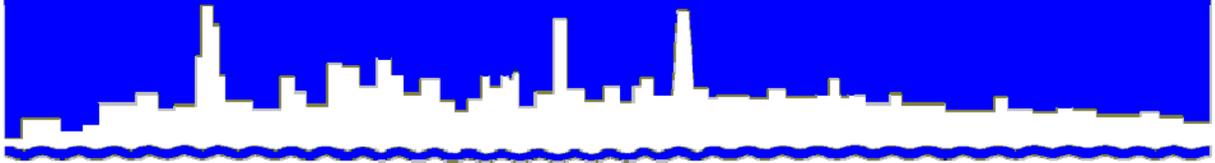


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 16-10

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FOURTH QUARTER 2015

February 2016

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THOMAS C. GRANATO, Ph.D., BCES

Director of Monitoring and Research

February 23, 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 October, November, and December 2015

The attached tables contain the monitoring data for the Lawndale Avenue Solids Management Area for October, November, and December 2015 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 2015.

- Table 1 Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on October 13, 2015.
- Table 2 Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on November 18, 2015.
- Table 3 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During October 2015.
- Table 4 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During November 2015.
- Table 5 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Drying Area During December 2015.

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 LAWNDALE AVENUE SOLIDS MANAGEMENT AREA
 SAMPLED ON OCTOBER 13, 2015

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH ¹	7.0	6.7	6.7	7.0	6.9
	----- mg L ⁻¹ -----				
Cl ⁻	17	14	12	<10	<10
SO ₄ ²⁻	209	375	659	146	876
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 NOVEMBER 18, 2015

Parameter	Lysimeter No.								
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-7N	L-8N	L-9N
pH ¹	7.8	7.7	7.4	7.5	7.5	7.3	8.0	7.9	7.7
	----- mg L ⁻¹ -----								
Cl ⁻	20	246	131	23	693	73	622	573	343
SO ₄ ²⁻	769	310	265	1,283	1,687	1,583	19	209	203
NO ₂ +NO ₃ -N	<0.15	1.9	<0.15	0.46	0.29	<0.15	0.32	0.19	0.27

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNSDALE
AVENUE SOLIDS MANAGEMENT AREA
DURING OCTOBER 2015

Parameter	Analysis ¹
pH	7.6
	---- % ----
Total Solids	12
Total Volatile Solids ²	49

¹Mean of 21 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 2015

Parameter	Analysis ¹
pH	7.5
	---- % ----
Total Solids	16
Total Volatile Solids ²	46

¹Mean of 17 samples.

²Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNSDALE
 AVENUE SOLIDS MANAGEMENT AREA
 DURING DECEMBER 2015

Parameter	Analysis ¹
pH	7.3
	---- % ----
Total Solids	9.0
Total Volatile Solids ²	44

¹Mean of 10 samples.

²Total volatile solids as a percentage of total solids.