

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***MONITORING AND RESEARCH  
DEPARTMENT***

*REPORT NO. 18-03*

*LAWNDALE AVENUE SOLIDS MANAGEMENT AREA*

*MONITORING REPORT FOR*

*FOURTH QUARTER 2017*

*February 2018*

## Protecting Our Water Environment



### Metropolitan Water Reclamation District of Greater Chicago

CECIL LUE-HING RESEARCH AND DEVELOPMENT COMPLEX  
6001 WEST PERSHING ROAD      CICERO, ILLINOIS      60804-4112

**Edward W. Podczerwinski, P.E.**  
Director of Monitoring and Research

#### BOARD OF COMMISSIONERS

Mariyana T. Spyropoulos  
*President*  
Barbara J. McGowan  
*Vice President*  
Frank Avila  
*Chairman of Finance*  
Timothy Bradford  
Martin J. Durkan  
Josina Morita  
Debra Shore  
Kari K. Steele  
David J. Walsh

February 16, 2018

Mr. Roger Callaway  
Illinois Environmental Protection Agency  
Bureau of Water  
DWPC Compliance Section #19  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9274

Dear Mr. Callaway:

Subject: Lawndale Avenue Solids Management Area - Stickney Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2015-AO-59623, Monitoring Report for October, November, and December 2017

The attached tables contain the monitoring data for the Lawndale Avenue Solids Management Area for October, November, and December 2017 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2015-AO-59623. Biosolids were placed in the solids drying area during October, November, and December 2017.

Table 1 Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on November 15, 2017.

Table 2 Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on November 15, 2017.

Table 3 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During October 2017.

Table 4 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During November 2017.

Mr. Roger Callaway

2

February 16, 2017

Subject: Lawndale Avenue Solids Management Area - Stickney Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2015-AO-59623, Monitoring Report for October, November, and December 2017

Table 5 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During December 2017.

Very truly yours,

Albert E. Cox  
Environmental Monitoring and Research Manager  
Monitoring and Research Department

AC:DB:cm

Attachments

cc/att: Mr. J. Patel, IEPA

Records Unit, IEPA

Mr. E. Podczerwinski

Dr. H. Zhang

Dr. G. Tian

Dr. D. Brose

**Metropolitan Water Reclamation District of Greater Chicago**  
*100 East Erie Street Chicago, Illinois 60611-2803 312-751-5600*

**LAWNDALE AVENUE SOLIDS MANAGEMENT AREA  
MONITORING REPORT FOR  
FOURTH QUARTER 2017**

**Monitoring and Research Department**  
**Edward W. Podczewinski, Director**

**February 2018**

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15  
 AT THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA  
 SAMPLED ON NOVEMBER 15, 2017

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH <sup>1</sup>	6.8	7.3	7.5	7.4	7.0
	----- mg L <sup>-1</sup> -----				
Cl <sup>-</sup>	20	15	10	10	9.0
SO <sub>4</sub> <sup>2-</sup>	210	369	648	133	858
NO <sub>2</sub> +NO <sub>3</sub> -N	<0.15	<0.15	<0.15	<0.15	<0.15

<sup>1</sup>pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-9N  
 AT THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA  
 SAMPLED ON NOVEMBER 15, 2017

Parameter	Lysimeter No.							
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-8N	L-9N
pH <sup>1</sup>	7.5	7.6	7.5	7.7	7.7	7.3	7.9	7.5
	----- mg L <sup>-1</sup> -----							
Cl <sup>-</sup>	14	127	136	24	200	74	161	6.0
SO <sub>4</sub> <sup>2-</sup>	737	124	90	1,442	1,705	1,389	185	202
NO <sub>2</sub> +NO <sub>3</sub> -N	<0.15	0.85	0.38	1.2	0.81	0.28	0.85	<0.15

<sup>1</sup>pH analyzed beyond recommended holding time of five minutes.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE  
LAWNDALE AVENUE SOLIDS MANAGEMENT DRYING  
AREA DURING OCTOBER 2017

Parameter	Analysis <sup>1</sup>
pH	7.3
	---- % ----
Total Solids	8.1
Total Volatile Solids <sup>2</sup>	48

<sup>1</sup>Mean of five samples.

<sup>2</sup>Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE  
LAWNDALE AVENUE SOLIDS MANAGEMENT DRYING  
AREA DURING NOVEMBER 2017

Parameter	Analysis <sup>1</sup>
pH	7.4
	---- % ----
Total Solids	17
Total Volatile Solids <sup>2</sup>	48

<sup>1</sup>Mean of eight samples.

<sup>2</sup>Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF BIOSOLIDS PLACED IN THE  
LAWNDALE AVENUE SOLIDS MANAGEMENT DRYING  
AREA DURING DECEMBER 2017

Parameter	Analysis <sup>1</sup>
pH	7.5
	---- % ----
Total Solids	18
Total Volatile Solids <sup>2</sup>	44

<sup>1</sup>Mean of two samples.

<sup>2</sup>Total volatile solids as a percentage of total solids.