

### Metropolitan Water Reclamation District of Greater Chicago

## MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 23-03

HANOVER PARK WATER RECLAMATION PLANT

FISCHER FARM MONITORING REPORT

FOR FOURTH QUARTER 2022:

SPECIAL CONDITION 4

January 2023

Metropolitan Water Reclamation Dis 100 East Erie Street Chicago, Illinois 60	strict of Greater Chicago 0611-2803 (312) 751-5600
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HANOVER PARK WATER RECI FISCHER FARM MONITO	RING REPORT
FOR FOURTH QUAR'SPECIAL CONDIT	
Monitoring and Research Department Edward W. Podczerwinski, Director	January 2023

# Protecting Our Water Environment

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

January 18, 2023

**BOARD OF COMMISSIONERS** 

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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 4 Monitoring Report for October,

November, and December 2022–Discharge Monitoring Report (DMR)

This Discharge Monitoring Report (DMR) is to report analyses of biosolids applied to the Hanover Park Water Reclamation Plant (WRP) Fischer Farm site for October, November, and December 2022, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2022-SC-66896, Special Condition 4. We are currently unable to submit this report to the NetDMR system as directed in Special Condition 4, as this permit number is not yet available in the NetDMR system per communication with IEPA staff.

The attached DMR presents analytical data for lagoon supernatant applied to Hanover Park WRP Fischer Farm fields during October 2022 (pages 1-2) and for liquid biosolids applied to those fields during November 2022 (pages 3-4).

Very truly yours,

Albert Cox, Ph.D.

Environmental Monitoring and Research Manager Monitoring and Research Department

AC:lf

Attachment

cc: Mr. J. Patel, Manager, IEPA - Des Plaines

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

#### **Paperwork Reduction Act Notice**

Public reporting burden for this collection of information is estimated to vary from a range of 10 hours as an average per response for some minor facilities, to 110 hours as an average per response for some major facilities, with a weighted average for major and minor facilities of 18 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including strategies for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

#### **General Instructions**

- 1. If form has been partially completed by preprinting, disregard instructions directed at entry of that information already preprinted.
- 2. Enter "Permittee Name/Mailing Address (and facility name/location, if different)," "Permit Number," and "Discharge Number" where indicated. (A separate form is required for each discharge.)
- 3. Enter dates beginning and ending "Monitoring Period" covered by form where indicated.
- 4. Enter each "Parameter" as specified in monitoring requirements of permit.
- 5. Enter "Sample Measurement" data for each parameter under "Quantity" and "Quality" in units specified in permit. "Average" is normally arithmetic average (geometric average for bacterial parameters) of all sample measurements for each parameter obtained during "Monitoring Period"; "Maximum" and "Minimum" are normally extreme high and low measurements obtained during "Monitoring Period." (Note to municipals with secondary treatment requirement: Enter 30-day average of sample measurements under "Average," and enter maximum 7-day average of sample measurements obtained during monitoring period under "Maximum.")
- 6. Enter "Permit Requirement" for each parameter under "Quantity" and "Quality" as specified in permit.
- 7. Under "No Ex" enter number of sample measurements during monitoring period that exceed maximum (and/or minimum or 7-day average as appropriate) permit requirement for each parameter. If none, enter "0."
- 8. Enter "Frequency of Analysis" both as "Sample Measurement" (actual frequency of sampling and analysis used during monitoring period) and as "Permit Requirement" specified in permit. (e.g., Enter "Cont," for continuous monitoring, "1/7" for one day per week, "1/30" for one day per month, "1/90" for one day per quarter, etc.)
- 9. Enter "Sample Type" both as "Sample Measurement" (actual sample type used during monitoring period) and as "Permit Requirement," (e.g., Enter "Grab" for individual sample, "24HC" for 24-hour composite, "N/A" for continuous monitoring, etc.)
- 10. Where violations of permit requirements are reported, attach a brief explanation to describe cause and corrective actions taken, and reference each violation by date.
- 11. If "no discharge" occurs during monitoring period, enter "No Discharge" across form in place of data entry.
- 12. Enter "Name/Title of Principal Executive Officer" with "Signature of Principal Officer of Authorized Agent," "Telephone Number," and "Date" at bottom of form.
- 13. Mail signed Report to Office(s) by date(s) specified in permit. Retain copy for your records.
- 14. More detailed instructions for use of this *Discharge Monitoring Report (DMR)* form may be obtained from Office(s) specified in permit.

#### **Legal Notice**

This report is required by law (33 U.S.C. 1318; 40 C.F.R. 125.27). Failure to report or failure to report truthfully can result in civil penalties not to exceed \$10,000 per day of violation; or in criminal penalties not to exceed \$25,000 per day of violation, or by imprisonment for not more than one year, or by both.

EPA Form 3320-1 (Rev. 3/99)

#### Metropolitan Water Reclamation District

NAME of Greater Chicago

**ADDRESS** 100 East Erie Street Chicago, Illinois 60611

DISCHARGE MONIT	ORING REPO	ORT (	(DMR)
2022-SC-66896 Special Condition 4			
PERMIT NUMBER			DISC

QUANTITY OR LOADING

FROM

DISCHARGE NUMBER	

QUALITY OR CONCENTRATION 1

**FACILITY** Fischer Farm Site

Hanover Park Water Reclamation Plant

**LOCATION** 1220 Sycamore Avenue Hanover Park, Illinois 60133

MONITORING PERIOD									
YEAR	МО	DAY		YEAR	МО	DAY			
2022	10	01	то	2022	12	31			

#### **NOTE: Read instructions before**

NO.

FREQUENCY

SAMPLE

	QUALITY ON CONCENTRATION									-
/	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS	EX	OF ANALYSIS	TYP
SAMPLE				7.7	7.7	7.7			1	1WI
PERMIT REQUIREMENT				N/A	N/A	N/A			1 / 90	NS
SAMPLE				0.15	0.15	0.15	0/		1	1W
PERMIT REQUIREMENT				N/A	N/A	N/A	7 %		1 / 90	NS
SAMPLE				59.7	59.7	59.7	0,4		1	1W
PERMIT REQUIREMENT				N/A	N/A	N/A	<b>]</b> %		1 / 90	NS
SAMPLE				<5	<5	<5			1	1\
PERMIT REQUIREMENT				N/A	N/A	N/A	mg/L		1 / 90	NS
SAMPLE				777	777	777			1	1\
PERMIT REQUIREMENT				N/A	N/A	N/A	mg/L		1 / 90	NS
SAMPLE				709	709	709	ma/l		1	1\
PERMIT REQUIREMENT				N/A	N/A	N/A	T IIIg/L		1 / 90	NS
SAMPLE				74	74	74	ma/l		1	1W
PERMIT REQUIREMENT				N/A	N/A	N/A	T IIIg/L		1 / 90	NS
					111 + 1		TELEPHONE		DATI	E
	PERMIT REQUIREMENT SAMPLE	SAMPLE PERMIT REQUIREMENT	SAMPLE PERMIT REQUIREMENT  SAMPLE PERMIT REQUIREMENT	SAMPLE PERMIT REQUIREMENT  SAMPLE PERMIT REQUIREMENT	SAMPLE  PERMIT REQUIREMENT  Locatify under penalty of law that this document and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my direction or labeled the same and all attachments were prepared under my d	T.7   T.7   T.7	1.7.7   7.	7.7   7.7   7.7   7.7	T.77   T.77	No.   No.

Albert Cox

persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Aloen Cox 2023 01 18 708 588-4068 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT NUMBER AREA YEAR МО DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) 1 Pages 1 and 2 present analytical results for lagoon supernatant applied in October 2022.

<sup>2</sup>One-week composite: composite of lagoon supernatant applied on October 12-13, 2022.

<sup>3</sup>Sample type not specified. The permit requirement is to "analyze the sludge applied from the storage lagoons or digesters on a quarterly basis..."

OF 4

#### Form Approved OMB No. 2040-0004

#### Metropolitan Water Reclamation District

NAME of Greater Chicago

ADDRESS 100 East Erie Street Chicago, Illinois 60611

2022-SC-66896 Special Condition 4 PERMIT NUMBER

QUANTITY OR LOADING

FROM

**DISCHARGE NUMBER** 

QUALITY OR CONCENTRATION 1

Hanover Park Water Reclamation Plant FACILITY Fischer Farm Site

LOCATION 1220 Sycamore Avenue Hanover Park, Illinois 60133

MONITORING PERIOD									
YEAR	MO	DAY		YEAR	MO	DAY			
2022	10	01	то	2022	12	31			

**NOTE: Read instructions before** 

NO.

FREQUENCY

DADAMETED	\ \	/									I NO.	NO.   OF		SAIVIPLE
PARAMETER			AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMU	ІМ	UNITS	EX	ANALY		TYPE
Cadmium	SAM	PLE				<0.002	<0.002	<0.002				1	1	lWkC <sup>2</sup>
Cadmium	PER REQUIR					N/A	N/A	N/A		mg/L		1/9	90	NS <sup>3</sup>
Chromium	SAM	PLE				<0.004	<0.004	<0.004	4			1		1WkC
Chiomidin	PER REQUIR					N/A	N/A	N/A		mg/L		1/	90	NS
Conner	SAM	PLE				0.115	0.115	0.115				1		1WkC
Copper	PER REQUIR					N/A	N/A	N/A		mg/L		1/9	1 06	NS
Manganese	SAM	PLE				0.312	0.312	0.312	2	4		1	1	1WkC
	PER REQUIR					N/A	N/A	N/A		mg/L		1/9	90	NS
Nickel	SAM					0.028	0.028	0.028		mg/L		1	1	1WkC
NICKEI	PER REQUIR					N/A	N/A	N/A		IIIg/L		1/9	90	NS
Lead	SAM					0.002	0.002	0.002				1	1	1WkC
Loud	PER REQUIR					N/A	N/A	N/A		mg/L		1/9	90	NS
Zinc	SAM	PLE				0.214	0.214	0.214				1	1	1WkC
Ziilo	PER REQUIR					N/A	N/A	N/A		mg/L		1/9	90	NS
NAME/TITLE PRINCIPAL EXECUTIVE OFFI	CER	supervision in a	ccordance with a system design	ent and all attachments were ed to assure that qualified persor	nnel properly gather	and evaluate				TELEPHONE			DATE	
Albert Cox	the information submitted. Based on my inquiry of the person or persons who manage the persons directly responsible for gathering the information, the information submitted is, to the be				ted is, to the best of rank penalties for su	ny knowledge	SIGNATURE OF PRINCIPAL EXE		708	588-406	+	2023	01	18
TYPED OF PRINTED		<i>i</i>					OFFICER OR AUTHORIZED A	GENI	ADEA	NUMBE	. В	VEAD	140	DAY I

		TELEPHONE	DATE			
SIGNATURE OF PRINCIPAL EXECUTIVE	708	588-4068	2023	01	18	
OFFICER OR AUTHORIZED AGENT	AREA	NUMBER	YEAR	МО	DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) Pages 1 and 2 present analytical results for lagoon supernatant applied in October 2022.

One-week composite: composite of lagoon supernatant applied on October 12-13, 2022.

Sample type not specified. The permit requirement is to "analyze the sludge applied from the storage lagoons or digesters on a quarterly basis..."

Form Approved OMB No. 2040-0004

FROM

Metropolitan Water Reclamation District NAME of Greater Chicago

ADDRESS 100 East Erie Street Chicago, Illinois 60611

	_
2022-SC-66896 Special Condition 4	
2022-30-00090 Special Condition 4	
PERMIT NUMBER	

DISCHARGE NUMBER	

Hanover Park Water Reclamation Plant

**FACILITY** Fischer Farm Site

**LOCATION** 1220 Sycamore Avenue Hanover Park, Illinois 60133

MONITORING PERIOD									
YEAR	МО	DAY		YEAR	МО	DAY			
2022	10	01	то	2022	12	31			

**NOTE: Read instructions before** 

DADAMETED		QUA	NTITY OR LOADING			QUALITY OR CONCE	NTRATION <sup>1</sup>			NO.	FREQUENCY	SAMPLE
PARAMETER		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMU	М	UNITS	EX	OF ANALYSIS	TYPE
n∐	SAMPLE				7.4	7.5	7.6				1	1WkC <sup>2</sup>
рН	PERMIT REQUIREMENT				N/A	N/A	N/A				1 / 90	NS <sup>3</sup>
% Total solids (by weight)	SAMPLE				2.44	2.61	2.77		0/		1	1WkC
	PERMIT REQUIREMENT				N/A	N/A	N/A		%		1 / 90	NS
% Volatile solids	SAMPLE				70.7	70.9	71.0				1	1WkC
(% of total solids)	PERMIT REQUIREMENT				N/A	N/A	N/A		%		1 / 90	NS
Volatile acids	SAMPLE				<181	679	1,230		ma/ka		1	1WkC
voiatile acius	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1 / 90	NS
Total Kjeldahl nitrogen	SAMPLE				88,274	91,686	95,098		ma/ka		1	1WkC
Total Njeldani milogen	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1 / 90	NS
Ammonia nitrogon	SAMPLE				35,437	38,595	41,754		100 m // cm		1	1WkC
Ammonia nitrogen	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1 / 90	NS
Total phosphorus	SAMPLE				27,653	28,056	28,459		no a /l ca		1	1WkC
rotai priospriorus	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1 / 90	NS
NAME/TITLE PRINCIPAL EXECUTIVE OF	supervision in	r penalty of law that this docum accordance with a system design	ed to assure that qualified persor	nnel properly gather	and evaluate				TELEPHONE		DAT	ïE
Albert Cox	persons direct and belief, tru	on submitted. Based on my inquely responsible for gathering the infue, accurate, and complete. I are accluding the possibility of fine and	ormation, the information submitted aware that there are significated	ed is, to the best of r nt penalties for su	my knowledge bmitting false	SIGNATURE OF PRINCIPAL EXEC	CUTIVE	708	588-406	38	2023 01	1 18

NAME/TITLE PRINCIPAL EXECUTIVE	OFFICER
Albert Cox	
TYPED OR PRINTED	

		TELEPHONE	DATE			
SIGNATURE OF PRINCIPAL EXECUTIVE	708	588-4068	2023	01	18	
OFFICER OR AUTHORIZED AGENT	AREA	NUMBER	YEAR	МО	DAY	

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) Pages 3 and 4 present analytical results for liquid biosolids applied in November 2022.

Two one-week composites of biosolids applied on November 2-5 and November 6-9, 2022.

Sample type not specified. The permit requirement is to "analyze the sludge applied from the storage lagoons or digesters on a quarterly basis..."

OF 4

#### Form Approved OMB No. 2040-0004

Metropolitan Water Reclamation District

NAME of Greater Chicago ADDRESS 100 East Erie Street Chicago, Illinois 60611

2022-SC-66896 Special Condition 4	
PERMIT NUMBER	
I EKMIT NOMBEK	

QUANTITY OR LOADING

FROM

DISCHARGE NUMBER	

QUALITY OR CONCENTRATION 1

FACILITY Fischer Farm Site

Hanover Park Water Reclamation Plant

LOCATION 1220 Sycamore Avenue Hanover Park, Illinois 60133

			MONITORING PERIOD			
YEAR	MO	DAY		YEAR	МО	DAY
2022	10	01	то	2022	12	31

**NOTE: Read instructions before** 

FREQUENCY

PARAMETER			QOARTITI OR EGADING			QUALITY OR CONCENTRATION					OF		SAMPLE	
PARAWEIER		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMU	ІМ	UNITS	EX	ANALY		TYPE	
Cadmium	SAMPLE				1.29	1.35	1.40				1	1	1WkC <sup>2</sup>	
	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/9	90	NS <sup>3</sup>	
Chromium	SAMPLE				32.0	34.1	36.3		//		1	7	1WkC	
Chromium	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/	90	NS	
Copper	SAMPLE				731	744	757				1		1WkC	
Сорреі	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/9	1 06	NS	
Managana	SAMPLE				670	695	720		,		1	1	1WkC	
Manganese	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/9	90	NS	
Nickel	SAMPLE				26.5	27.7	28.9		malka		1	7	1WkC	
Mickel	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/9	90	NS	
Lead	SAMPLE				18.5	19.9	21.4				1	1	1WkC	
	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/9	90	NS	
Zinc	SAMPLE	843 860 876					1	1	1WkC					
	PERMIT REQUIREMENT				N/A	N/A	N/A		mg/kg		1/9	90	NS	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		under penalty of law that this document and all attachments were prepared under my direction or sion in accordance with a system designed to assure that qualified personnel properly gather and evaluate		ner and evaluate			TELEPHONE		$\Box$		DATE			
Albert Cox	persons of and belie	lation submitted. Based on my inquiry of the person or persons who manage the system, or those rectly responsible for gathering the information, the information submitted is, to the best of my knowledge , true, accurate, and complete. I am aware that there are significant penalties for submitting false n, including the possibility of fine and imprisonment for knowing violations.			my knowledge	knowledge			588-406	38	2023	01	18	
						OFFICER OR AUTHORIZED AGENT				_				

OFFICER OR AUTHORIZED AGENT NUMBER AREA YEAR МО DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) Pages 3 and 4 present analytical results for liquid biosolids applied in November 2022.

Two one-week composites of biosolids applied on November 2-5 and November 6-9, 2022.

Sample type not specified. The permit requirement is to "analyze the sludge applied from the storage lagoons or digesters on a quarterly basis..."