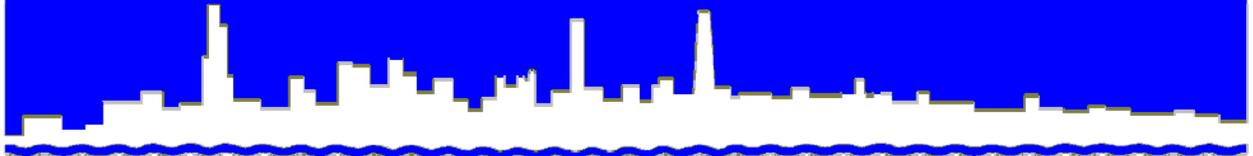


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 16-14

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FIRST QUARTER 2016

May 2016

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THOMAS C. GRANATO, Ph.D., BCES

Director of Monitoring and Research

May 20, 2016

thomas.granato@mwrdd.org

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 January, February, and March 2016

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

- Table 1 Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on January 20, 2016.
- Table 2 Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on March 16, 2016.
- Table 3 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During January 2016.
- Table 4 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During February 2016.
- Table 5 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During March 2016.

Very truly yours,

Thomas C. Granato, Ph.D., BCES
Director
Monitoring and Research

TCG: HZ:DB:cm

Attachments

cc/att: Mr. J. Patel, IEPA/Records Unit, IEPA
Drs. H. Zhang/A. Cox/L. Hundal/D. Brose

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15
 AT THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON JANUARY 20, 2016

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH ¹	6.7	7.2	7.3	7.3	7.1
	----- mg L ⁻¹ -----				
Cl ⁻	20	14	10	<10	<10
SO ₄ ²⁻	217	375	661	135	904
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 LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON MARCH 16, 2016

Parameter	Lysimeter No.								
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-7N	L-8N	L-9N
pH ¹	NRR ¹	NRR	NRR	NRR	NRR	NRR	NRR	NRR	NRR
	----- mg L ⁻¹ -----								
Cl ⁻	14	198	127	21	645	73	601	575	329
SO ₄ ²⁻	732	221	128	1,419	1,681	1,430	<5.0	208	203
NO ₂ +NO ₃ -N	<0.15	1.7	0.26	3.5	0.28	<0.15	0.28	0.39	0.20

¹NRR=no reportable results. No thermal preservation in analytical laboratory due to cooler breakdown.

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

Parameter	Analysis ¹
pH	7.9
	---- % ----
Total Solids	24
Total Volatile Solids ²	58

¹Mean of 2 samples.

²Total volatile solids as a percentage of total solids.

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

Parameter	Analysis ¹
pH	8.1
	---- % ----
Total Solids	27
Total Volatile Solids ²	60

¹Mean of 2 samples.

²Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA DURING MARCH 2016

Parameter	Analysis ¹
pH	7.7
	---- % ----
Total Solids	19
Total Volatile Solids ²	52

¹Mean of 3 samples.

²Total volatile solids as a percentage of total solids.