

Metropolitan Water Reclamation District of Greater Chicago

RESEARCH AND DEVELOPMENT DEPARTMENT

REPORT NO. 08-64

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JUNE 2008

DECEMBER 2008

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET

CHICAGO, ILLINOIS 60611-3154

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December 15, 2008

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, June 2008

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago - Controlled Solids Distribution Program for June 2008, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793.

Sludge flow schematic diagrams for solids processed during June 2008 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 distributed to five sites in June. The user information report for Chicago Highlands Club, 31st Street and I-294, Westchester, Illinois, is presented in <u>Table 1</u>, and the analysis of composited biosolids delivered to that site is presented in <u>Table 2</u>.

The user information report for Reavis High School, 6034 West 77^{th} Street, Burbank, Illinois, is presented in <u>Table 3</u>, and the analysis of composited biosolids delivered to that site is presented in <u>Table 4</u>.

The user information report for Bartlett Park District, 696 West Stearns Road, Bartlett, Illinois, is presented in <u>Table 5</u>, and the analysis of composited biosolids delivered to that site is presented in <u>Table 6</u>.

The user information report for Evergreen Park High School, 9418 South Kedzie Avenue, Evergreen Park, Illinois, is presented in <u>Table 7</u>, and the analysis of composited biosolids delivered to that site is presented in <u>Table 8</u>.

Subject: Metropolitan Water Reclamation District of Greater Chicago – Controlled Solids Distribution Program IEPA Permit No. 2005-SC-3793, June 2008

The user information report for White Pines Golf Club, 500 West Jefferson Street, Bensenville, Illinois, is presented in <u>Table 9</u>, and the analysis of composited biosolids delivered to that site is presented in <u>Table 10</u>.

Very truly yours,

Louis Kollias Director Research and Development

LK:KK:kq Attachments

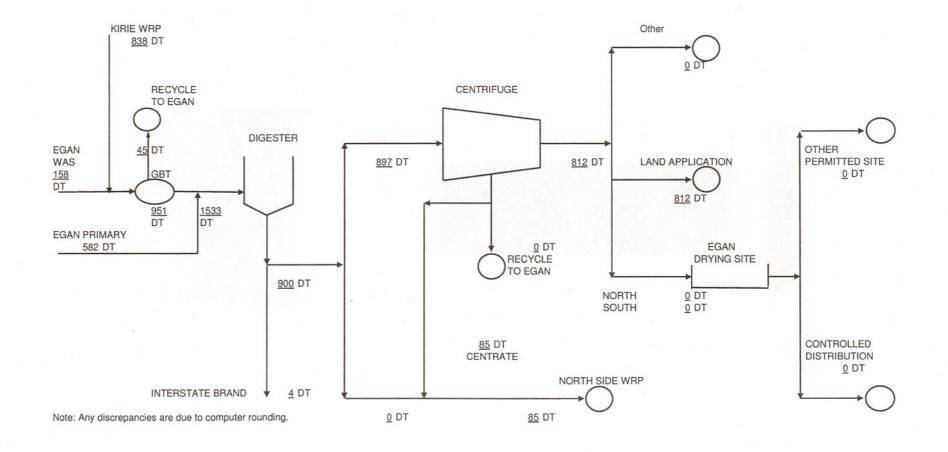
cc w/att.: Aistars (USEPA)

Sulski (IEPA) Sobanski

Granato/O'Connor/Cox

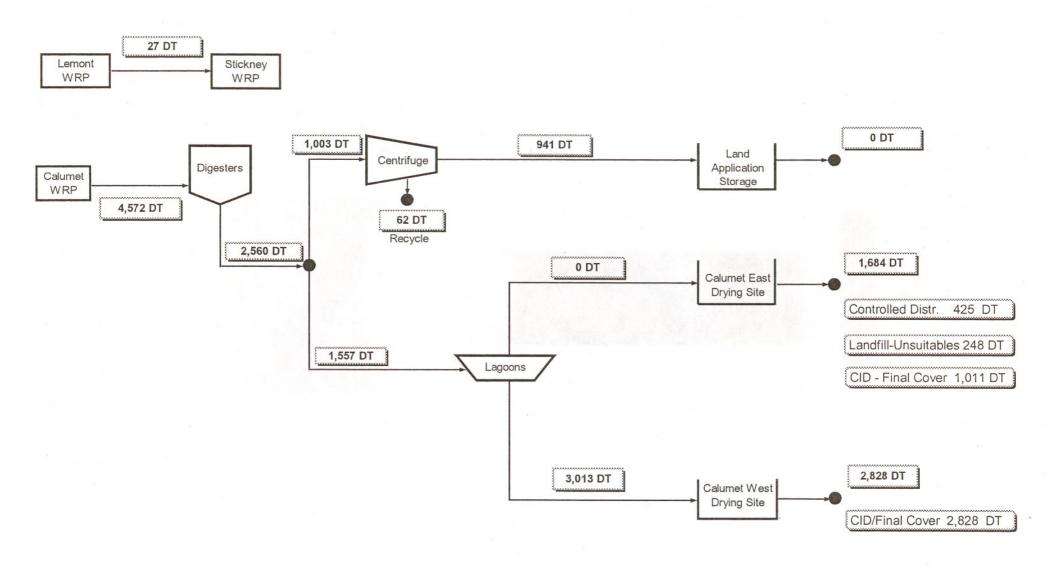
J.E. EGAN WRP SOLIDS DISTRIBUTION-FIGURE 1

June-08



CALUMET WRP SOLIDS DISTRIBUTION - June 2008

Figure 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR JUNE 2008 Figure 3

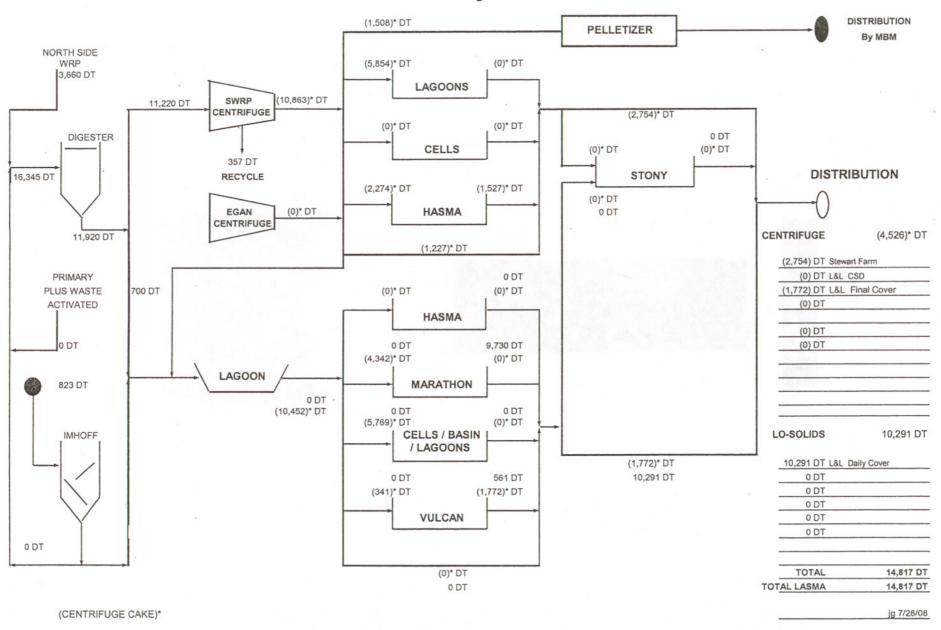


TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Chicago Highlands Club

2. Address of User: 31st St. and I-294

Westchester, IL 60154

3. Type of Solids and

Source:

Agitation dried anaerobically digested biosolids

from the Calumet WRP. Drying was done at the

Calumet East solids drying area.

4. Quantity Received

(June 2008):

271.73 dry tons

Cumulative Quantity

Received in 2008:

271.73 dry tons

5. Date Biosolids Received: June 18 and 30, 2008

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

growth on fairways at the Chicago Highlands Club

golf course, Westchester.

7. Size of Application

Area:

7 acres

8. Application Rate: 38.82 dry tons/acre

TABLE 2: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE CHICAGO HIGHLANDS CLUB GOLF COURSE AT $31^{\rm st}$ ST., WESTCHESTER, IL

FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JUNE 2008

Constituent	Units	Concentration
рН		6.8
Total Solids	%	71.1
Total Volatile Solids	11	28.8
Volatile Acids as Acetic Acid	mg/dry kg	41
Total Kjeldahl-N	"	14,927
NH ₃ -N	11	33
Total P	n .	19,708
K	"	7,028
Cd	"	4.6
Cr	"	106
Cu	"	350
Pb	u u	105
	11	1.07
Hg Mo	11	13.0
As	11	10.0
As		10.0
Mn	"	981
Ni	"	39.2
Se	"	1.2
Zn	"	766

^{*}Results based on two samples.

TABLE 3: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Reavis High School

2. Address of User: 6034 W. 77th St.

Burbank, IL 60459

3. Type of Solids and Agitation dried anaerobically digested biosolids

Source: from the Calumet WRP. Drying was done at the

Calumet East solids drying area.

4. Quantity Received 81.8

(June 2008):

81.83 dry tons

Cumulative Quantity

Received in 2008:

81.83 dry tons

5. Date Biosolids Received: June 18, 2008

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

for enhancing turf growth on soccer fields.

7. Size of Application

Area:

8 acres

8. Application Rate: 10.23 dry tons/acre

TABLE 4: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE

REAVIS HIGH SCHOOL SOCCER FIELDS, BURBANK, IL

FROM THE CALUMET EAST DRYING AREA DURING JUNE 2008

Constituent	Units	Concentration
рН		6.8
Total Solids	%	66.7
Total Volatile Solids	"	25.1
Volatile Acids as Acetic Acid	mg/dry kg	41
Total Kjeldahl-N	"	14,927
NH ₃ -N	"	33
Total P	"	19,708
K	"	6,689
Cd	"	4.0
Cr	"	91
Cu	"	312
Pb	"	90
Hg	"	0.92
Mo	"	11
As	"	9.7
Mn	"	848
Ni	"	35.8
Se	"	2.1
Zn	"	662

^{*}Results based on one sample.

TABLE 5: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Bartlett Park District

2. Address of User: 696 W. Stearns Rd.

Bartlett, IL 60103

3. Type of Solids and Agitation dried lagooned anaerobically digested

Source: biosolids from the Calumet WRP. Drying was

done at the Calumet East solids drying areas.

4. Quantity Received 13.55 dry tons

(June 2008):

Received in 2008:

Cumulative Quantity 13.55 dry tons

5. Date Biosolids Received: June 19, 2007

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

source to improve turf growth on athletic fields.

7. Size of Application 1.6 acres

Area:

8. Application Rate: 8.5 dry tons/acre

TABLE 6: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT KOEHLER FIELDS AT WEST BARTLETT RD. AND RT. 25,

BARTLETT PARK DISTRICT, BARTLETT, IL FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JUNE 2008

pH 6.8 Total Solids % 66.7 Total Volatile Solids " 25.1 Volatile Acids as Acetic Acid mg/dry kg 41 Total Kjeldahl-N " 14,927 NH3-N " 33 Total P " 6,689 Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1 Zn " 662	Constituent	Units	Concentration
Total Volatile Solids " 25.1 Volatile Acids as Acetic Acid mg/dry kg 41 Total Kjeldahl-N " 14,927 NH ₃ -N " 33 Total P " 9,708 K " 6,689 Cd " 4.0 Cr " 91 Cu " 91 Cu " 90 Hg " 90 Hg " 9,7 Mn " 848 Ni " 848 Ni " 35.8 Se " 2.1	рН		6.8
Volatile Acids as Acetic Acid mg/dry kg 41 Total Kjeldahl-N " 14,927 NH3-N " 33 Total P " 19,708 K " 6,689 Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	Total Solids	%	66.7
Total Kjeldahl-N " 14,927 NH3-N " 33 Total P " 19,708 K " 6,689 Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	Total Volatile Solids	"	25.1
Total Kjeldahl-N " 14,927 NH3-N " 33 Total P " 19,708 K " 6,689 Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	Volatile Acids as Acetic Acid	mg/dry kg	41
NH3-N " 33 Total P " 19,708 K " 6,689 Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1		=	14,927
Total P " 19,708 K " 6,689 Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	-	11	
Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1		"	
Cd " 4.0 Cr " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	***		6.600
Ct " 91 Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1			
Cu " 312 Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1			
Pb " 90 Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1			
Hg " 0.92 Mo " 11.0 As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	Cu	"	312
Mo	Pb	"	90
As " 9.7 Mn " 848 Ni " 35.8 Se " 2.1	Hg	"	0.92
Mn " 848 Ni " 35.8 Se " 2.1	Mo	"	11.0
Ni " 35.8 Se " 2.1	As	11	9.7
Ni " 35.8 Se " 2.1	Mn	"	848
Se " 2.1		"	
		"	
		"	

^{*}Results based on one sample.

TABLE 7: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT

1. Name of User: Evergreen Park High School

2. Address of User: 9418 S. Kedzie Ave.

Evergreen Park, IL 60805

3. Type of Solids and Agitation dried lagooned anaerobically digested

Source: biosolids from the Calumet WRP. Drying was

done at the Calumet East solids drying areas.

4. Quantity Received 28.05 dry tons

(June 2008):

Received in 2008:

Cumulative Quantity 28.05 dry tons

5. Date Biosolids Received: June 19, 2008

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

enhancing turf growth on football fields.

7. Size of Application 2.5 acres

Area:

8. Application Rate: 11.22 dry tons/acre

TABLE 8: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE EVERGREEN PARK HIGH SCHOOL FOOTBALL FIELDS AT 89th ST. AND KEDZIE AVE., EVERGREEN PARK, IL FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JUNE 2008

Constituent	Units	Concentration
рН		6.8
Total Solids	%	66.7
Total Volatile Solids	"	25.1
Volatile Acids as Acetic Acid	mg/dry kg	41
Total Kjeldahl-N	"	14,927
NH ₃ -N	"	33
Total P	"	19,708
K	"	6,689
Cd	11	4.0
Cr	"	91
Cu	"	312
Pb	11	11
Hg	11	0.92
Mo	"	6.69
As	"	21.36
Mn	"	848
Ni	11	35.8
Se	11	2.1
Zn	"	662

^{*}Results based on one sample.

TABLE 9: 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 Agitation dried lagooned anaerobically digested

Source: biosolids from the Calumet WRP. Drying was

done at the Calumet East solids drying areas.

4. Quantity Received 29.32 dry tons

(June 2008):

Cumulative Quantity 54.96 dry tons

Received in 2008:

Date Biosolids

5. Received: June 19, 2008

6. Use of Biosolids at Site: Used as fertilizer top dressing to improve turf growth

at White Pines Golf Club, Bensenville.

7. Size of Application 4 acres

Area:

8. Application Rate: 7.33 dry tons/acre

TABLE 10: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE

WHITE PINES GOLF CLUB, 500 W. JEFFERSON ST., BENSENVILLE, IL

FROM THE CALUMET EAST SOLIDS DRYING AREA DURING JUNE 2008

Constituent	Units	Concentration
рН		6.8
Total Solids	%	66.7
Total Volatile Solids	"	25.1
Volatile Acids as Acetic Acid	mg/dry kg	41
Total Kjeldahl-N	"	14,927
NH ₃ -N	"	33
Total P	"	19,708
K	"	6,689
Cd	"	4.0
Cr	"	91
Cu	"	312
Pb	"	90
Hg	"	0.92
Mo	"	11.0
As	"	9.7
Mn	"	848
Ni	"	35.8
Se	"	2.1
Zn	"	662

^{*}Results based on one sample.