

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 24-10

HANOVER PARK WATER RECLAMATION PLANT

FISCHER FARM MONITORING REPORT

FOR FIRST QUARTER 2024:

SPECIAL CONDITION 2

May 2024

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

May 1, 2024

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: Hanover Park Water Reclamation Plant - Illinois Environmental Protection Agency
Permit No. 2022-SC-66896, Special Condition 2 Monitoring Report for January,
February, and March 2024

The attached table contains the monitoring data for the Hanover Park Water Reclamation Plant (WRP) Fischer Farm site for January, February, and March 2024, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2022-SC-66896, Special Condition 2. Analytical data for well water samples collected during the quarter are presented in Table 1.

Based on the investigation of historical high levels of ammonia nitrogen (NH₃-N) plus nitrite+nitrate nitrogen (NO₂+NO₃-N) in Well 7 during past monitoring, it appears that the source of these high levels is seepage from adjacent lagoons and subsurface drainage associated with supernatant application, both of which have high NH₃-N levels. Since implementing management practices to reduce the loading in adjacent lagoons and stop all applications of supernatant and biosolids in the closest farm field (Field 7), NH₃-N plus NO₂+NO₃-N in Well 7 has shown a decreasing trend, but with some significant fluctuation. We will continue to implement these practices and evaluate this trend.

The data reported are as follows:

Table 1 Analysis of Water From Monitoring Wells W-5, W-6, W-7, and W-8 at the Hanover Park Fischer Farm Site Sampled in March 2024.

Figure 1 Map of Fields and Wells at the Hanover Park Fischer Farm Site of the Metropolitan Water Reclamation District of Greater Chicago.

Very truly yours,

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

AC:lf
Attachment
Mr. T. Bennett, IEPA/Mr. B. Fleming, IEPA
Mr. K. Middleton, USEPA, Region 5
Mr. J. Chavich/Mr. B. Kaunelis
Mr. P. Desai/Dr. H. Zhang

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**Hanover Park Water Reclamation Plant
Fischer Farm Monitoring Report
for First Quarter 2024:
Special Condition 2**

By

**Benjamin Morgan
Environmental Soil Scientist**

**Albert Cox
Environmental Monitoring and Research Manager**

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS W-5, W-6, W-7, AND W-8 AT THE HANOVER PARK FISCHER FARM SITE SAMPLED IN MARCH 2024¹

	Unit	W-5	W-6	W-7	W-8
pH ²		8.0	8.0	8.1	8.4
EC	mS m ⁻¹	74	78	81	55
Cl ⁻	mg L ⁻¹	18	24	45	10
SO ₄ ²⁻	"	97	115	154	54
Alkalinity as CaCO ₃	"	302	297	146	251
TKN	"	1.34	<1.00	2.57	<1.00
NH ₃ -N	"	<0.30	<0.30	<0.30	0.41
NO ₂ ⁻ +NO ₃ ⁻ -N	"	<0.500	<0.500	17.4	<0.500
Total P	"	<0.15	<0.15	0.41	<0.15
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.004	<0.004	0.009	<0.004
Cu	"	0.006	0.023	0.029	0.023
Fe	"	1.50	6.14	20.0	2.90
Mn	"	0.014	0.060	0.858	0.020
Ni	"	<0.002	<0.002	0.020	<0.002
Zn	"	<0.010	<0.010	0.249	<0.010

¹Sampled on March 19, 2024.

²pH was measured beyond 15-minute holding time.

FIGURE 1: MAP OF FIELDS AND WELLS AT THE HANOVER PARK FISCHER FARM SITE OF THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

