

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 17-48

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

THIRD QUARTER 2017

November 2017

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

Metropolitan Water Reclamation District of Greater Chicago

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

Edward W. Podczewinski, P.E.

Director of Monitoring and Research

November 16, 2017

Mr. S. Alan Keller, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794 - 9276

Dear Mr. Keller:

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

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

- Table 1 Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on August 17, 2017.
- Table 2 Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on August 16, 2017.
- Table 3 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During July 2017.
- Table 4 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During August 2017.
- Table 5 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During September 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. Podczewinski
Drs. H. Zhang/G. Tian/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
THIRD QUARTER 2017**

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

November 2017

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15
 AT THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON AUGUST 17, 2017

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH ¹	7.3	7.6	7.5	7.6	7.5
	----- mg L ⁻¹ -----				
Cl ⁻	23	14	12	8.0	10
SO ₄ ²⁻	199	356	621	788	131
NO ₂ +NO ₃ -N	<0.15	<0.15	<0.15	<0.15	<0.15

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-9N
 AT THE LAWDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON AUGUST 16, 2017

Parameter	Lysimeter No.							
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-8N	L-9N
pH ¹	7.9	7.9	7.8	7.8	7.9	7.7	8.0	7.8
	----- mg L ⁻¹ -----							
Cl ⁻	14	158	137	15	587	72	491	359
SO ₄ ²⁻	701	171	82	1,044	1,500	1,323	165	202
NO ₂ +NO ₃ -N	0.15	5.5	0.41	0.82	0.70	0.34	0.52	<0.15

¹pH analyzed beyond recommended holding time of five minutes.

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

Parameter	Analysis ¹
pH	7.3
Total Solids	10
Total Volatile Solids ²	45

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.

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

Parameter	Analysis ¹
pH	7.6
Total Solids	---- % ----
Total Volatile Solids ²	11
	45

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.

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

Parameter	Analysis ¹
pH	7.2
Total Solids	---- % ----
Total Volatile Solids ²	44

¹Mean of nine samples.

²Total volatile solids as a percentage of total solids.