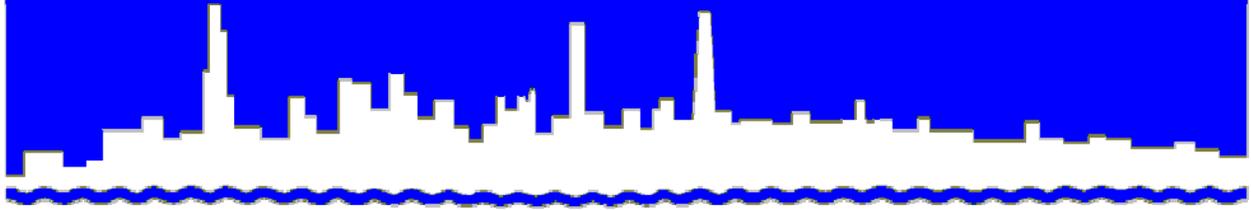


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 17-08

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FOURTH QUARTER 2016

FEBRUARY 2017

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 2016

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

February 24, 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 October, November, and December 2016

The attached tables contain the monitoring data for the Lawndale Avenue Solids Management Area for October, November, and December 2016 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2015-AO-59623. Biosolids were placed in the solids drying area during October and November 2016.

Table 1 Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on October 19, 2016.

Table 2 Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on December 12, 2016.

Table 3 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During October 2016.

Table 4 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During November 2016.

Very truly yours,

Albert E. Cox, Ph.D.
Environmental Monitoring and Research Manager
Monitoring and Research Department

AC:DB:cm

Attachment

cc/att: Mr. J. Patel, IEPA/Records Unit, IEPA
Dr. T. Granato/Mr. E. Podczewinski
Dr. H. Zhang/Dr. G. Tian/Dr. D. Brose

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15
 AT THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON OCTOBER 19, 2016

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH ¹	7.4	7.4	7.6	7.5	7.3
	----- mg L ⁻¹ -----				
Cl ⁻	24	15	13	10	14
SO ₄ ²⁻	182	341	597	119	791
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 LAWNDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON DECEMBER 12, 2016

Parameter	Lysimeter No.								
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-7N	L-8N	L-9N
pH ¹	7.5	7.6	7.4	7.4	7.3	7.2	8.1	7.7	7.4
	----- mg L ⁻¹ -----								
Cl ⁻	14	109	117	18	639	<5.0	210	528	345
SO ₄ ²⁻	705	171	108	1,275	1,538	1,355	6.6	187	193
NO ₂ +NO ₃ -N	<0.15	2.8	0.35	1.6	0.66	0.28	0.25	0.21	0.28

¹pH analyzed beyond recommended holding time of five minutes.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNSDALE
AVENUE SOLIDS MANAGEMENT AREA
DURING OCTOBER 2016

Parameter	Analysis ¹
pH	7.5
	---- % ----
Total Solids	10
Total Volatile Solids ²	54

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA DURING NOVEMBER 2016

Parameter	Analysis ¹
pH	7.3
	---- % ----
Total Solids	24
Total Volatile Solids ²	42

¹Mean of five samples.

²Total volatile solids as a percentage of total solids.