

Hughes, Rhonda

From: Fischer, Shane <SFischer@SCSEngineers.com>
Sent: Monday, November 14, 2022 11:03 AM
To: SWD_Waste; Tafuni, Steven
Cc: Anthony Detweiler; Bryan White; Lebron, Carlo; Al-Khalaf, Laila
Subject: Manatee County Lena Road Landfill Monthly Report October 2022
Attachments: October 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 October 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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November 14, 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 – October 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.

Please note for this month's readings on October 3, 2022 the Leachate Flow Meter for Stage II counter reset back to 0 after hitting maximum display capability, readings for October 4, 2022 continued as normal.

Sincerely,



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

SRF/AFV



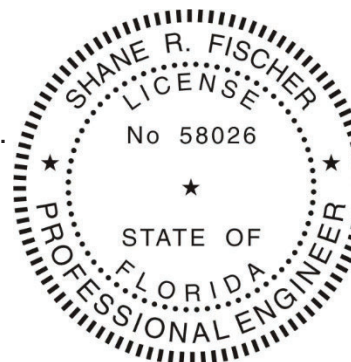
Andres Velosa
Staff Professional II
SCS Engineers

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:
2022.11.14
10:47:33 -05'00'

EXHIBIT A

**MANATEE COUNTY SOLID WASTE MANAGEMENT FACILITY
LENA ROAD LANDFILL
MONTHLY WATER BALANCE REPORT
October 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-Oct-22	0	0	0	0	0	0	0.00	0
2-Oct-22	0	0	0	0	0	0	0.00	0
3-Oct-22	196,248	906	197,154	1,770,147	355,680	2,322,981	0.00	0
4-Oct-22	74,624	565	75,189	317,402	118,576	511,167	0.00	0
5-Oct-22	63,632	1,169	64,801	236,717	88,760	390,278	0.00	0
6-Oct-22	74,544	1,466	76,010	271,809	113,848	461,667	0.00	0
7-Oct-22	56,712	1,074	57,786	209,104	191,992	458,882	0.00	0
8-Oct-22	0	0	0	0	0	0	0.00	0
9-Oct-22	0	0	0	0	0	0	0.00	0
10-Oct-22	183,472	3,554	187,026	656,433	192,336	1,035,795	0.28	2,174,652
11-Oct-22	57,272	33,782	91,054	214,894	99,640	405,588	0.01	77,666
12-Oct-22	41,676	13,648	55,324	157,083	74,112	286,519	0.00	0
13-Oct-22	53,260	15,990	69,250	192,188	91,240	352,678	0.13	1,009,660
14-Oct-22	55,228	14,330	69,558	190,885	96,792	357,235	0.23	1,786,322
15-Oct-22	0	0	0	0	0	0	0.96	7,455,951
16-Oct-22	0	0	0	0	0	0	0.02	155,332
17-Oct-22	147,320	43,246	190,566	517,146	257,152	964,864	0.00	0
18-Oct-22	46,840	10,872	57,712	154,716	78,776	291,204	0.02	155,332
19-Oct-22	48,660	12,954	61,614	163,173	83,608	308,395	0.00	0
20-Oct-22	38,908	7,920	46,828	145,757	74,816	267,401	0.00	0
21-Oct-22	50,400	15,484	65,884	160,626	87,768	314,278	0.00	0
22-Oct-22	0	0	0	0	0	0	0.00	0
23-Oct-22	0	0	0	0	0	0	0.00	0
24-Oct-22	127,340	33,696	161,036	425,076	237,688	823,800	0.00	0
25-Oct-22	42,744	11,642	54,386	134,219	71,704	260,309	0.00	0
26-Oct-22	43,472	10,406	53,878	133,945	76,904	264,727	0.00	0
27-Oct-22	46,080	10,528	56,608	143,139	76,552	276,299	0.00	0
28-Oct-22	37,440	8,668	46,108	114,718	67,664	228,490	0.00	0
29-Oct-22	0	0	0	0	0	0	0.00	0
30-Oct-22	0	0	0	0	0	0	0.00	0
31-Oct-22	123,296	30,076	0	395,544	227,933	623,477	0.00	0
TOTAL	1,609,168	281,976	1,737,772	6,704,721	2,763,541	11,206,034	1.65	12,814,916
Leachate Pumped as Percentage of Rainfall			38.0%	126.8%	93.4%			

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

MONTH	B STAGE I LEACHATE (gallons)	C STAGE II LEACHATE (gallons)	D STAGE III LEACHATE (gallons)	E TOTAL LEACHATE (gallons)	F RAINFALL (inches)	G RAINFALL (gallons)	H STAGE I LEACHATE/ RAINFALL (%)	I STAGE II LEACHATE/ RAINFALL (%)	J 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									
DECEMBER									
TOTAL	9,826,486	33,893,207	12,211,101	55,691,683	56.69	440,289,461	6.3%	21.6%	7.8%

Notes:

- (B) Total leachate pumped from Stage I.
- (C) Total leachate pumped from Stage II
- (D) Total leachate pumped from Stage III
- (E) Total leachate (Column B+C+D) pumped to WWTP storage tank.
- (F) Total rainfall in inches.
- (G) Total rainfall in gallons (Stage I, II, and III Open Area of 286-acres x Rainfall)
- (H) Stage I leachate as a percentage of rainfall.
- (I) Stage II leachate pumped as a percentage of rainfall.
- (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		
	10/1/22							
10/2/22								
10/3/22	52308064	19094818	89393944	70559	34.58	32.36	#4 RESTART	DKK
10/4/22	52382688	19075382	89512620	387961	34.50	32.20	OK	DKK
10/5/22	52446320	19076552	89601280	624678	34.49	32.18	OK	DKK
10/6/22	52520864	19078018	89715128	896487	34.49	32.08	OK	DKK
10/7/22	52577576	19079092	89907120	1105591	34.49	32.00	OK	DKK
10/8/22								
10/9/22								
10/10/22	52761048	19082646	90099456	1762024	34.48	31.75	OK	DKK
10/11/22	52818320	19116428	90199096	1976918	34.48	31.69	OK	DKK
10/12/22	52859996	19130076	90273208	2134001	34.49	31.59	OK	DKK
10/13/22	52913256	19146066	90364498	2326189	34.49	31.58	OK	DKK
10/14/22	52968484	19160596	90461240	2517074	34.49	31.49	OK	DKK
10/15/22								
10/16/22								
10/17/22	5315804	19203642	9078392	3034220	34.50	31.90	OK	DKK
10/18/22	53162644	19214514	90797168	3188936	34.50	31.85	OK	DKK
10/19/22	53211304	19227468	90880776	3352109	34.50	31.73	OK	DKK
10/20/22	53250212	19235388	90955592	3497866	34.50	31.65	OK	DKK
10/21/22	53300612	19250872	91043360	3658492	34.50	31.52	OK	DKK
10/22/22								
10/23/22								
10/24/22	53427952	19284568	91281048	4083568	34.50	31.25	OK	DKK
10/25/22	53470696	19296210	91352752	4217787	34.50	31.20	OK	DKK
10/26/22	53514168	19306616	91429656	4351732	34.48	31.17	OK	DKK
10/27/22	53560248	19317144	91506208	4494871	34.48	31.12	OK	DKK
10/28/22	53597688	19325912	91573872	4609589	34.45	31.10	OK	DKK
10/29/22								
10/30/22								
10/31/22	53720984	19355888	91801805	5005133	34.50	30.72	OK	DKK

Landfill

LANDFILL SHEET			LAKE LEVEL DATA IN FEET NGVD	
2022 Oct	RAIN FALL	LEACHATE MGD	SOUTH (86 ACRE)	EAST (63 ACRE)
1	0.00	0.867	18.80	40.80
2	0.00	0.503	18.80	40.80
3	0.00	0.443	18.80	40.80
4	0.00	0.402	18.80	40.80
5	0.00	0.366	18.80	40.80
6	0.00	0.343	18.80	40.80
7	0.00	0.329	18.80	40.80
8	0.00	0.318	18.80	40.80
9	0.00	0.306	18.80	40.80
10	0.28	0.313	18.80	40.80
11	0.01	0.289	18.80	40.80
12	0.00	0.280	18.80	40.80
13	0.13	0.273	18.80	40.80
14	0.23	0.258	18.80	40.80
15	0.96	0.249	18.80	40.80
16	0.02	0.250	18.80	40.80
17	0.00	0.247	18.80	40.80
18	0.02	0.235	18.80	40.80
19	0.00	0.224	18.80	40.80
20	0.00	0.223	18.80	40.80
21	0.00	0.217	18.80	40.80
22	0.00	0.215	18.80	40.80
23	0.00	0.206	18.80	40.80
24	0.00	0.206	18.80	40.80
25	0.00	0.207	18.80	40.80
26	0.00	0.207	18.80	40.80
27	0.00	0.200	18.80	40.80
28	0.00	0.192	18.80	40.80
29	0.00	0.191	18.80	40.80
30	0.00	0.193	18.80	40.80
31	0.00	0.184	18.80	40.80
TOTAL	1.65	8.936		
AVG		0.288		
MIN				
MAX	0.96	0.867		

Fax # 9-708-5668

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: October 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	25.97	<i>inward</i>	GW-3	39.40	33.76
P-4	40.78	22.44	<i>inward</i>	GW-4	40.53	32.92
P-5	40.73	21.48	<i>inward</i>	GW-5	39.90	32.25
P-6	40.74	20.09	<i>inward</i>	GW-6	38.95	31.51
P-7	40.60	19.31	<i>inward</i>	GW-7	39.49	29.47
P-8	40.21	19.18	<i>inward</i>	GW-8	39.75	28.65
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	27.31	<i>inward</i>	GW-10	38.34	29.11
P-11	40.52	22.65	<i>inward</i>	GW-11	38.26	30.97
P-12	43.28	29.80	<i>inward</i>	GW-12	42.09	33.39
P-13	44.78	30.94	<i>inward</i>	GW-13	44.79	34.56
P-14	45.09	29.39	<i>inward</i>	GW-14	39.63	34.77
P-15	45.57	30.55	<i>inward</i>	GW-15	42.33	33.43
P-16	44.67	31.07	<i>inward</i>	GW-16	44.41	31.71
P-17	44.28	30.24	<i>inward</i>	GW-17	42.19	34.59
P-18	43.16	24.47	<i>inward</i>	GW-18	41.76	33.16
P-19	42.91	23.29	<i>inward</i>	GW-19	41.20	32.52
P-20	42.54	26.14	<i>inward</i>	GW-20	41.00	30.93
P-21	42.23	25.34	<i>inward</i>	GW-21	40.94	29.05
P-22	42.06	24.10	<i>inward</i>	GW-22	41.53	28.44
P-23	42.08	22.59	<i>inward</i>	GW-23	40.91	30.65
P-24	42.03	20.19	<i>inward</i>	GW-24	41.37	30.51
P-25	42.16	19.28	<i>inward</i>	GW-25	41.11	31.76
P-26	42.50	19.29	<i>inward</i>	GW-26	41.44	32.91
P-27R	42.73	19.68	<i>inward</i>	GW-27R	40.90	32.94

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: 10/26/2022