

Metropolitan Water Reclamation District of Greater Chicago

# MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 10-51

MONTHLY CONTROLLED SOLIDS

**DISTRIBUTION REPORT** 

JULY 2010

OCTOBER 2010

#### **Protecting Our Water Environment**



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

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Louis Kollias, P.E., BCEE Director of Monitoring and Research Iouis.kollias@mwrd.org

October 22, 2010

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: Metropolitan Water Reclamation District of Greater Chicago – Controlled Solids Distribution Program Illinois Environmental Protection Agency Permit No. 2010-SC-0200, July 2010

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago - Controlled Solids Distribution Program for July 2010, as required by Illinois Environmental Protection Agency Permit No. 2010-SC-0200.

Sludge flow schematic diagrams for solids processed during July 2010 are shown in <u>Figure 1</u> - John E. Egan Water Reclamation Plant (WRP), <u>Figure 2</u> - Calumet WRP, and <u>Figure 3</u> - Stickney WRP.

Biosolids were distributed to thirteen sites in July. The User information report for those site is presented in <u>Table 1</u>, and the analyses of the composited biosolids delivered to those sites are presented in <u>Table 2</u>.

Very truly yours,

Louis Kollias Director Monitoring and Research

LK:OO:kq Attachments cc: Aistars (USEPA) Sulski (IEPA) Kits O'Connor

# TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORTFOR AGITATION-DRIED, ANAEROBICALLY-DIGESTED SOLIDS

Name and Address of User		– Dates	Quantity (dry tons)			Application		
	WRP <sup>1</sup>		2010 July	2010 Cumulative	Biosolids Use	Area (acres)	Rate (tons/acre)	Location No.
Heritage Park 555 Cook St. Manteno, Illinois 60950	Stickney	2, 6	174.7	174.7	Incorporation with top soil for turf growth.	2.5	69.9	1
Oak Lawn Community HS 9400 Southwest Highway Oak Lawn, IL 60453	Stickney	2	28.5	28.5	Topdressing as fertilizer for turf growth.	1.5	19.0	2
Channahon Park District 24856 W. Eames St. Channahon, IL 60410	Stickney	6	108.7	108.7	Topdressing as fertilizer for turf growth.	5.0	21.7	3
Bloomingdale Park District 172 S. Circle Ave. Bloomingdale, IL 60108	Stickney	6	41.9	41.9	Topdressing as fertilizer for turf growth.	2.0	21.0	4
Crossroads Comm. Church 1701 Quincy, Suite 21 Naperville, IL 60546	Stickney	15	30.2	30.2	Topdressing as fertilizer for turf growth.	2.0	15.1	5
Plainfield East HS 12001 S. Naperville Rd. Plainfield, IL 60585	Stickney	19	43.7	43.7	Topdressing as fertilizer for turf growth.	1.5	29.1	6
Plainfield Central HS 24120 Fort Beggs Dr. Plainfield, IL 60544	Stickney	19	43.6	43.6	Topdressing as fertilizer for turf growth.	1.5	29.1	7
Plainfield South HS 7800 W. Carton Farm Rd. Plainfield, IL 60586	Stickney	19, 20	40.4	40.4	Topdressing as fertilizer for turf growth.	1.5	27.0	8

# TABLE 1 (Continued): CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT FOR AGITATION-DRIED, ANAEROBICALLY-DIGESTED SOLIDS

Name and Address of User		_	Quantity (dry tons)			Application		
	WRP	Dates	2010 July	2010 Cumulative	Biosolids Use	Area (acres)	Rate (tons/acre)	Location No.
Plainfield North HS 12005 S. 248th St. Plainfield, IL 60585	Stickney	19	44.4	44.4	Topdressing as fertilizer for turf growth.	1.5	29.6	9
Glenbrook North HS 2300 Shermer Rd. Northbrook, IL 60062	Stickney	19, 20, 22, 29	126.4	126.4	Incorporation with top soil for turf growth.	2	63.2	10
Longwood Country Club 3503 E. Steger Rd. Crete, IL 60417	Calumet	7	46.5	46.5	Topdressing as fertilizer for turf growth.	3.0	11.0	11
Calumet WRP MWRD 400E. 130 <sup>th</sup> St. Chicago, IL	Calumet	13	112.9	112.9	Incorporation with top soil for turf growth.	2	56.4	12
Mount Olive Cemetery 3800 N. Narrgansett Ave. Chicago, IL	Calumet	19	30.8	30.8	Nutrient sources to establish turf on graves.	0.12	78.7	13

<sup>1</sup>WRP – Water Reclamation Plant.

			Stickney Water I	Calumet Water Reclamation Plan					
User's Location No. <sup>1</sup>		1, 2	1, 3, 4	5	6, 7, 8, 9, 10	11	12		
Constituent	Units		Concentration						
рН		6.4	6.0	6.3	6.7	6.8	7.6		
Total Solids	%	70.5	77.7	70.2	62.9	74.7	74.0		
Total Volatile Solids	"	33.2	33.4	40.8	40.8	39.1	37.9		
Volatile Acids as Acetic									
Acid	mg/dry kg	71	179	NA	383	233	747		
Total Kjeldahl-N	"	17,043	17,743	22,206	18,297	18,936	17,184		
NH <sub>3</sub> -N	"	184	238	1,399	2,134	229	1,411		
Total P	"	26,264	21,218	25,230	19,802	15,159	22,320		
As	"	<10.0	<10.0	11.0	11.0	11.9	8.8		
Cd	"	3.8	4.1	3.6	3.5	4.6	4.1		
Cr	"	158	165	150	151	99	98		
Cu	"	446	456	469	451	489	490		
Hg	"	1.5	1.2	1.2	0.8	1.0	1.3		
K	"	1,855	2,126	2,067	2,277	2,634	1,731		
Mn	"	503	513	500	497	1,053	1,060		
Мо	"	9.9	10.4	10.3	10.7	15.9	15.3		
Ni	"	40.0	43.3	38.9	38.6	44.2	43.9		
Pb	"	139	135	128	133	124	123		
Se	"	<4.0	<4.0	<4.0	<4.0	5	3.3		
Zn	"	983	984	985	986	987	988		

#### TABLE 2: ANALYSIS OF DIGESTED BIOSOLIDS APPLIED TO LAND DURING JULY 2010

<sup> $\top$ </sup> Locations listed in <u>Table 1</u>. NA = No analysis.

Solids Diagram

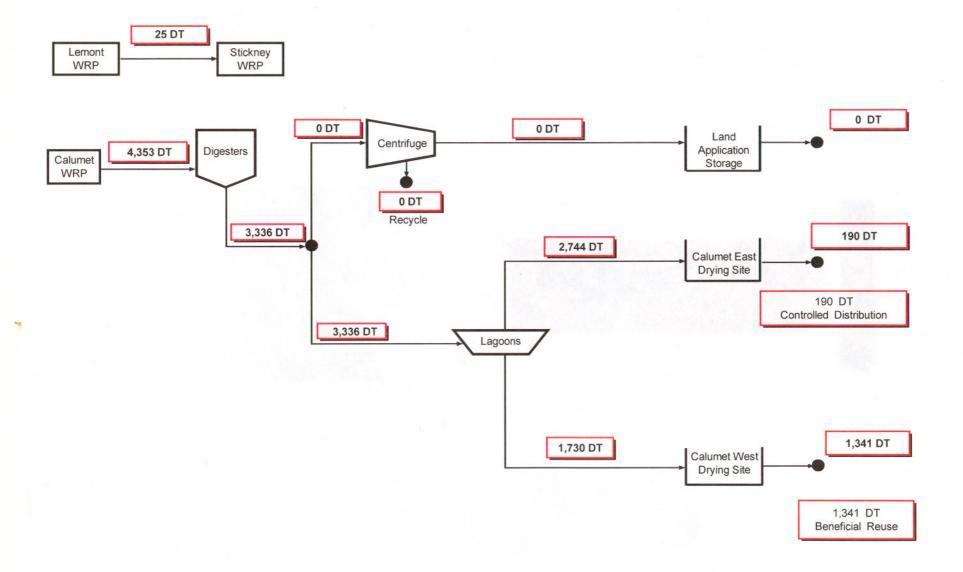
### J.E. EGAN WRP SOLIDS DISTRIBUTION-FIGURE 1

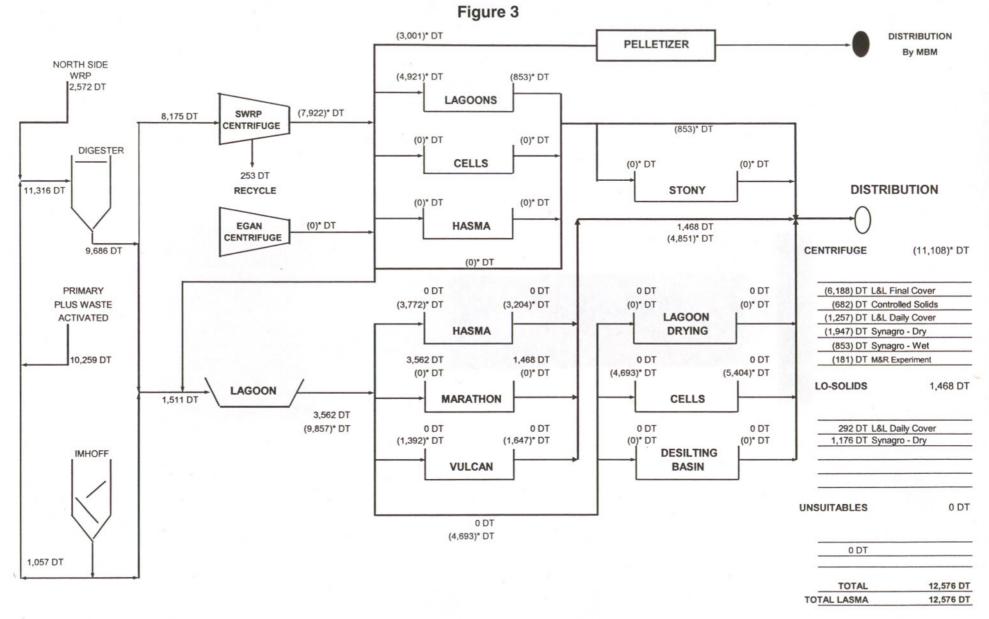
KIRIE WRP Other 537 DT RECYCLE CENTRIFUGE TO EGAN DIGESTER EGAN DT OTHER 28 583 DT 582 DT LAND APPLICATION WAS PERMITTED SITE 235 DT <u>0</u> DT GBT 582 DT <u>1193</u> DT 744 DT EGAN PRIMARY 0 DT RECYCLE TO EGAN EGAN 449 DT DRYING SITE 678 DT 0 DT NORTH SOUTH 0 DT <u>1</u> DT CENTRATE CONTROLLED DISTRIBUTION 0 DT NORTH SIDE WRP <u>96</u> DT Note: Any discrepancies are due to computer rounding. <u>95</u> DT

July-10

### CALUMET WRP SOLIDS DISTRIBUTION - July 2010







### STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR JULY 2010

(CENTRIFUGE CAKE)\*

jg 9/28/10