

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***RESEARCH AND DEVELOPMENT
DEPARTMENT***

REPORT NO. 06-62

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JULY 2006

OCTOBER 2006

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312-751-5600

Louis Kollias, P.E., BCEE

Director of Research and Development

312-751-5190

October 2, 2006

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 2006

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

Sludge flow schematic diagrams for solids processed during July 2006 are shown in Figure 1 - John E. Egan Water Reclamation Plant (WRP), Figure 2 - Calumet WRP, and Figure 3 - Stickney WRP.

Biosolids were distributed to five sites in July. The user information report for the soccer and football fields at Longwood Country Club, Crete is presented in Table 1, and the analysis of composited biosolids delivered in July to that site is presented in Table 2.

The user information report for the soccer field at Westmont Park District, Westmont is presented in Table 3, and the analysis of composited biosolids delivered in July to that site is presented in Table 4.

The user information report for the soccer and football fields at Village of Evergreen Park is presented in Table 5, and the analysis of composited biosolids delivered in July to that site is presented in Table 6.

Subject: Metropolitan Water Reclamation District of Greater Chicago – Controlled Solids Distribution Program IEPA Permit No. 2005-SC-3793, July 2006

The user information report for the football fields at St. Laurence High School, Burbank is presented in Table 7, and the analysis of composited biosolids delivered in July to that site is presented in Table 8.

The user information report for the soccer fields at University of Chicago is presented in Table 9, and the analysis of composited biosolids delivered in July to that site is presented in Table 10.

Very truly yours,

Louis Kollias
Director
Research and Development

LK:KK:spy

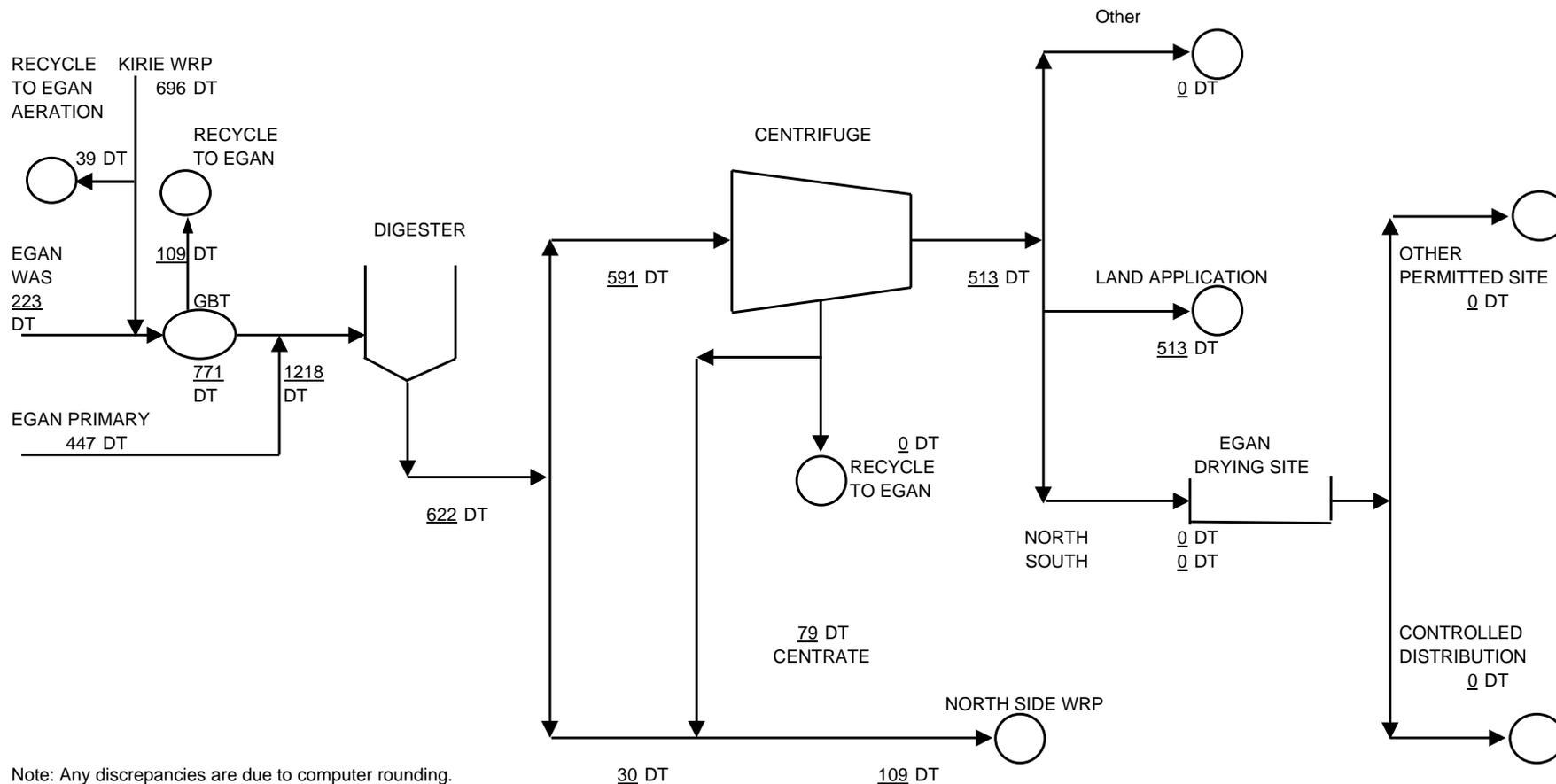
Attachments

cc w/att.: Aistars (USEPA)
Sulski (IEPA)
Sobanski
Levy/Quintanilla
Sharma /Carmody
Ballowe/Collins
Granato/O'Connor/Cox

J.E. EGAN WRP SOLIDS DISTRIBUTION-

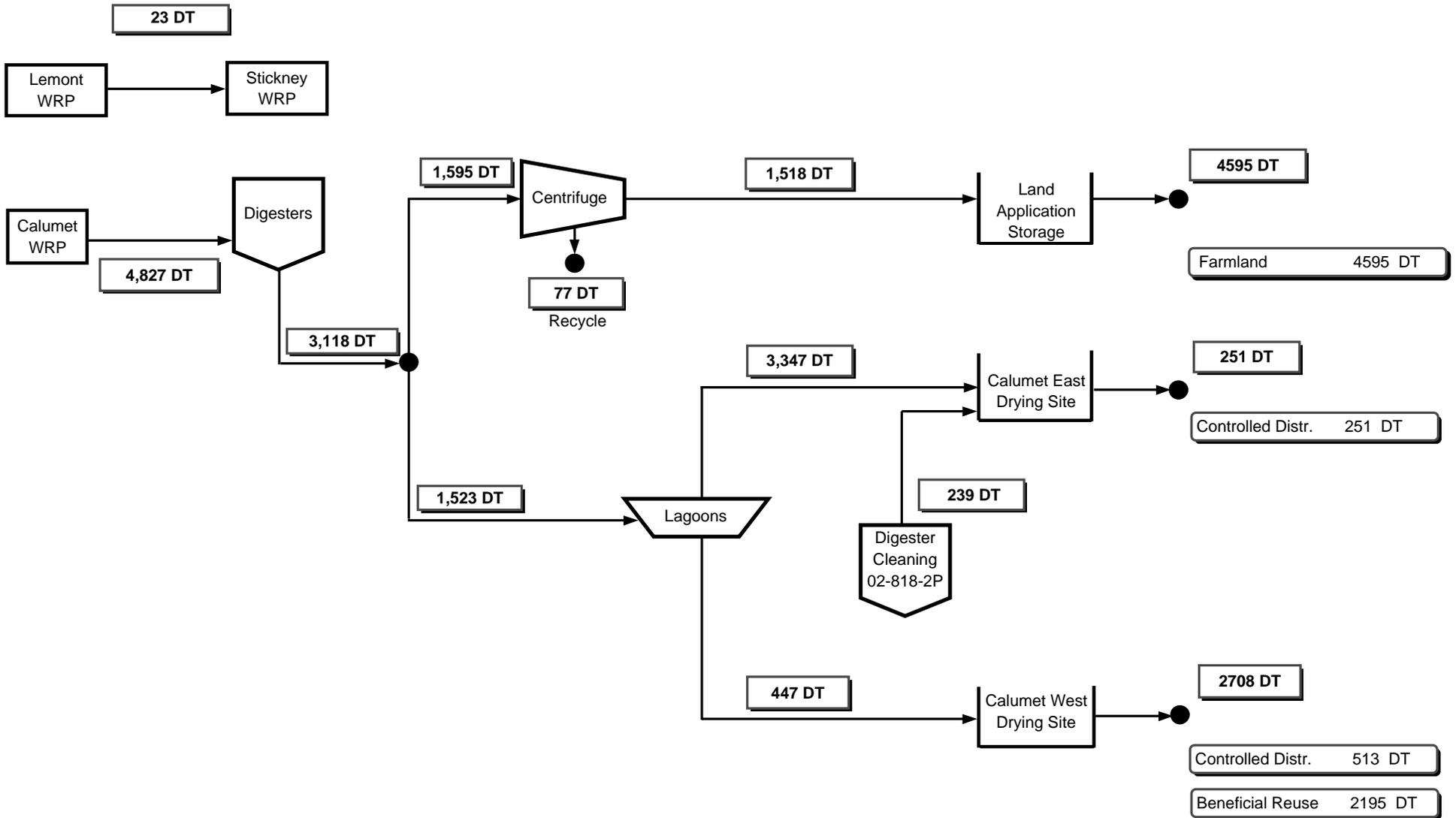
July-06

FIGURE 1



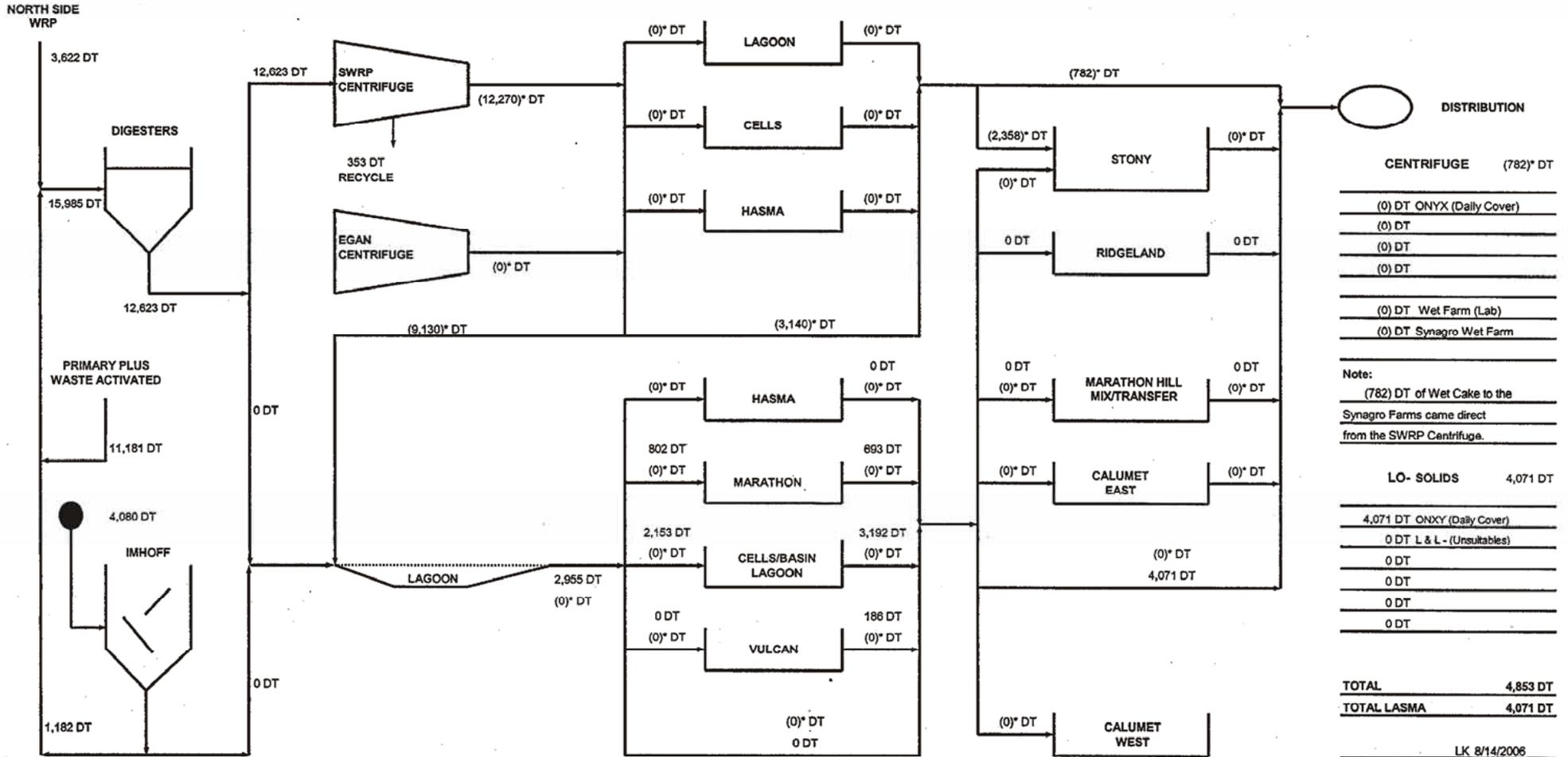
CALUMET WRP SOLIDS DISTRIBUTION - July 2006

Figure 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR JULY 2006

FIGURE 3



(CENTRIFUGE CAKE)*

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 1

CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Longwood Country Club
2.	Address of User:	3503 E. Steger Rd. Crete, IL 60417
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 2006):	28.65 dry tons
	Cumulative Quantity Received in 2006:	28.65 dry tons
5.	Date Sludge Received:	July 6, 2006
6.	Use of Sludge at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on soccer and football fields
7.	Size of Application Area:	5 acres
8.	Application Rate:	5.73 dry tons/acre

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE LONGWOOD
COUNTRY CLUB SOCCER AND FOOTBALL FIELDS AT
3503 E. STEGER ROAD, CRETE, IL FROM THE CALUMET EAST DRYING AREA
DURING JULY 2006

Constituent	Units	Concentration
pH		6.1
Total Solids	%	69.4
Total Volatile Solids	"	40.6
Volatile Acids as Acetic Acid	mg/dry kg	56
Total Kjeldahl-N	"	21,034
NH ₃ -N	"	109
Total P	"	29,671
K	"	3,887
Cd	"	8.4
Cr	"	150
Cu	"	476
Pb	"	153
Hg	"	1.54
Mo	"	16.8
As	"	8.6
Mn	"	822
Ni	"	44.8
Se	"	15.6
Zn	"	1,508

*Results based on one sample.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 3

CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Westmont Park District
2.	Address of User:	201 W. 63rd Street Westmont, IL 60559
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 2006):	29.61 dry tons
	Cumulative Quantity Received in 2006:	29.61 dry tons
5.	Date Sludge Received:	July 16, 2006
6.	Use of Sludge at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on soccer field
7.	Size of Application Area:	1.17 acres
8.	Application Rate:	25.3 dry tons/acre

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 4

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT BELLERIVE PARK
 NORTH SOCCER FIELD AT 201 W. 63RD STREET, WESTMONT, IL FROM THE
 CALUMET EAST SOLIDS DRYING AREA
 DURING JULY 2006

Constituent	Units	Concentration
pH		6.3
Total Solids	%	77.8
Total Volatile Solids	"	41.2
Volatile Acids as Acetic Acid	mg/dry kg	100
Total Kjeldahl-N	"	23,456
NH ₃ -N	"	187
Total P	"	34,078
K	"	3,612
Cd	"	8.6
Cr	"	140
Cu	"	480
Pb	"	155
Hg	"	2.06
Mo	"	16.1
As	"	10.4
Mn	"	831
Ni	"	41.6
Se	"	19.4
Zn	"	1,519

*Results based on one sample.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 5

CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Village of Evergreen Park
2.	Address of User:	9418 S. Kedzie Evergreen Park, IL 60805
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 (July 2006):	97.25 dry tons
	Cumulative Quantity Received in 2006:	97.25 dry tons
5.	Date Sludge Received:	July 19, 29, 31, 2006
6.	Use of Sludge at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on soccer and football fields
7.	Size of Application Area:	5 acres
8.	Application Rate:	19.4 dry tons/acre

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 6

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE SOCCER
AND FOOTBALL FIELDS AT 9418 S. KEDZIE AVENUE,
VILLAGE OF EVERGREEN PARK, IL FROM
THE CALUMET EAST AND WEST SOLIDS DRYING AREA
DURING JULY 2006

Constituent	Units	Concentration
pH		6.9
Total Solids	%	75.0
Total Volatile Solids	"	41.5
Volatile Acids as Acetic Acid	mg/dry kg	277
Total Kjeldahl-N	"	21,668
NH ₃ -N	"	2,180
Total P	"	27,288
K	"	4,035
Cd	"	8.1
Cr	"	155
Cu	"	456
Pb	"	120
Hg	"	1.69
Mo	"	14.6
As	"	7.9
Mn	"	815
Ni	"	40.2
Se	"	12.7
Zn	"	1,345

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 7

CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	St. Laurence High School
2.	Address of User:	5556 W. 77th Street Burbank, IL 60459
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 (July 2006):	575.66 dry tons
	Cumulative Quantity Received in 2006:	575.66 dry tons
5.	Date Sludge Received:	July 18, 19, 24, 31, 2006
6.	Use of Sludge at Site:	Used as soil amendment before installing sod on football field
7.	Size of Application Area:	5 acres
8.	Application Rate:	115.13 dry tons/acre

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 8

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
 FOOTBALL FIELD AT 5556 W. 77TH STREET, BURBANK, IL
 FROM THE CALUMET EAST AND WEST SOLIDS DRYING AREA
 DURING JULY 2006

Constituent	Units	Concentration
pH		6.8
Total Solids	%	74.4
Total Volatile Solids	"	41.6
Volatile Acids as Acetic Acid	mg/dry kg	283
Total Kjeldahl-N	"	27,594
NH ₃ -N	"	2,224
Total P	"	34,062
K	"	3,513
Cd	"	8.2
Cr	"	152
Cu	"	467
Pb	"	134
Hg	"	1.76
Mo	"	14.5
As	"	6.8
Mn	"	853
Ni	"	38.6
Se	"	19.0
Zn	"	1,444

*Results based on three samples.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 9

CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	University of Chicago Facilitie
2.	Address of User:	5555 S. Elis Avenue Chicago, IL 60637
3.	Type of Solids and Source:	Agitation dried lagooned anaerobically digested biosolids from the Calumet WRP Drying was done at the Calumet West solids drying area.
4.	Quantity Received (July 2006):	33.18 dry tons
	Cumulative Quantity Received in 2006:	33.18 dry tons
5.	Date Sludge Received:	July 25, 2006
6.	Use of Sludge at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on soccer fields
7.	Size of Application Area:	2 acres
8.	Application Rate:	16.6 dry tons/acre

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 10

ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE
 SOCCER FIELD AT 5555 S. ELIS AVENUE, CHICAGO, IL
 FROM THE CALUMET WEST SOLIDS DRYING AREA
 DURING JULY 2006

Constituent	Units	Concentration
pH		7.0
Total Solids	%	75.8
Total Volatile Solids	"	44.4
Volatile Acids as Acetic Acid	mg/dry kg	502
Total Kjeldahl-N	"	23,434
NH ₃ -N	"	3,423
Total P	"	27,223
K	"	4,308
Cd	"	8.8
Cr	"	170
Cu	"	490
Pb	"	127
Hg	"	2.80
Mo	"	16.2
As	"	5.7
Mn	"	940
Ni	"	42.4
Se	"	18.5
Zn	"	1,435

*Results based on one sample.