

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 22-35

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

THIRD QUARTER 2022

November 2022

Kari K. Steele
President
Barbara J. McGowan
Vice President
Marcelino Garcia
Chairman of Finance
Cameron Davis
Kimberly Du Buclet
Josina Morita
Chakena D. Perry
Eira L. Corral Sepúlveda
Mariyana T. Spyropoulos

Metropolitan Water Reclamation District of Greater Chicago

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

Edward W. Podczewski, P.E.
Director of Monitoring and Research

November 22, 2022

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 July, August, and September 2022

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

Table 1: Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on August 3, 2022.

Table 2: Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on September 6, 2022.

Table 3: Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During July, August, and September 2022.

Very truly yours,



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

AC:BM: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

**LAWDALE AVENUE SOLIDS MANAGEMENT AREA
MONITORING REPORT FOR
THIRD 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
 AUGUST 3, 2022

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH	7.1	7.6	7.4	7.5	7.0
	-----mg L ⁻¹ -----				
Cl ⁻	24	15	10	10	9
SO ₄ ²⁻	203	366	665	129	832
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
SEPTEMBER 6, 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	7.1	7.0	6.8	6.9	6.5	8.1	7.1	6.7
	-----mg L ⁻¹ -----								
Cl ⁻	18	186	140	20	543	87	339	561	357
SO ₄ ²⁻	787	181	44	1,269	1,643	1,411	8	164	170
NO ₂ ⁻ +NO ₃ ⁻ -N	0.63	5.0	0.96	1.3	1.3	0.75	2.0	0.85	0.46

¹Lysimeters L-1N and L-7N did not yield sufficient sample volume for analysis on September 6, and were resampled on September 21 (L-7N) and September 28 (L-1N).

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA DURING JULY, AUGUST, AND SEPTEMBER 2022

Parameter	July	August	September
pH	7.6	7.7	7.7
	-----%-----		
Total Solids	12.7	12.1	12.7
Total Volatile Solids ¹	41.2	42.3	44.0

¹Total volatile solids as a percentage of total solids.