

**Milwaukee County Department of Public Works  
Sanitary Sewer Capacity Management, Operation & Maintenance Program  
2017 Departmental Budget Request Recommendations (Created on 5/23/16)**

Description of Work for each department to perform	Percent To Do	Est Cost per Unit	Total all Depts.	Parks		Grounds		Airports		Zoo		H.O.C.		Transit	
Inspect Sanitary Sewer Manholes			1001	482		221		157		87		34		20	
Total Number of Manholes				482		221		157		87		34		20	
Manholes by Stipulated Agreement	25%	\$75.00		121	\$9,075.00	55	\$4,125.00	39	\$2,925.00	22	\$1,650.00	9	\$675.00	5	\$375.00
Cost to Inspect MH															
Cleaning and Televising															
Total Lineal Feet of Sanitary Sewers			199,133	115,200		35,500		26,700		12,000		7,200		2,533	
Estimated Sanitary Sewers to Televisize	10%	\$2.34	19,913	11,520	\$26,956.80	3,550	\$8,307.00	2,670	\$6,247.80	1,200	\$2,808.00	720	\$1,684.80	253	\$592.02
Dye Water Testing															
Estimated Sanitary Sewers to Dye Test	2%	\$1.10		2,304	\$2,534.40	710	\$781.00	534	\$587.40	240	\$264.00	144	\$158.40	51	\$56.10
Mobilization Setups		\$175.00		2	\$350.00	3	\$525.00	2	\$350.00	1	\$175.00	1	\$175.00	1	\$175.00
Smoke Testing															
Estimated Sanitary Sewers to Smoke Test	2%	\$0.55		2,304	\$1,267.20	710	\$390.50	534	\$293.70	240	\$132.00	144	\$79.20	51	\$28.05
Mobilization Setups		\$175.00		3	\$525.00	1	\$175.00	1	\$175.00	1	\$175.00	1	\$175.00	1	\$175.00
Field Investigations (based on number of MHs inspected)					\$4,507		\$2,066		\$1,468		\$813		\$318		\$187
Training for MH Inspections (8 hours)					\$0		\$0		\$0		\$0		\$0		\$0
Document Organization & Submittal (based on number of MHs inspected)					\$0		\$0		\$0		\$0		\$0		\$0
CMOM Annual Meetings (2 @ 6 hours ea)					\$0		\$0		\$0		\$0		\$0		\$0
Estimated Internal Cost					\$45,215		\$16,370		\$12,047		\$6,017		\$3,265		\$1,588
<b>Sanitary Sewer Technical Services by DTPW with cost distributed to the departments</b>															
	* Total Cost	Fixed Cost	Variable Cost	Parks		Grounds		Airports		Zoo		H.O.C.		Transit	
Percent of MHs on County owned property per Dept.	100%			48.15%		22.08%		15.68%		8.69%		3.40%		2.00%	
Train Departments to Perform Inspections	\$200	100%		\$33		\$33		\$33		\$33		\$33		\$33	
Record Drawing Search	\$1,880	10%	90%	\$846		\$405		\$297		\$178		\$89		\$65	
G.I.S. Mapping Updates	\$2,920	10%	90%	\$1,314		\$629		\$461		\$277		\$138		\$101	
Update & Maintain Inspection Database	\$4,660	10%	90%	\$2,097		\$1,004		\$735		\$442		\$220		\$161	
Analyze Inspection Data	\$2,630	10%	90%	\$1,184		\$566		\$415		\$250		\$124		\$91	
Label Inspection Photos	\$3,830	10%	90%	\$1,724		\$825		\$604		\$363		\$181		\$133	
Add Inspection Reports to City Works	\$2,180	10%	90%	\$981		\$470		\$344		\$207		\$103		\$76	
Upload, Convert to City Works, and View CCTV video	\$7,130	10%	90%	\$3,209		\$1,536		\$1,125		\$677		\$337		\$247	
Prepare List of Recommended Projects	\$4,630	10%	90%	\$2,084		\$997		\$731		\$439		\$219		\$160	
Prepare List of Recommended Inspections for Next Year	\$3,430	10%	90%	\$1,544		\$739		\$541		\$325		\$162		\$119	
Prepare Plans & Specs for Rehab.	\$8,220	10%	90%	\$3,699		\$1,770		\$1,297		\$780		\$388		\$285	
Annual CMOM Meetings with Individual Departments	\$4,480	100%		\$747		\$747		\$747		\$747		\$747		\$747	
Annual CMOM Committee Meetings	\$4,000	100%		\$667		\$667		\$667		\$667		\$667		\$667	
CMOM Implementation	\$5,680	10%	90%	\$2,556		\$1,223		\$896		\$539		\$268		\$197	
Update MMSD I/I Master Plan	\$2,330	100%		\$388		\$388		\$388		\$388		\$388		\$388	
MMSD I/I Management Annual Progress Report	\$3,340	25%	75%	\$1,345		\$692		\$532		\$357		\$224		\$189	
DNR Compliance Maintenance Annual Report	\$4,060	50%	50%	\$1,316		\$787		\$657		\$515		\$407		\$379	
Estimated DTPW Cost					\$25,733		\$13,477		\$10,472		\$7,184		\$4,696		\$4,038
<b>Rounded Total Estimated Cost</b>					<b>\$70,900</b>		<b>\$29,800</b>		<b>\$22,500</b>		<b>\$13,200</b>		<b>\$8,000</b>		<b>\$5,600</b>

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

**Grand Total all Departments \$150,000**