

Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 11-46

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

SECOND QUARTER 2011

AUGUST 2011

Metropolitan Water Reclamation District of Greater Chicago

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August 29, 2011

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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: 122nd and Stony Island Avenue Solids Management Area – Stickney Water

Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2010-

AO-0267, Monitoring Report for April, May, and June 2011

The attached two tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for April, May, and June 2011 as required by the Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0267.

The data reported are as follows:

<u>Table 1</u>, Analysis of Water from Lysimeter L-1 at the 122nd and Stony Island Avenue Solids Management Area Sampled During April, May, and June 2011

<u>Table 2</u>, Analysis of Water from Lysimeters L-2 Through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on May 11, 2011

No biosolids were placed in or removed from the solids drying area during April, May, and June 2011.

Very truly yours,

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

TCG:PL:cm Attachments

cc w/att: Mr. Sulski, IEPA

Records Unit, IEPA C. O'Connor

TABLE 1: ANALYSIS OF WATER FROM LYSIMETER L-1 AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA SAMPLED DURING APRIL, MAY, AND JUNE 2011

		Date Sampled		
Parameter	Unit	04/06/11	05/11/11	06/01/11
pH ¹		8.3	7.8	7.8
EC	mS/m	245	299	293
Total Dissolved Solids	mg/L	2,204	2,150	2,226
Total Dissolved Organic Carbon	"	39	43	42
Cl ⁻	**	204	170	193
$SO_4^=$	"	355	290	290
TKN	"	28	30	26
NH ₃ -N	"	26	26	26
$NO_2 + NO_3 - N$,,	1.4	0.21	0.11
Total P	,,	< 0.10	0.24	< 0.10
Alkalinity as CaCO ₃	"	1,240	1,260	1,312
Al	"	< 1.0	< 1.0	< 1.0
В	,,	3.8	3.7	4.1
Ca	"	299	307	314
Cd	"	< 0.001	< 0.001	< 0.001
Cr	,,	< 0.003	< 0.003	< 0.003
Cu	;;	< 0.005	< 0.005	< 0.005
Fe	"	12	17	17
Hg	μg/L	< 0.20	< 0.20	< 0.20
K	mg/L	24	24	25
Mg	,,	137	133	134
Mn	,,	0.372	0.407	0.398
Na	"	197	200	213
Ni	,,	< 0.008	< 0.008	< 0.008
Pb	,,	< 0.03	< 0.03	< 0.03
Zn	,,	< 0.02	< 0.02	< 0.02

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-2 THROUGH L-4 AT THE $122^{\rm ND}$ AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA SAMPLED ON MAY 11, 2011

		T	voimeter N	To.	
			Lysimeter No.		
Parameter	Unit	L-2	L-3	L-4	
pH ¹		7.9	7.8	8.1	
EC	mS/m	232	292	233	
Total Dissolved Solids	mg/L	1,554	2,592	1,544	
Total Dissolved Organic Carbon	,,	16	48	23	
Cl ⁻	,,	420	109	254	
$SO_4^=$	"	124	511	81	
TKN	"	2	11	6	
NH ₃ -N	,,	1	7	5	
$NO_2 + NO_3 - N$,,	0.18	0.30	0.06	
Total P	,,	0.12	< 0.10	< 0.10	
Alkalinity as CaCO ₃	"	452	1,273	875	
Al	"	< 1.0	< 1.0	< 1.0	
В	,,	0.79	0.41	1.4	
Ca	"	119	492	181	
Cd	,,	0.002	< 0.001	< 0.001	
Cr	"	< 0.003	< 0.003	< 0.003	
Cu	,,	< 0.005	< 0.005	< 0.005	
Fe	,,	13	21	1	
Hg	μg/L	< 0.20	< 0.20	< 0.20	
K	mg/L	39	6	22	
Mg	,,	74.5	157	94.7	
Mn	"	0.929	0.455	0.146	
Na	,,	241	54	210	
Ni	"	< 0.008	< 0.008	< 0.008	
Pb	,,	< 0.03	< 0.03	< 0.03	
Zn	,,	< 0.02	< 0.02	< 0.02	

¹pH analyzed beyond recommended holding time of 15 minutes.