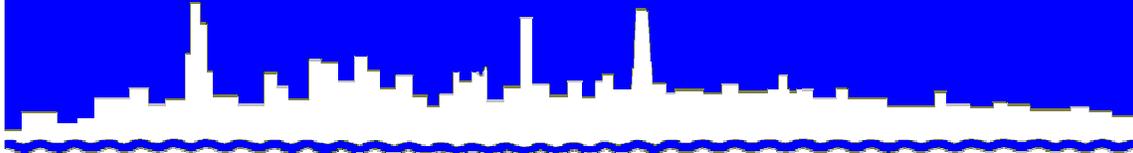


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 10-07

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

NOVEMBER 2009

FEBRUARY 2010

Protecting Our Water Environment

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Louis Kollias, P.E., BCEE

Director of Monitoring and Research
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February 26, 2010

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, November 2009

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

Sludge flow schematic diagrams for solids processed during November 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 nine sites in November. 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 - 11.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:KK:kq
Attachments
cc: Aistars (USEPA)
Sulski (IEPA)
Sobanski
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
				2009 November	2009 Cumulative		Area (acres)	Rate (tons/acre)	
1.	MWRD, Calumet WRP 400 East 130 th St. Calumet, IL 60628	Calumet WRP – East drying area	12, 23	199.3	390.3	Nutrient source to establish turf and landscape plants.	1.5	132.9	Table 2
2.	Thornton Township High School 15001 Broadway Ave. Harvey, IL 60426	Calumet WRP – East drying area	3, 24	73	73	Renovation of football field.	1.5	48.7	Table 3
3.	Coyote Run Golf Course 620 Kedzie Ave. Flossmoor, IL 60422	Calumet WRP – East drying area	14	151.8	151.8	Topdressing as fertilizer on the fairways of the golf course.	18	8.4	Table 4
4.	Burbank Park District MacArthur Park Mick Loony Park Rice Park 8050 S. Newcastle Ave. Burbank, IL 50459	Calumet WRP – East drying area	14	78.9	78.9	Topdressing of athletic field.	5.5	14.3	Table 5
5.	Franklin Park Park District Birth Park North Park 9560 Franklin Ave. Franklin Park, IL 60131	Calumet WRP – East drying area	14	60.5	60.5	Renovation of Birch Park. Topdressing of athletic field.	3	20.1	Table 6

TABLE 1 (Continued): 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 November	2009 Cumulative		Area (acres)	Rate (tons/acre)	
6.	Blue Island Park District Centennial Park Hart Park Memorial Park 12804 S. Highland Ave. Blue Island, IL 60406	Calumet WRP – East drying area	16	88.6	88.6	Topdressing of athletic fields.	6	14.8	Table 7
7.	Chicago Highlands 22 nd & 31 st Streets Westchester, IL 60154	Calumet WRP – East drying area	16	46.3	74.3	Soil amended for construction of golf course fairways.	1	46.3	Table 8
8.	Cypress Cove Family Aquatic Park 8301 S. Janes Ave. Woodridge, IL 60517	Calumet WRP – East drying area	16	22.7	22.7	Topdressing of athletic field.	2	11.4	Table 9
9.	MWRD, Stickney WRP 6001 W. Pershing Rd. Cicero, IL 60804	Stickney WRP – Vulcan drying area	9	15.0	15.0	Nutrient source to establish turf and landscape plants.	0.5	30.0	Table 10

¹WRP – Water Reclamation Plant.

TABLE 2: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO, CALUMET WATER RECLAMATION PLANT., CALUMET, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	64.0
Total Volatile Solids	"	40.2
Volatile Acids as Acetic Acid	mg/dry kg	18
Total Kjeldahl-N	"	16,993
NH ₃ -N	"	1,069
Total P	"	18,946
K	"	3,625
Cd	"	3.8
Cr	"	94
Cu	"	459
Pb	"	112
Hg	"	0.95
Mo	"	13.7
As	"	9.2
Mn	"	1,007
Ni	"	40.5
Se	"	5.0
Zn	"	1,114

¹Results based on two samples.

TABLE 3: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
THE THORNTON SCHOOL DISTRICT., HARVEY, IL, FROM THE CALUMET
WATER RECLAMATION PLANT EAST DRYING AREA
DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	64.0
Total Volatile Solids	"	40.2
Volatile Acids as Acetic Acid	mg/dry kg	18
Total Kjeldahl-N	"	16,993
NH ₃ -N	"	1,069
Total P	"	18,946
K	"	3,625
Cd	"	3.8
Cr	"	94
Cu	"	459
Pb	"	112
Hg	"	0.95
Mo	"	13.7
As	"	9.2
Mn	"	1,007
Ni	"	40.5
Se	"	5.0
Zn	"	1,114

¹Results based on two samples.

TABLE 4: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT
 COYOTE RUN GOLF COURSE, FLOSSMOOR, IL, FROM THE CALUMET
 WATER RECLAMATION PLANT EAST DRYING AREA
 DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	65.5
Total Volatile Solids	"	40.1
Volatile Acids as Acetic Acid	mg/dry kg	26
Total Kjeldahl-N	"	13,155
NH ₃ -N	"	907
Total P	"	15,145
K	"	3,874
Cd	"	4.2
Cr	"	98
Cu	"	489
Pb	"	118
Hg	"	1.01
Mo	"	15.4
As	"	10.2
Mn	"	1,053
Ni	"	41.1
Se	"	4.6
Zn	"	1,143

¹Results based on one sample.

TABLE 5: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE BURBANK PARK DISTRICT, MACARTHUR, MICK LOONEY, AND RICE PARKS , BURBANK, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.7
Total Solids	%	65.5
Total Volatile Solids	"	40.1
Volatile Acids as Acetic Acid	mg/dry kg	26
Total Kjeldahl-N	"	13,155
NH ₃ -N	"	907
Total P	"	15,145
K	"	3,874
Cd	"	4.2
Cr	"	98
Cu	"	489
Pb	"	118
Hg	"	1.01
Mo	"	15.4
As	"	10.2
Mn	"	1,053
Ni	"	41.1
Se	"	4.6
Zn	"	1,143

¹Results based on one sample.

TABLE 6: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE FRANKLIN PARK DISTRICT, BIRCH AND NORTH PARKS, FRANKLIN PARK, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	58.7
Total Volatile Solids	"	41.0
Volatile Acids as Acetic Acid	mg/dry kg	10
Total Kjeldahl-N	"	17,541
NH ₃ -N	"	1,052
Total P	"	19,071
K	"	2,421
Cd	"	2.8
Cr	"	92
Cu	"	466
Pb	"	112
Hg	"	1.05
Mo	"	15.7
As	"	9.5
Mn	"	1,018
Ni	"	42.0
Se	"	6.0
Zn	"	1,107

¹Results based on one sample.

TABLE 7: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE BLUE ISLAND PARK DISTRICT, CENTENNIAL, HART, AND MEMORIAL PARKS, BLUE ISLAND, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	58.7
Total Volatile Solids	"	41.0
Volatile Acids as Acetic Acid	mg/dry kg	10
Total Kjeldahl-N	"	17,541
NH ₃ -N	"	1,052
Total P	"	19,071
K	"	2,421
Cd	"	2.8
Cr	"	92
Cu	"	466
Pb	"	112
Hg	"	1.05
Mo	"	15.7
As	"	9.5
Mn	"	1,018
Ni	"	42.0
Se	"	6.0
Zn	"	1,107

¹Results based on one sample.

TABLE 8: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT CHICAGO HIGHLANDS, WESTCHESTER, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	58.7
Total Volatile Solids	"	41.0
Volatile Acids as Acetic Acid	mg/dry kg	10
Total Kjeldahl-N	"	17,541
NH ₃ -N	"	1,052
Total P	"	19,071
K	"	2,421
Cd	"	2.8
Cr	"	92
Cu	"	466
Pb	"	112
Hg	"	1.05
Mo	"	15.7
As	"	9.5
Mn	"	1,018
Ni	"	42.0
Se	"	6.0
Zn	"	1,107

¹Results based on one sample.

TABLE 9: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT CYPRESS COVE, WOODRIDGE, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.5
Total Solids	%	58.7
Total Volatile Solids	"	41.0
Volatile Acids as Acetic Acid	mg/dry kg	10
Total Kjeldahl-N	"	17,541
NH ₃ -N	"	1,052
Total P	"	19,071
K	"	2,421
Cd	"	2.8
Cr	"	92
Cu	"	466
Pb	"	112
Hg	"	1.05
Mo	"	15.7
As	"	9.5
Mn	"	1,018
Ni	"	42.0
Se	"	6.0
Zn	"	1,107

¹Results based on one sample.

TABLE 10: ANALYSIS¹ OF DIGESTED BIOSOLIDS APPLIED TO LAND AT METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO, STICKNEY BUILDINGS AND GROUNDS, CICERO, IL, FROM THE STICKNEY WATER RECLAMATION PLANT VULCAN DRYING AREA DURING NOVEMBER 2009

Constituent	Units	Concentration
pH		6.0
Total Solids	%	61.9
Total Volatile Solids	"	40.5
Volatile Acids as Acetic Acid	mg/dry kg	239
Total Kjeldahl-N	"	21,758
NH ₃ -N	"	903
Total P	"	21,636
K	"	1,797
Cd	"	4.2
Cr	"	171
Cu	"	468
Pb	"	147
Hg	"	1.04
Mo	"	13.7
As	"	<10.0
Mn	"	503
Ni	"	47.8
Se	"	<8.0
Zn	"	983

¹Results based on one sample.