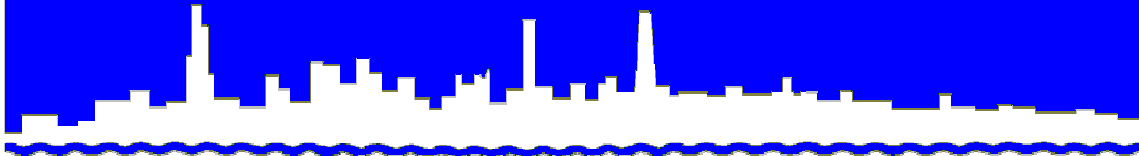


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 09-65

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JULY 2009

DECEMBER 2009

Protecting Our Water Environment

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Louis Kollias, P.E., BCEE

Director of Monitoring and Research
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December 3, 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 Illinois Environmental Protection Agency Permit No. 2005-SC-3793, July 2009

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago - Controlled Solids Distribution Program for July 2009, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793

Sludge flow schematic diagrams for solids processed during July 2009 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 eleven sites in July. The user information report for those sites are presented in [Table 1](#), and the analyses of composited biosolids delivered to those sites are presented in [Tables 2 - 6](#).

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:KK:kq
Attachments
cc: Aistars (USEPA)
Sulski (IEPA)
Sobanski

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
				2009 July	2009 Cumulative		Area (acres)	Rate (tons/acre)	
1.	Corey Steel Company, Inc. 2600 S. 61 st Ct. Cicero, IL 60804	Stickney WRP ¹ - Vulcan drying area	3, 7	856.2	856.2	Nutrient source for re- vegetation of nutrient- deficient land	8.0	107.0	Table 2
2.	Longwood Country Club 3503 E. Steger Rd. Crete, IL 60417	Calumet WRP - East drying area	1	33.0	33.0	Top dressing as fertilizer for turf growth on golf course	3.0	11.0	Table 3
3.	Oak Forest High School 15201 S. Central Ave. Oak Forest, IL 60452	Calumet WRP - East drying area	1	54.0	70.3	Turf top dressing on varsity and practice football fields	4.0	13.5	Table 4
4.	Reavis High School 6034 W. 77 th St. Burbank, IL 60459	Calumet WRP - East drying area	7	169.2	169.2	Top dressing as fertilizer for turf growth on athletic fields	8.0	21.2	Table 5
5.	Volunteer Park Village of Romeville 1100 Murphy Dr. Romeoville, IL 60446	Calumet WRP - East drying area	7, 8, 9, 14	244.6	270.6	Fertilizer top dressing for football fields	10.0	24.5	Table 6
6.	Canterbury Fields Hoffman Estates Park District 1950 Maureen Rd. Hoffman Estates, IL 60169	Calumet WRP - East drying area	8, 9	143.1	143.1	Top dressing as fertilizer for turf growth on athletic fields	4.6	31.1	Table 7
7.	JFK Middle School 12350 S. Essington Rd. Plainfield, IL 60585	Calumet WRP - East drying area	9, 10, 14	103.7	103.7	Reclamation of nutrient - deficient land on athletic fields	12.0	8.6	Table 8

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

No.	Name and Address of User	Source	Quantity (dry tons)			Biosolids Use	Application		Analysis
			Dates	2009 July	2009 Cumulative		Area (acres)	Rate (tons/acre)	
8.	Calumet WRP 400 E. 130 th St. Calumet, IL 60628	Calumet WRP - East drying area	14	141.8	141.8	Reclamation of nutrient - deficient land for landscaping.	2.0	70.9	Table 9
9.	East Side Sports Complex St. Charles Park District 3565 Legacy Blvd. St. Charles, IL 60174	Calumet WRP - East drying area	21, 22, 23	122.4	122.4	Topdressing of turf on soccer and multi-purpose fields	20.0	6.1	Table 10
10.	Plainfield East High School 14812 Eastern Ave. Plainfield, IL 60585	Calumet WRP - East drying area	21	34.5	34.5	Reclamation of nutrient - deficient land	3.0	11.5	Table 11
11.	Blue Island Park District 12704 S. Highland Ave. Blue Island, IL 60406	Calumet WRP - East drying area	30	34.0	34.0	Top dressing as fertilizer for turf growth on baseball field	1.0	34.0	Table 12

¹WRP – Water Reclamation Plant.

TABLE 2: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE COREY STEEL COMPANY, INC., 2600 S. 31st CT., CICERO, IL, FROM THE STICKNEY WATER RECLAMATION PLANT VULCAN DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	76.5
Total Volatile Solids	"	39.0
Volatile Acids as Acetic Acid	mg/dry kg	68
Total Kjeldahl-N	"	20,976
NH ₃ -N	"	955
Total P	"	21,570
K	"	2,035
Cd	"	4.6
Cr	"	181
Cu	"	464
Pb	"	151
Hg	"	1.28
Mo	"	11.3
As	"	<10.0
Mn	"	551
Ni	"	50.2
Se	"	<8.0
Zn	"	1,038

¹Results based on two samples.

TABLE 3: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE LONGWOOD COUNTRY CLUB, 3503 E. STEGER RD., CRETE, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.8
Total Volatile Solids	"	36.5
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	9,622
NH ₃ -N	"	1,584
Total P	"	11,652
K	"	1,607
Cd	"	4.1
Cr	"	81
Cu	"	481
Pb	"	127
Hg	"	1.28
Mo	"	12.1
As	"	8.8
Mn	"	1,100
Ni	"	34.8
Se	"	6.6
Zn	"	1,115

¹Results based on one sample.

TABLE 4: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE OAK FOREST HIGH SCHOOL FOOTBALL FIELDS, OAK FOREST, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.8
Total Volatile Solids	"	36.5
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	9,622
NH ₃ -N	"	1,584
Total P	"	11,652
K	"	1,607
Cd	"	4.1
Cr	"	81
Cu	"	481
Pb	"	127
Hg	"	1.28
Mo	"	12.1
As	"	8.8
Mn	"	1,100
Ni	"	34.8
Se	"	6.6
Zn	"	1,115

¹Results based on one sample.

TABLE 5: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT REAVIS HIGH SCHOOL, 6034 W. 77th ST., BURBANK, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREAS DURING JULY 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	81.5
Total Volatile Solids	"	37.2
Volatile Acids as Acetic Acid	mg/dry kg	6
Total Kjeldahl-N	"	9,389
NH ₃ -N	"	146
Total P	"	11,501
K	"	2,531
Cd	"	4.2
Cr	"	92
Cu	"	486
Pb	"	128
Hg	"	1.04
Mo	"	12.3
As	"	10.2
Mn	"	1,119
Ni	"	37.1
Se	"	5.5
Zn	"	1,152

¹Results based on two samples.

TABLE 6: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT VOLUNTEER PARK, 1100 MURPHY DR., ROMEOVILLE, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	81.7
Total Volatile Solids	"	37.3
Volatile Acids as Acetic Acid	mg/dry kg	5
Total Kjeldahl-N	"	12,697
NH ₃ -N	"	184
Total P	"	15,346
K	"	2,564
Cd	"	4.3
Cr	"	92
Cu	"	476
Pb	"	131
Hg	"	1.03
Mo	"	12.2
As	"	9.8
Mn	"	1,114
Ni	"	38.0
Se	"	5.2
Zn	"	1,156

¹Results based on three samples.

TABLE 7: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
 CANTERBURY FIELDS, 1950 MAUREEN RD., HOFFMAN ESTATES, IL, FROM THE
 CALUMET WATER RECLAMATION PLANT EAST DRYING AREA
 DURING JULY 2009

Constituent	Units	Concentration
pH		6.6
Total Solids	%	82.1
Total Volatile Solids	"	37.4
Volatile Acids as Acetic Acid	mg/dry kg	6
Total Kjeldahl-N	"	11,400
NH ₃ -N	"	136
Total P	"	13,238
K	"	2,770
Cd	"	4.2
Cr	"	93
Cu	"	479
Pb	"	128
Hg	"	1.1
Mo	"	12.0
As	"	10.3
Mn	"	1,101
Ni	"	37.0
Se	"	4.8
Zn	"	1,148

¹Results based on one sample.

TABLE 8: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE JOHN F. KENNEDY MIDDLE SCHOOL, 12350 S. ESSINGTON RD., PLAINFIELD, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.8
Total Solids	%	80.7
Total Volatile Solids	"	38.0
Volatile Acids as Acetic Acid	mg/dry kg	5
Total Kjeldahl-N	"	17,198
NH ₃ -N	"	222
Total P	"	20,005
K	"	2,517
Cd	"	4.4
Cr	"	92
Cu	"	467
Pb	"	131
Hg	"	1.03
Mo	"	12.0
As	"	9.4
Mn	"	1,108
Ni	"	38.2
Se	"	4.9
Zn	"	1,167

¹Results based on three samples.

TABLE 9: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE CALUMET WATER RECLAMATION PLANT, 400 E.130th ST., CALUMET, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.8
Total Solids	%	80.0
Total Volatile Solids	"	38.3
Volatile Acids as Acetic Acid	mg/dry kg	4
Total Kjeldahl-N	"	20,097
NH ₃ -N	"	265
Total P	"	23,389
K	"	2,391
Cd	"	4.5
Cr	"	91
Cu	"	462
Pb	"	133
Hg	"	1.0
Mo	"	12.0
As	"	8.9
Mn	"	1,112
Ni	"	38.8
Se	"	5.0
Zn	"	1,176

¹Results based on two samples.

TABLE 10: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE EAST SIDE SPORTS COMPLEX, 3565 LEGACY BLVD., ST. CHARLES, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.9
Total Solids	%	80.3
Total Volatile Solids	"	35.9
Volatile Acids as Acetic Acid	mg/dry kg	9
Total Kjeldahl-N	"	16,795
NH ₃ -N	"	259
Total P	"	20,605
K	"	5,561
Cd	"	4.7
Cr	"	115
Cu	"	492
Pb	"	133
Hg	"	1.0
Mo	"	13.6
As	"	10.0
Mn	"	1,133
Ni	"	41.4
Se	"	2.3
Zn	"	1,156

¹Results based on two samples.

TABLE 11: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
PLAINFIELD EAST HIGH SCHOOL, 12001 NAPERVILLE RD., PLAINFIELD, IL, FROM
THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA
DURING JULY 2009

Constituent	Units	Concentration
pH		7.2
Total Solids	%	78.7
Total Volatile Solids	"	35.5
Volatile Acids as Acetic Acid	mg/dry kg	6
Total Kjeldahl-N	"	16,612
NH ₃ -N	"	427
Total P	"	19,921
K	"	5,509
Cd	"	4.6
Cr	"	115
Cu	"	490
Pb	"	134
Hg	"	1.0
Mo	"	13.9
As	"	10.3
Mn	"	1,134
Ni	"	41.0
Se	"	2.3
Zn	"	1,145

¹Results based on one sample.

TABLE 12: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE BLUE ISLAND PARK DISTRICT, 12704 S. HIGHLAND AVE., BLUE ISLAND, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING JULY 2009

Constituent	Units	Concentration
pH		6.9
Total Solids	%	80.9
Total Volatile Solids	"	35.1
Volatile Acids as Acetic Acid	mg/dry kg	11
Total Kjeldahl-N	"	17,603
NH ₃ -N	"	263
Total P	"	24,514
K	"	2,876
Cd	"	4.5
Cr	"	113
Cu	"	466
Pb	"	131
Hg	"	1.36
Mo	"	14.2
As	"	10.9
Mn	"	1,174
Ni	"	46.6
Se	"	5.4
Zn	"	1,113

¹Results based on one sample.