

# 2015 Leachate Quantity Analysis Report Tomoka Farms Road Landfill Class I North Cell

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Presented To:  
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The following report is provided to satisfy Section 2 – Specific Conditions, (C) (12) (g) of the permit to operate the Tomoka Farms Road Landfill, North Cell Class I disposal area. Permit Number 0078767-030-SO-01.

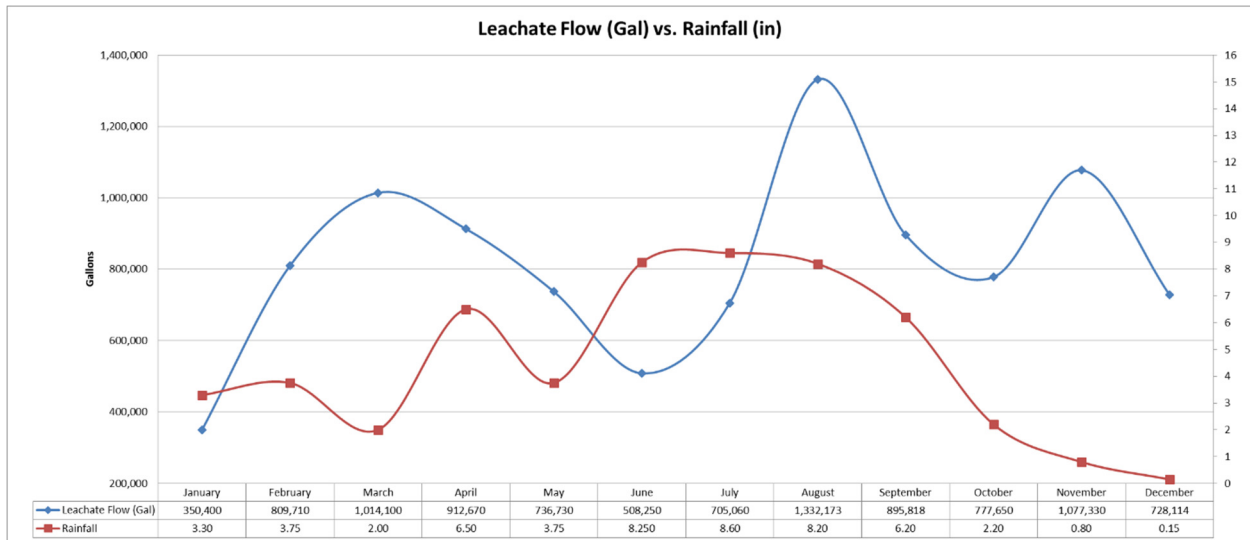
*g. Leachate Quantity Analysis Report. The permittee shall annually provide the Department a graphical representation of the monthly leachate generation rate for each of the 6 pumps and an analysis of the data. Any significant drop in leachate generation shall be explained or the root cause determined. The report must be submitted not later than January 31 following the reporting year.*

### Summary and Analysis

The leachate generation rates for the North Cell of the Tomoka Farms Road Landfill and the leachate collection system are monitored on a daily basis with flows recorded weekly. Daily inspections consists of a visual inspection looking for any alarm lights, physical damage to the panel or riser, and check the liquid level insuring that the readings are within the set parameters. If any damage is noticed or the system is not operating properly, troubleshooting and repairs are initiated. If the riser will be down for greater than 24 hours for repairs, a temporary pump is set up and leachate is pumped to the closest riser or cleanout.

Weekly readings are gathered in the field, then entered into a spreadsheet, tracked throughout the year, compared to the recent rainfall, and analyzed. If the analysis shows an unusual rise or drop in leachate generation as compared to the rainfall for that period, troubleshooting and subsequent repairs to the system are made and documented. Rainfall is recorded daily directly adjacent to the North Cell at the leachate treatment facility. During the reporting period, January 2015 through December 2015, the leachate generation rates tracked closely with the rainfall trending up with an increase in rain and trending down with a decrease in rainfall. Figure 1 is provided as a graphical representation of leachate generation rates vs. rainfall for the period of January 2015 through December 2015.

**Figure 1 (Leachate Flow vs. Rainfall)**



**Table 1 (monthly leachate flow)**

2015 Leachate Collection Riser Sumps Tomoka Landfill Class I																
Month	Riser 1		Riser 2		Riser 3		Riser 4		Riser 5		Riser 6		Riser 7		Total	
	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow	Hours	Flow
January	9.52	28,500	0	0	0	0	11.3	129,690	8.7	152,030	4.9	40,180	0	0	34.42	350,400
February	36.57	339,800	0	0	0	0	14.3	167,000	14	240,340	34.2	62,570	0	0	99.07	809,710
March	87.85	77,390	11	130,000	51	408,700	8.7	94,120	22.4	263,960	0	39,930	0	0	180.95	1,014,100
April	10.29	60,000	9	82,200	44	340,100	9.2	110,520	21.1	266,680	6.3	53,170	0	0	99.89	912,670
May	7.38	40,610	7	59,600	29	242,400	8	99,360	18.3	246,610	6.4	48,150	0	0	76.08	736,730
June	25.6	25,800	10	54,800	27	198,600	17.6	97,230	21.9	82,320	6.2	49,500	0	0	108.3	508,250
July	1.27	7,320	7	61,500	39	252,800	10.4	91,920	23.5	241,380	6.8	50,140	0	0	87.97	705,060
August	19.74	30,510	15.75	116,325	113.25	492,900	12.6	211,793	29.1	396,900	9.82	83,745	0	0	200	1,332,173
September	8.26	23,370	5.3	81,075	46.75	238,900	9.7	143,158	20.3	255,000	6	154,315	0	0	96	895,818
October	3.23	26,000	7	68,400	36	288,500	9.1	115,650	20.5	227,800	5.6	51,300	0	0	81	777,650
November	2.62	29,250	7	62,900	20	310,300	9.3	109,830	22.1	260,350	6.2	49,300	44	255,400	111	1,077,330
December	2.86	24,350	5	45,200	12	147,600	6.5	80,714	15.3	228,950	4.5	38,500	25	162,800	71	728,114
Total Annual Flow Per Riser		712,900		762,000		2,920,800		1,450,984		2,862,320		720,800		418,200		

**\*Zero flow at Riser 2 & 3 for January & February was due the sump riser replacement project Riser 7 put online in November**

### Riser Two & Three Sump Replacement Project.

As part of ongoing efforts to improve the leachate collection system and to satisfy Section 2 – Specific Conditions, (C) (12) (f) of the permit to operate the Tomoka Farms Road Landfill, North Cell Class I disposal area, Permit Number 0078767-030-SO-01. The sumps for Riser’s Two and Three were replaced.

*f. Leachate Collection and Detection System Repairs. As described in reference 1, APPENDIX 2, retrofits of leachate sumps 1, 4, 5, and 6 have been completed. Retrofits of sumps 2 and 3 shall be completed within 12 months from the date this permit is issued. If it appears that the project will take longer than 12 months, the permittee must provide the Department advance written notice of the cause for the delay and request an extension for completion of the project.*

The project which commenced in August 2014 was completed in February 2015. The County began tracking flow from these risers in March 2015 as shown in Table 1.

### North Cell Phase II Area 3 Expansion

The North Cell Phase II Area 3 expansion project was completed on November 6, 2015 and the County was subsequently given Approval to place waste in the cell on November 17, 2015. With this expansion Leachate Collection Riser 7 was constructed and placed into service. As of the date of this report no waste has been placed in the cell. All of the flow associated with this riser for November and December of 2015 is due to stormwater accumulation within the cell. It is anticipated that the County will begin placing waste in the cell in January 2016.