

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 09-09

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JULY 2008

FEBRUARY 2009

Protecting Our Water Environment

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Director of Research and Development

312-751-5190

February 18, 2009

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 2008

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

Sludge flow schematic diagrams for solids processed during July 2008 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 seven sites in July. The user information report for these seven sites is presented in Table 1, and the analyses of composited biosolids delivered to those sites are presented in Tables 2, 3, 4, 5, 6, 7, 8 and 9.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:TCG:AC:KK:kq

LK:KK:kq

Attachments

cc: Aistars (USEPA)

Sulski (IEPA)

Sobanski

Granato/O'Connor/Cox

TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT FOR
AGITATION DRIED ANAEROBICALLY DIGESTED SOLIDS

No.	Name and Address of User	Source	Dates	Quantity (dry tons)		Biosolids Use	Application		Analysis
				July 2008	Cumulative 2008		Area (acres)	Rate (tons/acre)	
1.	Chicago Highlands Club 31 st St. and I-294 Westchester, IL 60154	Calumet WRP - East Drying Area	1, 2	788.3	1,060	Soil amendment for construction of golf course fairways.	9	87.6	Table 2
		Stickney WRP - LASMA	25, 26, 28, 29, 31	4,192	5,252	Soil amendment for construction of golf course fairways.	40.0	106.0	Table 3
2.	Golden Gate Community 1300 Eberhart Ave. Chicago, IL 60601	Calumet WRP - West Drying Area	10	9.4	9.4	Improving soil for landscaping.	0.1	94.0	Table 4
3.	White Pines Golf Club 500 W. Jefferson St. Bensenville, IL 60106	Calumet WRP - East Drying Area	15	34.3	89.3	Top dressing as fertilizer for turf growth on golf course.	3	11.4	Table 5
4.	West Chicago Park District 157 W. Washington St. West Chicago, IL 60185	Calumet WRP - West Drying Area	31	81.4	81.4	Nutrient source for turf growth on soccer fields renovation.	1.5	54.3	Table 6
5.	Morgan Park High School 7744 W. Pryor Ave. Chicago, IL 60643	Stickney WRP - LASMA	23	99.0	99.0	Nutrient source for turf growth on soccer fields renovation.	5.0	19.7	Table 7
6.	St. Charles Park District East Side Sports Complex 2N300 Kirk Rd. St. Charles, IL 60174	Stickney WRP - LASMA	29	189.0	189.0	Top dressing as fertilizer for turf on soccer fields and multipurpose fields.	20.0	9.4	Table 8
7.	St. Charles Park District Campton Hills Park Campton Hills Dr. and Peck Rd. St. Charles, IL 60174	Stickney WRP - LASMA	28, 29, 31	76.0	76.0	Nutrient source for enhancing turf growth on soccer field.	6.0	12.7	Table 9

TABLE 2: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT CHICAGO HIGHLANDS CLUB GOLF COURSE ON 31ST ST. AND I-294, WESTCHESTER, IL FROM THE CALUMET EAST DRYING AREA DURING JULY 2008

Constituent	Units	Concentration
pH		6.9
Total Solids	%	75.5
Total Volatile Solids	"	32.5
Volatile Acids as Acetic Acid	mg/dry kg	77
Total Kjeldahl-N	"	14,864
NH ₃ -N	"	98
Total P	"	20,643
K	"	7,368
Cd	"	5.3
Cr	"	121
Cu	"	389
Pb	"	121
Hg	"	1.22
Mo	"	15.0
As	"	10.3
Mn	"	1,113
Ni	"	42.6
Se	"	0.4
Zn	"	869

¹Results based on one sample.

TABLE 4: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
 GOLDEN GATE COMMUNITY, 1300 EBERHART AVE., CHICAGO, IL
 FROM THE CALUMET WEST DRYING AREA
 DURING JULY 2008

Constituent	Units	Concentration
pH		6.4
Total Solids	%	68.8
Total Volatile Solids	"	37.7
	mg/dry kg	
Volatile Acids as Acetic Acid		116
Total Kjeldahl-N	"	18,860
NH ₃ -N	"	335
Total P	"	29,724
K	"	3,594
Cd	"	5.3
Cr	"	100
Cu	"	441
Pb	"	127
Hg	"	1.36
Mo	"	16.6
As	"	11.2
Mn	"	971
Ni	"	38.2
Se	"	4.6
Zn	"	1,091

¹Results based on one sample.

TABLE 5: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
 WHITE PINES GOLF CLUB, 500 W. JEFFERSON ST., BENSENVILLE, IL
 FROM THE CALUMET EAST DRYING AREA
 DURING JULY 2008

Constituent	Units	Concentration
pH		6.7
Total Solids	%	80.1
Total Volatile Solids	"	25.8
	mg/dry kg	
Volatile Acids as Acetic Acid		85
Total Kjeldahl-N	"	13,809
NH ₃ -N	"	75
Total P	"	18,397
K	"	4,576
Cd	"	6.7
Cr	"	111
Cu	"	302
Pb	"	105
Hg	"	0.89
Mo	"	13.3
As	"	9.9
Mn	"	836
Ni	"	36.1
Se	"	2.9
Zn	"	813

¹Results based on one sample.

TABLE 6: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT WEST CHICAGO PARK DISTRICT SOCCER FIELDS, 157 W. WASHINGTON STREET, WEST CHICAGO, IL FROM THE CALUMET WEST DRYING AREA DURING JULY 2008

Constituent	Units	Concentration
pH		7.1
Total Solids	%	65.3
Total Volatile Solids	"	38.3
Volatile Acids as Acetic Acid	mg/dry kg	83
Total Kjeldahl-N	"	20,758
NH ₃ -N	"	617
Total P	"	27,710
K	"	5,134
Cd	"	5.6
Cr	"	112
Cu	"	430
Pb	"	137
Hg	"	1.20
Mo	"	16.6
As	"	11.5
Mn	"	958
Ni	"	41.6
Se	"	0.3
Zn	"	1,088

¹Results based on one sample.

TABLE 7: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
MORGAN PARK HIGH SCHOOL AT 7744 W. PRYOR AVE., CHICAGO, IL
FROM THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA
DURING JULY 2008

Constituent	Units	Concentration
pH		6.6
Total Solids	%	62.4
Total Volatile Solids	"	40.7
Volatile Acids as Acetic Acid	mg/dry kg	330
Total Kjeldahl-N	"	25,315
NH ₃ -N	"	2,308
Total P	"	23,418
K	"	2,882
Cd	"	3.9
Cr	"	179
Cu	"	444
Pb	"	138
Hg	"	0.97
Mo	"	14.0
As	"	<20
Mn	"	572
Ni	"	48.5
Se	"	<8
Zn	"	926

¹Results based on one sample.

TABLE 8: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT EAST SIDE SPORTS COMPLEX AT 2N300 KIRK RD., ST. CHARLES, IL FROM THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA DURING JULY 2008

Constituent	Units	Concentration
pH		6.4
Total Solids	%	73.9
Total Volatile Solids	"	36.4
Volatile Acids as Acetic Acid	mg/dry kg	267
Total Kjeldahl-N	"	21,633
NH ₃ -N	"	2,269
Total P	"	18,876
K	"	2,929
Cd	"	3.8
Cr	"	178
Cu	"	428
Pb	"	137
Hg	"	1.14
Mo	"	15.6
As	"	<20
Mn	"	553
Ni	"	32.0
Se	"	<8
Zn	"	896

¹Results based on one sample.

TABLE 9: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT CAMPTON HILLS PARK AT CAMPTON HILLS DR. AND PECK RD., ST. CHARLES, IL FROM THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA DURING JULY 2008

Constituent	Units	Concentration
pH		6.5
Total Solids	%	70.9
Total Volatile Solids	"	38.4
Volatile Acids as Acetic Acid	mg/dry kg	388
Total Kjeldahl-N	"	28,439
NH ₃ -N	"	2,932
Total P	"	25,374
K	"	2,767
Cd	"	3.6
Cr	"	176
Cu	"	425
Pb	"	130
Hg	"	1.07
Mo	"	16.1
As	"	<20
Mn	"	550
Ni	"	49.5
Se	"	<8
Zn	"	882

¹Results based on one sample.

TABLE 3: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT CHICAGO HIGHLANDS CLUB GOLF COURSE ON 31ST ST. AND I-294, WESTCHESTER, IL FROM THE LAWNSDALE AVENUE SOLIDS MANAGEMENT AREA DURING JULY 2008

Constituent	Units	Concentration
pH		6.5
Total Solids	%	80.6
Total Volatile Solids	"	38.2
Volatile Acids as Acetic Acid	mg/dry kg	293
Total Kjeldahl-N	"	19,483
NH ₃ -N	"	2,161
Total P	"	17,256
K	"	2,945
Cd	"	3.7
Cr	"	178
Cu	"	428
Pb	"	132
Hg	"	1.17
Mo	"	15.1
As	"	<20
Mn	"	554
Ni	"	50.6
Se	"	<8
Zn	"	883

¹Results based on five samples.