

Johnson, Sabrina O

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Wednesday, February 10, 2021 2:15 PM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Bob Bennett; Cooper, Dan; Lebron, Carlo; Velosa, Andres
Subject: Manatee County Lena Road Landfill Monthly Report January 2021
Attachments: January 2021 Report.pdf

Mr. Tafuni,

Attached is the Manatee County Lena Road Landfill Monthly Report (for January 2021) which includes the following:

- Monthly Water Balance Report (Exhibit A)
- Monthly Leachate Tracking Summary - 2021 (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

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February 10, 2021
File No. 09217088.21

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 2021

Dear Mr. Tafuni:

This letter includes the following monthly reports: Monthly Water Balance Report (Exhibit A), Monthly Leachate Tracking Summary - 2020 (Exhibit B), Monthly Leachate Meter Readings, Monthly Rainfall, and Monthly Groundwater Gradient Report.

Please note for January 28th and 29th the Leachate Meter Readings for Stage II are highlighted "NO DISPLAY." The meter screen malfunctioned and data is not available to collect. The County has requested an emergency purchase order for the parts required to repair the meter. The purchase order is anticipated by February 8, 2021 and the parts available by approximately February 18, 2021. As of the date of this report, the meter is scheduled for repair by February 22, 2021. If disruptions in this schedule occur we will inform the Agency.

Sincerely,



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



Andres Velosa
Associate Professional
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


565026
2/10/2021

EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
January 2021**

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-21	0	0	0	0	0	0	0.00	0
2-Jan-21	0	0	0	0	0	0	0.00	0
3-Jan-21	0	0	0	0	0	0	0.06	465,997
4-Jan-21	140,508	1,823	142,331	362,336	127,780	632,447	0.00	0
5-Jan-21	37,344	495	37,839	99,392	34,288	171,519	0.00	0
6-Jan-21	33,976	564	34,540	62,432	31,812	128,784	0.00	0
7-Jan-21	25,988	262	26,250	85,856	23,712	135,818	0.37	2,873,648
8-Jan-21	38,344	529	38,873	100,224	33,476	172,573	0.01	77,666
9-Jan-21	0	0	0	0	0	0	0.00	0
10-Jan-21	0	0	0	0	0	0	0.00	0
11-Jan-21	93,712	1,453	95,165	243,968	90,500	429,633	0.00	0
12-Jan-21	31,920	478	32,398	82,496	29,148	144,042	0.00	0
13-Jan-21	29,536	441	29,977	77,216	28,556	135,749	0.01	77,666
14-Jan-21	36,320	538	36,858	97,504	32,036	166,398	0.00	0
15-Jan-21	36,084	529	36,613	81,984	29,662	148,259	0.16	1,242,659
16-Jan-21	0	0	0	0	0	0	0.03	232,998
17-Jan-21	0	0	0	0	0	0	0.00	0
18-Jan-21	96,516	1,453	97,969	227,840	83,980	409,789	0.00	0
19-Jan-21	29,696	609	30,305	79,648	31,382	141,335	0.00	0
20-Jan-21	21,576	429	22,005	73,216	23,128	118,349	0.00	0
21-Jan-21	29,500	568	30,068	82,816	27,844	140,728	0.00	0
22-Jan-21	35,872	532	36,404	80,096	31,040	147,540	0.00	0
23-Jan-21	0	0	0	0	0	0	0.00	0
24-Jan-21	0	0	0	0	0	0	0.00	0
25-Jan-21	93,400	1,168	94,568	225,920	81,240	401,728	0.00	0
26-Jan-21	37,196	926	38,122	98,496	33,572	170,190	0.00	0
27-Jan-21	26,512	432	26,944	71,136	21,772	119,852	0.15	1,164,992
28-Jan-21	29,216	484	29,700	0	25,236	54,936	0.00	0
29-Jan-21	32,352	6,483	38,835	0	37,772	76,607	0.00	0
30-Jan-21	0	0	0	0	0	0	0.00	0
31-Jan-21	0	0	0	0	0	0	0.00	0
TOTAL	935,568	20,196	955,764	2,232,576	857,936	4,046,276	0.79	6,135,627
Leachate Pumped as Percentage of Rainfall				43.7%	88.2%	60.6%		

NO DISPLAY

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 -- 2021**

	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	955,764	2,232,576	857,936	4,046,276	0.79	6,135,627	43.7%	88.2%	60.6%
FEBRUARY									
MARCH									
APRIL									
MAY									
JUNE									
JULY									
AUGUST									
SEPTEMBER									
OCTOBER									
NOVEMBER									
DECEMBER									
TOTAL	955,764	2,232,576	857,936	4,046,276	0.79	6,135,627	43.7%	102.0%	39.2%

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		
1/1/21								
1/2/21								
1/3/21								
1/4/21	41489056	86895820	62000068	275260256	32.19	29.55	OK	DEK
1/5/21	41526400	869027	62034356	275359648	32.19	29.55	OK	DEK
1/6/21	41560376	8690541	62066168	275442280	32.19	29.55	OK	DEK
1/7/21	41586364	8690903	62089880	275507936	32.19	29.55	OK	DEK
1/8/21	41624708	8691432	62123356	275608160	32.19	29.55	OK	DEK
1/9/21								
1/10/21								
1/11/21	41718420	8692885	62213856	275852128	32.19	29.55	OK	DEK
1/12/21	41750340	8693363	62243004	275934624	32.19	29.55	OK	DEK
1/13/21	41779876	8693804	62271560	27601840	32.19	29.55	OK	DEK
1/14/21	41816196	8694342	62303596	27609344	32.19	29.55	OK	DEK
1/15/21	41852280	8694871	62333258	276191328	32.25	DRY	OK	DEK
1/16/21								
1/17/21								
1/18/21	41948796	8696324	62412232	276417184	32.30	DRY	OK	DEK
1/19/21	41978492	8696933	62448620	276498816	32.29	DRY	OK	DEK
1/20/21	42000068	8697362	62471748	276572032	32.30	DRY	OK	DEK
1/21/21	42029568	8697730	62499592	276654848	32.30	DRY	OK	DEK
1/22/21	42065440	8698462	62530632	276734944	32.30	DRY	OK	DEK
1/23/21								
1/24/21								
1/25/21	42158840	869963	62611872	276960864	32.30	DRY	OK	DEK
1/26/21	42196036	8700556	626415444	277059360	32.30	DRY	OK	DEK
1/27/21	4222548	8700788	62667216	277130496	32.30	DRY	OK	DEK
1/28/21	42251764	8701472	62692452	NO DISPLAY	32.29	DRY	OK	DEK
1/29/21	42284416	8707955	62730224	NO DISPLAY	32.29	DRY	OK	DEK
1/30/21								
1/31/21								

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2021 Jan	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.155	38.80	40.80
2	0.00	0.149	38.80	40.80
3	0.06	0.167	38.80	40.80
4	0.00	0.149	38.80	40.80
5	0.00	0.148	38.80	40.80
6	0.00	0.146	38.80	40.80
7	0.37	0.167	38.80	40.80
8	0.01	0.150	38.80	40.80
9	0.00	0.142	38.80	40.80
10	0.00	0.139	38.80	40.80
11	0.00	0.142	38.80	40.80
12	0.00	0.141	38.80	40.80
13	0.01	0.162	38.80	40.80
14	0.00	0.147	38.80	40.80
15	0.16	0.151	38.80	40.80
16	0.03	0.144	38.80	40.80
17	0.00	0.138	38.80	40.80
18	0.00	0.125	38.80	40.80
19	0.00	0.112	38.80	40.80
20	0.00	0.148	38.80	40.80
21	0.00	0.140	38.80	40.80
22	0.00	0.144	38.80	40.80
23	0.00	0.125	38.80	40.80
24	0.00	0.139	38.80	40.80
25	0.00	0.143	38.80	40.80
26	0.00	0.141	38.80	40.80
27	0.15	0.144	38.80	40.80
28	0.00	0.148	38.80	40.80
29	0.00	0.154	38.80	40.80
30	0.00	0.146	38.80	40.80
31	0.00	0.147	38.80	40.80
TOTAL	0.79	4.493		
AVG		0.145		
MIN				
MAX	0.37	0.167		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: January 2021

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	24.96	<i>inward</i>	GW-3	39.40	31.99
P-4	40.78	22.10	<i>inward</i>	GW-4	40.53	31.48
P-5	40.73	20.79	<i>inward</i>	GW-5	39.90	31.18
P-6	40.74	19.94	<i>inward</i>	GW-6	38.95	30.35
P-7	40.60	19.09	<i>inward</i>	GW-7	39.49	28.26
P-8	40.21	18.96	<i>inward</i>	GW-8	39.75	26.77
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	19.31	<i>inward</i>	GW-10	38.34	26.96
P-11	40.52	22.12	<i>inward</i>	GW-11	38.26	28.64
P-12	43.28	29.34	<i>inward</i>	GW-12	42.09	31.09
P-13	44.78	30.68	<i>inward</i>	GW-13	44.79	32.19
P-14	45.09	30.95	<i>inward</i>	GW-14	39.63	33.59
P-15	45.57	30.99	<i>inward</i>	GW-15	42.33	34.28
P-16	44.67	30.97	<i>inward</i>	GW-16	44.41	33.11
P-17	44.28	30.08	<i>inward</i>	GW-17	42.19	33.35
P-18	43.16	24.06	<i>inward</i>	GW-18	41.76	31.61
P-19	42.91	23.31	<i>inward</i>	GW-19	41.20	30.90
P-20	42.54	25.54	<i>inward</i>	GW-20	41.00	29.51
P-21	42.23	24.99	<i>inward</i>	GW-21	40.94	26.79
P-22	42.06	23.36	<i>inward</i>	GW-22	41.53	26.91
P-23	42.08	22.38	<i>inward</i>	GW-23	40.91	28.41
P-24	42.03	19.83	<i>inward</i>	GW-24	41.37	28.93
P-25	42.16	19.26	<i>inward</i>	GW-25	41.11	30.43
P-26	42.50	19.10	<i>inward</i>	GW-26	41.44	32.12
P-27R	42.73	19.63	<i>inward</i>	GW-27R	40.90	32.00

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: 1/29/2021