Milwaukee County Department of Public Works Sanitary Sawar Capacity Management, Operation & Maintenance Program 2016 Departmental Budget Request Recommendations (Greated on 4/29/15)

Description of Work for each department to perform	Percent To Do	Est Cost per Unit	Total all Depts.	Parks	S	Grounds	spu	Airports	าปร	200		H.O.C.	ú	Transi	
Inspect Sanilary Sewer Manholes Trolat Number of Manholes Manholes by Slipulated Agreement Cost to inspect Mri	25%	875.00	1001	482	\$9,075.00	221 55	\$4,125.00	157	\$2,925.00	87	\$1,650.00	¥ 0	\$675.00	20 5	\$375.00
Cleaning and Televising Total Lineal Feet of Sanilary Sewers Estimated Sanitary Sewers to Televise	10%	\$2.34	199,133 19,913	115,200 11,520	\$26,956.80	35,500 3,550	\$8,307.00	26,700	\$6,247,80	12,000	\$2,808.00	7,200	\$1,684.80	2,533	\$592.02
Oye Water Testing Estimated Sonitary Sewers to Dye Test Mobilization Setups	25,	\$1,10		2,304	\$2,534.40	710	\$781.00 \$525.00	534	\$587.40	240	\$264.00	144	\$158.40	ŗ.	\$56.10
Smoke Testing Estimated Sanitary Sewers to Smoke Test Mobilization Serups	Š	\$0.55 \$175.00		2,304	\$1,267.20	710	\$390.50	534	\$293.70	240	\$132.00	144	\$79.20 \$175.00	ŭ. T	\$28,05
Field Investigations (based on number of MHs inspected)	\$				\$4,507		\$2,066		\$1,468		\$813		\$318		\$187
Training for MH Inspections (8 hours)					S		S		S		S.		S		SO
Document Organization & Submittal (based on number of MHs inspected)	of MHs inspe	cled)			SO		S		S		S		S		S
CMOM Annual Meelings (2 @ 6 hours ea)	:				80		S S		os		S		20		SO
		Estimated Internal	emal Cost		\$45,215		\$16,370		\$12,047		56.017		\$3,265		\$1,588
Sanitary Sewer Technical Services by DTPW with cost distributed to the departments	- Total Cost	Fixed Cost	Variable Cost		Parks		Grounds		Airports		Zoo		H.O.C.		Transit
Percent of MHs on County awned property per Dept.	100%		-		48.15%		22.08%		15.68%	:	8.69%		3.40%		2.00%
Train Departments to Perform Inspections	\$200	100%			833		233		\$33		\$33		833		\$33
Record Drawing Search	51,880	10%	%06		\$846		\$405		\$297		\$178		888		\$65
G.J.S. Mapping Updates	\$2,920	10%	%06		\$1,314		\$629		\$461		\$277		\$138		\$101
Update & Maintain Inspection Database	84.660	10%	%06		\$2,097		\$1,004		\$735		2442		2220		\$161
Analyze Inspection Data	\$2,630	20°	%06		\$1,184		\$566		\$415		\$250		\$124		\$91
Label Inspection Photos	\$3,830	% %	% io		51,724		\$825		2604		8363		5181		5133
Add inspection reports to only works Unload Convert to City Works and View CCTV video	87 130	20. 20.	2 8		23 200		24/0		5344		\$207		5103		\$76
Prepare List of Recommended Projects	\$4,630	20,00	8 8		\$2.084		2962		\$734		2706		50.00		5247
Prepare List of Recommended Inspections for Next Year	\$3,430	10%	%06		\$1,544		S739		\$541		\$325		\$162		\$119
Prepare Plans & Specs for Rehab.	\$8,220	10%	%06 6		\$3,699		\$1,770		\$1,297		\$780		8388		\$285
Annual CMOM Meetings with Individual Departments	\$4,480	100%	············		5747		5747		\$747		\$747		\$747		\$747
Annual CMOM Committee Meelings	84,000	100%			\$667		2998		2995		2995		299\$		\$667
CMOM implementation	55,680	10%	%06 %06		\$2,556		\$1,223		2896		\$539		\$268		\$197
Updale MMSD III Master Plan	\$2,330	100%			8388		\$388		\$388		\$388		\$388		\$388
Named III Management Annual Progress Report	\$3,340	22% 50%	75%		51,345		\$692		\$532		\$357		\$224		\$189
	- 1	838			010,10		20/2		/coe		2010		ğ		2379
THE TAXABLE BEAUTIFUL OF THE PROPERTY OF THE P		Estimated DTPW	PW Cost		\$25,733		\$13,477		\$10.472		\$7,184		\$4,696		\$4,038
	Rounded	Rounded Total Estimated C	ited Cost		870,900		\$29,800		\$22,500		\$13,200		\$8,000		\$5,600
					-				1		10071010		3-22-22		l

For total cost of each technical services task, see page 2.

Grand Total all Departments

\$150,000

Milwaukee County Faci	lities	•	ting For
		6/18/2015 2 0	014
Financial Managem	ent		
 Provider of Financial Name: Telephone: E-Mail Address (optional): 	Information Mark Sifuentes (414) 278-5138 Mark.Sifuentes@milwcnty.com	(xxx) xxx-xxxx	
2. Treatment Works Op 2.1 Are User Charges of treatment plant AND/O • Yes (0 points) • No (40 points) If No, please explain:	or other revenues sufficient to cover O&I	1 expenses for your wastewater	
Year: 0 0-2 years ago (0 poi 0 3 or more years ago N/A (private facility) 2.3 Did you have a spe financial resources avai plant and/or collection Yes (0 points)	(20 points) ecial account (e.g., CWFP required segre lable for repairing or replacing equipmen	gated Replacement Fund, etc.) or	0
O No (40 points)			
3. Equipment Replacem			<u> </u>
Year: 0 1-2 years ago (0 poi 0 3 or more years ago N/A If N/A, please explain	(20 points)	and/or revised?	
We do not have was	tewater equipment.	**	
3.2 Equipment Replace	ement Fund Activity		
3.2.2 Adjustments - if	necessary (e.g. earned interest, awal of excess funds, increase ortfall, etc.)	\$ 1.00 \$ 0.00	
3.2.3 Adjusted Janua	ary 1st Beginning Balance	\$ 1.00	
3.2.4 Additions to Fund earned interest, etc.)	d (e.g. portion of User Fee, +	\$ 0.00	- Pro
	n Fund (e.g., equipment airs - use description box	\$ 0.00	
3.2.6 Ending Balance CMAR Reporting Year	e as of December 31st for	\$ 1.00	

Milwaukee County Facilities

Last Updated: Reporting For:

6/18/2015

2014

All Sources: This ending balance should include a	ill
Equipment Replacement Funds whether held in a	
bank account(s), certificate(s) of deposit, etc.	

3.2.6.1 Indicate adjustments, equipment purchases, and/or major repairs from 3.2.5 above.

3.3 What amount should be in your Replacement Full	und?	
--	------	--

;	1.00

Please note: If you had a CWFP loan, this amount was originally based on the Financial Assistance Agreement (FAA) and should be regularly updated as needed. Further calculation instructions and an example can be found by clicking the HELP link under Info in the left-side

0

3.3.1 Is the December 31 Ending Balance in your Replacement Fund above, (#3.2.6) equal to, or greater than the amount that should be in it (#3.3)?

- Yes
- O No

If No, please explain.

- 4. Future Planning
- 4.1 During the next ten years, will you be involved in formal planning for upgrading, rehabilitating, or new construction of your treatment facility or collection system?
- Yes If Yes, please provide major project information, if not already listed below.
- O No

Project #	Project Description		Approximate Construction Year
1	Complete construction for manhole and pipe rehabilitation. Complete Management Plan, Overflow Response Plan, Communication Plan, and Audit Plan. Continue to update Cityworks and G.I.S. sanitary sewer mapping and database.	61,031.32	2009
2	Departmental work: Training for inspections, inspect 25% sanitary sewer manholes, televising, cleaning, dye water testing, smoke testing, field investigations, document organization and submittal, CMOM annual meetings and activities.	33,401.90	2009
	A&E work: Train departments to perform inspections, search record drawings, update GIS mapping and databases, upload inspection reports and convert information to City Works, view CCTV video, analyze inspection data, prepare list of recommended projects, prepare list of recommended inspections for following year, annual CMOM meetings, prepare MMSD I/I Management Annual Progress Report, Prepare WDNR Compliance Maintenance Annual Report.	31,066.00	2009
	Countywide Sanitary Sewers: Airport, HOC, and Transit Sanitary Sewer Rehabilitation and Countywide CCTV - V009-09605	75,252.90	2010
	Inspect 25% sanitary sewer manholes, televising, cleaning, dye water testing, smoke testing, field investigations, document organization and submittal, CMOM annual meetings and activities, continually update GIS mapping and databases, upload inspection reports and convert information to City Works, view CCTV video, search record drawings, analyze inspection data, prepare list of recommended projects, prepare list of recommended inspections for following year, annual CMOM meetings, prepare MMSD I/I Management Annual Progress Report, Prepare WDNR Compliance Maintenance Annual Report.	175,773.44	2010

Milwaukee County Facilities Last Updated: Reporting For: 6/18/2015 2014

		6/18/2015	2014
smoke testing, field invo annual meetings and ac upload inspection report search record drawings, projects, prepare list of	ewer manholes, televising, cleaning, dye water testing, estigations, document organization and submittal, CMOM tivities, continually update GIS mapping and databases, ts and convert information to City Works, view CCTV video, analyze inspection data, prepare list of recommended recommended inspections for following year, annual CMOM D CMOM Program Annual Report, Prepare WDNR Compliance port.	81,626.24	2011
	Review, sanitary sewer database, and manhole inspection	10,259.71	2005
	atabase, inspect manhole tops, begin abandoning unused ntinue CMOM Readiness Review.	269,444.43	2006
complete SSES, update	ehabilitation, abandon more unused manholes and pipes, sanitary sewer database, complete CMOM Readiness Plan, begin planning and design for 2008 construction	1,927,033	2007
SSES. Completed Strategic Pla Began Management Plan Plan.	n, Overflow Response plan, Communications Plan, and Audit software into G.I.S. and pdated sanitary sewer mapping and MAR reporting. MMR meetings.	171,283.85	2008
	Sewers: Constructed new sewers to serve existing d old sewers including sewer under lagoon and sewer from ool.	346,008.42	2008
12 Parks North Sanitary Se	wer Rehabilitation	287,980.69	2008
13 Parks South Sanitary Se	wer Rehabilitation	311,302.81	2008
14 County Grounds/Zoo Sa	nitary Rehabilitation	284,719.27	2009
15 Countywide Sanitary Se Rehabilitation and Coun	wers: Airport, HOC, and Transit Sanitary Sewer tywide CCTV - V009-09605	11,0048.41	2009
16 2010 Sanitary Sewers-N	Iultiple Locations - V0090652	6,648.58	2010
17 2010 Sanitary Sewers-M	Iultiple Locations - V0090652	123,479.22	2011
18 Grant Park Sanitary Lift V029-13808	Station Replacement	39,255.27	2014
smoke testing, field inve annual meetings and ac upload inspection report search record drawings, projects, prepare list of	ewer manholes, televising, cleaning, dye water testing, estigations, document organization and submittal, CMOM tivities, continually update GIS mapping and databases, and convert information to City Works, view CCTV video, analyze inspection data, prepare list of recommended recommended inspections for following year, annual CMOM D CMOM Program Annual Report, Prepare WDNR Compliance bort.	43,031.41	2012
	wers: Airport, HOC, and Transit Sanitary Sewer tywide CCTV - V009-09605	3,419.22	2011
smoke testing, field inve annual meetings and ac upload inspection report search record drawings, projects, prepare list of	ewer manholes, televising, cleaning, dye water testing, estigations, document organization and submittal, CMOM tivities, continually update GIS mapping and databases, and convert information to City Works, view CCTV video, analyze inspection data, prepare list of recommended recommended inspections for following year, annual CMOM D CMOM Program Annual Report, Prepare WDNR Compliance bort.	47,750.63	2014
22 2010 Sanitary Sewers-M	Jultiple Locations - V0090652	98,619.53	2012
	wers: Airport, HOC, and Transit Sanitary Sewer tywide CCTV - V009-0605	6,196.92	2012
24 Countywide Sanitary Se V009-2610	wers: Sanitary Sewer Rehabilitation and Countywide CCTV -	12,234.53	2012

Milwaukee County Facilities Last Updated: Reporting For: 6/18/2015 2014

25	Inspect 25% sanitary sewer manholes, televising, cleaning, dye water testing, smoke testing, field investigations, document organization and submittal, CMOM annual meetings and activities, continually update GIS mapping and databases, upload inspection reports and convert information to City Works, view CCTV video, search record drawings, analyze inspection data, prepare list of recommended projects, prepare list of recommended inspections for following year, annual CMOM meetings, prepare MMSD CMOM Program Annual Report, Prepare WDNR Compliance Maintenance Annual Report.	42,962.00	2013
26	Countywide Sanitary Sewers: Sanitary Sewer Rehabilitation and Countywide CCTV - V009-2610	153,088.00	2013
27	Countywide Sanitary Sewers: Sanitary Sewer Rehabilitation and Countywide CCTV - V009-3801	918.00	2013
28	Inspect 25% sanitary sewer manholes, televising, cleaning, dye water testing, smoke testing, field investigations, document organization and submittal, CMOM annual meetings and activities, continually update GIS mapping and databases, upload inspection reports and convert information to City Works, view CCTV video, search record drawings, analyze inspection data, prepare list of recommended projects, prepare list of recommended inspections for following year, annual CMOM meetings, prepare MMSD CMOM Program Annual Report, Prepare WDNR Compliance Maintenance Annual Report.	175,000	2015
29	Correct deficiencies identified during previous year's inspections.	150,000	2015
30	Countywide Sanitary Sewers: Sanitary Sewer Rehabilitation and Countywide CCTV - V009-2610	8,075.57	2014

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	Α

Last Updated: Reporting For: **Milwaukee County Facilities** 6/18/2015

2014

Sanitary Sewer Collection Systems

difficulty oction dysteins
 CMOM Program 1.1 Do you have a Capacity, Management, Operation & Maintenance (CMOM) requirement in your WPDES permit? ◆ Yes
O No
 1.2 Did you have a documented (written records/files, computer files, video tapes, etc.) sanitary sewer collection system operation & maintenance (O&M) or CMOM program last calendar year? Yes (Continue with question 1)
O No (30 points) (Go to question 2)
1.3 Check the elements listed below that are included in your O&M or CMOM program.☒ Goals
Describe the specific goals you have for your collection system:
1.) Comply with the conditions of the WPDES permit. 2.) Minimize the occurrence of preventable overflows. 3.) Ensure proper o&M is performed on County collection system assets. 4.) Improve or maintain system reliability. 5.) Reduce the potential threat to human health from sewer overflows. 6.) Provide adequate capacity to convey peak flow. 7.) Manage infiltration and inflow. 8.) Protect collection system worker health and safety. 9.) Operate a continuous CMOM program.
☑ Organization
Do you have the following written organizational elements (check only those that apply)? ☑ Ownership and governing body description ☑ Organizational chart ☑ Personnel and position descriptions ☑ Internal communication procedures
☐ Public information and education program
□ Legal Authority
Do you have the legal authority for the following (check only those that apply)? Sewer use ordinance Last Revised Date (MM/DD/YYYY)
☐ Pretreatment/industrial control Programs
☐ Fat, oil and grease control
☐ Illicit discharges (commercial, industrial)
☑ Private property clear water (sump pumps, roof or foundation drains, etc.)☑ Private lateral inspections/repairs
☐ Service and management agreements
✓ Maintenance Activities (provide details in question 2)✓ Design and Performance Provisions
How do you ensure that your sewer system is designed and constructed properly? ☑ State plumbing code
☑ DNR NR 110 standards
☐ Local municipal code requirements
☐ Construction, inspection, and testing
☐ Others:
☑ Overflow Emergency Response Plan:
Does your emergency response capability include (check only those that apply)?
☑ Alarm system and routine testing
Extending they procedures

removal

Last Updated: Reporting For: **Milwaukee County Facilities** 6/18/2015 2014 ☑ Communications/notifications (DNR, internal, public, media, etc.) □ Capacity Assurance: How well do you know your sewer system? Do you have the following? □ Current and up-to-date sewer map ☑ Manhole location map ☑ Lift station pump and wet well capacity information □ Lift station O&M manuals Within your sewer system have you identified the following? □ Areas with flat sewers □ Areas with surcharging Areas with bottlenecks or constrictions ☐ Areas with chronic basement backups or SSOs Areas with excess debris, solids, or grease accumulation ☑ Areas with heavy root growth 0 ☑ Areas with excessive infiltration/inflow (I/I) ☐ Sewers with severe defects that affect flow capacity ☑ Adequacy of capacity for new connections ☐ Lift station capacity and/or pumping problems Annual Self-Auditing of your O&M/CMOM Program to ensure above components are being implemented, evaluated, and re-prioritized as needed ☐ Special Studies Last Year (check only those that apply): ☐ Infiltration/Inflow (I/I) Analysis ☐ Sewer System Evaluation Survey (SSES) ☐ Sewer Evaluation and Capacity Managment Plan (SECAP) ☐ Lift Station Evaluation Report ☐ Others: 2. Operation and Maintenance 2.1 Did your sanitary sewer collection system maintenance program include the following maintenance activities? Complete all that apply and indicate the amount maintained. % of system/year Cleaning % of system/year Root removal 5 % of system/year Flow monitoring % of system/year Smoke testina Sewer line % of system/year televising Manhole 16.15 % of system/year inspections # per L.S./year Lift station O&M Manhole 1 % of manholes rehabbed rehabilitation Mainline % of sewer lines rehabbed 1 rehabilitation Private sewer 0 inspections % of system/year Private sewer I/I % of private services

Compliance Maintenance Annual Report Milwaukee County Facilities

Milv	vaukee County Fa	cilities	Last Updated: 6/18/2015	Reporting For 2014
	Please include additi	onal comments about your sanitary sewer collection	system below:	
		ring collection system and flow information for the pa		
		Total actual amount of precipitation last year in inch	nes	
		Annual average precipitation (for your location)		
		Miles of sanitary sewer		
	32	Number of lift stations		
	1	Number of lift station failures		
	1	Number of sewer pipe failures		
	2	Number of basement backup occurrences		
	4	Number of complaints		
		Average daily flow in MGD (if available)		
		Peak monthly flow in MGD (if available)		
		Peak hourly flow in MGD (if available)		
3.	2 Performance ratio 0.03	s for the past year: Lift station failures (failures/year)		
	0.02	Sewer pipe failures (pipe failures/sewer mile/yr)		
		Sanitary sewer overflows (number/sewer mile/yr)		
		Basement backups (number/sewer mile)		
		Complaints (number/sewer mile)		
		Peaking factor ratio (Peak Monthly: Annual Daily Avg	a)	
		Peaking factor ratio (Peak Hourly:Annual Daily Avg)		
		, canning receive the (received and received	,	
4.	Overflows			
Γ	LIST OF SANITARY	SEWER (SSO) AND TREATMENT FACILITY (TFO) OF	ERFLOWS REPOR	TED **
	Date		Cause Es	stimated
			Vol	ume (MG)
		None reported		
	* If there were any son this section until co	SSOs or TFOs that are not listed above, please contabrrected.	ct the DNR and s	top work
5. c	Yes No	nflow (I/I) significant in your community last year?		
	If Yes, please descri	be:		
yc C	our collection system Yes	flow and resultant high flows affected performance on, lift stations, or treatment plant at any time in the p		ms in
	No	hou		
	If Yes, please descri	De:		
ı				

Milwaukee County Facilities

Last Updated: Reporting For:

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5.3 Explain any infiltration/inflow (I/I) changes this year from previous years:

We are not aware of any changes in regards to I/I between this year and last year.

5.4 What is being done to address infiltration/inflow in your collection system?

Our on-going maintenance: which includes inspections, investigations and corrections will continue to improve our sewer system in regards to the elimination of infiltration and inflow.

Total Points Generated	0
Score (100 - Total Points Generated)	100
Section Grade	Α

Milwaukee County Facilities

Last Updated: Reporting For: 6/18/2015 2014

Grading Summary

WPDES No: 0047341

SECTIONS	LETTER GRADE	GRADE POINTS	WEIGHTING FACTORS	SECTION POINTS	
Financial	A	4	1	4	
Collection	Α	4	3	12	
TOTALS			4	16	
GRADE POINT AVERAGE (GPA) = 4					

Notes:

A = Voluntary Range (Response Optional)

B = Voluntary Range (Response Optional)

C = Recommendation Range (Response Required)

D = Action Range (Response Required)

F = Action Range (Response Required)

Milwaukee County Facilities		Last Updated:	Reporting For
		6/18/2015	2014
Resolution or Owner	s Statement		
Name of Governing Body or Owner:	Milwaukee County		
Date of Resolution or Action Taken:			
Resolution Number:			
			quired
Collection Systems: Gra	de = A		
	HE GOVERNING BODY OR OWNER REL GENERAL COMMENTS (Optional for G. an 3.00)		