

Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 11-14

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FOURTH QUARTER 2010

MARCH 2011

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street Chicago, Illinois 60611-3154

f: 312.751.5194 312.751.5190

Terrence J. O'Brien President
Barbara J. McGowan Vice President
Cynthia M. Santos Chairman of Finance Michael A. Alvarez Frank Avila Patricia Horton Kathleen Therese Meany Debra Shore Mariyana T. Spyropoulos

BOARD OF COMMISSIONERS

Thomas C. Granato, Ph.D.

Acting Director of Monitoring and Research

thomas.granato@mwrd.org

March 7, 2011

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 October, November, and December 2010

The attached two tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for October, November, and December 2010 as required by Illinois Environmental Protection Agency 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 October, November, and December 2010

<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 October 13, 2010

No biosolids were placed in or removed from the solids drying area during October, November, and December 2010.

Very truly yours,

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

TCG:PL:kq Attachments

cc w/att: N

Mr. Sulski, IEPA Records Unit, IEPA Granato/O'Connor

TABLE 1: ANALYSIS OF WATER FROM LYSIMETER L-1 AT THE $122^{\rm ND}$ AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA SAMPLED DURING OCTOBER, NOVEMBER, AND DECEMBER 2010

		Date Sampled		
Parameter	Unit	10/13/10	11/03/10	12/01/10
pH ¹		7.8	8.0	7.9
EC	mS/m	306	304	276
Total Dissolved Solids	mg/L	2,184	2,196	2,196
Total Dissolved Organic Carbon	,,	39	39	36
Cl ⁻	,,	203	195	229
$SO_4^=$	"	357	417	459
TKN	,,	34	33	35
NH ₃ -N	,,	30	32	32
$NO_2 + NO_3 - N$	"	0.73	0.12	0.14
Total P	,,	< 0.10	< 0.10	< 0.10
Alkalinity as CaCO ₃	"	1,233	NA^2	1,231
Al	"	< 1.0	< 1.0	< 1.0
В	"	4.3	5.0	4.5
Ca	,,	308	312	329
Cd	,,	< 0.001	< 0.001	< 0.001
Cr	,,	0.007	< 0.003	< 0.003
Cu	"	< 0.005	< 0.005	< 0.005
Fe	"	14	14	12
Hg	μ g/L	< 0.20	< 0.20	< 0.20
K	mg/L	29	30	29
Mg	,,	140	138	141
Mn	"	0.322	0.317	0.339
Na	,,	209	194	191
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.

²No analysis; insufficient sample.

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 OCTOBER 13, 2010

		L	Lysimeter No.		
Parameter	Unit	L-2	L-3	L-4	
pH^1		7.9	7.7	8.0	
EC	mS/m	232	305	245	
Total Dissolved Solids	mg/L	1,472	2,644	1,608	
Total Dissolved Organic Carbon	"	16	46	23	
Cl ⁻	,,	407	101	236	
$SO_4^=$	"	NA^2	NA^2	NA^2	
TKN	,,	3	11	8	
NH ₃ -N	,,	1	7	7	
$NO_2 + NO_3 - N$,,	0.15	0.24	< 0.04	
Total P	,,	0.11	< 0.10	< 0.10	
Alkalinity as CaCO ₃	,,	546	< 15	956	
Al	"	< 1.0	< 1.0	< 1.0	
В	,,	1.2	0.42	1.2	
Ca	,,	122	515	214	
Cd	,,	0.003	< 0.001	< 0.001	
Cr	"	0.005	0.008	0.006	
Cu	"	< 0.005	< 0.005	< 0.005	
Fe	,,	15	21	4	
Hg	μ g/L	< 0.20	< 0.20	< 0.20	
K	mg/L	42	6	20	
Mg	"	74.9	164	105	
Mn	"	1.14	0.470	0.177	
Na	,,	242	52	187	
Ni	,,	< 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.

²No analysis; insufficient sample.