
# MONITORING AND RESEARCH DEPARTMENT

***REPORT NO. 20-31***

***LAWNDALE AVENUE SOLIDS MANAGEMENT AREA***

***MONITORING REPORT FOR***

***THIRD QUARTER 2020***

***November 2020***

*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
# THIRD QUARTER 2020

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

**November 2020**

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

CECIL LUE-HING RESEARCH AND DEVELOPMENT COMPLEX
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**Edward W. Podczerwinski, P.E.**
Director of Monitoring and Research



November 12, 2020

Mr. Jim Miles
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 Mr. Miles:

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 2020

The attached tables contain the monitoring data for the Lawndale Avenue Solids Management Area for July, August, and September 2020 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.

Table 1 Analysis of Water from Monitoring Wells M-11 through M-15 at the Lawndale Avenue Solids Management Area Sampled on August 24, 2020.

Table 2 Analysis of Water from Lysimeters L-1N through L-9N at the Lawndale Avenue Solids Management Area Sampled in August 2020.

Table 3 Analysis of Biosolids Placed in the Lawndale Avenue Solids Management Area During July, August, and September 2020.

Very truly yours,

Albert E. Cox
Environmental Monitoring and Research Manager
Monitoring and Research Department

AC:BM:cm
Attachments
cc/att: Mr. J. Patel, IEPA/C. Siders, IEPA
Dr. H. Zhang

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS M-11 THROUGH M-15 AT THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 24, 2020

| Parameter | Monitoring Well No. | | | | |
|---|---|---|---|---|---|
| | M-11 | M-12 | M-13 | M-14 | M-15 |
| pH | 7.1 | 7.5 | 7.4 | 7.6 | 7.2 |
| | ---------- mg $L^{-1}$ ---------- | | | | |
| $Cl^-$ | 27 | 14 | 9 | 9 | 9 |
| $SO_4^{2-}$ | 204 | 350 | 624 | 837 | 824 |
| $NO_2^-$+$NO_3^-$0N | <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 IN AUGUST[1] 2020

| Parameter | Lysimeter No. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | L-1N | L-2N | L-3N | L-4N | L-5N | L-6N | L-7N | L-8N | L-9N |
| pH | 7.4 | 7.3 | 6.8 | 7.1 | 7.0 | 6.8 | 6.8 | 7.8 | 6.8 |
| | ---------- mg $L^{-1}$ ---------- | | | | | | | | |
| $Cl^-$ | 18 | 150 | 145 | 23 | 574 | 83 | 351 | 395 | 377 |
| $SO_4^{2-}$ | 775 | 198 | 56 | 1,443 | 1,585 | 1,370 | 135 | 140 | 191 |
| $NO_2^-+NO_3^-$-N | 0.30 | 3.17 | 0.76 | 0.43 | 1.01 | 0.54 | 2.05 | 0.63 | 0.66 |

[1]Lysimeters were sampled on August 4, 2020 except L-1N and L-8N, sampled on August 7. Lysimeters, except L-1N and L-8N, were re-sampled on September 30, 2020 for $SO_4$ analyses, as the results of the August sampling were canceled by the analytical lab due to cold room-temperature reading above the acceptable range.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DURING JULY, AUGUST, AND SEPTEMBER 2020

| Parameter | July | August | September |
|---|---|---|---|
| pH | 7.6 | 7.6 | 7.8 |
| | ---------- % ---------- | | |
| Total Solids | 11.2 | 10.7 | 12.8 |
| Total Volatile Solids[1] | 46.1 | 45.6 | 47.1 |

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