Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 22-28

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

SECOND QUARTER 2022

August 2022

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

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

August 9, 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 April, May, and June 2022

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

Table 1: Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on April 29, 2022.

Table 2: Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled on May 10, 2022.

Table 3: Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During May and June 2022.

Very truly yours,

Albert Cox

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

LAWNDALE AVENUE SOLIDS MANAGEMENT AREA MONITORING REPORT FOR SECOND QUARTER 2022

By

Benjamin Morgan
Environmental Soil Scientist

Albert Cox
Environmental Monitoring and Research Manager

Monitoring and Research Department
Edward W. Podczerwinski, Director **August 2022**

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15 AT THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON APRIL 29, 2022

Parameter	Monitoring Well No.				
	M-11	M-12	M-13	M-14	M-15
pH	7.3	7.7	7.5	7.5	7.1
	mg L^{-1}				
Cl^-	20	14	10	10	9
SO_4^{2-}	198	349	632	129	815
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 MAY 10, 2022

Parameter	Lysimeter No.								
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N	L-7N	L-8N	L-9N
pH	7.4	7.0	7.3	7.2	7.0	7.4	7.6	7.6	6.9
	mg L^{-1}								
Cl^-	18	232	139	19	536	84	398	528	340
SO_4^{2-}	759	136	47	1,190	1,529	1,284	16	283	169
$NO_2^-+NO_3^-$-N	0.77	7.5	1.1	2.9	1.1	1.1	1.6	0.92	<0.25

[1]Aliquots for SO_4^{2-} analyses collected on May 10, 2022, could not be analyzed because cold room temperature exceeded method requirements. The SO_4^{2-} analyses were conducted on samples collected on June 8, 2022, for lysimeters L-2N, L-3N, L-4N, L-5N, L-6N, L-7N, and L-9N, on June 22 for lysimeter L-1N, and on June 29 for lysimeter L-8N.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DURING MAY AND JUNE 2022

Parameter	May	June
pH	7.6	7.6
	%	
Total Solids	8.6	10.2
Total Volatile Solids[1]	45.0	44.8

[1]Total volatile solids as a percentage of total solids.