

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 23-08

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FOURTH QUARTER 2022

February 2023

Kari K. Steele
President
Kimberly Du Buclet
Vice President
Marcelino Garcia
Chairman of Finance
Yumeka Brown
Cameron Davis
Patricia Theresa Flynn
Daniel Pogorzelski
Eira L. Corral Sepúlveda
Mariyana T. Spyropoulos

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

February 2, 2023

Ms. Catherine Siders
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 Ms. Siders:

Subject: Lawndale Avenue Solids Management Area - Stickney Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2020-AO-64903, Monitoring Report for October, November, and December 2022

The attached tables contain the monitoring data for the Lawndale Avenue Solids Management Area for October, November, and December 2022, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2020-AO-64903. Biosolids were placed in the solids drying area in October, November, and December 2022.

Table 1: Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on November 9, 2022.

Table 2: Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on November 1, 2022.

Table 3: Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During October, November, and December 2022.

Very truly yours,



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

AC:lf

Attachment

cc: Mr. J. Patel, IEPA
Mr. T. Bennett, IEPA
Mr. B. Fleming, IEPA
Dr. H. Zhang

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 2022**

By

**Benjamin Morgan
Environmental Soil Scientist**

**Albert Cox
Environmental Monitoring and Research Manager**

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15
 AT THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON
 NOVEMBER 9, 2022

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH	7.3	7.5	7.5	7.6	7.3
	-----mg L ⁻¹ -----				
Cl ⁻	19	14	10	10	9
SO ₄ ²⁻	187	349	634	121	797
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.25	<0.25	<0.25	<0.25	<0.25

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-9N AT THE
LAWNDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON
NOVEMBER 1, 2022¹

Parameter	Lysimeter No.								
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-7N	L-8N	L-9N
pH	7.1	7.4	7.6	7.1	6.8	7.2	7.6	7.2	7.0
	-----mg L ⁻¹ -----								
Cl ⁻	18	170	139	19	520	81	375	488	341
SO ₄ ²⁻	822	148	47	1,418	1,585	1,431	1	146	157
NO ₂ ⁻ +NO ₃ ⁻ -N	0.47	2.3	0.87	1.2	1.3	0.66	0.84	0.55	0.39

¹Lysimeters L-1N and L-8N did not yield sufficient sample volume for analysis on November 1 and were resampled on November 10 (L-8N) and November 22 (L-1N).

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DURING OCTOBER, NOVEMBER, AND DECEMBER 2022

Parameter	October	November	December
pH	7.7	7.7	7.5
	-----%		
Total Solids	12.3	11.1	11.3
Total Volatile Solids ¹	41.5	43.6	42.6

¹Total volatile solids as a percentage of total solids.