

Metropolitan Water Reclamation District of Greater Chicago

RESEARCH AND DEVELOPMENT DEPARTMENT

REPORT NO. 07-4

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

NOVEMBER 2006

JANUARY 2007

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

312.751.5600

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312-751-5190

January 31, 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, November 2006

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago (District) - Controlled Solids Distribution Program for November 2006, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793.

Sludge flow schematic diagrams for solids processed during November 2006 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 at four sites in November. The user information report for the recreational fields at Notre Dame High School is presented in <u>Table 1</u>, and the analysis of composited biosolids delivered in November to that site is presented in <u>Table 2</u>.

The user information report for the soccer and football fields at the Village of Steger, Steger is presented in <u>Table 3</u>, and the analysis of composited biosolids delivered in November to that site is presented in <u>Table 4</u>.

The user information report for the football fields at Crete-Monee School District 201, Crete is presented in <u>Table 5</u>, and the analysis of composited biosolids delivered in November to that site is presented in <u>Table 6</u>.

Subject: Metropolitan Water Reclamation District of Greater Chicago - Con-

trolled Solids Distribution Program IEPA Permit No. 2005-SC-3793,

July 2006

The user information report for the soccer and recreational fields at the University of Illinois, Chicago is presented in <u>Table 7</u>, and the analysis of composited biosolids delivered in November to that site is presented in <u>Table 8</u>.

Very truly yours,

Louis Kollias Director Research and Development

LK:KK:spy Attachments

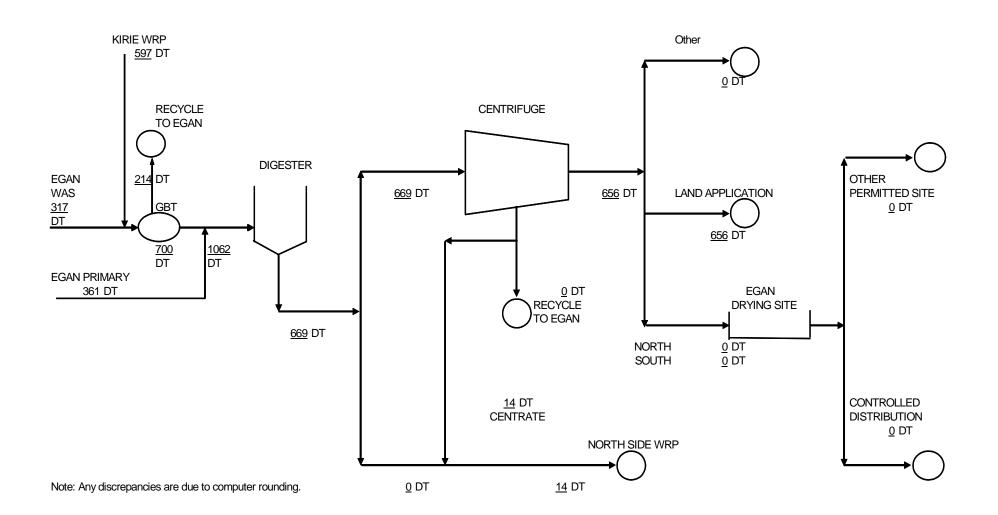
cc w/att.: Aistars (USEPA)

Sulski (IEPA) Sobanski

Granato/O'Connor/Cox

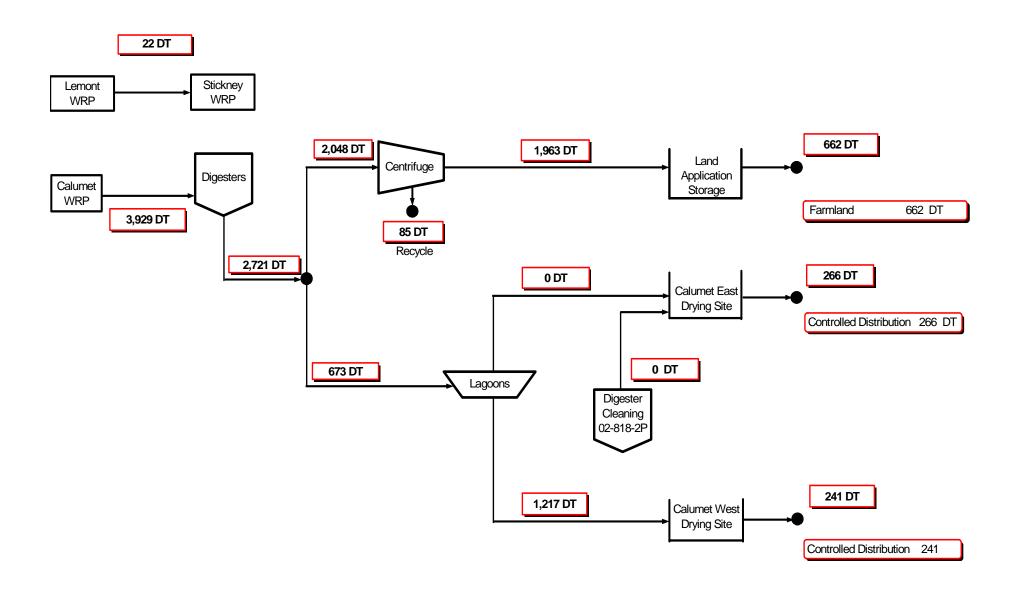
cc wo/att: Levy/Quintanilla

Sharma /Carmody Ballowe/Collins FIGURE 1



CALUMET WRP SOLIDS DISTRIBUTION – NOBEMBER 2006

FIGURE 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR NOVEMBER 2006

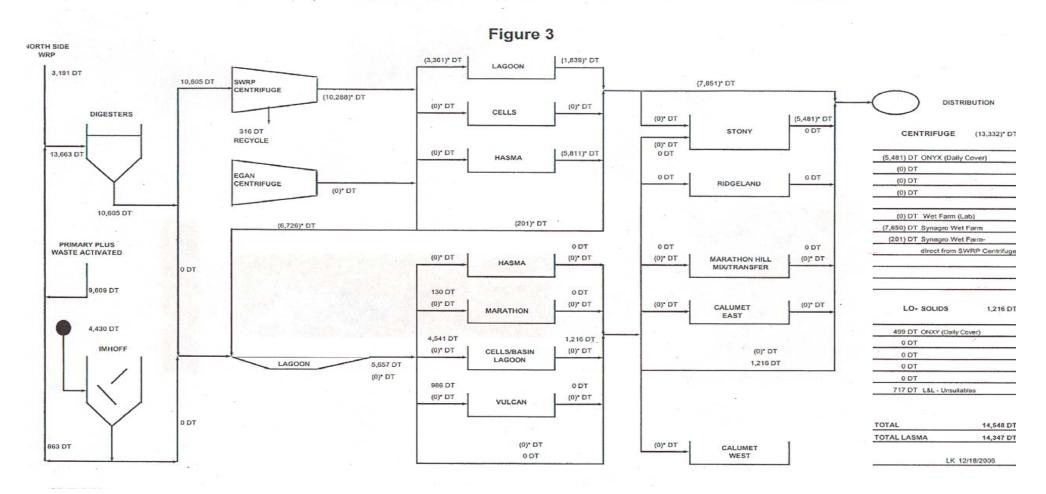


TABLE 1

1.	Name of User:	Notre Dame High School
2.	Address of User:	7655 West Dempster Street Niles, IL 60714
3.	Type of Solids and Source:	Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East and West solids drying areas.
4.	Quantity Received (November 2006):	14.52 dry tons
	Cumulative Quantity Received in 2006:	280.83 dry tons
5.	Date Biosolids Received:	November 2, 2006
6.	Use of Biosolids at Site:	Used as soil amendment before installing sod on athletic fields.
7.	Size of Application Area:	10 acres
8.	Application Rate:	28.08 tons/acre

TABLE 2

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE NOTRE DAME HIGH SCHOOL ATHLETIC FIELDS AT 7655 WEST DEMPSTER STREET, NILES, IL FROM THE CALUMET EAST AND WEST DRYING AREAS DURING NOVEMBER 2006

Constituent	Units	Concentration
рН		6.3
Total Solids	%	65.4
Total Volatile Solids	11	40.7
Volatile Acids as Acetic Acid	mg/dry kg	48
Total Kjeldahl-N	"	8,875
NH ₃ -N	II .	476
Total P	"	22,323
K	"	3,503
Cd	"	7.8
Cr	II .	146.9
Cu	II .	457
Pb	11	122
Hg	"	1.39
Mo	"	11.6
As	"	7.8
Mn	11	827
Ni	II .	36.0
Se	II .	13.9
Zn	11	1,342

*Results based on two samples.

${\tt METROPOLITAN~WATER~RECLAMATION~DISTRICT~OF~GREATER~CHICAGO}$

TABLE 3

1.	Name of User:	Village of Steger
2.	Address of User:	35 W. 34th Sreet Steger, IL 60475
3.	Type of Solids and Source:	Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at Calumet East and West solids drying areas.
4.	Quantity Received (November 2006):	114.30 dry tons
	Cumulative Quantity Received in 2006:	222.30 dry tons
5.	Date Biosolids Received:	November 7, 2006
6.	Use of Biosolids at Site:	Used as soil amendment before installing sod on soccer and football fields.
7.	Size of Application Area:	5 acres
8.	Application Rate:	22.86 dry tons/acre

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE STEGER VETERAN'S PARK FOOTBALL AND SOCCER FIELDS AT 35 WEST 34TH STREET,

DURING NOVEMBER 2006

STEGER, ILLINOIS FROM THE CALUMET EAST AND WEST DRYING AREAS

TABLE 4

Constituent	Units	Concentration
рН		7.1
Total Solids	%	66.7
Total Volatile Solids	"	37.5
Volatile Acids as Acetic Acid	mg/dry kg	36
Total Kjeldahl-N	"	7,193
NH ₃ -N	II .	1,219
Total P	II .	14,124
K	"	2,112
Cd	"	7.9
Cr	"	122
Cu	n .	410
Pb	"	118
Hg	"	1.35
Mo	"	10.4
As	11	4.1
Mn	n .	775
Ni	II .	34.6
Se	11	17.6
Zn	"	1,162

^{*}Results based on two samples.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO ${\it TABLE~5}$

1.	Name of User:	Crete-Monee School District 201
2.	Address of User:	1400 Sangamon St. Crete, IL 60417
3.	Type of Solids and Source:	Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at Calumet West solids drying area.
4.	Quantity Received (November 2006):	57.45 dry tons
	Cumulative Quantity Received in 2006:	57.45 dry tons
5.	Date Biosolids Received:	November 21 - 22, 2006
6.	Use of Biosolids at Site:	Used as soil amendment before installing sod on five football fields.
7.	Size of Application Area:	7 acres
8.	Application Rate:	8.21 dry tons/acre

TABLE 6

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE CRETE-MONEE SCHOOL FIVE FOOTBALL FIELDS FROM THE CALUMET WEST DRYING AREA DURING NOVEMBER 2006

Constituent	Units	Concentration
рН		7.1
Total Solids	%	65.5
Total Volatile Solids	"	20.4
Volatile Acids as Acetic Acid	mg/dry kg	31
Total Kjeldahl-N	"	8,232
NH ₃ -N	II .	1,162
Total P	11	11,181
K	u	8,222
Cd	"	6.8
Cr	"	111
Cu	"	197
Pb	u .	95
Hg	"	1.02
Mo	"	7
As	"	4.3
Mn	н	612
Ni	"	35.7
Se	"	2.3
Zn	"	627

*Results based on one sample.

TABLE 7

1.	Name of User:	University of Illinois Chicago
2.	Address of User:	901 W. Roosevelt Avenue Chicago, IL 60608
3.	Type of Solids and Source:	Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP. Drying was done at Calumet East and West solids drying areas.
4.	Quantity Received (November 2006):	55.23 dry tons
	Cumulative Quantity Received in 2006:	55.23 dry tons
5.	Date Biosolids Received:	November 21- 22, 2006
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for enhancing turf growth in soccer fields.
7.	Size of Application Area:	7 acres
8.	Application Rate:	7.89 dry tons/acre

TABLE 8

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE SOCCER AND RECREATIONAL FIELDS OF THE UNIVERSITY OF ILLINOIS CHICAGO FROM THE CALUMET EAST AND WEST DRYING AREAS DURING NOVEMBER 2006

Constituent	Units	Concentration
рН		6.9
Total Solids	%	64.7
Total Volatile Solids	II.	30.6
Volatile Acids as Acetic Acid	mg/dry kg	36
Total Kjeldahl-N	"	9,363
NH ₃ -N	"	949
Total P	"	18,948
K	u .	5,388
Cd	"	7.4
Cr	"	128
Cu	n .	334
Pb	п	108
Hg	"	0.94
Mo	"	10
As	"	7.0
Mn	11	726
Ni	II .	35.9
Se	II .	12.4
Zn	"	1,016

^{*}Results based on two samples.