

Metropolitan Water Reclamation District of Greater Chicago

# RESEARCH AND DEVELOPMENT DEPARTMENT

REPORT NO. 07-67

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JULY 2007

**NOVEMBER 2007** 

#### Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

Gloria Alitto Majewski Chairman of Finance Frank Avila Patricia Horton Barbara J. McGowan Cynthia M. Santos Debra Shore Patricia Young

BOARD OF COMMISSIONERS
Terrence J. O'Brien
President
Kathleen Therese Meany
Vice President

Louis Kollias, P.E., BCEE Director of Research and Development

312.751.5190

November 9, 2007

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 IEPA Permit No. 2005-

SC-3793, July 2007

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago (District) - Controlled Solids Distribution Program for July 2007, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793.

Sludge flow schematic diagrams for solids processed during July 2007 are shown in  $\underline{\text{Figure 1}}$  - John E. Egan Water Reclamation Plant (WRP),  $\underline{\text{Figure 2}}$  - Calumet WRP, and  $\underline{\text{Figure 3}}$  - Stickney WRP.

Biosolids were applied to four sites in July. The user information report for Bellerive Park, 201 W. 63<sup>rd</sup> Street, Westmont is presented in <u>Table 1</u>, and the analysis of composited biosolids delivered in July to that site is presented in <u>Table 2</u>.

The user information report for Coyote Run Golf Course, 720 Kedzie Avenue, Flossmoor is presented in <u>Table 3</u>, and the analysis of composited biosolids delivered in July to that site is presented in <u>Table 4</u>.

The user information report for White Pines Golf Club, 500 W. Jefferson Street, Bensenville is presented in <u>Table 5</u>, and the analysis of composited biosolids delivered in July to that site is presented in <u>Table 6</u>.

Subject: Metropolitan Water Reclamation District of Greater Chicago -

Controlled Solids Distribution Program IEPA Permit No. 2005-

SC-3793, July 2007

The user information report for Driscoll Catholic High School, 555 N. Lombard Road, Addison is presented in <u>Table 7</u>, and the analysis of composited biosolids delivered in July to that site is presented in <u>Table 8</u>.

Very truly yours,

Louis Kollias Director Research and Development

LK:KK:spy Attachments

cc w/att.: Aistars (USEPA)

Sulski (IEPA) Sobanski

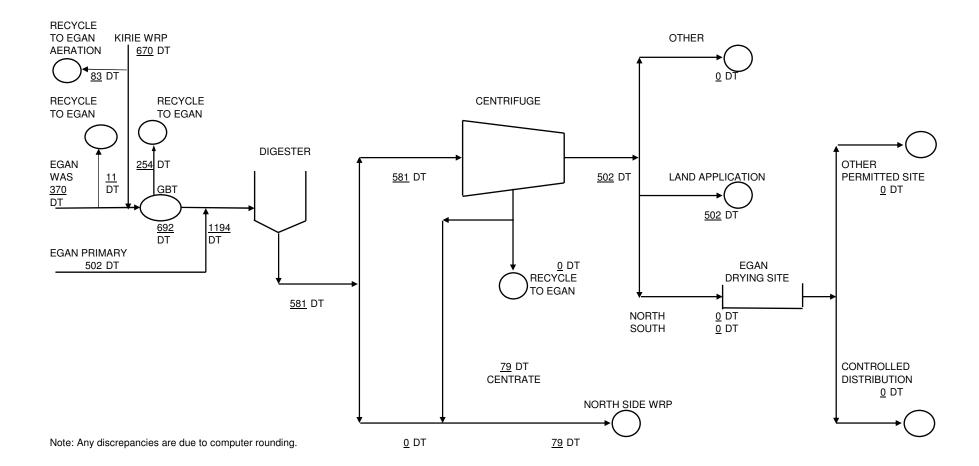
Granato/O'Connor/Cox

cc wo/att: Garelli/Conway

Sharma /Ford Frost/Collins

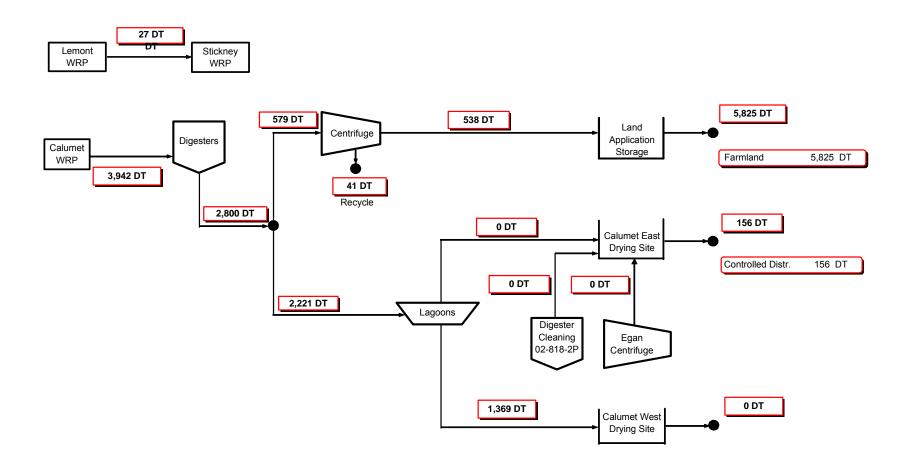
### J.E. EGAN WRP SOLIDS DISTRIBUTION-FIGURE 1

**July-07** 

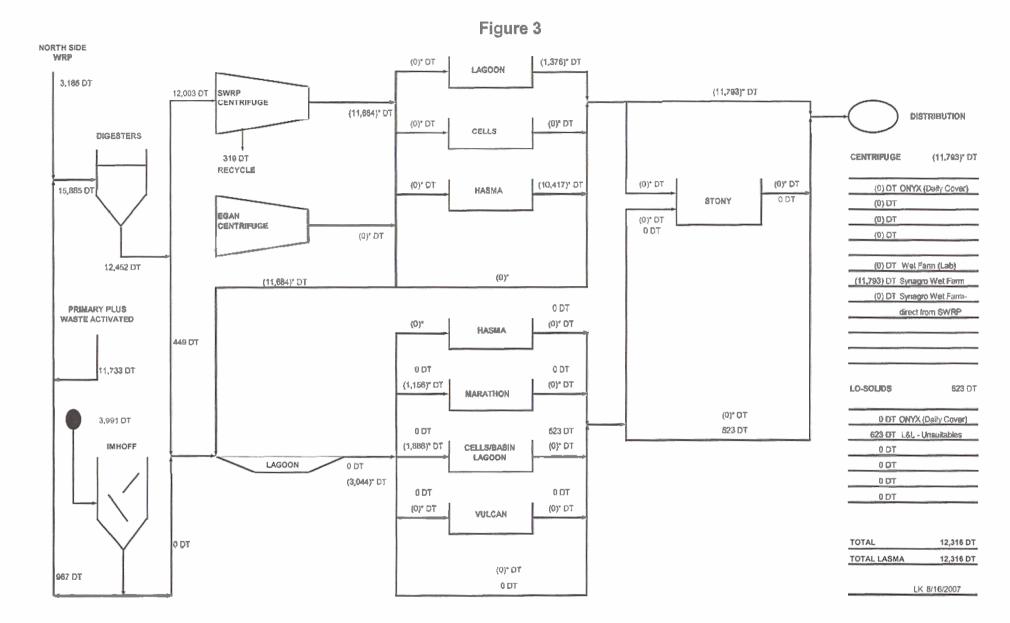


#### **CALUMET WRP SOLIDS DISTRIUBTION – JULY 2007**

Figure 2



#### STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR JULY 2007



(CENTRIFUGE CAKE)\*

## TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Westmont Park District

2. Address of User: 201 W. 63rd St.

Westmont, IL 60554

3. Type of Solids and

Source:

Agitation dried lagooned anaerobically

digested biosolids from the Calumet WRP.

Drying was done at the Calumet East

solids drying area.

4. Quantity Received

(July 2007):

31.82 dry tons

Cumulative Quantity

Received in 2007:

31.82 dry tons

5. Date Biosolids Received: July 6, 2007

6. Use of Biosolids at Site: Used as soil conditioner and nutrient source for

enhancing turf growth on playing fields,

recreational fields and golf course.

7. Size of Application

Area:

2.5 acres

8. Application Rate: 12.73 dry tons/acre

TABLE 2: ANALYSIS\* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE BELLERIVE PARK, 201 W. 63rd ST. WESTMONT, IL FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JULY 2007

Constituent	Units	Concentration
рН		6.5
Total Solids	%	74.5
Total Volatile Solids	"	33.4
Volatile Acids as Acetic Acid	mg/dry kg	109
Total Kjeldahl-N	"	15,160
NH <sub>3</sub> -N	11	121
Total P	"	25,684
K	"	4,324
Cd	"	9.0
Cr	"	146
Cu	"	383
Pb	"	130
Hg	11	0.95
Mo	11	11.9
As	"	9.4
Mn	"	828
Ni	"	36.6
Se	"	7.3
Zn	"	1,158

<sup>\*</sup>Results based on one sample.

## TABLE 3: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Coyote Run Golf Course

2. Address of User: 720 Kedzie Avenue

Flossmoor, IL 60422

3. Type of Solids and

Source:

Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.

4. Quantity Received

(July 2007):

61.25 dry tons

Cumulative Quantity

Received in 2007:

198.34 dry tons

5. Date Biosolids Received: July 16, 2007

6. Use of Biosolids at Site: Used as soil conditioner and nutrient source for

enhancing turf growth on golf course roughs.

7. Size of Application

Area:

5.5 acres

8. Application Rate: 11.14 dry tons/acre

TABLE 4: ANALYSIS\* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT COYOTE RUN GOLF COURSE AT 720 KEDZIE AVENUE, FLOSSMOOR, IL FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JULY 2007

Constituent	Units	Concentration
рН		6.6
Total Solids	%	72.3
Total Volatile Solids	"	33.4
Volatile Acids as Acetic Acid	mg/dry kg	71
Total Kjeldahl-N	"	13,252
NH <sub>3</sub> -N	"	122
Total P	"	21,174
K	"	4,214
Cd	"	9.0
Cr	11	137
Cu	"	375
Dla	"	124
Pb	11	134
Hg	11	0.68 12.3
Mo	11	
As		10.1
Mn	11	769
Ni	"	35.9
Se	11	7.2
Zn	"	1,080

<sup>\*</sup>Results based on one sample.

## TABLE 5: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: White Pines Golf Club

2. Address of User: 500 W. Jefferson St.

Bensenville, IL 60106

3. Type of Solids and

Source:

Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.

4. Quantity Received

(July 2007):

30.68 dry tons

Cumulative Quantity

Received in 2007:

30.68 dry tons

5. Date Biosolids Received: July 16, 2007

6. Use of Biosolids at Site: Used as soil conditioner and nutrient source for

enhancing turf growth.

7. Size of Application

Area:

1 acre

8. Application Rate: 30.68 dry tons/acre

TABLE 6: ANALYSIS\* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT WHITE PINES GOLF CLUB, 500 W. JEFFERSON ST., BENSENVILLE, IL FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JULY 2007

Constituent	Units	Concentration
рН		6.6
Total Solids	%	72.3
Total Volatile Solids	"	33.3
Volatile Acids as Acetic Acid	mg/dry kg	71
Total Kjeldahl-N	"	14,293
NH <sub>3</sub> -N	11	104
Total P	"	22,976
K	"	4,756
Cd	"	8.9
Cr	"	142
Cu	"	390
Pb	"	126
Hg	11	0.37
Mo	11	12.6
As	"	8.5
Mn	"	785
Ni	11	36.4
Se	"	8.8
Zn	u	1,105

<sup>\*</sup>Results based on one sample.

### TABLE 7: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Driscoll Catholic High School

2. Address of User: 555 N. Lombard Road

Addison, IL 60101

3. Type of Solids and

Source:

Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.

4. Quantity Received

(July 2007):

32.22 dry tons

Cumulative Quantity

Received in 2007:

32.22 dry tons

5. Date Biosolids Received: July 24, 2007

6. Use of Biosolids at Site: Used as soil conditioner and nutrient source for

enhancing turf growth on soccer fields.

7. Size of Application

Area:

0.75 acres

8. Application Rate: 42.96 dry tons/acre

TABLE 8: ANALYSIS\* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT DRISCOLL HIGH SCHOOL SOCCER FIELD AT 555 N. LOMBARD ROAD ADDISON, IL FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JULY 2007

Constituent Units Concentr	
pH	6.6
Total Solids %	75.9
Total Volatile Solids "	31.5
Volatile Acids as Acetic Acid mg/dry kg	50
	,143
NH <sub>3</sub> -N "	109
	,317
K " 4.	,567
Cd "	9.3
Cr "	140
Cu "	369
Pb "	124
	0.80
	12.2
As "	9.8
Mn "	806
	36.3
Se "	6.7
	,120

<sup>\*</sup>Results based on one sample.