.00	0
20-Jan-23	97,564	1,061	98,625	69,484	41,944	210,053	0.16	1,242,659
21-Jan-23	0	0	0	0	0	0	0.00	0
22-Jan-23	0	0	0	0	0	0	0.20	1,553,323
23-Jan-23	220,028	3,409	223,437	212,071	130,056	565,564	0.26	2,019,320
24-Jan-23	82,028	1,306	83,334	82,685	55,776	221,795	0.00	0
25-Jan-23	56,326	932	57,258	53,605	35,288	146,151	0.29	2,252,319
26-Jan-23	78,042	1,210	79,252	74,741	42,112	196,105	0.06	465,997
27-Jan-23	61,928	1,136	63,064	66,661	41,240	170,965	0.00	0
28-Jan-23	0	0	0	0	0	0	0.00	0
29-Jan-23	0	0	0	0	0	0	0.00	0
30-Jan-23	181,704	3,150	184,854	197,578	100,136	482,568	0.00	0
31-Jan-23	60,544	1,110	0	64,875	33,536	98,411	0.00	0
TOTAL	1,686,380	266,842	1,891,568	2,321,311	1,545,016	5,757,895	2.73	21,202,862
Leachate Pumped as Percentage of Rainfall			25.0%	26.5%	31.6%			

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 -- 2023

	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	1,891,568	2,321,311	1,545,016	5,757,895	2.73	21,202,862	25.0%	26.5%	31.6%
FEBRUARY									
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	1,891,568	2,321,311	1,545,016	5,757,895	2.73	21,202,862	25.0%	26.5%	31.6%

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		
1/1/23								
1/2/23								
1/3/23	54201800	19649968	96104384	14908006	34.48	29.63	OK	TRK
1/4/23	54208480	19656902	96170632	1570324	34.48	29.59	OK	TRK
1/5/23	54214832	19663992	96234352	1645251	34.49	29.60	OK	TRK
1/6/23	54221400	19671224	96296095	1724210	34.49	29.65	OK	TRK
1/7/23								
1/8/23								
1/9/23	54243716	19694816	96490336	1954086	34.49	29.58	OK	TRK
1/10/23	54244704	19695990	96533480	2028458	34.49	29.56	OK	TRK
1/11/23	54245888	19697294	96578216	2100729	34.49	29.54	OK	TRK
1/12/23	54248056	19699700	96630560	2180388	34.49	29.53	OK	TRK
1/13/23	54251644	19702510	96682672	2256505	34.58	29.58	OK	TRK
1/14/23								
1/15/23								
1/16/23	54255420	19878058	96799608	2471740	34.48	29.70	OK	DRS
1/17/23								
1/18/23								
1/19/23	55028560	19881508	96929610	2694443	34.48	29.60	OK	DRS
1/20/23	55126124	19882564	96971584	2753927	34.48	29.60	OK	DRS
1/21/23								
1/22/23								
1/23/23	55346152	19885978	97101640	2965998	34.49	29.58	OK	TRK
1/24/23	55428180	19887284	97157416	3048683	34.49	29.55	OK	TRK
1/25/23	55484504	19888216	97192704	3102258	34.49	29.53	OK	TRK
1/26/23	55562548	19889426	97234816	3177029	34.49	29.57	OK	TRK
1/27/23	55624476	19890562	97276056	3243690	34.49	29.55	OK	TRK
1/28/23								
1/29/23								
1/30/23	55806180	19893712	97376192	3441268	34.49	29.45	OK	TRK
1/31/23	55866724	19894822	97409728	3506143	34.49	DRY	OK	TRK

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2023 Jan	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.098	18.80	40.80
2	0.02	0.094	18.80	40.80
3	0.00	0.095	18.80	40.80
4	0.05	0.096	18.80	40.80
5	0.75	0.101	18.80	40.80
6	0.00	0.099	18.80	40.80
7	0.00	0.097	18.80	40.80
8	0.00	0.100	18.80	40.80
9	0.00	0.094	18.80	40.80
10	0.00	0.095	18.80	40.80
11	0.00	0.092	18.80	40.80
12	0.00	0.093	18.80	40.80
13	0.94	0.365	18.80	40.80
14	0.00	0.312	18.80	40.80
15	0.00	0.231	18.80	40.80
16	0.00	0.191	18.80	40.80
17	0.00	0.185	18.80	40.80
18	0.00	0.143	18.80	40.80
19	0.00	0.143	18.80	40.80
20	0.16	0.143	18.80	40.80
21	0.00	0.143	18.80	40.80
22	0.20	0.143	18.80	40.80
23	0.26	0.143	18.80	40.80
24	0.00	0.143	18.80	40.80
25	0.29	0.143	18.80	40.80
26	0.06	0.143	18.80	40.80
27	0.00	0.143	18.80	40.80
28	0.00	0.143	18.80	40.80
29	0.00	0.143	18.80	40.80
30	0.00	0.143	18.80	40.80
31	0.00	0.143	18.80	40.80
TOTAL	2.73	4.440		
AVG		0.143		
MIN				
MAX	0.94	0.365		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: January 2023

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	25.05	<i>inward</i>	GW-3	39.40	32.80
P-4	40.78	22.26	<i>inward</i>	GW-4	40.53	32.49
P-5	40.73	21.25	<i>inward</i>	GW-5	39.90	30.98
P-6	40.74	20.03	<i>inward</i>	GW-6	38.95	31.11
P-7	40.60	19.25	<i>inward</i>	GW-7	39.49	28.64
P-8	40.21	19.08	<i>inward</i>	GW-8	39.75	27.63
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	19.46	<i>inward</i>	GW-10	38.34	27.64
P-11	40.52	22.41	<i>inward</i>	GW-11	38.26	29.61
P-12	43.28	29.89	<i>inward</i>	GW-12	42.09	32.80
P-13	44.78	30.99	<i>inward</i>	GW-13	44.79	34.58
P-14	45.09	30.84	<i>inward</i>	GW-14	39.63	34.88
P-15	45.57	31.21	<i>inward</i>	GW-15	42.33	33.34
P-16	44.67	31.07	<i>inward</i>	GW-16	44.41	31.71
P-17	44.28	30.75	<i>inward</i>	GW-17	42.19	34.51
P-18	43.16	24.33	<i>inward</i>	GW-18	41.76	32.78
P-19	42.91	23.17	<i>inward</i>	GW-19	41.20	31.12
P-20	42.54	24.86	<i>inward</i>	GW-20	41.00	29.48
P-21	42.23	25.18	<i>inward</i>	GW-21	40.94	26.83
P-22	42.06	23.98	<i>inward</i>	GW-22	41.53	30.03
P-23	42.08	22.51	<i>inward</i>	GW-23	40.91	28.60
P-24	42.03	20.01	<i>inward</i>	GW-24	41.37	29.35
P-25	42.16	19.23	<i>inward</i>	GW-25	41.11	31.25
P-26	42.50	19.20	<i>inward</i>	GW-26	41.44	32.74
P-27R	42.73	19.60	<i>inward</i>	GW-27R	40.90	32.63

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: 1/25/2023