

Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 14-12

HANOVER PARK WATER RECLAMATION PLANT

FISCHER FARM MONITORING REPORT FOR

FIRST QUARTER 2014

MAY 2014





Metropolitan Water Reclamation District of Greater Chicago100 East Erie StreetChicago, Illinois 60611-3154312.751.5190

BOARD OF COMMISSIONERS Kathleen Therese Meany President Barbara J McGowan Vice President Mariyana T. Spyropoulos Chairman of Finance Michael A. Alvarez Frank Avila Cynthia M. Santos Debra Shore Kari K. Steele Patrick D. Thompson

THOMAS C. GRANATO, Ph.D. Director of Monitoring and Research

312.751.5190 f: 312.751.5194 thomas.granato@mwrd.org

May 21, 2014

Mr. S. Alan Keller, P.E. Manager, Permit Section Illinois Environmental Protection Agency 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794 - 9276

Dear Mr. Keller:

Subject: Hanover Park Water Reclamation Plant - Illinois Environmental Protection Agency Permit No. 2012-SC-2255, Monitoring Report for January, February, and March 2014

The attached report includes two tables of the monitoring results for the Hanover Park Fischer Farm site for the first quarter of 2014.

Very truly yours,

Thomas C. Granato, Ph.D. Director Monitoring and Research

TCG:PL:cm
Enclosures
cc: Mr. J. Patel, Manager, IEPA Region 2 - Des Plaines
Mr. V. Aistars, USEPA Region 5
Mr. P. Kuefler, USEPA Region 5

Metropolitan Water Reclamation District of Greater Chicago – 100 East Erie Street Chicago, Illinois 60611-2803 312-751-5600

HANOVER PARK WATER RECLAMATION PLANT FISCHER FARM MONITORING REPORT FOR

FIRST QUARTER 2014

Monitoring and Research Department Thomas C. Granato, Director

May 2014

TABLE OF CONTENTS

Page

FOREWORD	ii
LIST OF TABLES	iii
LIST OF FIGURES	iv
ACKNOWLEDGEMENT	v
DISCLAIMER	v
HANOVER PARK WATER RECLAMATION PLANT FISCHER FARM REPORT FOR FIRST QUARTER OF 2014	1

FOREWORD

The data and information in this report fulfill the frequency of monitoring and the reporting requirements for the Hanover Park Fischer Farm Site as specified in the Illinois Environmental Protection Agency Permit No. 2012-SC-2255 for the first quarter of 2014.

LIST OF TABLES

Table		Page
<u>No.</u>		
1	Analysis of Water from Monitoring Wells W-3, W-5, W-6 and W-7 at the Hanover Park Fischer Farm Site Sampled on March 25, 2014	3

2 Analysis of Combined Surface and Subsurface Drainage from the Fischer Farm 4 Site Returned to the Hanover Park Water Reclamation Plant During March 2014

LIST OF FIGURES

Figure		Page
No.		
1	March Fields and Walls at the Hanover Park Fischer Farm Site of the Metropoli-	2

1 Map of Fields and Wells at the Hanover Park Fischer Farm Site of the Metropoli-2 tan Water Reclamation District of Greater Chicago

ACKNOWLEDGEMENT

The assistance given by Ms. Minaxi Patel, Assistant Environmental Chemist, of the Environmental Monitoring and Research Division, and Mr. John Chavich, Supervising Environmental Chemist, of the John E. Egan Analytical Laboratory Section, is greatly appreciated.

DISCLAIMER

Mention of proprietary equipment and chemicals in this report does not constitute endorsement by the Metropolitan Water Reclamation District of Greater Chicago.

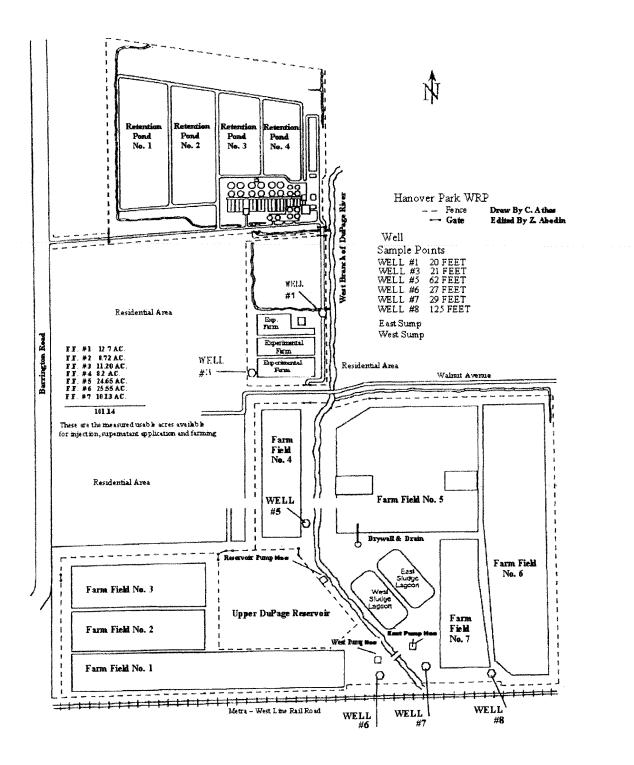
HANOVER PARK WATER RECLAMATION PLANT FISCHER FARM REPORT FOR FIRST QUARTER OF 2014

During January, February, and March 2014, activities at the Hanover Park Water Reclamation Plant (WRP) Fischer Farm included well and field drainage water sampling, and flow measurements. These monitoring activities are required by the Illinois Environmental Protection Agency Operating Permit No. 2012-SC-2255. Fields and water monitoring locations are presented in Figure 1.

Analytical data for well water samples collected during the quarter are presented in <u>Table 1</u>. During the quarter Well 7 was inaccessible due to snow and could not be sampled.

Drainage water (combined surface and subsurface) returned to the Hanover Park WRP from the farm fields was sampled twice during the month of March. Analytical data for these samples are presented in <u>Table 2</u>. During January and February, samples could not be collected due to snow accumulations. The volumes of drainage water returned to the WRP during the first quarter were estimated at 2.70, 1.30, and 20.7 million gallons in January, February, and March, respectively.

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



		Monitoring Well No.		
Parameter	Unit	W-3	W-5	W-6 W-7 ¹
pH ²	······································	7.7	7.6	7.6
EC	mS/m	NA ³	NA ³	NA ³
Cl-	mg/L	13	14	34
$SO_4^{=}$	"	160	93	111
Alkalinity as CaCO ₃	2.3	302	303	290
TKN	,,	< 1	< 1	< 1
NH ₃ -N	"	< 0.1	0.3	0.2
$NO_2 + NO_3 - N$, ,))	< 0.15	< 0.15	< 0.15
Total P	"	< 0.20	< 0.20	< 0.20
Cd	,,	< 0.001	< 0.001	< 0.001
Cr	"	< 0.005	< 0.005	< 0.005
Cu	"	< 0.005	0.007	0.006
Fe	"	1	3	2
Mn	"	0.018	0.026	0.039
Ni	,,	< 0.005	< 0.005	< 0.005
Zn	"	0.02	< 0.01	< 0.01

TABLE 1: ANALYSIS OF WATER FROM MONITORING WELLS W-3, W-5, W-6 AND W-7 AT THE HANOVER PARK FISCHER FARM SITE SAMPLED ON MARCH 25, 2014

¹Well 7 inaccessible due to snow; no samples.

²pH analyzed beyond recommended holding time of 15 minutes. ³No analysis; insufficient sample.

TABLE 2: ANALYSIS OF COMBINED SURFACE AND SUBSURFACE DRAINAGE FROM THE FISCHER FARM SITE RETURNED TO THE HANOVER PARK WATER RECLAMATION PLANT DURING MARCH 2014

Date	Sump	NH ₃ -N	TSS ¹	BOD ₅
******			······ mg/L ······	
03/11/14	East	1	97	32
03/11/14	West	8	34	45
03/25/14	East	59	20	24
03/25/14	West	7	15	5
¹ Total suspend		,		