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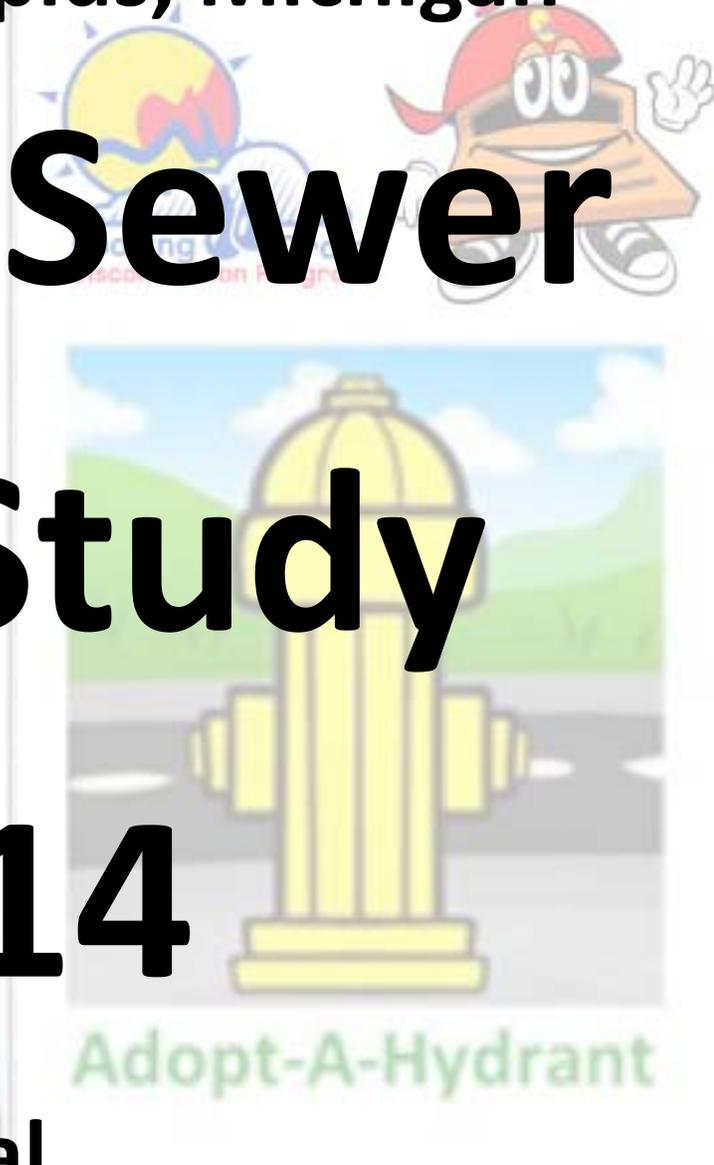
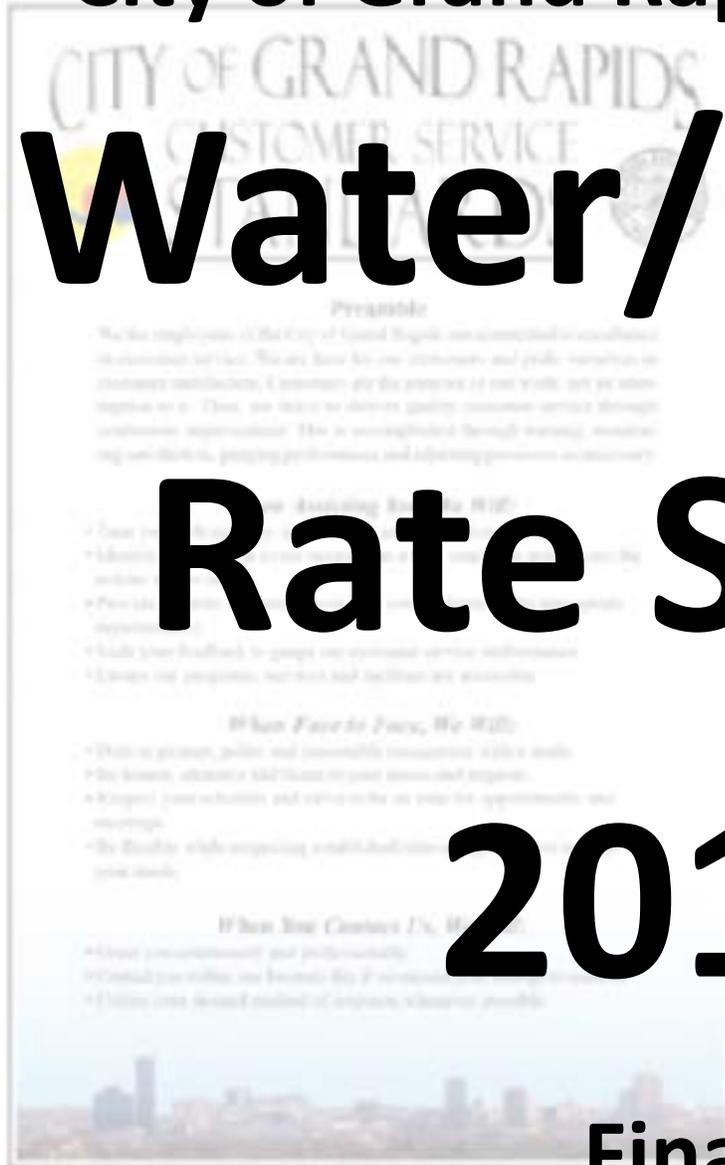
City of Grand Rapids, Michigan

# Water/Sewer

# Rate Study

# 2014

Final



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# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** January 8, 2015

**TO:** Eric R. DeLong  
Deputy City Manager

**FROM:** Geri D. Eye, CPA   
Utility Financial Officer

**SUBJECT:** 2014 WATER/SEWER RATE STUDY – FINAL REPORT

The final study, setting water and sewer rates effective January 1, 2015, for Grand Rapids and the retail and wholesale partner communities it serves, is submitted herein for reference and/or retention. A table of contents immediately precedes the report's three sections and lists the respective tasks performed in reviewing the operating and financial performance of the Water Supply System and Sewage Disposal System. The annual study consists of a comprehensive review of the operating and capital costs by community, in conjunction with customer base variation and usage, and calculates recommended commodity and service rates based upon adherence to: (a) the uniform rate-setting methodology established in 1976-77 for customer communities not party to the uniform water and sewer service agreements; and (b) rate methodology changes contractually agreed in the uniform water and sewer service agreements for Utility Advisory Board (UAB) member customer communities. The methodology yields consistent performance in providing for the long-term needs of the water and sewage systems and assuring adequate debt service coverage pursuant to the systems' master bond ordinance covenants.

The City's 2014 review marked the 38<sup>th</sup> annual water/sewer rate study report and resulted in modest utility rate increases as follows:

1. Water Supply System revenue requirements increased \$976,882, or 2.50% more than revenue generated by existing rates and charges and included for the first time a supplemental revenue requirement to help ensure satisfactory debt coverage. The approved water rate is the first increase since 2011.
2. Sewage Disposal System revenue requirements increased \$1,363,227, or 2.81% more than revenue generated by existing rates and charges and is consistently aligned with sewer's average performance within a narrow band of fluctuation over the last four years.

The final rate study continues to provide funding from the penalty fees to support both of the City's circuit breaker programs. A contribution of \$167,117 will support the Individual Circuit

Breaker program aimed to help eligible retail customers pay their water/sewer bills. Sufficient funding was also available to apply full City and Customer Community Circuit Breaker relief to the water and/or sewer utility rates in Grand Rapids, Cascade, Kentwood, and Tallmadge to limit each retail service area's revenue requirement change to a level in line with the overall systems' average change.

Four schedules supplement and immediately follow this memo. The first schedule summarizes the revenue requirement changes by customer community. The second and third schedules show water and sewer rate adjustment impacts to typical domestic and commercial customers with the system average quarterly consumption in each retail community. They also include a comparison of the approximate monthly charge for Wright Township's residential equivalent unit (REU) rate structure. The final schedule shows comparative water and sewer monthly service and commodity rate adjustments for the City's wholesale customer communities.

Announcement of the proposed 2015 water and sewer rates to the UAB partners and other customer communities was made November 15, 2014, and the City Commission approved the customer community rates by resolution on December 16, 2014.

Public hearings for water and sewer rates and charges in Grand Rapids were held on December 2, 2014, and the City Commission approved final adoption of the water and sewer ordinance amendments on December 16, 2014.

Attachments as named

GDE:gde

**CITY OF GRAND RAPIDS, MICHIGAN  
2014 FINAL WATER/SEWER RATE STUDY  
SUMMARY OF REVENUE REQUIREMENT CHANGES  
FOR RATES EFFECTIVE JANUARY 1, 2015  
January 8, 2015**

	<u>WATER (1)</u>		<u>SEWER (1)</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
GRAND RAPIDS	\$ 695,392	3.02%	\$ 1,013,333	3.05%
WALKER	21,254	0.68%	72,997	1.54%
KENTWOOD	117,836	2.85%	113,960	3.05%
CASCADE TWP	92,126	3.02%	26,687	1.27%
GRAND RAPIDS TWP (2) NET OF CONTRIBUTION OF:	(24,461)	-1.16%	(4,215) 2,400	-0.18%
TALLMADGE TWP	(2,977)	-1.97%	8,483	3.05%
WRIGHT TWP (2) NET OF CONTRIBUTION OF:	NA	NA	248 5,000	0.10%
EAST GRAND RAPIDS	23,678	2.78%	24,421	4.07%
ADA TWP	34,551	2.99%	98,501	8.43%
OTTAWA COUNTY	19,483	1.33%	NA	NA
GAINES TWP	NA	NA	1,412	1.17%
<b>SYSTEM</b>	<b>\$ 976,882</b>	<b>2.50%</b>	<b>\$ 1,363,227</b>	<b>2.81%</b>

(1) Change in revenue requirements based on revenues currently generated from rates, customer base and volumes reported in the preliminary rate study (Includes consideration for relief from CCCC).

(2) Grand Rapids Twp contributed \$2,400 in 2014 Rate Study for 2015 sewer revenue requirements & rates. Wright Twp contributed \$5,000 in 2014 Rate Study for 2015 sewer revenue requirements & rates.

**DISCLOSE RELIEF PROVIDED BY CITY & CUSTOMER COMMUNITY CIRCUIT BREAKER (CCCC)**

	<u>WATER</u>		<u>SEWER</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
SYSTEM CHANGE- ABOVE	\$ 976,882	2.50%	\$ 1,363,227	2.81%
ADD: CCCC RELIEF	203,593	0.52%	121,206	0.24%
SYSTEM CHANGE- WITHOUT RELIEF	<u>\$ 1,180,475</u>	<u>3.02%</u>	<u>\$ 1,484,433</u>	<u>3.05%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
2014 FINAL WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON DOMESTIC USERS  
BY CUSTOMER COMMUNITY \*  
January 8, 2015**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2014</u>	<u>2015</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 67.60	\$ 69.79	\$ 2.19	3.24%
SEWER	94.56	97.95	3.39	3.59%
	<u>\$ 162.16</u>	<u>\$ 167.74</u>	<u>\$ 5.58</u>	3.44%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 71.81	\$ 72.58	\$ 0.77	1.07%
SEWER	132.10	134.45	2.35	1.78%
	<u>\$ 203.91</u>	<u>\$ 207.03</u>	<u>\$ 3.12</u>	1.53%
RATIO TO GR	1.26	1.23		
<b>KENTWOOD</b>				
WATER	\$ 77.02	\$ 79.83	\$ 2.81	3.65%
SEWER	56.96	59.19	2.23	3.92%
	<u>\$ 133.98</u>	<u>\$ 139.02</u>	<u>\$ 5.04</u>	3.76%
RATIO TO GR	0.83	0.83		
<b>CASCADE TWP</b>				
WATER	\$ 105.86	\$ 109.64	\$ 3.78	3.57%
SEWER	134.21	136.49	2.28	1.70%
	<u>\$ 240.07</u>	<u>\$ 246.13</u>	<u>\$ 6.06</u>	2.52%
RATIO TO GR	1.48	1.47		
<b>GRAND RAPIDS TWP- Contribution of \$3,200 for 2014 &amp; \$2,400 for 2015.</b>				
WATER	\$ 83.55	\$ 82.82	\$ (0.73)	-0.87%
SEWER	119.28	119.31	0.03	0.03%
	<u>\$ 202.83</u>	<u>\$ 202.13</u>	<u>\$ (0.70)</u>	-0.35%
RATIO TO GR	1.25	1.21		
<b>TALLMADGE TWP</b>				
WATER	\$ 101.50	\$ 99.29	\$ (2.21)	-2.18%
SEWER	268.08	276.74	8.66	3.23%
	<u>\$ 369.58</u>	<u>\$ 376.03</u>	<u>\$ 6.45</u>	1.75%
RATIO TO GR	2.28	2.24		

\* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE DOMESTIC CUSTOMER  
 QUARTERLY CONSUMPTION OF: WATER- 23.00 UNITS OR 17,204 GALLONS  
 SEWER - 16.00 UNITS OR 11,968 GALLONS  
 NO. OF MONTHS: 3

Note: The average water consumption depicted above reflects a decrease of two (2) units from last year's rate study.  
 Sewer reflects no change from last year's rate study. The average quarterly consumption for water and sewer  
 last year was 25 and 16 units, respectively.

**REU (RESIDENTIAL EQUIVALENT UNIT) CUSTOMER COMMUNITY- APPROXIMATE QUARTERLY BILL**

**WRIGHT TWP- Contribution of \$10,000 for 2014 & \$5,000 for 2015.**

SEWER (No. of REU 1.00)	<u>\$ 183.21</u>	<u>\$ 183.39</u>	<u>\$ 0.18</u>	0.10%
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**CITY OF GRAND RAPIDS, MICHIGAN  
2014 FINAL WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON COMMERCIAL USERS  
BY CUSTOMER COMMUNITY  
January 8, 2015**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2014</u>	<u>2015</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 424.78	\$ 438.79	\$ 14.01	3.30%
SEWER	718.50	733.83	15.33	2.13%
	<u>\$ 1,143.28</u>	<u>\$ 1,172.62</u>	<u>\$ 29.34</u>	2.57%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 408.44	\$ 410.80	\$ 2.36	0.58%
SEWER	693.25	703.25	10.00	1.44%
	<u>\$ 1,101.69</u>	<u>\$ 1,114.05</u>	<u>\$ 12.36</u>	1.12%
RATIO TO GR	0.96	0.95		
<b>KENTWOOD</b>				
WATER	\$ 408.55	\$ 420.00	\$ 11.45	2.80%
SEWER	493.73	508.71	14.98	3.03%
	<u>\$ 902.28</u>	<u>\$ 928.71</u>	<u>\$ 26.43</u>	2.93%
RATIO TO GR	0.79	0.79		
<b>CASCADE TWP</b>				
WATER	\$ 562.37	\$ 579.20	\$ 16.83	2.99%
SEWER	677.93	686.06	8.13	1.20%
	<u>\$ 1,240.30</u>	<u>\$ 1,265.26</u>	<u>\$ 24.96</u>	2.01%
RATIO TO GR	1.08	1.08		
<b>GRAND RAPIDS TWP- Contribution of \$3,200 for 2014 &amp; \$2,400 for 2015.</b>				
WATER	\$ 454.95	\$ 449.12	\$ (5.83)	-1.28%
SEWER	611.46	610.38	(1.08)	-0.18%
	<u>\$ 1,066.41</u>	<u>\$ 1,059.50</u>	<u>\$ (6.91)</u>	-0.65%
RATIO TO GR	0.93	0.90		
<b>TALLMADGE TWP</b>				
WATER	\$ 820.12	\$ 802.52	\$ (17.60)	-2.15%
SEWER	2,297.40	2,367.23	69.83	3.04%
	<u>\$ 3,117.52</u>	<u>\$ 3,169.75</u>	<u>\$ 52.23</u>	1.68%
RATIO TO GR	2.73	2.70		
* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE COMMERCIAL CUSTOMER				
QUARTERLY CONSUMPTION OF :				
WATER-	224.00	UNITS OR	167,552	GALLONS
SEWER -	202.00	UNITS OR	151,096	GALLONS
NO. OF MONTHS:	3			

**REU (RESIDENTIAL EQUIVALENT UNIT) CUSTOMER COMMUNITY- APPROXIMATE QUARTERLY BILL**

**WRIGHT TWP- Contribution of \$10,000 for 2014 & \$5,000 for 2015.**

SEWER (No. of REU 1.00)	<u>\$ 183.21</u>	<u>\$ 183.39</u>	<u>\$ 0.18</u>	0.10%
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**CITY OF GRAND RAPIDS, MICHIGAN  
2014 FINAL WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON WHOLESALE CUSTOMER COMMUNITIES  
EFFECTIVE JANUARY 1, 2015  
January 8, 2015**

	<u>2014</u>	<u>2015</u>	<u>PERCENTAGE CHANGE</u>
<b>EAST GRAND RAPIDS</b>			
WATER - SERVICE (MONTHLY)	\$ 14,091.00	\$ 16,064.00	14.00%
- COMMODITY (100 CF)	1.12	1.12	0.00%
SEWER - SERVICE (MONTHLY)	1,540.00	1,427.00	-7.34%
- COMMODITY (MG)	1,558.00	1,627.00	4.43%
<b>ADA TWP</b>			
WATER - SERVICE	\$ 29,726.00	\$ 31,538.00	6.10%
- COMMODITY	1.25	1.27	1.60%
SEWER - SERVICE	42,700.00	50,189.00	17.54%
- COMMODITY	1,975.00	2,001.00	1.32%
<b>OTTAWA COUNTY</b>			
WATER - SERVICE	\$ -	\$ -	N/A
- COMMODITY	1.22	1.24	1.64%
<b>GAINES TWP</b>			
SEWER - SERVICE	\$ 1,333.00	\$ 1,256.00	-5.78%
- COMMODITY	1,387.00	1,418.00	2.24%

**NOTE: Monthly defined as 1/12th of 365 days.**

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ANNUAL RATE REVIEW**

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**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
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**CITY OF GRAND RAPIDS, MICHIGAN  
FINAL CONSIDERATIONS  
ANNUAL WATER/SEWER RATE REVIEW**

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**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 SYSTEM ADDITIONS AND IMPROVEMENTS  
 FOR THE YEAR ENDED JUNE 30, 2014  
 TASKS NO. 1, 2, & 3**

COMMUNITY	LOCAL		INTERMEDIATE		PRIMARY		TOTALS	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
<b>Grand Rapids</b>								
Construction	9,765	1.85	9,674	1.83	92	0.02	19,531	3.70
Abandonment	(18,318)	(3.47)	(3,293)	(0.62)	(499)	(0.09)	(22,110)	(4.18)
CSO Construction	21,347	4.04	1,659	0.31	0	0.00	23,006	4.35
CSO Abandonment	(19,064)	(3.61)	(823)	(0.16)	0	0.00	(19,887)	(3.77)
	(6,270)	(1.19)	7,217	1.36	(407)	(0.07)	540	0.10
<b>Kentwood</b>								
Construction	964	0.18	935	0.18	0	0.00	1,899	0.36
Abandonment	(675)	(0.13)	0	0.00	0	0.00	(675)	(0.13)
	289	0.05	935	0.18	0	0.00	1,224	0.23
<b>Cascade Twp.</b>								
Construction	523	0.10	5,462	1.03	0	0.00	5,985	1.13
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	523	0.10	5,462	1.03	0	0.00	5,985	1.13
<b>G.R. Twp.</b>								
Construction	2,073	0.39	1,761	0.33	0	0.00	3,834	0.72
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	2,073	0.39	1,761	0.33	0	0.00	3,834	0.72
<b>Tallmadge Twp.</b>								
Construction	0	0.00	0	0.00	0	0.00	0	0.00
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	0	0.00	0	0.00	0	0.00	0	0.00
<b>Walker</b>								
Construction	1,619	0.31	407	0.08	0	0.00	2,026	0.39
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	1,619	0.31	407	0.08	0	0.00	2,026	0.39
<b>*TOTAL*</b>	<b>(1,766)</b>	<b>(0.34)</b>	<b>15,782</b>	<b>2.98</b>	<b>(407)</b>	<b>(0.07)</b>	<b>13,609</b>	<b>2.57</b>

	CONTRIBUTIONS		
	COMM	OTHER	TOTAL
Integrated	\$ -	\$ -	\$ -
Grand Rapids	139,200	327,689	466,889
Walker	118,563	-	118,563
Kentwood	45,305	-	45,305
Cascade Twp.	667,814	-	667,814
Grand Rapids Twp.	321,173	-	321,173
Tallmadge Twp.	-	-	-
<b>*TOTAL*</b>	<b>\$ 1,292,055</b>	<b>\$ 327,689</b>	<b>\$ 1,619,744</b>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #4, PART 1  
 FISCAL YEAR ENDED JUNE 30, 2014**

ACTIVITY CODE	ACTIVITY	EXPENSE BY ACTIVITY	FILTRATION PLANT	PUMPING STATIONS		WATERMAINS			RETAIL CUSTOMER METERING	ENGIN. SERVICES	ADMIN. EXPENSE
				PRIMARY	INTERM.	PRIMARY TRANSPORT	INTERMED. TRANSPORT	LOCAL DISTRIBUTION			
0430	TREASURER-CUSTOMER SERVICE	\$ 653,690							\$ 653,690		
4312	WATER-CUSTOMER SERVICE *	1,806,174							1,806,174		
4315	ENGINEERING	1,127,987								1,127,987	
4320	COLDBROOK CONTROL	1,329,528		1,329,528							
4322	COLDBROOK DISTRIBUTION	2,241,244		677,290	1,563,954						
4331	FIELD OPERATIONS	5,476,067				273,037	1,414,194	3,788,836			
4342	FILTRATION	6,328,534	6,328,534								
	SUBTOTAL OPERATING EXPENSE	18,963,224	6,328,534	2,006,818	1,563,954	273,037	1,414,194	3,788,836	2,459,864	1,127,987	-
4311	ADMINISTRATION	3,128,590									3,128,590
	TOTAL	\$ 22,091,814	\$ 6,328,534	\$ 2,006,818	\$ 1,563,954	\$ 273,037	\$ 1,414,194	\$ 3,788,836	\$ 2,459,864	\$ 1,127,987	\$ 3,128,590

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**METHOD OF DISTRIBUTION**

0430	TREASURER-CUSTOMER SERVICE	100.000%							100.000%		
4312	WATER-CUSTOMER SERVICE	100.000%							100.000%		
4315	ENGINEERING	100.000%								100.000%	
4320	COLDBROOK CONTROL	100.000%		100.000%							
4322	COLDBROOK DISTRIBUTION	100.000%		30.220%	69.780%						
4331	FIELD OPERATIONS	100.000%				4.986%	25.825%	69.189%			
	TOTAL MILES OF MAIN	1,167.41				58.21	301.48	807.72			
4342	FILTRATION	100.000%	100.000%								
4311	ADMINISTRATION	100.000%									100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #4, PART 2  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL						WHOLESALE			
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
FILTRATION PLANT	\$ 6,328,534	\$ 6,328,534										
PUMPING STATIONS:												
A. PRIMARY TRANSPORT	2,006,818	2,006,818										
B. INTERMEDIATE TRANSPORT	1,563,954		1,238,945	40,748	284,261	-	-	-				
WATERMAINS:												
A. PRIMARY TRANSPORT	273,037		224,300	15,104	21,390	7,880	4,363	-	-	-	-	-
B. INTERMEDIATE TRANSPORT	1,414,194		542,683	294,350	254,951	187,112	115,865	19,233	-	-	-	-
C. LOCAL DISTRIBUTION	3,788,836		2,788,697	295,567	256,921	202,627	233,771	11,253	-	-	-	-
RETAIL CUSTOMER METERING	2,459,864		1,859,116	199,913	159,375	107,619	128,552	5,289				
SUBTOTAL OPERATING EXPENSE	17,835,237	8,335,352	6,653,741	845,682	976,898	505,238	482,551	35,775	-	-	-	-
ENGINEERING SERVICES	1,127,987	527,154	420,818	53,489	61,780	31,956	30,523	2,267	-	-	-	-
ADMINISTRATIVE EXPENSE	3,128,590	1,434,928	1,203,654	145,599	168,167	86,985	83,085	6,172	-	-	-	-
TOTAL	\$ 22,091,814	\$ 10,297,434	\$ 8,278,213	\$ 1,044,770	\$ 1,206,845	\$ 624,179	\$ 596,159	\$ 44,214	\$ -	\$ -	\$ -	\$ -

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS	100.00%	100.00%										
PUMPING STATIONS:												
A. PRIMARY TRANSPORT	100.00%	100.00%										
B. INTERMEDIATE TRANSPORT	100.00%		79.219%	2.605%	18.176%							
MEMO												
WATERMAINS												
TOTAL MILES:	1,167.41											
A. PRIMARY TRANSPORT		100.000%	82.150%	5.532%	7.834%	2.886%	1.598%					
MILES	58.21		47.82	3.22	4.56	1.68	0.93	-	-	-	-	-
B. INTERMEDIATE TRANSPORT		100.000%	38.374%	20.814%	18.028%	13.231%	8.193%	1.360%				
MILES	301.48		115.69	62.75	54.35	39.89	24.70	4.10	-	-	-	-
C. LOCAL DISTRIBUTION		100.000%	73.603%	7.801%	6.781%	5.348%	6.170%	0.297%				
MILES	807.72		594.50	63.01	54.77	43.20	49.84	2.40	-	-	-	-
RETAIL CUSTOMER METERING (1)		100.000%	75.578%	8.127%	6.479%	4.375%	5.226%	0.215%				
NUMBER OF METERS	81,262.00		61,416.00	6,604.00	5,265.00	3,555.00	4,247.00	175.00				
ENGINEERING SERVICES (2)		100.000%	46.734%	37.307%	4.742%	5.477%	2.833%	2.706%	0.201%			
ADMINISTRATIVE EXPENSE (3)		100.000%	45.865%	38.473%	4.654%	5.375%	2.780%	0.197%				

NOTES:

- (1) ALLOCATION BASED ON NUMBER OF METERS.
- (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.
- (3) ALLOCATION BASED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

3-M

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #5, PART 1  
 FISCAL YEAR ENDED JUNE 30, 2014**

ACTIVITY CODE	ACTIVITY	ADJUSTED EXPENSE BY ACTIVITY	FILTRATION PLANT	PUMPING STATIONS		WATERMAINS			RETAIL CUSTOMER METERING	ENGIN. SERVICES	ADMIN. EXPENSE
				PRIMARY	INTERM.	PRIMARY TRANSPORT	INTERMED. TRANSPORT	LOCAL DISTRIBUTION			
0430	TREASURER-CUSTOMER SERVICE	\$ 809,274							\$ 809,274		
4312	WATER-CUSTOMER SERVICE *	2,248,398							2,248,398		
4315	ENGINEERING	1,153,405								1,153,405	
4320	COLDBROOK CONTROL	1,361,221		1,361,221							
4322	COLDBROOK DISTRIBUTION	1,658,253		501,114	1,157,139						
4331	FIELD OPERATIONS	5,612,940				279,861	1,449,542	3,883,537			
4342	FILTRATION	6,917,212	6,917,212								
	SUBTOTAL OPERATING EXPENSE	19,760,703	6,917,212	1,862,335	1,157,139	279,861	1,449,542	3,883,537	3,057,672	1,153,405	-
4311	ADMINISTRATION	2,638,285									2,638,285
	TOTAL	\$ 22,398,988	\$ 6,917,212	\$ 1,862,335	\$ 1,157,139	\$ 279,861	\$ 1,449,542	\$ 3,883,537	\$ 3,057,672	\$ 1,153,405	\$ 2,638,285

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**METHOD OF DISTRIBUTION**

0430	TREASURER-CUSTOMER SERVICE	100.000%							100.000%		
4312	WATER-CUSTOMER SERVICE	100.000%							100.000%		
4315	ENGINEERING	100.000%								100.000%	
4320	COLDBROOK CONTROL	100.000%		100.000%							
4322	COLDBROOK DISTRIBUTION	100.000%		30.220%	69.780%						
4331	FIELD OPERATIONS	100.000%				4.986%	25.825%	69.189%			
	TOTAL MILES OF MAIN	1,167.41				58.21	301.48	807.72			
4342	FILTRATION	100.000%	100.000%								
4311	ADMINISTRATION	100.000%									100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #5, PART 2  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL						WHOLESALE			
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
FILTRATION PLANT	\$ 6,917,212	\$ 6,917,212										
PUMPING STATIONS:												
A. PRIMARY TRANSPORT	1,862,335	1,862,335										
B. INTERMEDIATE TRANSPORT	1,157,139		916,671	30,149	210,319	-	-	-				
WATERMAINS:												
A. PRIMARY TRANSPORT	279,861		229,906	15,482	21,924	8,077	4,472	-	-	-	-	-
B. INTERMEDIATE TRANSPORT	1,449,542		556,247	301,708	261,323	191,789	118,761	19,714	-	-	-	-
C. LOCAL DISTRIBUTION	3,883,537		2,858,399	302,955	263,343	207,692	239,614	11,534	-	-	-	-
RETAIL CUSTOMER METERING	3,057,672		2,310,927	248,497	198,107	133,773	159,794	6,574				
SUBTOTAL OPERATING EXPENSE	18,607,298	8,779,547	6,872,150	898,791	955,016	541,331	522,641	37,822	-	-	-	-
ENGINEERING SERVICES	1,153,405	544,223	425,987	55,709	59,193	33,553	32,399	2,341	-	-	-	-
ADMINISTRATIVE EXPENSE	2,638,285	1,217,401	1,011,086	124,619	132,411	75,055	72,475	5,238	-	-	-	-
TOTAL	\$ 22,398,988	\$ 10,541,171	\$ 8,309,223	\$ 1,079,119	\$ 1,146,620	\$ 649,939	\$ 627,515	\$ 45,401	\$ -	\$ -	\$ -	\$ -

5-5

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS		100.00%	100.00%									
PUMPING STATIONS:												
A. PRIMARY TRANSPORT		100.00%	100.00%									
B. INTERMEDIATE TRANSPORT		100.00%		79.219%	2.605%	18.176%						
MEMO												
WATERMAINS												
TOTAL MILES:	1,167.41											
A. PRIMARY TRANSPORT		100.000%		82.150%	5.532%	7.834%	2.886%	1.598%				
MILES	58.21			47.82	3.22	4.56	1.68	0.93	-	-	-	-
B. INTERMEDIATE TRANSPORT		100.000%		38.374%	20.814%	18.028%	13.231%	8.193%	1.360%			
MILES	301.48			115.69	62.75	54.35	39.89	24.70	4.10	-	-	-
C. LOCAL DISTRIBUTION		100.000%		73.603%	7.801%	6.781%	5.348%	6.170%	0.297%			
MILES	807.72			594.50	63.01	54.77	43.20	49.84	2.40	-	-	-
RETAIL CUSTOMER METERING (1)		100.000%		75.578%	8.127%	6.479%	4.375%	5.226%	0.215%			
NUMBER OF METERS	81,262.00			61,416.00	6,604.00	5,265.00	3,555.00	4,247.00	175.00			
ENGINEERING SERVICES (2)		100.000%	47.184%	36.933%	4.830%	5.132%	2.909%	2.809%	0.203%			
ADMINISTRATIVE EXPENSE (3)		100.000%	46.143%	38.324%	4.723%	5.019%	2.845%	2.747%	0.199%			

NOTES:

- (1) ALLOCATION BASED ON NUMBER OF METERS.
- (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.
- (3) ALLOCATION BASED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4301, 4311 &amp; 4480 - ADMINISTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 533,155.23	\$ 21,326.21	\$ 554,481.44
7040	TEMPORARY EMPLOYEES	3,639.83	145.59	3,785.42
7105	EMPLOYERS SOCIAL SECURITY	39,453.58	1,578.14	41,031.72
7110	HOSPITALIZATION INSURANCE	81,694.04	9,419.32	91,113.36
7115	RETIREE HEALTH CARE	77,977.59	(5,637.78)	72,339.81
7120	RETIREMENT FUND CONTRIBUTION	89,174.94	15,596.70	104,771.64
7125	SPECIAL PENSION BENEFITS	9,250.10	-	9,250.10
7135	UNEMPLOYMENT COMPENSATION	898.72	-	898.72
7150	LONGEVITY PAY	3,038.00	(3,038.00)	-
	TOTAL PERSONAL SERVICES	<u>838,282.03</u>	<u>39,390.18</u>	<u>877,672.21</u>
7260	SUPPLIES	5,451.64	-	5,451.64
7300	POSTAGE	19.32	-	19.32
	TOTAL SUPPLIES	<u>5,470.96</u>	<u>-</u>	<u>5,470.96</u>
8140	COMPUTER SERVICES	54,986.04	(793.04)	54,193.00
8160	ENGINEERING SERVICES	30,959.00	-	30,959.00
8180	CONTRACTUAL SERVICES	345,524.85	78,519.17	424,044.02
8355	GENERAL LIABILITY INSURANCE/CLAIMS	292,422.00	(9,785.00)	282,637.00
8450	INSURANCE PREMIUMS	159,964.00	-	159,964.00
8500	TELEPHONE	31,396.55	-	31,396.55
8800	COMMUNITY PROMOTION	294.45	-	294.45
9000	PRINTING & PUBLISHING	12.48	-	12.48
9210	ELECTRICITY		58,174.00	58,174.00
9300	MAINTENANCE SERVICE	1,715.93	-	1,715.93
9430	LAND RENTAL OR LEASE	2,792.72	-	2,792.72
9440	VEHICLE USAGE/CAR MILEAGE	3,527.47	-	3,527.47
9550	PROFESSIONAL DEVELOPMENT	3,272.64	-	3,272.64
9552	OTHER TRAVEL & TRAINING	35,601.27	-	35,601.27
9556	MEMBERSHIPS	20,904.27	-	20,904.27
9558	SUBSCRIPTIONS AND PUBLICATIONS	4,044.77	-	4,044.77
9610	FEES	35,599.37	-	35,599.37
9616	ADMINISTRATIVE SERVICES (ICB)	148,743.00	(148,743.00)	-
9620	BAD DEBT WRITE-OFFS	113,480.40	-	113,480.40
	TOTAL OTHER SERVICES & CHARGES	<u>1,285,241.21</u>	<u>(22,627.87)</u>	<u>1,262,613.34</u>
9760	EQUIPMENT	(2,052.78)	-	(2,052.78)
9765	SOFTWARE	1,382.31	-	1,382.31
	TOTAL CAPITAL	<u>(670.47)</u>	<u>-</u>	<u>(670.47)</u>
9992	OPERATING TRANSFERS-A87 COST	<u>1,000,266.00</u>	<u>(507,067.00)</u>	<u>493,199.00</u>
	TOTAL TRANSFERS/FEES	<u>1,000,266.00</u>	<u>(507,067.00)</u>	<u>493,199.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 3,128,589.73</u>	<u>\$ (490,304.69)</u>	<u>\$ 2,638,285.04</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**WATER SUPPLY SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2014**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4312- CUSTOMER SERVICES

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 1,257,256.01	\$ 50,290.24	\$ 1,307,546.25
7025	ACT.ASSIGNMENT	3,534.64	141.39	3,676.03
7040	TEMPORARY EMPLOYEES	42,044.13	1,681.77	43,725.90
7055	TIME & ONE-HALF	76,964.11	3,078.56	80,042.67
7105	EMPLOYERS SOCIAL SECURITY	101,298.52	4,051.94	105,350.46
7110	HOSPITALIZATION INSURANCE	335,475.16	38,680.29	374,155.45
7115	RETIREE HEALTH CARE	189,503.86	(13,701.13)	175,802.73
7120	RETIREMENT FUND CONTRIBUTION	255,670.05	44,716.69	300,386.74
7125	SPECIAL PENSION BENEFITS	2,560.28	-	2,560.28
7135	UNEMPLOYMENT COMPENSATION	3,358.48	-	3,358.48
7150	LONGEVITY PAY	14,630.04	(14,630.04)	-
7165	SHIFT DIFFERENTIAL	889.64	-	889.64
	TOTAL PERSONAL SERVICES	<u>2,283,184.92</u>	<u>114,309.71</u>	<u>2,397,494.63</u>
7260	SUPPLIES	17,090.44	-	17,090.44
7300	POSTAGE	941.80	-	941.80
	TOTAL SUPPLIES	<u>18,032.24</u>	<u>-</u>	<u>18,032.24</u>
8140	COMPUTER SERVICES	184,620.96	28,614.04	213,235.00
8140	COMPUTER SERVICES (CIS-DEPR & ROI)		452,410.00	452,410.00
8180	CONTRACTUAL SERVICES	744,192.73	-	744,192.73
8500	TELEPHONE	5,011.02	-	5,011.02
9000	PRINTING & PUBLISHING	2,745.30	-	2,745.30
9300	MAINTENANCE SERVICE	715,458.63	-	715,458.63
9420	EQUIPMENT RENTALS OR LEASE	129,917.45	-	129,917.45
9440	VEHICLE RENTAL/CAR MILEAGE	11,354.72	-	11,354.72
9554	LOCAL BUSINESS EXPENSE	116.40	-	116.40
9610	FEES	12,614.20	-	12,614.20
9620	BAD DEBT WRITE-OFFS	(883.80)	-	(883.80)
8150	311 CALL CENTER SERVICES	533,467.00	-	533,467.00
	TOTAL OTHER SERVICES & CHARGES	<u>2,338,614.61</u>	<u>481,024.04</u>	<u>2,819,638.65</u>
9760	EQUIPMENT	4,014.37	-	4,014.37
9765	SOFTWARE	352.96	-	352.96
	TOTAL CAPITAL	<u>4,367.33</u>	<u>-</u>	<u>4,367.33</u>
	ORGANIZATIONAL UNIT TOTAL (GROSS)	\$ 4,644,199.10	\$ 595,333.75	\$ 5,239,532.85
	LESS: SDSF CONTRIBUTION *	<u>(2,838,025.00)</u>	<u>(153,109.87)</u>	<u>(2,991,134.87)</u>
	ORGANIZATIONAL UNIT TOTAL (NET)	<u>\$ 1,806,174.10</u>	<u>\$ 442,223.88</u>	<u>\$ 2,248,397.98</u>

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4315- ENGINEERING

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 449,060.11	\$ 17,962.40	\$ 467,022.51
7025	ACT.ASSIGNMENT	354.61	14.18	368.79
7055	TIME & ONE-HALF	53.59	2.14	55.73
7105	EMPLOYERS SOCIAL SECURITY	33,426.21	1,337.05	34,763.26
7110	HOSPITALIZATION INSURANCE	99,571.70	11,480.62	111,052.32
7115	RETIREE HEALTH CARE	67,285.67	(4,864.75)	62,420.92
7120	RETIREMENT FUND CONTRIBUTION	86,591.71	15,144.89	101,736.60
7125	SPECIAL PENSION BENEFITS	4,795.06	-	4,795.06
7135	UNEMPLOYMENT COMPENSATION	637.29	-	637.29
7150	LONGEVITY PAY	3,917.50	(3,917.50)	-
	TOTAL PERSONAL SERVICES	<u>745,693.45</u>	<u>37,159.03</u>	<u>782,852.48</u>
7260	SUPPLIES	3,626.10	-	3,626.10
	TOTAL SUPPLIES	<u>3,626.10</u>	<u>-</u>	<u>3,626.10</u>
8140	COMPUTER SERVICES	67,628.04	(11,741.04)	55,887.00
8180	CONTRACTUAL SERVICES	162,494.81	-	162,494.81
8500	TELEPHONE	1,904.50	-	1,904.50
9000	PRINTING & PUBLISHING	398.00	-	398.00
9300	MAINTENANCE SERVICE	7,931.05	-	7,931.05
9420	EQUIPMENT RENTALS OR LEASE	50,982.43	-	50,982.43
9440	VEHICLE RENTAL/CAR MILEAGE	1,231.00	-	1,231.00
	TOTAL OTHER SERVICES & CHARGES	<u>292,569.83</u>	<u>(11,741.04)</u>	<u>280,828.79</u>
9760	EQUIPMENT	63,054.03	-	63,054.03
9765	SOFTWARE	352.96	-	352.96
	TOTAL CAPITAL	<u>63,406.99</u>	<u>-</u>	<u>63,406.99</u>
9994	OPERATING TRANS-DEV CENTER	22,691.00	-	22,691.00
	TOTAL TRANSFERS/FEES	<u>22,691.00</u>	<u>-</u>	<u>22,691.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,127,987.37</u>	<u>\$ 25,417.99</u>	<u>\$ 1,153,405.36</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2014  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4320- COLDBROOK CONTROL

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 680,218.43	\$ 27,208.74	\$ 707,427.17
7050	REGULAR HOURLY RATE	2,424.57	96.98	2,521.55
7055	TIME & ONE-HALF	73,465.57	2,938.62	76,404.19
7105	EMPLOYERS SOCIAL SECURITY	54,582.40	2,183.30	56,765.70
7110	HOSPITALIZATION INSURANCE	155,697.59	17,951.93	173,649.52
7115	RETIREE HEALTH CARE	101,853.12	(7,363.98)	94,489.14
7120	RETIREMENT FUND CONTRIBUTION	142,297.90	24,887.90	167,185.80
7135	UNEMPLOYMENT COMPENSATION	940.00	-	940.00
7150	LONGEVITY PAY	9,630.84	(9,630.84)	-
7165	SHIFT DIFFERENTIAL	7,191.97	-	7,191.97
	TOTAL PERSONAL SERVICES	<u>1,228,302.39</u>	<u>58,272.65</u>	<u>1,286,575.04</u>
7260	SUPPLIES	3,926.11	-	3,926.11
7680	CLOTHING/CLEANING ALLOWANCE	741.00	-	741.00
	TOTAL SUPPLIES	<u>4,667.11</u>	<u>-</u>	<u>4,667.11</u>
8140	COMPUTER SERVICES	64,215.96	(26,579.96)	37,636.00
8180	CONTRACTUAL SERVICES	20.80	-	20.80
8500	TELEPHONE	20,432.17	-	20,432.17
9300	MAINTENANCE SERVICE	170.64	-	170.64
9420	EQUIPMENT RENTALS OR LEASE	8,179.89	-	8,179.89
9440	VEHICLE USAGE/CAR MILEAGE	662.00	-	662.00
9610	FEES	450.00	-	450.00
	TOTAL OTHER SERVICES & CHARGES	<u>94,131.46</u>	<u>(26,579.96)</u>	<u>67,551.50</u>
9760	EQUIPMENT	2,427.00	-	2,427.00
	TOTAL CAPITAL	<u>2,427.00</u>	<u>-</u>	<u>2,427.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,329,527.96</u>	<u>\$ 31,692.69</u>	<u>\$ 1,361,220.65</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2014  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4322- COLDBROOK DISTRIBUTION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 406,520.70	\$ 16,260.83	\$ 422,781.53
7055	TIME & ONE-HALF	2,425.90	97.04	2,522.94
7105	EMPLOYERS SOCIAL SECURITY	30,683.51	1,227.34	31,910.85
7110	HOSPITALIZATION INSURANCE	102,822.25	11,855.41	114,677.66
7115	RETIREE HEALTH CARE	62,592.40	(4,525.43)	58,066.97
7120	RETIREMENT FUND CONTRIBUTION	90,537.74	15,835.05	106,372.79
7135	UNEMPLOYMENT COMPENSATION	598.91	-	598.91
7150	LONGEVITY PAY	5,525.45	(5,525.45)	-
7165	SHIFT DIFFERENTIAL	10.44	-	10.44
	TOTAL PERSONAL SERVICES	<u>701,717.30</u>	<u>35,224.79</u>	<u>736,942.09</u>
7260	SUPPLIES	26,609.59	-	26,609.59
7680	CLOTHING/CLEANING ALLOWANCE	62.97	-	62.97
	TOTAL SUPPLIES	<u>26,672.56</u>	<u>-</u>	<u>26,672.56</u>
8140	COMPUTER SERVICES		30,107.00	30,107.00
8180	CONTRACTUAL SERVICES	13,833.97	-	13,833.97
8500	TELEPHONE	2,959.18	-	2,959.18
9210	ELECTRICITY	1,344,971.06	-	1,344,971.06
9220	WATER	3,937.47	-	3,937.47
9230	NATURAL GAS	61,341.71	-	61,341.71
9300	MAINTENANCE SERVICE	13,821.58	-	13,821.58
9420	EQUIPMENT RENTALS OR LEASE	68,176.10	-	68,176.10
9610	FEES	940.98	-	940.98
9622	REFUSE COLLECTION CHARGES	2,872.56	-	2,872.56
xxxx	FACILITY RENTALS		(648,322.79)	(648,322.79)
	TOTAL OTHER SERVICES & CHARGES	<u>1,512,854.61</u>	<u>(618,215.79)</u>	<u>894,638.82</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,241,244.47</u>	<u>\$ (582,991.00)</u>	<u>\$ 1,658,253.47</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2014  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4331- FIELD OPERATIONS

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 1,404,610.35	\$ 56,184.41	\$ 1,460,794.76
7025	ACT.ASSIGNMENT	7,098.47	283.94	7,382.41
7040	TEMPORARY EMPLOYEES	41,177.82	1,647.11	42,824.93
7055	TIME & ONE-HALF	158,333.71	6,333.35	164,667.06
7105	EMPLOYERS SOCIAL SECURITY	115,787.52	4,631.50	120,419.02
7110	HOSPITALIZATION INSURANCE	337,836.73	38,952.57	376,789.30
7115	RETIREE HEALTH CARE	205,489.68	(14,856.90)	190,632.78
7120	RETIREMENT FUND CONTRIBUTION	288,402.36	50,441.57	338,843.93
7125	SPECIAL PENSION BENEFITS	99.04	-	99.04
7135	UNEMPLOYMENT COMPENSATION	3,506.76	-	3,506.76
7150	LONGEVITY PAY	14,852.50	(14,852.50)	-
7165	SHIFT DIFFERENTIAL	2,619.43	-	2,619.43
	TOTAL PERSONAL SERVICES	<u>2,579,814.37</u>	<u>128,765.05</u>	<u>2,708,579.42</u>
7260	SUPPLIES	(116,816.84)	-	(116,816.84)
7300	POSTAGE	174.27	-	174.27
7680	CLOTHING/CLEANING ALLOWANCE	2,100.40	-	2,100.40
7800	INVENTORY - COST OF GOODS SOLD	(103,443.59)	-	(103,443.59)
	TOTAL SUPPLIES	<u>(217,985.76)</u>	<u>-</u>	<u>(217,985.76)</u>
8140	COMPUTER SERVICES	141,677.32	8,107.68	149,785.00
8180	CONTRACTUAL SERVICES	115,057.98	-	115,057.98
8500	TELEPHONE	5,124.41	-	5,124.41
9210	ELECTRICITY	53,423.19	-	53,423.19
9220	WATER	413.40	-	413.40
9230	NATURAL GAS	31,514.95	-	31,514.95
9300	MAINTENANCE SERVICE	547,783.00	-	547,783.00
9330	PAVEMENT REPAIR	1,421,521.26	-	1,421,521.26
9420	EQUIPMENT RENTALS OR LEASE	765,934.44	-	765,934.44
9440	VEHICLE USAGE/CAR MILEAGE	2,326.38	-	2,326.38
9552	OTHER TRAVEL & TRAINING	559.03	-	559.03
9554	LOCAL BUSINESS EXPENSE	128.38	-	128.38
9556	MEMBERSHIPS	99.99	-	99.99
	TOTAL OTHER SERVICES & CHARGES	<u>3,085,563.73</u>	<u>8,107.68</u>	<u>3,093,671.41</u>
9760	EQUIPMENT	28,674.79	-	28,674.79
	TOTAL CAPITAL	<u>28,674.79</u>	<u>-</u>	<u>28,674.79</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 5,476,067.13</u>	<u>\$ 136,872.73</u>	<u>\$ 5,612,939.86</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**WATER SUPPLY SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2014**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4342- LAKE MI. FILTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 1,596,866.86	\$ 63,874.67	\$ 1,660,741.53
7025	ACT.ASSIGNMENT	1,236.93	49.48	1,286.41
7050	REGULAR HOURLY RATE	1,078.56	43.14	1,121.70
7055	TIME & ONE-HALF	52,784.65	2,111.39	54,896.04
7105	EMPLOYERS SOCIAL SECURITY	120,012.64	4,800.51	124,813.15
7110	HOSPITALIZATION INSURANCE	380,105.80	43,826.20	423,932.00
7115	RETIREE HEALTH CARE	235,610.03	(17,034.61)	218,575.42
7120	RETIREMENT FUND CONTRIBUTION	329,972.43	57,712.18	387,684.61
7135	UNEMPLOYMENT COMPENSATION	2,238.79	-	2,238.79
7150	LONGEVITY PAY	14,486.29	(14,486.29)	-
7165	SHIFT DIFFERENTIAL	7,938.94	-	7,938.94
	TOTAL PERSONAL SERVICES	<u>2,742,331.92</u>	<u>140,896.67</u>	<u>2,883,228.59</u>
7260	SUPPLIES	858,074.13	-	858,074.13
	TOTAL SUPPLIES	<u>858,074.13</u>	<u>-</u>	<u>858,074.13</u>
8140	COMPUTER SERVICES	168,567.00	(33,084.00)	135,483.00
8180	CONTRACTUAL SERVICES	173,071.74	29,040.00	202,111.74
8500	TELEPHONE	9,846.32	-	9,846.32
9210	ELECTRICITY	1,810,768.49	(58,174.00)	1,752,594.49
9230	NATURAL GAS	259,193.08	-	259,193.08
9300	MAINTENANCE SERVICE	210,787.66	-	210,787.66
9420	EQUIPMENT RENTALS OR LEASE	79,294.16	-	79,294.16
9440	VEHICLE USAGE/CAR MILEAGE	1,176.00	-	1,176.00
9610	FEES	7,403.01	-	7,403.01
9622	REFUSE COLLECTION CHARGES	552.20	-	552.20
xxxx	SENIOR DEBT COVERAGE RATIO ADJ		510,000.00	510,000.00
	TOTAL OTHER SERVICES & CHARGES	<u>2,720,659.66</u>	<u>447,782.00</u>	<u>3,168,441.66</u>
9765	SOFTWARE	7,467.89	-	7,467.89
	TOTAL CAPITAL	<u>7,467.89</u>	<u>-</u>	<u>7,467.89</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 6,328,533.60</u>	<u>\$ 588,678.67</u>	<u>\$ 6,917,212.27</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 0430- TREASURER- CUSTOMER SERV'S

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 168,499.05	\$ 6,739.96	\$ 175,239.01
7105	EMPLOYERS SOCIAL SECURITY	12,183.08	487.32	12,670.40
7110	HOSPITALIZATION INSURANCE	40,163.89	4,630.90	44,794.79
7115	RETIREE HEALTH CARE	25,085.33	(1,813.67)	23,271.66
7120	RETIREMENT FUND CONTRIBUTION	35,578.62	6,222.70	41,801.32
7125	SPECIAL PENSION BENEFITS	59.52	-	59.52
7135	UNEMPLOYMENT COMPENSATION	239.36	-	239.36
7150	LONGEVITY PAY	1,461.48	(1,461.48)	-
	TOTAL PERSONAL SERVICES	<u>283,270.33</u>	<u>14,805.73</u>	<u>298,076.06</u>
7260	SUPPLIES	3,851.54	-	3,851.54
7300	POSTAGE	886.07	-	886.07
	TOTAL SUPPLIES	<u>4,737.61</u>	<u>-</u>	<u>4,737.61</u>
8140	COMPUTER SERVICES	22,632.96	(4,088.96)	18,544.00
8180	CONTRACTUAL SERVICES	19,844.55	-	19,844.55
8355	GENERAL LIABILITY INSURANCE/CLAIMS	2,988.00	(133.00)	2,855.00
8500	TELEPHONE	42.38	-	42.38
9300	MAINTENANCE SERVICE	459.54	-	459.54
9410	BUILDINGS RENTALS OR LEASE	7,520.49	-	7,520.49
9440	VEHICLE USAGE/CAR MILEAGE	18,074.50	-	18,074.50
9610	FEES	292,148.33	145,000.00	437,148.33
	TOTAL OTHER SERVICES & CHARGES	<u>363,710.75</u>	<u>140,778.04</u>	<u>504,488.79</u>
9760	EQUIPMENT	1,971.30	-	1,971.30
	TOTAL CAPITAL	<u>1,971.30</u>	<u>-</u>	<u>1,971.30</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 653,689.99</u>	<u>\$ 155,583.77</u>	<u>\$ 809,273.76</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL SUMMARY

NO.	EXPENDITURE SUB-OBJECT DESCRIPTION	OPERATING EXPENSES	ADJUSTED COST FACTORS	ADJUSTED CURRENT ANNUAL CURRENT
7020	PERMANENT EMPLOYEES	\$ 6,496,186.74	\$ 259,847.46	\$ 6,756,034.20
7025	ACT.ASSIGNMENT	12,224.65	488.99	12,713.64
7040	TEMPORARY EMPLOYEES	86,861.78	3,474.47	90,336.25
7050	REGULAR HOURLY RATE	3,503.13	140.12	3,643.25
7055	TIME & ONE-HALF	364,027.53	14,561.10	378,588.63
7105	EMPLOYERS SOCIAL SECURITY	507,427.46	20,297.10	527,724.56
7110	HOSPITALIZATION INSURANCE	1,533,367.16	176,797.24	1,710,164.40
7115	RETIREE HEALTH CARE	965,397.68	(69,798.25)	895,599.43
7120	RETIREMENT FUND CONTRIBUTION	1,318,225.75	230,557.68	1,548,783.43
7125	SPECIAL PENSION BENEFITS	16,764.00	-	16,764.00
7135	UNEMPLOYMENT COMPENSATION	12,418.31	-	12,418.31
7150	LONGEVITY PAY	67,542.10	(67,542.10)	-
7165	SHIFT DIFFERENTIAL	18,650.42	-	18,650.42
	TOTAL PERSONAL SERVICES	<u>11,402,596.71</u>	<u>568,823.81</u>	<u>11,971,420.52</u>
7260	SUPPLIES	801,812.71	-	801,812.71
7300	POSTAGE	2,021.46	-	2,021.46
7680	CLOTHING/CLEANING ALLOWANCE	2,904.37	-	2,904.37
7800	INVENTORY - COST OF GOODS SOLD	(103,443.59)	-	(103,443.59)
	TOTAL SUPPLIES	<u>703,294.95</u>	<u>-</u>	<u>703,294.95</u>
8140	COMPUTER SERVICES	704,328.28	(9,458.28)	694,870.00
8140	COMPUTER SERVICES (CIS-DEPR & ROI)	-	452,410.00	452,410.00
8160	ENGINEERING SERVICES	30,959.00	-	30,959.00
8180	CONTRACTUAL SERVICES	1,574,041.43	107,559.17	1,681,600.60
8355	GENERAL LIABILITY INSURANCE / CLAIMS	295,410.00	(9,918.00)	285,492.00
8450	INSURANCE PREMIUMS	159,964.00	-	159,964.00
8500	TELEPHONE	76,716.53	-	76,716.53
8800	COMMUNITY PROMOTION	294.45	-	294.45
9000	PRINTING & PUBLISHING	3,155.78	-	3,155.78
9210	ELECTRICITY	3,209,162.74	-	3,209,162.74
9220	WATER	4,350.87	-	4,350.87
9230	NATURAL GAS	352,049.74	-	352,049.74
9300	MAINTENANCE SERVICE	1,498,128.03	-	1,498,128.03
9330	PAVEMENT REPAIR	1,421,521.26	-	1,421,521.26
9410	BUILDINGS RENTALS OR LEASE	7,520.49	-	7,520.49
9420	EQUIPMENT RENTALS OR LEASE	1,102,484.47	-	1,102,484.47
9430	LAND RENTAL OR LEASE	2,792.72	-	2,792.72
9440	VEHICLE RENTAL/CAR MILEAGE	38,352.07	-	38,352.07
9550	PROFESSIONAL DEVELOPMENT	3,272.64	-	3,272.64
9552	OTHER TRAVEL AND TRAINING	36,160.30	-	36,160.30
9554	LOCAL BUSINESS EXPENSE	244.78	-	244.78
9556	MEMBERSHIPS	21,004.26	-	21,004.26
9558	PUBLICATIONS AND SUBSCRIPTIONS	4,044.77	-	4,044.77
9610	FEES	349,155.89	145,000.00	494,155.89
9616	ADMINISTRATIVE SERVICES	148,743.00	(148,743.00)	-
9620	BAD DEBT WRITE-OFFS	112,596.60	-	112,596.60
9622	REFUSE COLLECTION CHARGES	3,424.76	-	3,424.76
8150	311 CALL CENTER SERVICES	533,467.00	-	533,467.00
xxxx	SENIOR DEBT COVERAGE RATIO ADJ	-	510,000.00	510,000.00
xxxx	FACILITY RENTALS	-	(648,322.79)	(648,322.79)
	TOTAL OTHER SERVICES & CHARGES	<u>11,693,345.86</u>	<u>398,527.10</u>	<u>12,091,872.96</u>
9760	EQUIPMENT	98,088.71	-	98,088.71
9765	SOFTWARE	9,556.12	-	9,556.12
	TOTAL CAPITAL	<u>107,644.83</u>	<u>-</u>	<u>107,644.83</u>
9994	OPERATING TRANS-DEV CENTER	22,691.00	-	22,691.00
9992	OPERATING TRANSFERS-A87 COST	1,000,266.00	(507,067.00)	493,199.00
	TOTAL TRANSFERS/FEES	<u>1,022,957.00</u>	<u>(507,067.00)</u>	<u>515,890.00</u>
	GRAND TOTAL- EXPENDITURES	\$ 24,929,839.35	\$ 460,283.91	\$ 25,390,123.26
	LESS: SDSF CONTRIBUTION	(2,838,025.00)	(153,109.87)	(2,991,134.87)
	NET TOTAL- EXPENDITURES	<u>\$ 22,091,814.35</u>	<u>\$ 307,174.04</u>	<u>\$ 22,398,988.39</u>

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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 27, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Scott A. Saindon, CPA  
Budget Analyst

**SUBJECT: 2014 WATER RATE STUDY TASK #4  
FY14 OPERATING EXPENSES - WATER PUMPING FACILITIES**

The attached schedule allocates the integrated and non-integrated adjusted expenses for operating and maintaining Coldbrook Distribution (4322) to the system pumping stations based on electricity costs. The operating expenses consist of direct labor, utilities, operating and maintenance supplies, repairs and maintenance, and equipment rental.

Attachment

SAS:sas

**ALLOCATION OF COLDBROOK PUMPING TO WATER PUMPING FACILITIES**

<u>STATION</u>	<u>ENERGY COST</u>	<u>PERCENT</u>	<u>EXPENDITURE ALLOCATION</u>	
			<u>ACTUAL</u>	<u>ADJUSTED</u>
ALGER	\$ 60,710	4.52%	\$ 101,167	\$ 74,851
BOOSTER A	9,715	0.72%	16,189	11,978
BOOSTER D	22,421	1.67%	37,362	27,643
BRISTOL	24,453	1.82%	40,748	30,149
COLDBROOK	296,919	22.08%	494,782	366,081
COVELL	34,613	2.57%	57,679	42,675
EAST PARIS	170,585	12.68%	284,261	210,319
FRANKLIN	371,824	27.65%	619,603	458,432
LEFFINGWELL	1,645	0.12%	2,741	2,028
LIVINGSTON	195,709	14.55%	326,127	241,295
WILSON	91,877	6.83%	153,103	113,278
BURTON	17,646	1.31%	29,405	21,756
DEAN LAKE	46,854	3.48%	78,077	57,768
<b>TOTAL</b>	<b>\$ 1,344,971</b>	<b>100.00%</b>	<b>\$ 2,241,244</b>	<b>\$ 1,658,253</b>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 14, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Scott Buhrer *SB*  
Chief Financial Officer

**SUBJECT: 2014 WATER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY14 operating costs are listed below.

Object Level 3 – 7060, 7020, 7040, 7055, 7025, 7045, 7050, 7030, 7035, 7190

GREIU wages were increased by 2.75% and 2.25% in FY2015 and FY2016, respectively. APA wages were increased by 2.95% in both FY2015 and FY2016. After converting these increases from a 2014 fiscal year to a 2015 calendar year basis, the result is a 3.91% factor for GREIU employees and a 4.47% factor for APA employees. A blended rate was then computed by weighting the calendar year percentages according to the percentage of Water Fund employees in each union (83% GREIU and 17% APA). Executive and non-reps amounted to less than 1.5% of the population and were therefore excluded. **The wage increase factor to translate FY2014 actual costs to estimated calendar 2015 will be 4.0% [3.91 X 83% + 4.47 X 17%].**

Object Level 3 – 8140/8355/9992

Adjust FY2014 actual cost to reflect adjustments in charges for central services rendered by the Information Technology Fund (data charges), the Insurance Payment Fund (property and general liability) and the General Operating Fund (A-87 cost allocation). The "Exhibit" workbook (inclusive of cost center allocations) maintained by the Budget Office has been utilized to blend FY2015 and FY2016 budget amounts thus arriving at an estimated 2015 calendar year rate as follows:

<b>8140-Data Charges</b>			
Cost Center	FY2015 Request	FY2016 Forecast	Calendar 2015 Estimate
04302020	\$18,523	\$18,564	<b>\$18,544</b>
4311	\$54,133	\$54,253	<b>\$54,193</b>
43121001	\$212,999	\$213,471	<b>\$213,235</b>
431501	\$55,825	\$55,949	<b>\$55,887</b>
432001	\$37,594	\$37,677	<b>\$37,636</b>
432201	\$30,074	\$30,141	<b>\$30,107</b>
433101	\$149,619	\$149,951	<b>\$149,785</b>
434201	\$135,333	\$135,633	<b>\$135,483</b>
<b>Total</b>	<b>\$694,100</b>	<b>\$695,639</b>	<b>\$694,870</b>

<b>8355-General Liability Insurance</b>			
Cost Center	FY2015 Request	FY2016 Forecast	Calendar 2015 Estimate
04302020	\$2,813	\$2,897	<b>\$2,855</b>
4311	\$278,460	\$286,814	<b>\$282,637</b>
Total	\$281,273	\$289,711	\$285,492

<b>9992-Contributions to Other Funds (A-87 Allocation)</b>			
Cost Center	FY2015 Request	FY2016 Forecast	Calendar 2015 Estimate
4311	\$485,910	\$500,487	<b>\$493,199</b>

Object Level 3 - 7105

Increase FY2014 actual FICA expense by 4.0% consistent with the known wage impacts detailed above.

Object Level 3 - 7110

The FY2015 Trend Report is not completed at this time. However, unfavorable health insurance cost trends were anticipated in the FY2014 Trend Report. In addition, dollars from the Early Retiree Reinsurance Program (ERRP) end after FY2014 increasing upward pressure on calendar 2015 rates. Finally, the three-year smoothing is less favorable for calendar 2015 rates than it was for calendar 2014 rates but has nonetheless helped to limit the projected increase in health insurance to 11.53%. **Increase FY2014 health insurance actual by 11.53% to reflect these anticipated rate changes.**

The projected FY15 (\$13,112) and FY16 (\$14,353) health insurance rates were each reduced by 3.2% for labor concession savings. The resulting amounts were blended into a 2015 calendar year rate and divided by the FY2014 base amount (\$11,918.64) to arrive at the increase factor [(((((\$13,112 \* 96.8% / 2) + (\$14,353 \* 96.8% / 2)) / \$11,918.64) - 1) \* 100)].

Object Level 3 - 7115

Retiree health care (“RHC”) rates are projected to trend down in FY2015 (to 12.30%) and FY2016 (to 12.23%) from a base year rate of 13.98% in FY2014. However, this decrease must be offset by the projected wage increases discussed above. Additionally, the Water Fund had a negative OPEB adjustment in the amount of -\$14,886 for FY2014.

The RHC factor after consideration of the above rate and wage adjustments is 91.16% (or a decrease of 8.84%) for GREIU members and 91.65% (or a decrease of 8.35%) for APA members. These factors are then applied to the FY2014 RHC balance before the OPEB adjustment (\$900,776). This result is compared to the FY2014 RHC balance after the OPEB adjustment and the revised factor is weighted in accordance with union membership within the Water Fund.

GREIU:      Step 1>> [(\$900,776 \* 91.16%) = \$821,147]  
  
                 Step 2>> [(((\$821,147 - (\$900,776 - \$14,886)) / (\$900,776 - \$14,886)) \* 100)]  
  
                 Step 3>> [-7.31% \* 83%]

APA:            Step 1>> [(\$900,776 \* 91.65%) = \$825,561]  
  
                 Step 2>> [(((\$825,561 - (\$900,776 - \$14,886)) / (\$900,776 - \$14,886)) \* 100)]  
  
                 Step 3>> [-6.81% \* 17%]  
  
                 Step 4>> [-6.07% + -1.16%]

The factor to establish calendar year 2015's retiree health care cost is -7.23%.  
**Decrease the total of fiscal year 2014's retiree health care by this percent to establish the cost for calendar year 2015.**

Object Level 3 - 7120

The pension expense factor to translate FY2014 actual costs to estimated calendar 2015 will be 17.49%. **Increase the total of fiscal year 2014's pension expense by this percent to establish the cost for calendar year 2015.** This reflects the effect of a General Pension rate change increase from FY14 of 21.14% to a calendar 2015 rate of 23.90% and an estimated wage increase of 4.0%. The calendar 2015 rate is a blend of the FY2015 rate (25.53%) and the FY2016 rate (22.27%).

The pension factor after consideration of the above rate and wage adjustments is 117.38% (or an increase of 17.38%) for GREIU members and 117.99% (or an increase of 17.99%) for APA members. These factors are then weighted in accordance with union membership within the Water Fund [(17.38 \* 83%) + (17.99 \* 17%)].

Object Level 3 – 7150

The factor to establish calendar year 2015's longevity pay cost is -100% as longevity has been eliminated beginning in FY2015. Decrease the total of fiscal year 2014's longevity pay by this percent to establish the cost for calendar year 2015.

Supplemental Revenue Requirement: Senior Debt Coverage Ratio (DCR) Adjustment

Preliminary rate calculations in the test period indicate insufficient revenue requirements to comply with the City's 1.20 bond covenant ratio of net earnings to annual debt service. The projected coverage ratio for the fiscal year ended June 30, 2014, was 1.24. Actual coverage achieved was 1.21. Because of the degree of margin to assure compliance with bond coverage covenants, the revenue requirement in the test period should be increased to provide a coverage ratio of at least 1.23. **Increase operating and maintenance expenditures by \$510,000 to achieve the forecasted coverage of 1.23 to supplement the revenue requirement.** This Senior DCR adjustment should be recorded to an integrated cost center. This test period is the first time the DCR known cost adjustment has been added.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 7, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Joellen C. Thompson, P.E.  
Water System Manager 

SUBJECT: **2014 WATER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY14 operating costs are listed below:

<u>ACCOUNT</u> <u>User Code</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
4312-8140	Cayenta Customer Information System	\$452,410.00
4342-9210	Consumers Energy Green Generation Participation Agreement	-\$58,174.00
4311-8180	Image Processing and Conversion Services	\$78,519.17
4342-8180	Maximo 7.5 Reimplementation & Cloud Move	\$29,040.00
04302020-9610	Merchant Services Account Processing Fees	\$145,000.00

JCT

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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 22, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Scott A. Saindon, CPA  
Budget Analyst

**SUBJECT: 2014 WATER RATE STUDY TASK #6**

The Water Supply System Fund's revenue and volumes by governmental unit for the year ending June 30, 2014, are disclosed on the attached page. In addition, actual volume comparisons for the past five (5) years by governmental unit are included herein.

Attachments

SAS:sas



**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
2014 RATE STUDY TASK NO. 6**

VOLUME COMPARISONS FOR FIVE (5) YEARS BY GOVERNMENTAL UNIT \*  
VOLUME = 1,000 GALLONS

<u>MUNICIPALITY</u>	<u>FY10</u>		<u>FY11</u>		<u>FY12</u>		<u>FY13</u>		<u>FY14</u>		<u>FY10 - FY14</u>
	<u>VOL BILLED</u>		<u>VOL BILLED</u>	<u>% CHANGE</u>							
GRAND RAPIDS	6,488,180		6,225,309	-4.05%	6,354,409	2.07%	6,838,225	7.61%	6,168,995	-9.79%	-4.92%
WALKER	875,586		850,755	-2.84%	866,427	1.84%	962,373	11.07%	904,358	-6.03%	3.29%
KENTWOOD	1,164,972		1,214,620	4.26%	1,284,088	5.72%	1,418,559	10.47%	1,298,223	-8.48%	11.44%
CASCADE TWP	576,850		581,868	0.87%	599,311	3.00%	706,642	17.91%	616,971	-12.69%	6.96%
GRAND RAPIDS TWP	479,671		455,087	-5.13%	493,252	8.39%	600,669	21.78%	480,353	-20.03%	0.14%
TALLMADGE TWP	17,420		17,173	-1.42%	18,149	5.68%	20,159	11.07%	21,621	7.25%	24.12%
EAST GRAND RAPIDS	418,797		449,849	7.41%	454,722	1.08%	461,100	1.40%	454,401	-1.45%	8.50%
OTTAWA COUNTY	706,518		666,164	-5.71%	763,172	14.56%	828,241	8.53%	898,135	8.44%	27.12%
ADA TWP	479,072		480,928	0.39%	495,797	3.09%	486,804	-1.81%	454,141	-6.71%	-5.20%
<b>TOTAL</b>	<b>11,207,066</b>		<b>10,941,753</b>	<b>-2.37%</b>	<b>11,329,327</b>	<b>3.54%</b>	<b>12,322,772</b>	<b>8.77%</b>	<b>11,297,198</b>	<b>-8.32%</b>	<b>0.80%</b>

VOLUME PUMPED	12,480,000	12,488,000	13,176,000	13,438,000	12,997,000
% BILLED TO PUMPED	89.8%	87.6%	86.0%	91.7%	86.9%

GRAND RAPIDS VOLUME COMPARED TO  
CUSTOMER COMMUNITIES

<u>VOLUME = 1,000 GALLONS</u>	<u>FY10</u>		<u>FY11</u>		<u>FY12</u>		<u>FY13</u>		<u>FY14</u>	
	<u>% OF TOTAL</u>	<u>VOL BILLED</u>	<u>% OF TOTAL</u>	<u>% OF TOTAL</u>						
GRAND RAPIDS	57.89%	6,225,309	56.89%	6,354,409	56.09%	6,838,225	55.49%	6,168,995	54.61%	
CUSTOMER COMMUNITIES	42.11%	4,716,444	43.11%	4,974,918	43.91%	5,484,547	44.51%	5,128,203	45.39%	
<b>TOTAL</b>	<b>100.00%</b>	<b>10,941,753</b>	<b>100.00%</b>	<b>11,329,327</b>	<b>100.00%</b>	<b>12,322,772</b>	<b>100.00%</b>	<b>11,297,198</b>	<b>100.00%</b>	

\* Volumes were restated from previous Rate Studies to reflect actual billings without adjustment for accrued revenues.

W-26

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 7**

OPERATING REVENUES OTHER THAN FROM SALES OF WATER:

4311-451006	CONTRACTOR UNDERGROUND LICENSE	\$ 7,200.00
4311-476012	TAPPING PERMITS	15,005.00
4311-607001	MISCELLANEOUS SERVICE FEES	497,710.29
4311-607033	SERVICES FOR CONTRACTORS	19,506.25
4311-607050	INSPECTION FEES - UTILITIES	41,589.00
4311-607052	METER SETTING FEES	27,268.84
4311-642009	SALE OF SCRAP MATERIAL	131,758.87
4311-642019	INVENTORY WITHDRAWALS	(103,443.59)
4311-642024	UNMETERED WATER	94,932.87
4311-672002	PENALTIES ON SPECIAL ASSESSMENTS	21,467.38
		<u>\$ 752,994.91</u>

CREDIT: UNDERUTILIZATION OF PENALTY CREDIT FROM PREVIOUS YEAR	<u>\$ 308,831.00</u>
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OTHER OPERATING REVENUES NOT INCLUDED:

CAPITAL CONTRIBUTION & INTEGRATED SYSTEM (LAKELINE CREDIT)

4311-607051	WATER FRONT FOOTAGE	\$ 91,780.34
4311-607053	INTEGRATED WATER CONNECTION	864,348.50
		<u>\$ 956,128.84</u>

OFFSETTING CREDIT TO CUSTOMER ACCOUNTING ACTIVITY EXPENSES:

4311-699001	BILLABLE EXPENSE - SEWAGE DISPOSAL SYSTEM *	<u>\$ 2,838,025.00</u>
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*\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 12, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Joellen C. Thompson, P.E.  
Water System Manager

SUBJECT: **2014 WATER RATE STUDY - TASK #8**

No significant changes in operating levels are anticipated to take effect by January 1, 2015, which would require adjustments to operating costs for the test period.

JCT

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 12, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Joellen C. Thompson, P.E.  
Water System Manager

SUBJECT: 2014 WATER RATE STUDY - TASK #9

No significant changes in water revenues are anticipated to take effect by January 1, 2015, which would require adjustments to operating revenue estimates as a whole.

JCT

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** October 20, 2014

**TO:** Geri Eye  
Utility Financial Officer

**FROM:** Wayne Jernberg, P.E.  
Assistant Water System Manager

**SUBJECT:** 2014 WATER RATE STUDY- TASK #10

The following are major water system projects (greater than \$100,000) that for rate study purposes should be considered operative as of January 1, 2015.

<u>Description</u>	<u>Location</u>	<u>Proj. Code</u>	<u>Cost</u>
Winchester Woods	Walker	Contribution	\$115,548
Heritage Pointe South	Kentwood	Contribution	126,379
Ridges of Cascade	Cascade	Contribution	442,172
Whitewater Place Apartments	Cascade	Contribution	168,337
Stoneshire Estates Phase 2	Cascade	Contribution	258,477
Carlton Avenue	Grand Rapids	221307-510	370,000
Richmond Street	Grand Rapids	221302-510	450,000
CSO 21	Grand Rapids	221925-531	1,059,636
		221925-510	505,364
East Paris Service Center Impr.	Kentwood	221708-520	3,636,200
		221217-531	78,800
LMFP – Sodium Hypochlorite	Integrated	220922-531	1,425,000

WJlajp

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
TASK NO. 11**

COMPUTE ACCUMULATED COST, DEPRECIATION AND DEPRECIATION EXPENSE AS OF JUNE 30, 2014

**INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 2,507,974	\$ -	\$ -
LAND IMPROVEMENTS	1,987,789	1,348,619	52,315
BUILDINGS & STRUCTURES	46,991,540	22,651,373	872,224
STORAGE	7,584,993	5,529,859	208,203
PROCESS EQUIPMENT	61,544,861	33,848,343	1,841,124
AUXILIARY EQUIPMENT	14,701,826	12,582,690	273,089
METERS	7,375,481	7,375,481	-
MACHINERY & EQUIPMENT	3,001,209	2,699,629	103,471
OFFICE EQUIPMENT & FURNITURE	622,184	622,184	-
WATERMAINS	55,592,968	18,009,165	711,472
	<u>\$ 201,910,825</u>	<u>\$ 104,667,343</u>	<u>\$ 4,061,898</u>

**NON-INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 1,876,308	\$ -	\$ -
LAND IMPROVEMENTS	1,204,988	862,537	41,328
BUILDINGS & STRUCTURES	11,381,293	3,429,830	246,029
STORAGE	12,666,647	5,193,132	258,861
PROCESS EQUIPMENT	5,506,607	2,800,046	149,960
AUXILIARY EQUIPMENT	5,226,225	2,773,796	716,724
MACHINERY & EQUIPMENT	2,257,526	2,178,462	35,914
OFFICE EQUIPMENT & FURNITURE	533,805	484,378	16,002
WATERMAINS - GRAND RAPIDS	130,014,292	30,227,627	1,679,498
WATERMAINS - WALKER	22,084,543	6,655,048	293,235
WATERMAINS - KENTWOOD	25,211,797	7,341,048	334,531
WATERMAINS - CASCADE TWP	20,818,239	5,400,205	278,715
WATERMAINS - GRAND RAPIDS TWP	17,896,954	4,026,689	236,990
WATERMAINS - TALLMADGE TWP	2,014,737	333,554	26,864
	<u>\$ 258,693,961</u>	<u>\$ 71,706,352</u>	<u>\$ 4,314,651</u>
TOTAL	<u>\$ 460,604,786</u>	<u>\$ 176,373,695</u>	<u>\$ 8,376,549</u>

SOURCE: GENERAL LEDGER, AS ADJUSTED, FOR JUNE 30, 2014.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 12**

TASK 12A DETERMINE WORKING CAPITAL NEEDS FOR MATERIALS AND SUPPLIES ON HAND.

MATERIALS AND SUPPLIES INVENTORY AS OF JUNE 30, 2014: \$ 1,578,056

TASK 12B DETERMINE WORKING CAPITAL NEEDS FOR PREPAYMENT OF OPERATING COSTS.

NO REQUIREMENT FOR PREPAYMENT OF OPERATING COSTS IS CALLED FOR IN THE ORDINARY CYCLE OF BUSINESS.

TASK 12C DETERMINE CASH WORKING CAPITAL NEEDS & DETERMINE TOTAL WORKING CAPITAL NEEDS.

MINIMUM CASH WORKING CAPITAL IS DEFINED AS THE SUM OF 90 DAYS ADJUSTED OPERATING EXPENSES.

ADJUSTED CURRENT ANNUAL EXPENSES = \$ 22,398,988 @ 90/365 = \$ 5,523,038

TOTAL WORKING CAPITAL NEEDS CONSIST OF THE FOLLOWING:

12A INVESTMENT IN INVENTORY	\$ 1,578,056
12B PREPAYMENT OF OPERATING EXPENSES	-
12C 90 DAY OPERATING EXPENSES	<u>5,523,038</u>
	<u>\$ 7,101,094</u>

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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 5, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Wayne Jernberg, P.E.  
Assistant Water System Manager

**SUBJECT: 2014 WATER RATE STUDY- TASK #13**

In 2014, there were a few improvement projects that involved existing zonegated facilities that received improvements within the City of Grand Rapids Water System. The existing zonegating maps, the Zonegating Cross Reference List and the Joint Use List were all reviewed. From that review, the following are recommended changes for zonegating of the Water System facilities for the 2014 Water Rate Study:

1. East Paris Service Center Improvements
  - a. Additional 24" and 36" discharge header yard piping was included in this project within the East Paris Service Center property and is being assigned Zonegated section W102A.
  - b. The percentage of allocation for this section should follow those in Zonegated section W102.
2. Coldbrook Pump Station – Pump 2 Improvements
  - a. No changes in percentages and allocations should follow those in Zonegated section "NEW EGR".

WJ

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2014

TO: Eric R. DeLong  
Deputy City Manager

FROM: Geri D. Eye, CPA   
Utility Financial Officer

**SUBJECT: 2014 WATER RATE STUDY TASK #13  
ZONEGATING & JOINT USE ALLOCATION METHODS**

Lengths and costs of all primary and intermediate transmission mains that are zonedated were prorated based on billed flow. Jointly used storage tanks and pumping stations were also prorated based on billed flow.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 9, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Wayne Jernberg, P.E.  
Assistant Water System Manager

**SUBJECT: 2014 WATER RATE STUDY- TASK #14**

Base maps and zoned maps for the water rate study, adjusted and revised to reflect changes are presently being updated to reflect 2014 zoned information. The water maps will be completely updated by the end of calendar year 2014. All 2014 zoned work papers and maps are on file at the Water Administration Building located at 1900 Oak Industrial Dr. NE.

WJ

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 15**

COMPUTE CONSTRUCTION COST RATE BASE (DEPRECIATED PLANT, PLUS WORKING CAPITAL, LESS CONTRIBUTIONS BY OTHERS).

ORIGINAL CONSTRUCTION COST	- TASK #10	\$ 7,525,000	
	- TASK #11	460,604,786	
			\$ 468,129,786
LESS: ACCUMULATED DEPRECIATION	- TASK #11	\$ 176,373,695	
	- TASK #10	-	(176,373,695)
			291,756,091
WORKING CAPITAL REQUIREMENT	- TASK #12	\$ 7,101,094	
			7,101,094
			298,857,185
CONTRIBUTIONS BY OTHERS	- TASK #21	\$ 86,996,518	
LESS: AMORTIZATION		(28,654,052)	
			(58,342,466)
CONSTRUCTION COST RATE BASE			\$ 240,514,719

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 29, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Scott A. Saindon, CPA   
Budget Analyst

SUBJECT: **2014 WATER RATE STUDY TASK #15A  
INTEGRATED WATER CONNECTION FEES**

Attached is the Integrated Water Connection Fee Schedule as currently provided for in Chapter 26 of the City Code, with the addition of rates to be effective on January 1, 2015. The City Commission on June 27, 2000 established fees through calendar year 2004. Beginning January 1, 2005, the integrated water connection fees are to be calculated on a yearly basis as part of the annual Water/Sewer Rate Study. The Consumer Price Index used to determine rates effective January 1, 2015 is as follows:

August, 2013 Index	233.877
August, 2014 Index	237.852
Increase (decrease)	3.975
Percentage increase (decrease)	1.70%

SAS\sas

Attachment

Section 2.35 Integrated Water Connection Fee Schedule

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Connection Base Fee Schedule

Water Meter Size (inches)	<u>1/01/14</u>	<u>1/01/15</u>
3/4 or less	\$ 2,873	\$ 2,922
1	4,798	4,880
1 ½	9,567	9,730
2	15,313	15,574
3	33,528	34,100
4	60,333	61,362
6 and over	134,083	136,370

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated water connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated water service connection fee payable for a single-family residential dwelling unit connecting to the Water System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be

constructed on or after January 1, 2000. When connecting to the Water System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Water Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Water Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Water System. A permit issued by the City to connect to the Water System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size.

Existing commercial and industrial customers may request the installation of an additional meter to measure water used solely for irrigation purposes. There shall be no Integrated Connection Fee for the additional meter provided combined maximum capacity as defined by the American Water Works Association Standards C700-90 and C702-92, as amended, does not exceed the maximum capacity of the original meter. If the original maximum capacity is exceeded, the customer shall pay as an Integrated Connection Fee the difference between the fee for the original meter and what the fee would be if the maximum capacities of all meters were totaled. The additional Integrated Connection Fee shall be based upon the fees in effect at the time of installation of the additional meter.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 16**

INCLUDE MAJOR PROJECT COST FOR SYSTEM IMPROVEMENTS (NON-INTEGRATED)

THE ESTIMATED TOTAL PROJECT COST FOR RECOMMENDED WATER SYSTEM IMPROVEMENTS  
 ARE SUMMARIZED IN THE FOLLOWING TABLE.

ITEM NO.	DESCRIPTION	ESTIMATED COST	BUDGET YEAR
1	COLDBROOK SCADA IMPROVEMENTS	2,200,000	2014
2	MAYNARD - VET'S DR TO 3200' NORTH	575,000	2014
3	FOUR MILE ROAD ELEVATED TANK	2,213,000	2015
4	FRANKLIN PS - VFD'S AND NEW MOTOR STARTERS	1,000,000	2015
5	ESCSO #27	1,205,000	2015
6	WILSON PUMP STATION IMPROVEMENTS	790,000	2015
7	LIVINGSTON DISCHARGE LINE	10,970,000	2015
8	ESCSO #28	3,160,000	2016
9	SWEET WATERMAIN REPLACEMENTS	915,000	2016
10	OAKLAND WATERMAIN REPLACEMENTS	1,137,000	2016
11	JEFFERSON WATERMAIN REPLACEMENTS	795,000	2016
12	LOGAN, GIDDINGS & CEDAR WATERMAIN REPLACEMENTS	2,284,000	2016
13	TAYLOR & COLDBROOK WATERMAIN REPLACEMENTS	1,153,000	2016
14	LAKESIDE WATERMAIN IMPROVEMENTS	780,000	2017
15	FRONT & VALLEY WATERMAIN IMPROVEMENTS	1,364,000	2017
16	ADAMS/ALGER PRESSURE DISTRICT MODIFICATIONS	1,600,000	2017
17	GARFIELD AVENUE WATERMAIN IMPROVEMENTS	1,050,000	2017
18	CASCADE NORTH RIVER CROSSING	3,600,000	2018
19	FULTON, BURTON AND LANGLEY WM REPLACEMENTS	3,790,000	2018
20	DIVISION, EMERALD AND OMENA WM REPLACEMENTS	2,773,000	2019
21	BERKSHIRE, ROSEWOOD AND KENT RIDGE WM REPL.	2,359,000	2019
		<u>\$ 45,713,000</u>	

NOTE: NONE OF THE PROJECTS ABOVE ARE INCLUDED IN RECOMMENDED REVENUE REQUIREMENTS FOR CALENDAR YEAR 2015. COSTS SHOWN ARE IN 2014 DOLLARS.

SOURCE: WAYNE JERNBERG, ASSISTANT WATER SYSTEM MANAGER, OCTOBER 2014

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 17**

**BONDS - PRINCIPAL & INTEREST PAYMENTS (SENIOR)**

FISCAL YEAR ENDING JUNE 30,	CASH BASIS		
	PRINCIPAL	INTEREST	PRIN & INT
2015	\$ 10,645,000	\$ 4,894,396	\$ 15,539,396
2016	11,040,000	4,483,634	15,523,634
2017	11,620,000	3,992,134	15,612,134
2018	12,015,000	3,466,134	15,481,134
2019	5,375,000	2,902,984	8,277,984
2020	5,640,000	2,665,284	8,305,284
2021	2,045,000	2,416,709	4,461,709
2022	2,145,000	2,319,409	4,464,409
2023	2,255,000	2,216,971	4,471,971
2024	2,380,000	2,108,971	4,488,971
2025	2,500,000	1,994,840	4,494,840
2026	2,635,000	1,874,790	4,509,790
2027	2,770,000	1,747,840	4,517,840
2028	2,920,000	1,614,440	4,534,440
2029	2,765,000	1,479,015	4,244,015
2030	2,895,000	1,348,890	4,243,890
2031	3,040,000	1,202,940	4,242,940
2032	3,195,000	1,049,680	4,244,680
2033	3,355,000	888,605	4,243,605
2034	3,520,000	719,465	4,239,465
2035	3,700,000	542,005	4,242,005
2036	1,615,000	355,470	1,970,470
2037	1,695,000	273,105	1,968,105
2038	1,785,000	186,660	1,971,660
2039	1,875,000	95,625	1,970,625
	<u>\$ 105,425,000</u>	<u>\$ 46,839,996</u>	<u>\$ 152,264,996</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 18**

DETERMINE WATER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE BASE BY  
SUBTRACTING DEBT OUTSTANDING FROM THE TOTAL RATE BASE.

CONSTRUCTION COST RATE BASE - TASK NO. 15	\$ 240,514,719
LESS: BONDED INDEBTEDNESS (CASH BASIS) - TASK NO. 20	(115,529,395)
NET WATER SYSTEM EQUITY	<u>\$ 124,985,324</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 RATE OF RETURN ON EQUITY - TASK NO. 19**

AT THE APRIL 5, 1977, COMMITTEE OF THE WHOLE MEETING, THE CITY COMMISSION DECIDED THE LEVEL OF RETURN ON WATER SYSTEM EQUITY. THE LEVEL DECIDED UPON WAS ONE PERCENT MORE THAN THE AVERAGE BOND BUYER'S INDEX OF MUNICIPAL BONDS FOR THE PREVIOUS TWELVE MONTH PERIOD.

BOND BUYER'S INDEX OF 20 MUNICIPAL BONDS

<u>DATE</u>	<u>RATE</u>	<u>DATE</u>	<u>RATE</u>
03-Oct-13	4.530%	03-Apr-14	4.440%
10-Oct-13	4.570%	10-Apr-14	4.320%
17-Oct-13	4.680%	17-Apr-14	4.320%
24-Oct-13	4.560%	24-Apr-14	4.330%
31-Oct-13	4.480%	01-May-14	4.330%
07-Nov-13	4.560%	08-May-14	4.310%
14-Nov-13	4.640%	15-May-14	4.260%
21-Nov-13	4.600%	22-May-14	4.280%
28-Nov-13	4.610%	29-May-14	4.260%
05-Dec-13	4.700%	05-Jun-14	4.370%
12-Dec-13	4.740%	12-Jun-14	4.370%
19-Dec-13	4.730%	19-Jun-14	4.360%
26-Dec-13	4.730%	26-Jun-14	4.290%
02-Jan-14	4.750%	03-Jul-14	4.310%
09-Jan-14	4.680%	10-Jul-14	4.380%
16-Jan-14	4.550%	17-Jul-14	4.360%
23-Jan-14	4.500%	24-Jul-14	4.290%
30-Jan-14	4.480%	31-Jul-14	4.330%
06-Feb-14	4.460%	07-Aug-14	4.310%
13-Feb-14	4.460%	14-Aug-14	4.240%
20-Feb-14	4.440%	21-Aug-14	4.210%
27-Feb-14	4.380%	28-Aug-14	4.170%
06-Mar-14	4.410%	04-Sep-14	4.090%
13-Mar-14	4.470%	11-Sep-14	4.140%
20-Mar-14	4.510%	18-Sep-14	4.170%
27-Mar-14	4.430%	25-Sep-14	4.110%
		<u>52 WEEKS</u>	<u>4.423%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 20**

DETERMINE COMPOSITE RATE OF RETURN ON A CONSTRUCTION COST RATE BASE

	RATE BASE	RATE OF RETURN	RETURN ON INVESTMENT
WATER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE BASE (CCRB)	\$ 124,985,324	@ 5.423%	= \$ 6,777,954
WATER SYSTEM INDEBTEDNESS IN THE CCRB			
1993 BONDS ( <i>Fixed Rate Conversion</i> )	19,300,000	@ 5.86%	= 1,130,980
2005 BONDS	29,370,000	@ 4.85%	= 1,424,445
2009 BONDS (amount in CCRB)	27,955,728	@ 4.98%	= 1,392,195
2010 BONDS (refunded 2000 Bonds)	25,960,000	@ 4.59%	= 1,191,564
2013 BONDS	3,085,000	@ 2.76%	= 85,146
2011 DWRF BONDS	1,521,301	@ 2.50%	= 38,033
2011 DWRF BONDS (amount in CCRB)	2,561,497	@ 2.50%	= 64,037
2012 DWRF BONDS (amount in CCRB)	2,366,565	@ 2.50%	= 59,164
2012 DWRF BONDS	643,514	@ 2.00%	= 12,870
2014 DWRF BONDS (amount in CCRB)	2,765,790	@ 2.50%	= 69,145
2014 QECB BONDS (amount in CCRB)	-	@ 2.54%	= -
LESS INTEREST ON BOND RESERVE ACCOUNTS			(4,146)
	\$ 240,514,719		\$ 12,241,387
COMPOSITE RATE OF RETURN ON INVESTMENT		\$ 12,241,387	= 5.090%
		\$ 240,514,719	
<b><u>Noted Disclosure:</u></b>			
TOTAL BONDED INDEBTEDNESS (from above)	\$ 115,529,395	TASK NO. 18	

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
CONSTRUCTION COST RATE BASE & RETURN ON INVESTMENT- TASK NO. 21- PART 1  
FISCAL YEAR ENDED JUNE 30, 2014**

**PHYSICAL LOCATION**

DESCRIPTION	RETAIL							WHOLESALE			TOTAL
	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
COST	\$ 203,335,825	\$ 153,548,756	\$ 22,674,275	\$ 30,651,652	\$ 20,813,230	\$ 16,265,188	\$ 2,014,737	\$ -	\$ -	\$ -	\$ 449,303,663
LESS: ACCUMULATED DEPRECIATION	104,667,343	42,719,054	6,841,597	7,978,886	5,398,802	3,661,995	333,554	-	-	-	171,601,231
NET BOOK VALUE	\$ 98,668,482	\$ 110,829,702	\$ 15,832,678	\$ 22,672,766	\$ 15,414,428	\$ 12,603,193	\$ 1,681,183	\$ -	\$ -	\$ -	\$ 277,702,432
WORKING CAPITAL REQUIREMENT	3,350,509	2,459,606	344,829	382,394	283,689	218,927	16,048	19,173	-	25,919	7,101,094
	\$ 102,018,991	\$ 113,289,308	\$ 16,177,507	\$ 23,055,160	\$ 15,698,117	\$ 12,822,120	\$ 1,697,231	\$ 19,173	\$ -	\$ 25,919	\$ 284,803,526
CONTRIBUTIONS	242,824	21,061,901	17,346,486	16,621,657	16,969,011	12,687,743	2,014,737	-	-	-	86,944,359
LESS AMORTIZATION	(16,188)	(10,595,334)	(5,245,891)	(4,694,948)	(4,625,490)	(3,087,624)	(338,106)	-	-	-	(28,603,581)
	\$ (226,636)	\$ (10,466,567)	\$ (12,100,595)	\$ (11,926,709)	\$ (12,343,521)	\$ (9,600,119)	\$ (1,676,631)	\$ -	\$ -	\$ -	\$ (58,340,778)
CONSTRUCTION COST RATE BASE	\$ 101,792,355	\$ 102,822,741	\$ 4,076,912	\$ 11,128,451	\$ 3,354,596	\$ 3,222,001	\$ 20,600	\$ 19,173	\$ -	\$ 25,919	\$ 226,462,748
RETURN ON INVESTMENT- TASK 4/5		88,747									\$ 88,747
RETURN ON INVESTMENT- TASK 20	5.090%	\$ 5,181,231	\$ 5,144,931	\$ 207,515	\$ 566,438	\$ 170,749	\$ 164,000	\$ 1,049	\$ 976	\$ 1,319	\$ 11,438,208

**ZONEGATED**

COST	\$ -	\$ (5,309,897)	\$ 609,206	\$ 3,630,156	\$ 10,783,788	\$ 3,639,413	\$ 190,392	\$ 1,525,562	\$ -	\$ 3,757,503	\$ 18,826,123
LESS: ACCUMULATED DEPRECIATION	-	(2,865,838)	454,163	1,727,731	2,577,604	1,217,160	92,352	427,015	-	1,142,277	4,772,464
NET BOOK VALUE	\$ -	\$ (2,444,059)	\$ 155,043	\$ 1,902,425	\$ 8,206,184	\$ 2,422,253	\$ 98,040	\$ 1,098,547	\$ -	\$ 2,615,226	\$ 14,053,659
WORKING CAPITAL REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-
	\$ -	\$ (2,444,059)	\$ 155,043	\$ 1,902,425	\$ 8,206,184	\$ 2,422,253	\$ 98,040	\$ 1,098,547	\$ -	\$ 2,615,226	\$ 14,053,659
CONTRIBUTIONS	-	-	-	15,256	3,627	22,604	-	-	-	10,672	52,159
LESS AMORTIZATION	-	-	-	(14,762)	(3,510)	(21,872)	-	-	-	(10,327)	(50,471)
	\$ -	\$ -	\$ -	\$ (494)	\$ (117)	\$ (732)	\$ -	\$ -	\$ -	\$ (345)	\$ (1,688)
CONSTRUCTION COST RATE BASE	\$ -	\$ (2,444,059)	\$ 155,043	\$ 1,901,931	\$ 8,206,067	\$ 2,421,521	\$ 98,040	\$ 1,098,547	\$ -	\$ 2,614,881	\$ 14,051,971
RETURN ON INVESTMENT- TASK 19/20	\$ -	\$ (218,083)	\$ 13,834	\$ 169,709	\$ 732,227	\$ 216,072	\$ 8,748	\$ 98,023	\$ -	\$ 233,326	\$ 1,253,856
RETURN ON INVESTMENT- TASK 19/20	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	5.090%	8.923%	
TOTAL RETURN ON INVESTMENT	\$ 5,181,231	\$ 4,926,848	\$ 221,349	\$ 736,147	\$ 902,976	\$ 380,072	\$ 9,797	\$ 98,999	\$ -	\$ 234,645	\$ 12,692,064

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
CONSTRUCTION COST & ACCUMULATED DEPRECIATION- TASK NO. 21- PART 2  
FISCAL YEAR ENDED JUNE 30, 2014**

**CONSTRUCTION COST**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL						WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
BY PHYSICAL LOCATION- TASK 11		\$ 201,910,825	\$ 164,503,760	\$ 22,917,135	\$ 30,543,136	\$ 20,818,239	\$ 17,896,954	\$ 2,014,737	\$ -	\$ -	\$ -	\$460,604,786
IN SERVICE- TASK 10		1,425,000	2,385,000	-	3,715,000	-	-	-	-	-	-	7,525,000
<b>PUMPING STATIONS:</b>												
KNAPP SERVICE CENTER	\$ 3,368,233		(1,523,688)	-	445,651	105,965	660,308	-	-	-	311,764	-
LIVINGSTON	2,090,217		(369,591)	-	108,252	25,584	160,152	-	-	-	75,603	-
FRANKLIN	6,949,487		(3,971,910)	-	1,641,191	835,467	346,640	-	656,310	-	492,302	-
LEFFINGWELL	141,009		(63,788)	-	18,657	4,436	27,643	-	-	-	13,052	-
BRISTOL	612,700		-	-	-	-	-	-	-	-	-	-
EAST PARIS	5,347,002		-	-	(2,513,358)	2,513,358	-	-	-	-	-	-
BURTON	219,892		-	-	-	-	-	-	-	-	-	-
COLDBROOK PS PUMP 2	389,279		(56,422)	-	-	-	-	-	56,422	-	-	-
<b>STORAGE TANKS:</b>												
ELKS	236,335		(182,356)	175,885	-	-	-	6,471	-	-	-	-
KNAPP	118,570		(20,966)	-	6,141	1,451	9,085	-	-	-	4,289	-
CAMBRIDGE	116,070		(90,643)	-	74,555	5,911	-	-	10,177	-	-	-
PATTERSON	3,620,537		-	-	(1,701,833)	1,701,833	-	-	-	-	-	-
WATERMAINS			(12,370,537)	190,461	1,944,416	5,584,774	803,819	183,921	802,653	-	2,860,493	-
ADJUSTED BY ZONEGATING		\$ 203,335,825	\$ 148,238,859	\$ 23,283,481	\$ 34,281,808	\$ 31,597,018	\$ 19,904,601	\$ 2,205,129	\$ 1,525,562	\$ -	\$ 3,757,503	\$468,129,786
LESS: ZONEGATING ADJUSTMENT		\$ -	\$ (5,309,897)	\$ 609,206	\$ 3,630,156	\$ 10,783,788	\$ 3,639,413	\$ 190,392	\$ 1,525,562	\$ -	\$ 3,757,503	\$ 18,826,123
PHYSICAL LOCATION		\$ 203,335,825	\$ 153,548,756	\$ 22,674,275	\$ 30,651,652	\$ 20,813,230	\$ 16,265,188	\$ 2,014,737	\$ -	\$ -	\$ -	\$449,303,663

**ACCUMULATED DEPRECIATION**

BY PHYSICAL LOCATION- TASK 11		\$ 104,667,343	\$ 45,994,774	\$ 6,962,169	\$ 8,988,961	\$ 5,400,205	\$ 4,026,689	\$ 333,554	\$ -	\$ -	\$ -	\$176,373,695
IN SERVICE- TASK 10												-
<b>PUMPING STATIONS:</b>												
KNAPP SERVICE CENTER	\$ 1,988,632		(899,597)	-	263,116	62,562	389,851	-	-	-	184,068	-
LIVINGSTON	847,575		(149,868)	-	43,896	10,374	64,941	-	-	-	30,657	-
FRANKLIN	2,864,337		(1,637,084)	-	676,442	344,351	142,873	-	270,508	-	202,910	-
LEFFINGWELL	136,468		(61,733)	-	18,056	4,293	26,753	-	-	-	12,631	-
BRISTOL	269,781		-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,554,470		-	-	(730,679)	730,679	-	-	-	-	-	-
BURTON	37,340		-	-	-	-	-	-	-	-	-	-
COLDBROOK PS PUMP 2	12,976		(1,881)	-	-	-	-	-	1,881	-	-	-
<b>STORAGE TANKS:</b>												
ELKS	236,335		(182,356)	175,885	-	-	-	6,471	-	-	-	-
KNAPP	116,070		(20,523)	-	6,011	1,421	8,893	-	-	-	4,198	-
CAMBRIDGE	116,070		(90,643)	-	74,555	5,911	-	-	10,177	-	-	-
PATTERSON	93,443		-	-	(43,923)	43,923	-	-	-	-	-	-
WATERMAINS			(3,097,873)	157,706	410,182	1,372,687	219,155	85,881	144,449	-	707,813	-
ADJUSTED BY ZONEGATING		\$ 104,667,343	\$ 39,853,216	\$ 7,295,760	\$ 9,706,617	\$ 7,976,406	\$ 4,879,155	\$ 425,906	\$ 427,015	\$ -	\$ 1,142,277	\$176,373,695
LESS: ZONEGATING ADJUSTMENT		\$ -	\$ (2,865,838)	\$ 454,163	\$ 1,727,731	\$ 2,577,604	\$ 1,217,160	\$ 92,352	\$ 427,015	\$ -	\$ 1,142,277	\$ 4,772,464
PHYSICAL LOCATION		\$ 104,667,343	\$ 42,719,054	\$ 6,841,597	\$ 7,978,886	\$ 5,398,802	\$ 3,661,995	\$ 333,554	\$ -	\$ -	\$ -	\$171,601,231

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**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 CONTRIBUTIONS & AMORTIZED CONTRIBUTIONS- TASK NO. 21- PART 3  
 FISCAL YEAR ENDED JUNE 30, 2014**

**CONTRIBUTIONS BY OTHERS**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL						WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
2013 RATE STUDY- LOCATION		\$ 242,824	\$ 20,586,793	\$ 17,209,824	\$ 16,520,894	\$ 16,289,248	\$ 12,368,515	\$ 2,014,737	\$ -	\$ -	\$ -	\$ 85,232,835
ADDITIONS:												
FRONT FOOT FEES			8,219	18,099	55,458	11,949	(1,945)	-	-	-	-	91,780
FIXED ASSET CONTRIBUTIONS		-	139,200	118,563	45,305	667,814	321,173	-	-	-	-	1,292,055
OTHER CONTRIBUTIONS		-	327,689	-	-	-	-	-	-	-	-	327,689
		<u>242,824</u>	<u>21,061,901</u>	<u>17,346,486</u>	<u>16,621,657</u>	<u>16,969,011</u>	<u>12,687,743</u>	<u>2,014,737</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>86,944,359</u>
PUMPING STATIONS:												
LEFFINGWELL	\$ 115,303			-	15,256	3,627	22,604	-	-	-	10,672	52,159
ADJUSTED BY ZONEGATING		<u>242,824</u>	<u>21,061,901</u>	<u>17,346,486</u>	<u>16,636,913</u>	<u>16,972,638</u>	<u>12,710,347</u>	<u>2,014,737</u>	<u>-</u>	<u>-</u>	<u>10,672</u>	<u>86,996,518</u>
LESS: ZONEGATING ADJUSTMENT		<u>-</u>	<u>-</u>	<u>-</u>	<u>15,256</u>	<u>3,627</u>	<u>22,604</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>10,672</u>	<u>52,159</u>
PHYSICAL LOCATION		<u>242,824</u>	<u>21,061,901</u>	<u>17,346,486</u>	<u>16,621,657</u>	<u>16,969,011</u>	<u>12,687,743</u>	<u>2,014,737</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>86,944,359</u>
<b>AMORTIZED CONTRIBUTIONS</b>												
2013 RATE STUDY- LOCATION		\$ 8,094	\$ 10,313,346	\$ 5,011,528	\$ 4,471,146	\$ 4,402,405	\$ 2,918,577	\$ 311,243	\$ -	\$ -	\$ -	\$ 27,436,339
CURRENT YEAR ADJUSTMENTS		8,094	281,988	234,363	223,802	223,085	169,047	26,863	-	-	-	1,167,242
PRIOR PERIOD ADJUSTMENT												-
		<u>16,188</u>	<u>10,595,334</u>	<u>5,245,891</u>	<u>4,694,948</u>	<u>4,625,490</u>	<u>3,087,624</u>	<u>338,106</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>28,603,581</u>
PUMPING STATIONS:												
LEFFINGWELL	111,571			-	14,762	3,510	21,872	-	-	-	10,327	50,471
ADJUSTED BY ZONEGATING		<u>16,188</u>	<u>10,595,334</u>	<u>5,245,891</u>	<u>4,709,710</u>	<u>4,629,000</u>	<u>3,109,496</u>	<u>338,106</u>	<u>-</u>	<u>-</u>	<u>10,327</u>	<u>28,654,052</u>
LESS: ZONEGATING ADJUSTMENT		<u>-</u>	<u>-</u>	<u>-</u>	<u>14,762</u>	<u>3,510</u>	<u>21,872</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>10,327</u>	<u>50,471</u>
PHYSICAL LOCATION		<u>16,188</u>	<u>10,595,334</u>	<u>5,245,891</u>	<u>4,694,948</u>	<u>4,625,490</u>	<u>3,087,624</u>	<u>338,106</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>28,603,581</u>

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**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
FISCAL YEAR ENDED JUNE 30, 2014**

**CONSTRUCTION COST- BY PHYSICAL LOCATION**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL						WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
COST BY PHYSICAL LOCATION- TASK 11		\$ 201,910,825	\$ 170,667,691	\$ 22,084,543	\$ 25,211,797	\$ 20,818,239	\$ 17,896,954	\$ 2,014,737	\$ -	\$ -	\$ -	\$ 460,604,786
IN SERVICE- TASK 10		1,425,000	2,385,000	-	3,715,000	-	-	-	-	-	-	7,525,000
BRISTOL			(612,700)	612,700								-
EAST PARIS			(1,710,802)		1,710,802							-
BURTON			(219,892)	219,892								-
PATTERSON TANK			(3,620,537)		3,620,537							-
WATERMAINS												
LESS: WATERMAINS-TOTAL SUBS-HOME COMM			(20,287,069)	(725,425)	(7,244,436)	(6,200)	(2,208,247)	-	-	-	-	(30,471,377)
ADD: WATERMAINS-TOTAL ADDS-HOME COMM			6,947,063	482,565	3,637,952	1,191	576,481	-	-	-	-	11,645,252
TOTAL-PHYSICAL LOCATION COST		\$ 203,335,825	\$ 153,548,754	\$ 22,674,275	\$ 30,651,652	\$ 20,813,230	\$ 16,265,188	\$ 2,014,737	\$ -	\$ -	\$ -	\$ 449,303,661

**CONSTRUCTION COST- ZONEGATING**

PUMPING STATIONS:												
KNAPP SERVICE CENTER	\$ 3,368,233		\$ (1,523,688)	\$ -	\$ 445,651	\$ 105,965	\$ 660,308	\$ -	\$ -	\$ -	\$ 311,764	\$ -
LIVINGSTON	2,090,217		(369,591)	-	108,252	25,584	160,152	-	-	-	75,603	-
FRANKLIN	6,949,487		(3,971,910)	-	1,641,191	835,467	346,640	-	656,310	-	492,302	-
LEFFINGWELL	141,009		(63,788)	-	18,657	4,436	27,643	-	-	-	13,052	-
BRISTOL	612,700		-	-	-	-	-	-	-	-	-	-
EAST PARIS	5,347,002		-	-	(2,513,358)	2,513,358	-	-	-	-	-	-
BURTON	219,892		-	-	-	-	-	-	-	-	-	-
COLDBROOK PS PUMP 2	389,279		(56,422)	-	-	-	-	-	56,422	-	-	-
STORAGE TANKS:												
ELKS	236,335		(182,356)	175,885	-	-	-	6,471	-	-	-	-
KNAPP	118,570		(20,966)	-	6,141	1,451	9,085	-	-	-	4,289	-
CAMBRIDGE	116,070		(90,643)	-	74,555	5,911	-	-	10,177	-	-	-
PATTERSON	3,620,537		-	-	(1,701,833)	1,701,833	-	-	-	-	-	-
WATERMAINS- ZONEGATED COST			969,467	433,321	5,550,900	5,589,783	2,435,585	183,921	802,653	-	2,860,493	18,826,123
TOTAL- ZONEGATED COST		\$ -	\$ (5,309,897)	\$ 609,206	\$ 3,630,156	\$ 10,783,788	\$ 3,639,413	\$ 190,392	\$ 1,525,562	\$ -	\$ 3,757,503	\$ 18,826,123
GRAND TOTAL- COST		\$ 203,335,825	\$ 148,238,857	\$ 23,283,481	\$ 34,281,808	\$ 31,597,018	\$ 19,904,601	\$ 2,205,129	\$ 1,525,562	\$ -	\$ 3,757,503	\$ 468,129,784

**ACCUMULATED DEPRECIATION-BY PHYSICAL LOCATION**

ACC DEPREC BY PHYSICAL LOCATION- TASK 11	\$ 104,667,343	\$ 47,949,808	\$ 6,655,048	\$ 7,341,048	\$ 5,400,205	\$ 4,026,689	\$ 333,554	\$ -	\$ -	\$ -	\$ -	\$ 176,373,695
BRISTOL		(269,781)	269,781									-
EAST PARIS		(1,554,470)		1,554,470								-
BURTON		(37,340)	37,340									-
PATTERSON		(93,443)		93,443								-
WATERMAINS												
LESS: WATERMAINS-TOTAL SUBS-HOME COMM		(5,016,326)	(386,476)	(2,053,508)	(1,736)	(545,708)	-	-	-	-	-	(8,003,754)
ADD: WATERMAINS-TOTAL ADDS-HOME COMM		1,740,606	265,904	1,043,433	333	181,014	-	-	-	-	-	3,231,290
TOTAL-PHYSICAL LOCATION ACC DEP	\$ 104,667,343	\$ 42,719,054	\$ 6,841,597	\$ 7,978,886	\$ 5,398,802	\$ 3,661,995	\$ 333,554	\$ -	\$ -	\$ -	\$ -	\$ 171,601,231

**ACCUMULATED DEPRECIATION-ZONEGATING**

PUMPING STATIONS:												
KNAPP SERVICE CENTER	\$ 1,988,632		\$ (899,597)	\$ -	\$ 263,116	\$ 62,562	\$ 389,851	\$ -	\$ -	\$ -	\$ 184,068	\$ -
LIVINGSTON	847,575		(149,868)	-	43,896	10,374	64,941	-	-	-	30,657	-
FRANKLIN	2,864,337		(1,637,084)	-	676,442	344,351	142,873	-	270,508	-	202,910	-
LEFFINGWELL	136,468		(61,733)	-	18,056	4,293	26,753	-	-	-	12,631	-
BRISTOL	269,781		-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,554,470		-	-	(730,679)	730,679	-	-	-	-	-	-
BURTON	37,340		-	-	-	-	-	-	-	-	-	-
COLDBROOK PS PUMP 2	12,976		(1,881)	-	-	-	-	-	1,881	-	-	-
STORAGE TANKS:												
ELKS	236,335		(182,356)	175,885	-	-	-	6,471	-	-	-	-
KNAPP	116,070		(20,523)	-	6,011	1,421	8,893	-	-	-	4,198	-
CAMBRIDGE	116,070		(90,643)	-	74,555	5,911	-	-	10,177	-	-	-
PATTERSON	93,443		-	-	(43,923)	43,923	-	-	-	-	-	-
WATERMAINS- ZONEGATED ACC DEP			177,847	278,278	1,420,257	1,374,090	583,849	85,881	144,449	-	707,813	4,772,464
TOTAL- ZONEGATED ACC DEP		\$ -	\$ (2,865,838)	\$ 454,163	\$ 1,727,731	\$ 2,577,604	\$ 1,217,160	\$ 92,352	\$ 427,015	\$ -	\$ 1,142,277	\$ 4,772,464
GRAND TOTAL- ACC DEP		\$ 104,667,343	\$ 39,853,216	\$ 7,295,760	\$ 9,706,617	\$ 7,976,406	\$ 4,879,155	\$ 425,906	\$ 427,015	\$ -	\$ 1,142,277	\$ 176,373,695

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ZONEGATED BY GOVERNMENTAL UNIT - TASK #22  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL						WHOLESALE		
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP
FILTRATION PLANT	\$ 6,917,212	\$ 6,917,212									
PUMPING STATIONS:											
A. PRIMARY TRANSPORT	1,862,335	1,862,335									
B. INTERMEDIATE TRANSPORT	1,157,139		588,743	26,349	240,130	158,807	53,078	-	43,294	-	46,738
WATERMAINS:											
A. PRIMARY TRANSPORT	279,861		143,561	27,597	51,444	29,136	11,105	722	6,826	-	9,470
B. INTERMEDIATE TRANSPORT	1,449,542		543,390	298,200	249,017	213,865	110,064	23,222	101	-	11,683
C. LOCAL DISTRIBUTION	3,883,537		2,858,399	302,955	263,343	207,692	239,614	11,534	-	-	-
RETAIL CUSTOMER METERING *	3,057,672		2,310,927	248,497	198,107	133,773	159,794	6,574			
SUBTOTAL OPERATING EXPENSE	18,607,298	8,779,547	6,445,020	903,598	1,002,041	743,273	573,655	42,052	50,221	-	67,891
ENGINEERING SERVICES	1,153,405	544,211	399,505	56,009	62,111	46,079	35,559	2,607	3,114	-	4,210
ADMINISTRATIVE EXPENSE	2,638,285	1,217,375	951,847	125,290	138,939	103,075	79,545	5,831	6,966	-	9,417
<b>TOTAL</b>	<b>\$ 22,398,988</b>	<b>\$ 10,541,133</b>	<b>\$ 7,796,372</b>	<b>\$ 1,084,897</b>	<b>\$ 1,203,091</b>	<b>\$ 892,427</b>	<b>\$ 688,759</b>	<b>\$ 50,490</b>	<b>\$ 60,301</b>	<b>\$ -</b>	<b>\$ 81,518</b>

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS		100.00%	100.00%								
PUMPING STATIONS											
A. PRIMARY TRANSPORT		100.00%	100.00%								
B. INTERMEDIATE TRANSPORT		100.00%		50.880%	2.277%	20.752%	13.724%	4.587%	3.741%		4.039%
MEMO											
WATERMAINS											
TOTAL MILES:	1,167.41										
A. PRIMARY TRANSPORT		100.000%	51.297%	9.861%	18.382%	10.411%	3.968%	0.258%	2.439%		3.384%
MILES	58.21		29.86	5.74	10.70	6.06	2.31	0.15	1.42	-	1.97
B. INTERMEDIATE TRANSPORT		100.000%	37.487%	20.572%	17.179%	14.754%	7.593%	1.602%	0.007%		0.806%
MILES	301.48		113.02	62.02	51.79	44.48	22.89	4.83	0.02	-	2.43
C. LOCAL DISTRIBUTION		100.000%	73.603%	7.801%	6.781%	5.348%	6.170%	0.297%			
MILES	807.72		594.50	63.01	54.77	43.20	49.84	2.40	-	-	-
RETAIL CUSTOMER METERING (1)		100.000%	75.578%	8.127%	6.479%	4.375%	5.226%	0.215%			
NUMBER OF METERS	81,262.00		61,416.00	6,604.00	5,265.00	3,555.00	4,247.00	175.00			
ENGINEERING SERVICES (2)		100.000%	47.183%	34.637%	4.856%	5.385%	3.995%	3.083%	0.226%	0.270%	0.365%
ADMINISTRATIVE EXPENSE (3)		100.000%	46.143%	36.078%	4.749%	5.266%	3.907%	3.015%	0.221%	0.264%	0.357%

NOTES:

- (1) ALLOCATION BASED ON NUMBER OF METERS.
- (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.
- (3) ALLOCATION BASED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 23**

ASSIGN OTHER OPERATING REVENUES TO EACH GOVERNMENTAL ENTITY. \*

BASIS OF ALLOCATION: RETAIL BILLINGS BY GOVERNMENTAL ENTITY - TASK NO. 6 & 7

	<u>RETAIL BILLINGS</u>	<u>PERCENTAGE OF TOTAL</u>	<u>ALLOCATION *</u>
CITY OF GRAND RAPIDS	\$ 21,910,769	64.8240%	\$ 688,319
CITY OF WALKER	3,023,448	8.9450%	94,980
CITY OF KENTWOOD	4,012,931	11.8725%	126,065
CASCADE TOWNSHIP	2,788,140	8.2489%	87,589
GRAND RAPIDS TOWNSHIP	1,952,377	5.7762%	61,333
TALLMADGE TOWNSHIP	112,682	0.3334%	3,540
	<u>\$ 33,800,347</u>	<u>100.0000%</u>	<u>\$ 1,061,826</u>

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ASSIGN DEPRECIATION EXPENSE TO CUSTOMER COMMUNITIES- TASK NO. 24  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	DEPRECIATION EXPENSE	INTEGRATED SYSTEM	RETAIL						WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
BY PHYSICAL LOCATION- TASK 11		\$ 4,061,898	\$ 2,997,894	\$ 321,552	\$ 452,636	\$ 278,715	\$ 236,990	\$ 26,864	\$ -	\$ -	\$ -	\$ 8,376,549
IN SERVICE- TASK 10		95,000	31,799	-	122,258	-	-	-	-	-	-	249,057
PUMPING STATIONS:												
KNAPP SERVICE CENTER	\$ 92,165		(41,693)	-	12,194	2,900	18,068	-	-	-	8,531	-
LIVINGSTON	51,792		(9,157)	-	2,682	634	3,968	-	-	-	1,873	-
FRANKLIN	208,505		(119,168)	-	49,241	25,066	10,400	-	19,691	-	14,770	-
LEFFINGWELL	908		(411)	-	120	29	178	-	-	-	84	-
BRISTOL	15,870											-
EAST PARIS	145,869		-	-	(68,566)	68,566	-	-	-	-	-	-
BURTON	12,447											-
COLDBROOK PS PUMP 2	12,976		(1,881)	-	-	-	-	-	1,881	-	-	-
STORAGE TANKS:												
ELKS	-		-	-	-	-	-	-	-	-	-	-
KNAPP	-		-	-	-	-	-	-	-	-	-	-
CAMBRIDGE	-		-	-	-	-	-	-	-	-	-	-
PATTERSON	93,443		-	-	(43,923)	43,923	-	-	-	-	-	-
WATERMANS			(160,428)	2,539	24,048	73,592	10,362	2,452	9,800	-	37,635	-
ADJUSTED BY ZONEGATING		4,156,898	2,696,955	324,091	550,690	493,425	279,966	29,316	31,372	-	62,893	8,625,606
LESS DEPR ON CIS (TASK 4/5)			(363,663)									(363,663)
LESS CONTRIBUTIONS AMORTIZED												
TASK NO. 21		(8,094)	(281,988)	(234,363)	(223,802)	(223,085)	(169,047)	(26,863)	-	-	-	(1,167,242)
TOTAL		\$ 4,148,804	\$ 2,051,304	\$ 89,728	\$ 326,888	\$ 270,340	\$ 110,919	\$ 2,453	\$ 31,372	\$ -	\$ 62,893	\$ 7,094,701

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**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ACCUMULATE REVENUE REQUIREMENTS BY CUSTOMER COMMUNITIES- TASK NO. 25  
 FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	INTEGRATED SYSTEM	RETAIL						WHOLESALE			TOTAL
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	CITY OF EAST GR	COUNTY OF OTTAWA	ADA TOWNSHIP	
OPERATION & MAINTENANCE EXPENSE- TASK NO. 22	\$ 10,541,133	\$ 7,796,372	\$ 1,084,897	\$ 1,203,091	\$ 892,427	\$ 688,759	\$ 50,490	\$ 60,301	\$ -	\$ 81,518	\$ 22,398,988
DEPRECIATION EXPENSE TASK NO. 24	4,148,804	2,051,304	89,728	326,888	270,340	110,919	2,453	31,372	-	62,893	7,094,701
RETURN ON SYSTEM INVESTMENT TASK NO. 21	5,181,231	4,926,848	221,349	736,147	902,976	380,072	9,797	98,999	-	234,645	12,692,064
REVENUE CREDITS- TASK NO. 23	-	(688,319)	(94,980)	(126,065)	(87,589)	(61,333)	(3,540)	-	-	-	(1,061,826)
ALLOCATE:											
INTEG CONN. FEE CREDIT (A)	-	(475,300)	(91,291)	(104,102)	(67,483)	(47,856)	(4,399)	(33,838)	-	(40,080)	(864,349)
INTEGRATED SYSTEM (A)	(19,871,168)	10,110,726	1,941,992	2,214,516	1,435,544	1,018,016	93,581	719,826	1,484,355	852,612	-
LESS: CIRCUIT BREAKER (B)		(20)	-	-	(203,573)	-	-				(203,593)
	<u>\$ -</u>	<u>\$ 23,721,611</u>	<u>\$ 3,151,695</u>	<u>\$ 4,250,475</u>	<u>\$ 3,142,642</u>	<u>\$ 2,088,577</u>	<u>\$ 148,382</u>	<u>\$ 876,660</u>	<u>\$ 1,484,355</u>	<u>\$ 1,191,588</u>	<u>\$ 40,055,985</u>

(A) ALLOCATED ON THE BASIS OF RELATIVE BILLED VOLUME & LAND AREA TO UAB PARTNERS. OTTAWA'S ALLOCATION IS BASED ON OLD CONTRACT AND EXCLUDES ANY COST OF COLDBROOK PUMPING.

(B) PURSUANT TO CITY AND CUSTOMER COMMUNITY CIRCUIT BREAKER, AS PROVIDED FOR BY THE THIRD AMENDMENT TO THE UNIFORM SERVICE AGREEMENTS.

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 25a**

REVIEW THE REVENUE REQUIREMENTS TO ASSURE COMPLIANCE WITH THE APPLICABLE BOND ORDINANCE PROVISIONS.

	YEAR ENDED 6/30/14	PRO FORMA *
<b>REVENUES:</b>		
RETAIL/WHOLESALE WATER SALES	\$ 37,501,260	\$ 38,109,611
CONNECTION FEES/FRONT FOOT FEES	956,129	899,737
BILLABLE TO SDS FUND	2,080,651	2,156,684
OTHER OPERATING REVENUES	2,091,036	2,075,662
INTEREST ON INVESTMENTS	228,314	140,000
MISCELLANEOUS	787,378	561,000
<b>TOTAL REVENUES</b>	<b>\$ 43,644,768</b>	<b>\$ 43,942,694</b>
<b>OPERATING EXPENSES:</b>		
OPERATIONS & MAINTENANCE	\$ 24,929,839	\$ 24,759,429
DEPRECIATION	8,376,548	8,376,548
<b>TOTAL EXPENSES</b>	<b>\$ 33,306,387</b>	<b>\$ 33,135,977</b>
<b>ADDITIONS: DEPRECIATION</b>	<b>8,376,548</b>	<b>8,376,548</b>
<b>NET EARNINGS OF THE SYSTEM</b>	<b>\$ 18,714,929</b>	<b>\$ 19,183,265</b>
<b>DEBT SERVICE (CASH BASIS)</b>		
SERIES 1993 BONDS	\$ 3,492,100	\$ 3,599,800
SERIES 2005 BONDS	2,274,738	2,271,188
SERIES 2009 BONDS	1,972,740	1,969,740
SERIES 2010 BONDS	7,336,700	7,327,100
SERIES 2013 BONDS	366,055	371,569
SENIOR LIEN	15,442,333	15,539,397
JUNIOR LIEN **	362,179	840,925
<b>TOTAL</b>	<b>15,804,512</b>	<b>16,380,322</b>
<b>COVERAGE RATIO - SENIOR DEBT</b>	<b>1.21</b>	<b>1.23</b>
<b>COVERAGE RATIO - ALL DEBT</b>	<b>1.18</b>	<b>1.17</b>

\* WATER SALES ADJUSTED FOR RATE REVISIONS OF -4.30% AND 2.50% EFFECTIVE 1/1/14 AND 1/1/15, RESPECTIVELY; OTHER REVENUES AND OPERATIONS & MAINTENANCE EXPENSE PER 2015 FISCAL PLAN, ADJUSTED FOR CARRYFORWARDS.

\*\* AMOUNTS IN PRO FORMA ARE BASED ON MAXIMUM PRINCIPAL AND DO NOT INCLUDE PRINCIPAL FORGIVENESS IF NOT YET FINALIZED.

**SUMMARY**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INITIAL SYSTEM REVENUE REQUIREMENTS		\$ 40,259,578
REVENUES FROM CURRENT RATES		
MONTHLY METER CHARGE	\$ 10,289,650	
MONTHLY BILLING CHARGE	2,711,497	
COMMODITY CHARGE	25,315,569	
MONTHLY FIRE PROTECTION	648,843	
ANNUAL HYDRANT CHARGE	<u>113,544</u>	<u>(39,079,103)</u>
INITIAL REQUIRED REVENUE INCREASE (DECREASE)		<u>\$ 1,180,475</u>
INITIAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>3.02%</u>
INITIAL SYSTEM REVENUE REQUIREMENTS FROM ABOVE		\$ 40,259,578
LESS: AMOUNT OF CIRCUIT BREAKER RELIEF TO REDUCE RR's TO RETAIL		<u>(203,593)</u>
SYSTEM REVENUE REQUIREMENTS		<u>\$ 40,055,985</u>
ACTUAL REQUIRED AMOUNT OF REVENUE INCREASE (DECREASE)		<u>\$ 976,882</u>
ACTUAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>2.50%</u>

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 26**

METER SIZE	EQUIV. FACTOR	CITY OF GR		CITY OF WALKER		CITY OF KENTWOOD		CASCADE TWP		GR TWP		TALLMADGE TWP	
		METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.	METERS	EQUIV.
A 3/4" or less	1.0000	55,492	55,492	5,475	5,475	3,501	3,501	2,618	2,618	3,644	3,644	123	123
B 1"	1.7778	2,475	4,400	462	821	625	1,111	323	574	312	555	20	36
C 1 1/4"	2.7778	-	-	-	-	-	-	-	-	-	-	-	-
D 1 1/2"	4.0000	1,135	4,540	219	876	387	1,548	241	964	120	480	6	24
E 2"	7.1111	845	6,009	104	740	194	1,380	96	683	42	299	3	21
F 3"	16.0000	94	1,504	10	160	19	304	7	112	8	128	2	32
G 4"	28.4444	83	2,361	9	256	12	341	3	85	2	57	1	28
H 6" and over	64.0000	14	896	2	128	2	128	-	-	1	64	-	-
		<u>60,138</u>	<u>75,202</u>	<u>6,281</u>	<u>8,456</u>	<u>4,740</u>	<u>8,313</u>	<u>3,288</u>	<u>5,036</u>	<u>4,129</u>	<u>5,227</u>	<u>155</u>	<u>264</u>
<b>FIRE PROTECTION SERVICE</b>													
H 6"		966		224		293		133		94		16	
I 8"		275		75		199		112		23		2	
J 10"		15		6		10		2		-		-	
K 12"		22		18		23		20		1		2	
		<u>1,278</u>		<u>323</u>		<u>525</u>		<u>267</u>		<u>118</u>		<u>20</u>	
	TOTAL	<u>61,416</u>		<u>6,604</u>		<u>5,265</u>		<u>3,555</u>		<u>4,247</u>		<u>175</u>	
	TOTAL											<u>81,262</u>	

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Source: City of Grand Rapids, Michigan, Water/Sewer Customer Accounts/Meters Report, dated November 1, 2014.

**CITY OF GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \* \$ 23,721,611

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

75,202 meter equivalents x \$ 6.63 x 12 = \$ 5,983,071

MONTHLY BILLING CHARGE

60,138 meters x \$ 2.87 x 12 = 2,071,153

COMMODITY CHARGE

8,628,177 units (100 CF) x \$ 1.70 = 14,667,901

MONTHLY FIRE PROTECTION

304,094

ANNUAL HYDRANT CHARGE

- (23,026,219)

REQUIRED REVENUE INCREASE (DECREASE)

\$ 695,392

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

3.02%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 20

**CITY OF GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

$$\frac{\text{COMMODITY CHARGE @ 64\%}}{\text{BILLED UNITS}} = \frac{\$15,181,831}{8,628,177} = \underline{\underline{\$ 1.76 /100 CF *}}$$

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **		\$ 23,721,611
NEW COMMODITY CHARGE		
8,628,177 x \$ 1.76		\$ 15,185,592
NEW MONTHLY BILLING CHARGE		
60,138 x \$ 3.24 x 12		2,338,165
MONTHLY FIRE PROTECTION CHARGE		304,094
ANNUAL HYDRANT CHARGE		-
		<u>(17,827,851)</u>
		<u>\$ 5,893,760</u>

$$\text{MONTHLY METER CHARGE} = \frac{\$5,893,760}{75,202 \times 12} = \underline{\underline{\$ 6.53 \text{ MONTHLY}}}$$

<u>METER SIZE</u>	<u>EQUIVALENT</u>	<u>MONTHLY SERVICE CHARGE</u>			<u>PRESENT</u>
		<u>METER</u>	<u>BILLING</u>	<u>TOTAL</u>	
3/4" or less	1.0000	\$ 6.53	\$ 3.24	\$ 9.77	\$ 9.50
1"	1.7778	11.61	3.24	14.85	14.66
1 1/4"	2.7778	18.14	3.24	21.38	21.29
1 1/2"	4.0000	26.12	3.24	29.36	29.39
2"	7.1111	46.44	3.24	49.68	50.02
3"	16.0000	104.48	3.24	107.72	108.95
4"	28.4444	185.74	3.24	188.98	191.46
6" and over	64.0000	417.92	3.24	421.16	427.19

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

\*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 20

**CITY OF WALKER, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 3,151,695

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

8,456 meter equivalents x \$ 9.03 x 12 = \$ 916,292

MONTHLY BILLING CHARGE

6,281 meters x \$ 2.87 x 12 = 216,318

COMMODITY CHARGE

1,217,985 units (100 CF) x \$ 1.57 = 1,912,236

MONTHLY FIRE PROTECTION

85,595

ANNUAL HYDRANT CHARGE

- (3,130,441)

REQUIRED REVENUE INCREASE (DECREASE)

\$ 21,254

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

0.68%

**CITY OF WALKER, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.58 /100 CF \*  
 \$ 1.57 x 100.68%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 3,151,695
NEW COMMODITY CHARGE		
1,217,985 x \$ 1.58		\$ 1,924,416
NEW MONTHLY BILLING CHARGE		
6,281 x \$ 3.24 x 12		244,205
MONTHLY FIRE PROTECTION CHARGE		85,595
ANNUAL HYDRANT CHARGE		-
		<u>(2,254,216)</u>
		<u>\$ 897,479</u>

MONTHLY METER CHARGE =  $\frac{\$897,479}{8,456 \times 12}$  = \$ 8.84 MONTHLY

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 8.84	\$ 3.24	\$ 12.08	\$ 11.90
1"	1.7778	15.72	3.24	18.96	18.92
1 1/4"	2.7778	24.56	3.24	27.80	27.95
1 1/2"	4.0000	35.36	3.24	38.60	38.99
2"	7.1111	62.86	3.24	66.10	67.08
3"	16.0000	141.44	3.24	144.68	147.35
4"	28.4444	251.45	3.24	254.69	259.72
6" and over	64.0000	565.76	3.24	569.00	580.79

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

**CITY OF KENTWOOD, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 4,250,475

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

8,313 meter equivalents x \$ 11.15 x 12 = \$ 1,112,279

MONTHLY BILLING CHARGE

4,740 meters x \$ 2.87 x 12 = 163,246

COMMODITY CHARGE

1,782,919 units (100 CF) x \$ 1.52 = 2,710,037

MONTHLY FIRE PROTECTION

147,077

ANNUAL HYDRANT CHARGE

- (4,132,639)

REQUIRED REVENUE INCREASE (DECREASE)

\$ 117,836

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

2.85%



**CASCADE TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \* \$ 3,142,642

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE			
5,036 meter equivalents	x	\$ 16.47	x 12 = \$ 995,315
MONTHLY BILLING CHARGE			
3,288 meters	x	\$ 2.87	x 12 = 113,239
COMMODITY CHARGE			
856,918 units (100 CF)	x	\$ 2.08	= 1,782,389
MONTHLY FIRE PROTECTION <span style="float: right;">80,133</span>			
ANNUAL HYDRANT CHARGE <span style="float: right;">79,440</span>			
			<u>(3,050,516)</u>
REQUIRED REVENUE INCREASE (DECREASE)			<u>\$ 92,126</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>3.02%</u>

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 203,573

**CASCADE TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.14 /100 CF \*  
 \$ 2.08 x 103.02%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **	\$ 3,142,642
NEW COMMODITY CHARGE 856,918 x \$ 2.14	\$ 1,833,805
NEW MONTHLY BILLING CHARGE 3,288 x \$ 3.24 x 12	127,837
MONTHLY FIRE PROTECTION CHARGE	80,133
ANNUAL HYDRANT CHARGE	<u>79,440</u>
	<u>(2,121,215)</u>
	<u><u>\$ 1,021,427</u></u>

MONTHLY METER CHARGE =  $\frac{\$1,021,427}{5,036 \times 12}$  = \$ 16.90 MONTHLY

<u>METER SIZE</u>	<u>EQUIVALENT</u>	<u>MONTHLY SERVICE CHARGE</u>			<u>PRESENT</u>
		<u>METER</u>	<u>BILLING</u>	<u>TOTAL</u>	
3/4" or less	1.0000	\$ 16.90	\$ 3.24	\$ 20.14	\$ 19.34
1"	1.7778	30.04	3.24	33.28	32.15
1 1/4"	2.7778	46.94	3.24	50.18	48.62
1 1/2"	4.0000	67.60	3.24	70.84	68.75
2"	7.1111	120.18	3.24	123.42	119.99
3"	16.0000	270.40	3.24	273.64	266.39
4"	28.4444	480.71	3.24	483.95	471.35
6" and over	64.0000	1,081.60	3.24	1,084.84	1,056.95

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015  
 \*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 203,573

**GRAND RAPIDS TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \$ 2,088,577

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

5,227 meter equivalents x \$ 11.87 x 12 = \$ 744,534

MONTHLY BILLING CHARGE

4,129 meters x \$ 2.87 x 12 = 142,203

COMMODITY CHARGE

701,548 units (100 CF) x \$ 1.71 = 1,199,647

MONTHLY FIRE PROTECTION

26,654

ANNUAL HYDRANT CHARGE

- (2,113,038)

REQUIRED REVENUE INCREASE (DECREASE)

\$ (24,461)

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

-1.16%



**TALLMADGE TOWNSHIP**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 148,382
LESS: CASH CONTRIBUTION	-
SYSTEM REVENUE REQUIREMENTS	<u>\$ 148,382</u>

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE				
264 meter equivalents	x	\$ 3.90	x 12 =	\$ 12,355
MONTHLY BILLING CHARGE				
155 meters	x	\$ 2.87	x 12 =	5,338
COMMODITY CHARGE				
26,706 units (100 CF)	x	\$ 3.53	=	94,272
MONTHLY FIRE PROTECTION				5,290
ANNUAL HYDRANT CHARGE				<u>34,104</u>
				<u>(151,359)</u>
REQUIRED REVENUE INCREASE (DECREASE)				<u>\$ (2,977)</u>

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	<u>-1.97%</u>
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**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS *		\$	685,988
COMMODITY CHARGE			
(100CF) 610,616 units	x	\$ 1.12	683,890
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>2,098</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	190,672
MONTHLY SERVICE CHARGE			
\$14,091	x	12 MONTHS	169,092
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>21,580</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>2.78%</u>

\* NET OF INTEGRATED CONNECTION FEE CREDIT.

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 876,660
NEW COMMODITY CHARGE *	
610,616 x \$1.12 =	(683,890)
	<hr/>
	<u>\$ 192,770</u>

MONTHLY SERVICE CHARGE \* = \$192,770 / 12 = \$16,064

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

**ADA TOWNSHIP**

**WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS *		\$	812,532
COMMODITY CHARGE			
(100CF) 640,260 units	x	\$ 1.25	800,325
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>12,207</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	379,056
MONTHLY SERVICE CHARGE			
\$29,726	x	12 MONTHS	356,712
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>22,344</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>2.99%</u>

\* NET OF INTEGRATED CONNECTION FEE CREDIT.

**ADA TOWNSHIP**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 1,191,588
NEW COMMODITY CHARGE *	
640,260 x \$1.27 =	(813,130)
	<hr/>
	<u>\$ 378,458</u>

MONTHLY SERVICE CHARGE \* = \$378,458 / 12 = \$31,538

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

**OTTAWA COUNTY**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$ 1,484,355
COMMODITY CHARGE	
(100CF) 1,200,715 units   x     \$ 1.22	1,464,872
	<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	<u>\$ 19,483</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$ -
MONTHLY SERVICE CHARGE	
\$0           x     12 MONTHS	-
	<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	<u>\$ -</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	<u>1.33%</u>

**OTTAWA COUNTY**  
**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS		\$ 1,484,355
NEW COMMODITY CHARGE *		
1,200,715 x \$1.24 =		(1,488,887)
		<hr/>
		<u>\$ (4,532)</u>

MONTHLY SERVICE CHARGE \* = \$ - / 12 = \$0

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

**WATER RATE STUDY**  
**WATER SUPPLY SYSTEM FUND**  
**RE-EVALUATE FRONT FOOT CHARGES**  
**TASK NO. 28**

The City Engineer's Office has reviewed current construction costs for water facilities and recommends the following front foot assessment rates:

	<u>2014</u>	<u>2015</u>	<u>% Increase</u>
Domestic Water User	\$ 78.00	\$ 76.00	-2.56%
Commercial - Industrial User (Watermain over 8 in. diameter)	\$ 103.00	\$ 108.00	4.85%

The rates are based on an average of prices quoted in bid proposals which have been received by the City Engineer's Office during the period July, 2013 through June, 2014. Calculations of the rates are on file in the City Engineer's Office.

WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
EVALUATE WATER SERVICE CHARGES  
TASK NO. 29

The City Engineer's Office has evaluated the cost for water services and recommends the following water service charges:

		<u>50 Ft. R.O.W.</u>	<u>60 Ft. R.O.W.</u>	<u>66 Ft. R.O.W.</u>	<u>80 Ft. R.O.W.</u>	<u>100 Ft. R.O.W.</u>
Cost for 1" Water Service	2014	\$ 2,250	\$ 2,600	\$ 2,800	\$ 3,200	\$ 3,900
	2015	\$ 2,300	\$ 2,650	\$ 2,800	\$ 3,250	\$ 3,900
Cost for 1-1/2" Water Service	2014	\$ 3,100	\$ 3,500	\$ 3,750	\$ 4,400	\$ 5,200
	2015	\$ 3,000	\$ 3,400	\$ 3,600	\$ 4,200	\$ 4,900
Cost for 2" Water Service	2014	\$ 3,550	\$ 3,900	\$ 4,300	\$ 4,800	\$ 5,800
	2015	\$ 3,700	\$ 4,000	\$ 4,300	\$ 4,800	\$ 5,700

The percent increases of the water service pipe charges are as shown below:

	<u>50 Ft. R.O.W.</u>	<u>60 Ft. R.O.W.</u>	<u>66 Ft. R.O.W.</u>	<u>80 Ft. R.O.W.</u>	<u>100 Ft. R.O.W.</u>
Increase for 1" Water Service	2.22%	1.92%	0.00%	1.56%	0.00%
Increase for 1-1/2" Water Service	-3.23%	-2.86%	-4.00%	-4.55%	-5.77%
Increase for 2" Water Service	4.23%	2.56%	0.00%	0.00%	-1.72%

W-77

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 11, 2014

TO: Geri D. Eye  
Utility Financial Officer

FROM: Nicole N. Pasch, Business Manager

SUBJECT: 2014 Water Rate Study - Task #30

Miscellaneous rates and charges contained within the Water System Rules and Regulations have been reviewed with staff.

The following are recommended changes:

- Tapping Permits changed to one fee of \$250.00 for all sizes
- Meter Testing Fee: 5/8" & 3/4" increased to \$100.00
- Meter Testing Fee: 1" up to 2" increased to \$200.00
- Meter Testing Fee: 2" up to 3" increased to \$300.00
- Meter Testing Fee: 3" increased to \$400.00
- Meter Testing Fee: Larger than 3" changed to Cost
- Security Deposit information was updated to FY14 figures and rounded for easier transaction purposes
- Water Inspection Permit (each inspection within the City) was increased to \$45.00
- Water Inspection Permit (each inspection outside of the City) was increased to \$60.00
- Sanitary Service Line Inspection Permit (each inspection within the City) was increased to \$45.00
- Sanitary Service Line Inspection Permit (each inspection outside of the City) was increased to \$60.00
- Storm Service Line Inspection Permit (each inspection within the City) was increased to \$45.00
- Storm Service Line Inspection Permit (each inspection outside of the City) was increased to \$60.00
- Sewer Lateral Service Demolition/Cap off Inspection Fee (each within the City) was increased to \$45.00
- Sewer Later Service Demolition/Cap off Inspection Fee (each outside of the City) was increased to \$60.00
- Footing Drain Lateral Inspection Permit (each within the City) was increased to \$45.00
- Footing Drain Lateral Inspection Permit (each outside of the City) was increased to \$60.00
- Statement Research Fee document creation for detailed history of usage, bills, and/or payments made beyond 13 months from date of request was added for a fee of \$55

- Wording of “and/or non-payment review” and “...,non-compliance)” was added to Processing for shut-off (Administration Fee)
- Wording of “distribution ..., service valves, and curb stops was added to Penalties for Unauthorized operation of valves.
- Penalty for Unauthorized operation of distribution valves, service valves, and curb stops was increased to \$500.00
- Wording of “or meter removal” was added to Penalties for Unauthorized opening of by-pass valve

All other fees and charges are recommended to remain the same.

NNP

Cc: Joellen Thompson  
Wayne Jernberg  
Pamela Ritsema  
Mike Lunn

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
FEES, CHARGES, AND PENALTIES  
TASK NO. 30**

<b>Fees, Charges, and Penalties</b>	<b>2014 Fee (\$)</b>	<b>2015 Fee (\$)</b>	<b>% Change</b>
<b>Fire Protection Monthly (based on pipe size)</b>			
6"	\$16.00	\$16.00	-
8"	\$28.40	\$28.40	-
10"	\$44.48	\$44.48	-
12"	\$64.00	\$64.00	-
<b>Hydrant Use</b>			
Weekly Pool Filling	\$300 (Refundable Deposit) + \$75/week	\$300 (Refundable Deposit) + \$75/week	-
Contractor Seasonal Hydrant Connection	\$300 (Non-refundable Deposit) + \$75/week	\$300 (Non-refundable Deposit) + \$75/week	-
Tanker Hydrant Connection (Winter or Summer)	\$300 (Non-refundable Deposit) + 25/week*	\$300 (Non-refundable Deposit) + \$25/week*	-
Hydrant Flow Test	\$200	\$200	-
<b>* Plus metered volume (based on average retail commodity rates)</b>			
<b>Tapping Permits</b>			
2" or Smaller	\$225	\$250	11%
3" or Larger	Cost	\$250	-
<b>Meter Installation and Seasonal Turn off/on</b>			
¾" or Smaller	\$40	\$40	-
1"	\$45	\$45	-
1 ½"	\$55	\$55	-
2"	\$60	\$60	-
3"	\$100	\$100	-
4"	\$200	\$200	-
6" or Larger	\$250	\$250	-
<b>Frozen/Damaged/Missing Meter</b>			
¾" or Smaller	\$150	\$150	-
1"	\$200	\$200	-
1 ½" ECR	\$350	\$350	-
1 ½" Turbo	\$500	\$500	-
1 ½" Omni	\$820	\$820	-
2" ECR	\$450	\$450	-
2" Turbo	\$575	\$575	-
2" Omni	\$950	\$950	-
3" Turbo	\$750	\$750	-
3" Omni	\$1,170	\$1,170	-
4" Omni	\$2,205	\$2,205	-
6" or Larger	\$3,530	\$3,530	-
<b>Meter Reading</b>			
Final or Actual Reading	\$35	\$35	-
<i>Meter Testing Fee: (Paid by customer if meter is accurate, no charge if meter is faulty)</i>			
½ & ¾"	\$50	\$100	100%
1"	\$50	\$200	300%
1 ½"	\$75	\$200	167%
2"	\$75	\$300	300%
3"	Cost	\$400	-
4-6"	Cost	Cost	-
<b>Security Deposit</b>			
Minimum Deposit Amount	\$544.32	\$500.00	-8%
<b>Miscellaneous</b>			
Street Opening Permit	\$30	\$30	-
Water Inspection Permit (Within City Limits)	\$40	\$45	13%
Water Inspection Permit (Outside City Limits)	\$55	\$60	9%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
FEES, CHARGES, AND PENALTIES  
TASK NO. 30**

<b>Fees, Charges, and Penalties</b>	<b>2014 Fee (\$)</b>	<b>2015 Fee (\$)</b>	<b>% Change</b>
Sanitary Service Line Inspection Permit (Within City Limits)	\$40	\$45	13%
Sanitary Service Line Inspection Permit (Outside City Limits)	\$55	\$60	9%
Storm Service Line Inspection Permit (Within City Limits)	\$40	\$45	13%
Storm Service Line Inspection Permit (Outside City Limits)	\$55	\$60	9%
Footing Drain Lateral Inspection Permit (Within City Limits)	\$40	\$45	13%
Footing Drain Lateral Inspection Permit (Outside City Limits)	\$55	\$60	9%
Sewer Lateral Service Demolition/Cap off Inspection Fee (Within City Limits)	\$40	\$45	13%
Sewer Later Service Demolition/Cap off Inspection Fee (Outside City Limits)	\$55	\$60	9%
Plumbing Service Re-inspection Fee	\$40	\$40	-
Cross Connection Re-inspection Fee	\$75	\$75	-
<b>Services</b>			
Customer Requested on-site service (non-scheduled) (appointment-customer issue only)	\$55	\$55	-
Turn-on/turn-off water for real-estate inspections	\$110	\$110	-
Statement Research Fee document creation for detailed history of usage, bills and/or payments made beyond 13 months from date of request.	N/A	\$55	-
<b>Penalties</b>			
Late Payment Penalty	10% of Net	10% of Net	-
Processing/Review for shut-off, non-payment, returned payment, and/or cross connection non-compliance (Administration and/or Post Fee)	\$55	\$55	-
Penalty for failure to keep appointment	\$35	\$35	-
Penalty for each missed appointment thereafter (related to same service)	\$50	\$50	-
Unauthorized operation of distribution valves, service valves, and curb stops ** & ***	\$100	\$500	400%
Unauthorized use of connection pipes for fire protection **	\$100	\$100	-
Unauthorized opening of bypass valve/tampering or meter removal ** & ***	\$100	\$100	-
Unauthorized use of a hydrant	\$500	\$500	-
Use of illegal connection hydrant	\$500	\$500	-
Failure to return hydrant connection equipment and/or return of damaged hydrant connection equipment	\$500	\$500	-
Lost/non-returned hydrant wrench	\$50	\$50	-
Permit infractions/violations ** & ***	\$100	\$100	-
Return check charge (verified with City Treasurer)	\$30	\$30	-
Unauthorized service tap of water main	\$500	\$500	-

**\*\* Plus double the commodity rate for estimated volume**

**\*\*\* Penalties shall double with each subsequent infraction**

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 31**

*THERE IS NO TASK 31 FOR THE WATER RATE STUDY.*

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** November 13, 2014

**TO:** Geri Eye  
Utility Financial Officer

**FROM:** Arden Postma, P.E.  
Hydraulic Engineer

**SUBJECT:** 2014 WATER RATE STUDY- TASK #32, WATER MAIN OVERSIZING RATES

Water main oversizing rates are established for this year as noted below:

<u>Pipe Size</u>	<u>2014 Rate</u>	<u>2015 Rate</u>	<u>% Change</u>
8"-12"	\$16.56/ft	\$18.69/ft	12.86%
12"-16"	\$21.78/ft	\$21.60/ft	-0.83%
8"-16"	\$38.35/ft	\$40.29/ft	5.06%

These rates have been determined in accordance with the Water System Rules and Regulations, and are approved for use from January 1, 2015 through December 31, 2015. Background information and calculations to establish these rates are on file in the Utility Engineering, Distribution and Collection Office.

These costs will be reviewed and may be adjusted again next year. If you have any questions regarding this matter, please call me at 456-4201.

AP  
Cc: Joellen Thompson  
Wayne Jernberg  
Rick DeVries  
Mark DeClercq

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER RATE STUDY  
 WATER SUPPLY SYSTEM FUND  
 TASK NO. 33**

SERVICE AREA MAPS AND SERVICE AREA LAND MASS SUMMARIES

The following summarizes Utility Services Districts (USD) land mass square miles for UAB partner communities, per information on file as of September 9, 2014:

UAB Partners	Sq. Miles of USD by CC	Percent
Grand Rapids	45.36	35.127%
Walker	25.43	19.693%
Kentwood	14.00	10.842%
Cascade	20.45	15.837%
Grand Rapids Township	10.93	8.464%
Tallmadge Township	2.44	1.890%
East Grand Rapids	3.37	2.610%
Ada	7.15	5.537%
Total	129.13	100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 34**

INDIVIDUAL CIRCUIT BREAKER AND CITY & CUSTOMER COMMUNITY CIRCUIT BREAKER

The Third Amendment to the Water and Sanitary Sewer Agreements stipulates penalty fees shall be used to fund the circuit breaker provisions noted above. The following summarizes those values:

<u>Description</u>	<u>AMOUNT</u>	<u>PERCENT</u>
Individual Circuit Breaker (ICB)	\$ 72,445	12.50%
City & Customer Community Circuit Breaker (CCCCB)	507,116	87.50%
Total	<u>\$ 579,561</u>	<u>100.00%</u>

The following tables summarize the amount, if any, of the Circuit Breaker to be applied as a revenue credit in next year's Rate Study:

<u>Description</u>	<u>AMOUNT</u>	<u>PERCENT</u>
City & Customer Community Circuit Breaker Amount- Above	\$ 507,116	100.00%
Less: Amount Applied in Current Rate Study	(203,593)	-40.15%
Total CCCCCB Revenue Credit- Next Year's Rate Study	<u>\$ 303,523</u>	<u>59.85%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER RATE STUDY  
WATER SUPPLY SYSTEM FUND  
TASK NO. 35**

*THERE IS NO TASK 35 FOR THE WATER RATE STUDY.*

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
SYSTEM ADDITIONS AND IMPROVEMENTS  
FOR THE YEAR ENDED JUNE 30, 2014  
TASKS NO. 1, 2, & 3**

COMMUNITY	LOCAL		TRUNK		INTERCEPTOR		TOTALS	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
<b>Grand Rapids</b>								
Construction	3,949	0.75	4,881	0.92	2,739	0.52	11,569	2.19
Abandonment	(3,378)	(0.64)	(4,274)	(0.81)	(2,793)	(0.53)	(10,445)	(1.98)
CSO Construction	7,646	1.45	6,150	1.16	12	0.00	13,808	2.61
CSO Abandonment	(6,628)	(1.26)	(2,263)	(0.43)	(3,138)	(0.59)	(12,029)	(2.28)
	<u>1,589</u>	<u>0.30</u>	<u>4,494</u>	<u>0.84</u>	<u>(3,180)</u>	<u>(0.60)</u>	<u>2,903</u>	<u>0.54</u>
<b>Kentwood</b>								
Construction	0	0.00	0	0.00	0	0.00	0	0.00
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>
<b>Cascade Twp.</b>								
Construction	288	0.05	2,379	0.45	0	0.00	2,667	0.50
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	<u>288</u>	<u>0.05</u>	<u>2,379</u>	<u>0.45</u>	<u>0</u>	<u>0.00</u>	<u>2,667</u>	<u>0.50</u>
<b>G.R. Twp.</b>								
Construction	1,296	0.25	0	0.00	0	0.00	1,296	0.25
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	<u>1,296</u>	<u>0.25</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>1,296</u>	<u>0.25</u>
<b>Tallmadge Twp.</b>								
Construction	0	0.00	0	0.00	0	0.00	0	0.00
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>
<b>Walker</b>								
Construction	1,305	0.25	0	0.00	0	0.00	1,305	0.25
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	<u>1,305</u>	<u>0.25</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>1,305</u>	<u>0.25</u>
<b>Wright Twp</b>								
Construction	0	0.00	0	0.00	0	0.00	0	0.00
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>	<u>0</u>	<u>0.00</u>
<b>*TOTAL*</b>	<u>4,478</u>	<u>0.85</u>	<u>6,873</u>	<u>1.29</u>	<u>(3,180)</u>	<u>(0.60)</u>	<u>8,171</u>	<u>1.54</u>

	CONTRIBUTIONS		
	COMM	OTHER	TOTAL
Integrated	\$ -	\$ 110,877	\$ 110,877
Grand Rapids	119,763	46,388	166,151
Kentwood	(294,007)	-	(294,007)
Cascade Twp.	235,401	-	235,401
Grand Rapids Twp.	362,540	-	362,540
Tallmadge Twp.	-	-	-
Walker	67,246	-	67,246
Wright Twp.	-	-	-
<b>*TOTAL*</b>	<u>\$ 490,943</u>	<u>\$ 157,265</u>	<u>\$ 648,208</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #4, PART 1  
FISCAL YEAR ENDED JUNE 30, 2014**

ACTIVITY CODE	ACTIVITY	EXPENSE BY ACTIVITY	WASTEWATER TREATMENT PLANT	WASTEWATER LIFT STATIONS			SEWER LINES			BULK METERING STATIONS	CUSTOMER ACCOUNTING	INDUSTRIAL PRETREAT.	ADMIN. EXPENSE
				INTERCEPTOR	TRUNK	LOCAL COLLECTOR	INTERCEPTOR	TRUNK	LOCAL COLLECTOR				
4423	WASTEWATER TREATMENT (LESS 442305)	\$ 14,820,463	\$ 14,020,332	\$ 244,528	\$ 109,363	\$ 430,177				\$ 16,063			
4425	SEWER MAINTENANCE	4,980,319					261,965	574,330	4,144,024				
4413	CUSTOMER SERVICE *	2,838,025									2,838,025		
442305	INDUSTRIAL PRETREATMENT	589,063										589,063	
	SUBTOTAL OPERATING EXPENSE	23,227,870	14,020,332	244,528	109,363	430,177	261,965	574,330	4,144,024	16,063	2,838,025	589,063	-
4410	ADMINISTRATION	1,756,670											1,756,670
	TOTAL	\$ 24,984,540	\$ 14,020,332	\$ 244,528	\$ 109,363	\$ 430,177	\$ 261,965	\$ 574,330	\$ 4,144,024	\$ 16,063	\$ 2,838,025	\$ 589,063	\$ 1,756,670

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**METHOD OF DISTRIBUTION**

4423	WASTEWATER TREATMENT		100.000%										
	A. TREATMENT PLANT			94.601%									
	B. LIFT & METER STATIONS			5.399%									
	NO. OF STATIONS	(58)			(1)	(8)	(45)			(4)			
4425	SEWER MAINTENANCE												
	TOTAL MILES	908.17	100.000%										
	A. INTERCEPTOR												
	MILES	47.77	5.260%				5.260%						
	B. TRUNK LINES												
	MILES	104.73	11.532%					11.532%					
	C. LOCAL COLLECTOR												
	MILES	755.67	83.208%						83.208%				
4413	CUSTOMER SERVICE		100.000%								100.000%		
442305	INDUSTRIAL PRETREATMENT		100.000%									100.000%	
4410	ADMINISTRATION		100.000%										100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #4, PART 2  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL							WHOLESALE				
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA
WASTEWATER TREATMENT	\$ 14,020,332	\$ 14,020,332												
LIFT STATIONS:														
A. INTERCEPTOR	244,528		244,528	-	-	-	-	-	-	-	-	-	-	-
B. TRUNK	109,363		37,519	53,728	-	18,117	-	-	-	-	-	-	-	-
C. LOCAL COLLECTOR	430,177		61,181	100,908	-	76,217	146,848	27,451	6,807	-	-	10,765	-	-
SEWER LINES:														
A. INTERCEPTOR	261,965		155,248	37,893	62,023	6,801	-	-	-	-	-	-	-	-
B. TRUNK	574,330		197,473	146,368	133,313	50,564	30,434	15,518	660	-	-	-	-	-
C. LOCAL COLLECTOR	4,144,024		2,595,983	511,911	403,669	245,575	316,272	45,957	24,657	-	-	-	-	-
BULK METERING STATIONS	16,063		-	-	5,303	-	-	-	-	3,580	-	3,927	3,253	-
CUSTOMER ACCOUNTING	2,838,025		2,227,991	213,249	172,524	68,765	141,107	5,591	8,798					
INDUSTRIAL PRETREATMENT	589,063	589,063												
SUBTOTAL OPERATING EXPENSE	23,227,870	14,609,395	5,519,923	1,064,057	776,832	466,038	634,661	94,517	40,922	3,580	-	14,692	3,253	-
ADMINISTRATIVE EXPENSE	1,756,670	1,068,286	461,808	77,807	56,805	34,078	46,409	6,911	2,992	262	-	1,074	238	-
<b>TOTAL</b>	<b>\$ 24,984,540</b>	<b>\$ 15,677,681</b>	<b>\$ 5,981,731</b>	<b>\$ 1,141,864</b>	<b>\$ 833,637</b>	<b>\$ 500,116</b>	<b>\$ 681,070</b>	<b>\$ 101,428</b>	<b>\$ 43,914</b>	<b>\$ 3,842</b>	<b>\$ -</b>	<b>\$ 15,766</b>	<b>\$ 3,491</b>	<b>\$ -</b>

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**METHOD OF DISTRIBUTION**

WASTEWATER TREATMENT														
A. TREATMENT PLANT	100.000%	100.00%												
B. LIFT & METER STATIONS (1)	100.000%													
NO. OF STATIONS (58)			(14)	(6)	(1)	(10)	(17)	(5)	(1)	(1)	-	(2)	(1)	-
SEWER LINES:														
TOTAL MILES: 908.17														
A. INTERCEPTOR	100.000%		59.263%	14.465%	23.676%	2.596%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES 47.77			28.31	6.91	11.31	1.24	-	-	-	-	-	-	-	-
B. TRUNK LINES	100.000%		34.383%	25.485%	23.212%	8.804%	5.299%	2.702%	0.115%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES 104.73			36.01	26.69	24.31	9.22	5.55	2.83	0.12	-	-	-	-	-
C. LOCAL COLLECTOR	100.000%		62.644%	12.353%	9.741%	5.926%	7.632%	1.109%	0.595%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES 755.67			473.38	93.35	73.61	44.78	57.67	8.38	4.50	-	-	-	-	-
CUSTOMER ACCTG (2)	100.000%		78.815%	7.514%	6.079%	2.423%	4.972%	0.197%	0.310%					
NO. OF METERS 74,276.00			58,311.00	5,581.00	4,515.00	1,800.00	3,693.00	146.00	230.00					
INDUSTRIAL PRETREATMENT	100.000%	100.00%												
ADMINISTRATIVE EXPENSE (3)	100.000%	60.813%	26.289%	4.429%	3.234%	1.940%	2.642%	0.393%	0.170%	0.015%	0.000%	0.061%	0.014%	0.000%

NOTES:

- (1) DIRECT COSTS PER SCHEDULE.
- (2) ALLOCATION BASED ON NUMBER OF METERS, INCLUSIVE OF USERS FOR WRIGHT TWP.
- (3) ALLOCATED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #5, PART 1  
FISCAL YEAR ENDED JUNE 30, 2014**

ACTIVITY CODE	ACTIVITY	ADJUSTED EXPENSE BY ACTIVITY	WASTEWATER TREATMENT PLANT	WASTEWATER LIFT STATIONS			SEWER LINES			BULK METERING STATIONS	CUSTOMER ACCOUNTING	INDUSTRIAL PRETREAT.	ADMIN. EXPENSE
				INTERCEPTOR	TRUNK	LOCAL COLLECTOR	INTERCEPTOR	TRUNK	LOCAL COLLECTOR				
4423	WASTEWATER TREATMENT (LESS 442305)	\$ 14,285,302	\$ 13,466,178	\$ 250,334	\$ 111,958	\$ 440,388				\$ 16,444			
4425	SEWER MAINTENANCE	4,998,706					262,932	576,451	4,159,323				
4413	CUSTOMER SERVICE *	2,991,135									2,991,135		
442305	INDUSTRIAL PRETREATMENT	618,690										618,690	
	SUBTOTAL OPERATING EXPENSE	22,893,833	13,466,178	250,334	111,958	440,388	262,932	576,451	4,159,323	16,444	2,991,135	618,690	-
4410	ADMINISTRATION	2,058,514											2,058,514
	TOTAL	\$ 24,952,347	\$ 13,466,178	\$ 250,334	\$ 111,958	\$ 440,388	\$ 262,932	\$ 576,451	\$ 4,159,323	\$ 16,444	\$ 2,991,135	\$ 618,690	\$ 2,058,514

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**METHOD OF DISTRIBUTION**

4423	WASTEWATER TREATMENT		100.000%										
	A. TREATMENT PLANT			94.266%									
	B. LIFT & METER STATIONS			5.734%									
	NO. OF STATIONS	(58)			(1)	(8)	(45)			(4)			
4425	SEWER MAINTENANCE		100.000%										
	TOTAL MILES	908.17											
	A. INTERCEPTOR												
	MILES	47.77	5.260%				5.260%						
	B. TRUNK LINES												
	MILES	104.73	11.532%					11.532%					
	C. LOCAL COLLECTOR												
	MILES	755.67	83.208%						83.208%				
4413	CUSTOMER SERVICE		100.000%								100.000%		
442305	INDUSTRIAL PRETREATMENT		100.000%									100.000%	
4410	ADMINISTRATION		100.000%										100.000%

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**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #5, PART 2  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL							WHOLESALE				
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	N. KENT AREA	ADA TOWNSHIP	GAINES TOWNSHIP	MEIJER-ALGOMA
WASTEWATER TREATMENT	\$ 13,466,178	\$ 13,466,178												
LIFT STATIONS:														
A. INTERCEPTOR	250,334		250,334	-	-	-	-	-	-	-	-	-	-	-
B. TRUNK	111,958		38,408	55,003	-	18,547	-	-	-	-	-	-	-	-
C. LOCAL COLLECTOR	440,388		62,635	103,303	-	78,025	150,334	28,102	6,969	-	-	11,020	-	-
SEWER LINES:														
A. INTERCEPTOR	262,932		155,821	38,033	62,252	6,826	-	-	-	-	-	-	-	-
B. TRUNK	576,451		198,200	146,909	133,806	50,751	30,546	15,576	663	-	-	-	-	-
C. LOCAL COLLECTOR	4,159,323		2,605,566	513,801	405,160	246,481	317,440	46,127	24,748	-	-	-	-	-
BULK METERING STATIONS	16,444		-	-	5,429	-	-	-	-	3,665	-	4,020	3,330	-
CUSTOMER ACCOUNTING	2,991,135		2,348,190	224,754	181,831	72,475	148,719	5,893	9,273					
INDUSTRIAL PRETREATMENT	618,690	618,690												
SUBTOTAL OPERATING EXPENSE	22,893,833	14,084,868	5,659,154	1,081,803	788,478	473,105	647,039	95,698	41,653	3,665	-	15,040	3,330	-
ADMINISTRATIVE EXPENSE	2,058,514	1,230,661	552,640	94,522	68,893	41,337	56,535	8,362	3,639	320	-	1,314	291	-
<b>TOTAL</b>	<b>\$ 24,952,347</b>	<b>\$ 15,315,529</b>	<b>\$ 6,211,794</b>	<b>\$ 1,176,325</b>	<b>\$ 857,371</b>	<b>\$ 514,442</b>	<b>\$ 703,574</b>	<b>\$ 104,060</b>	<b>\$ 45,292</b>	<b>\$ 3,985</b>	<b>\$ -</b>	<b>\$ 16,354</b>	<b>\$ 3,621</b>	<b>\$ -</b>

**METHOD OF DISTRIBUTION**

WASTEWATER TREATMENT														
A. TREATMENT PLANT	100.000%	100.00%												
B. LIFT & METER STATIONS (1)	100.000%													
NO. OF STATIONS (58)			(14)	(6)	(1)	(10)	(17)	(5)	(1)	(1)	-	(2)	(1)	-
SEWER LINES:														
TOTAL MILES: 908.17														
A. INTERCEPTOR	100.000%		59.263%	14.465%	23.676%	2.596%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES 47.77			28.31	6.91	11.31	1.24	-	-	-	-	-	-	-	-
B. TRUNK LINES	100.000%		34.383%	25.485%	23.212%	8.804%	5.299%	2.702%	0.115%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES 104.73			36.01	26.69	24.31	9.22	5.55	2.83	0.12	-	-	-	-	-
C. LOCAL COLLECTOR	100.000%		62.644%	12.353%	9.741%	5.926%	7.632%	1.109%	0.595%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES 755.67			473.38	93.35	73.61	44.78	57.67	8.38	4.50	-	-	-	-	-
CUSTOMER ACCTG (2)	100.000%		78.505%	7.514%	6.079%	2.423%	4.972%	0.197%	0.310%					
NO. OF METERS 74,276.00			58,311.00	5,581.00	4,515.00	1,800.00	3,693.00	146.00	230.00					
INDUSTRIAL PRETREATMENT	100.000%	100.00%												
ADMINISTRATIVE EXPENSE (3)	100.000%	59.783%	26.847%	4.592%	3.347%	2.008%	2.746%	0.406%	0.177%	0.016%	0.000%	0.064%	0.014%	0.000%

NOTES:

- (1) ADJUSTED DIRECT COSTS PER SCHEDULE.
- (2) ALLOCATION BASED ON NUMBER OF METERS, INCLUSIVE OF USERS FOR WRIGHT TWP.
- (3) ALLOCATED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4401, 4410 &amp; 4480 - ADMINISTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 261,088.38	\$ 10,443.54	\$ 271,531.92
7040	TEMPORARY EMPLOYEES	2,997.31	119.89	3,117.20
7105	EMPLOYERS SOCIAL SECURITY	17,039.54	681.58	17,721.12
7110	HOSPITALIZATION INSURANCE	39,693.30	4,576.64	44,269.94
7115	RETIREE HEALTH CARE	35,080.83	(2,774.89)	32,305.94
7120	RETIREMENT FUND CONTRIBUTION	30,138.48	5,271.22	35,409.70
7125	SPECIAL PENSION BENEFITS	9,330.24	-	9,330.24
7135	UNEMPLOYMENT COMPENSATION	445.87	-	445.87
7150	LONGEVITY PAY	2,175.50	(2,175.50)	-
7165	SHIFT DIFFERENTIAL	5.96	-	5.96
	TOTAL PERSONAL SERVICES	<u>397,995.41</u>	<u>16,142.48</u>	<u>414,137.89</u>
7260	SUPPLIES	1,861.39	-	1,861.39
	TOTAL SUPPLIES	<u>1,861.39</u>	<u>-</u>	<u>1,861.39</u>
8140	COMPUTER SERVICES		21,520.80	21,520.80
8160	ENGINEERING SERVICES	21,101.50	-	21,101.50
8180	CONTRACTUAL SERVICES	132,455.85	-	132,455.85
8355	CLAIMS	203,434.00	69,114.00	272,548.00
8450	INSURANCE PREMIUMS	191,323.00	-	191,323.00
8500	TELEPHONE	2,842.11	-	2,842.11
9000	PRINTING & PUBLISHING	12.47	-	12.47
9210	ELECTRICITY		58,174.00	58,174.00
9410	BUILDINGS RENTALS OR LEASE	21,347.09	-	21,347.09
9420	EQUIPMENT RENTALS OR LEASE	1,892.70	-	1,892.70
9440	VEHICLE USAGE/CAR MILEAGE	7,948.32	-	7,948.32
9550	PROFESSIONAL DEVELOPMENT	2,576.34	-	2,576.34
9552	OTHER TRAVEL & TRAINING	5,197.74	-	5,197.74
9554	LOCAL BUSINESS EXPENSE	5,210.84	-	5,210.84
9556	MEMBERSHIPS	2,519.98	-	2,519.98
9610	FEES	27,013.09	-	27,013.09
9620	BAD DEBT WRITE-OFFS	89,758.83	-	89,758.83
8150	311 CALL CENTER SERVICES	6,451.00	-	6,451.00
	TOTAL OTHER SERVICES & CHARGES	<u>721,084.86</u>	<u>148,808.80</u>	<u>869,893.66</u>
9740	BOOKS/OTHER MATERIALS/ARTIFACTS	345.76	-	345.76
9750	FURNITURE	11.72	-	11.72
	TOTAL CAPITAL	<u>357.48</u>	<u>-</u>	<u>357.48</u>
9992	OPERATING TRANSFERS-A87 COST	635,371.00	136,893.00	772,264.00
	TOTAL TRANSFERS/FEES	<u>635,371.00</u>	<u>136,893.00</u>	<u>772,264.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,756,670.14</u>	<u>\$ 301,844.28</u>	<u>\$ 2,058,514.42</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4413- SDSF- CUST.SERV'S

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
9990	OPERATING TRANS OUT-SUBSIDIES	\$ 2,838,025.00	\$ 153,109.87	\$ 2,991,134.87
	TOTAL TRANSFERS/FEES	2,838,025.00	153,109.87	2,991,134.87
ORGANIZATIONAL UNIT TOTAL		\$ 2,838,025.00	\$ 153,109.87	\$ 2,991,134.87

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2014**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4423- WASTEWATER

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 3,276,944.55	\$ 131,077.78	\$ 3,408,022.33
7025	ACT.ASSIGNMENT	29,600.87	1,184.03	30,784.90
7040	TEMPORARY EMPLOYEES	34,440.61	1,377.62	35,818.23
7050	REGULAR HOURLY RATE	3,137.13	125.49	3,262.62
7055	TIME & ONE-HALF	80,975.44	3,239.02	84,214.46
7105	EMPLOYERS SOCIAL SECURITY	249,847.47	9,993.90	259,841.37
7110	HOSPITALIZATION INSURANCE	781,865.48	90,149.09	872,014.57
7115	RETIREE HEALTH CARE	505,844.94	(40,012.33)	465,832.61
7120	RETIREMENT FUND CONTRIBUTION	670,331.43	117,240.97	787,572.40
7125	SPECIAL PENSION BENEFITS	6,160.67	-	6,160.67
7135	UNEMPLOYMENT COMPENSATION	4,758.57	-	4,758.57
7150	LONGEVITY PAY	32,805.13	(32,805.13)	-
7165	SHIFT DIFFERENTIAL	13,445.94	-	13,445.94
	TOTAL PERSONAL SERVICES	<u>5,690,158.23</u>	<u>281,570.44</u>	<u>5,971,728.67</u>
7260	SUPPLIES	1,038,921.44	-	1,038,921.44
7300	POSTAGE	220.00	-	220.00
7680	CLOTHING/CLEANING ALLOWANCE	5,706.81	-	5,706.81
7800	INVENTORY - COST OF GOODS SOLD	33,892.05	-	33,892.05
	TOTAL SUPPLIES	<u>1,078,740.30</u>	<u>-</u>	<u>1,078,740.30</u>
8140	COMPUTER SERVICES	139,809.00	74,817.38	214,626.38
8180	CONTRACTUAL SERVICES	4,736,333.91	(774,575.89)	3,961,758.02
8500	TELEPHONE	48,159.72	-	48,159.72
9000	PRINTING & PUBLISHING	8,630.90	-	8,630.90
9210	ELECTRICITY	2,277,318.44	(116,972.80)	2,160,345.64
9220	WATER	26,645.47	-	26,645.47
9230	NATURAL GAS	264,405.72	-	264,405.72
9300	MAINTENANCE SERVICE	98,860.46	-	98,860.46
9420	EQUIPMENT RENTALS OR LEASE	216,556.27	-	216,556.27
9440	VEHICLE RENTAL/CAR MILEAGE	2,989.00	-	2,989.00
9550	PROFESSIONAL DEVELOPMENT	9,646.59	-	9,646.59
9552	OTHER TRAVEL & TRAINING	25,368.38	-	25,368.38
9554	LOCAL BUSINESS EXPENSE	19.42	-	19.42
9556	MEMBERSHIPS	6,264.02	-	6,264.02
9610	FEES	21,895.21	-	21,895.21
	TOTAL OTHER SERVICES & CHARGES	<u>7,882,902.51</u>	<u>(816,731.31)</u>	<u>7,066,171.20</u>
9740	BOOKS/OTHER MATERIALS/ARTIFACTS	582.02	-	582.02
9760	EQUIPMENT	32,212.44	-	32,212.44
9765	SOFTWARE	135,867.37	-	135,867.37
	TOTAL CAPITAL	<u>168,661.83</u>	<u>-</u>	<u>168,661.83</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 14,820,462.87</u>	<u>\$ (535,160.87)</u>	<u>\$ 14,285,302.00</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 442305- IND. PRETREATMENT

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 316,974.59	\$ 12,678.98	\$ 329,653.57
7025	ACT.ASSIGNMENT	135.31	5.41	140.72
7055	TIME & ONE-HALF	363.64	14.55	378.19
7105	EMPLOYERS SOCIAL SECURITY	22,680.12	907.20	23,587.32
7110	HOSPITALIZATION INSURANCE	68,304.85	7,875.55	76,180.40
7115	RETIREE HEALTH CARE	44,101.98	(3,488.47)	40,613.51
7120	RETIREMENT FUND CONTRIBUTION	66,517.07	11,633.84	78,150.91
7135	UNEMPLOYMENT COMPENSATION	443.68	-	443.68
	TOTAL PERSONAL SERVICES	<u>519,521.24</u>	<u>29,627.06</u>	<u>549,148.30</u>
7260	SUPPLIES	20,206.14	-	20,206.14
7300	POSTAGE	1,521.29	-	1,521.29
7680	CLOTHING/CLEANING ALLOWANCE	2,133.08	-	2,133.08
	TOTAL SUPPLIES	<u>23,860.51</u>	<u>-</u>	<u>23,860.51</u>
8180	CONTRACTUAL SERVICES	10,803.78	-	10,803.78
9000	PRINTING & PUBLISHING	678.08	-	678.08
9300	MAINTENANCE SERVICE	416.76	-	416.76
9420	EQUIPMENT RENTALS OR LEASE	23,721.63	-	23,721.63
9556	MEMBERSHIPS	579.00	-	579.00
	TOTAL OTHER SERVICES & CHARGES	<u>36,199.25</u>	<u>-</u>	<u>36,199.25</u>
9760	EQUIPMENT	9,482.05	-	9,482.05
	TOTAL CAPITAL	<u>9,482.05</u>	<u>-</u>	<u>9,482.05</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 589,063.05</u>	<u>\$ 29,627.06</u>	<u>\$ 618,690.11</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2014**  
**RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4425- REPAIR &amp; MAINTENANCE

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 1,341,297.44	\$ 53,651.90	\$ 1,394,949.34
7025	ACT.ASSIGNMENT	7,661.12	306.44	7,967.56
7040	TEMPORARY EMPLOYEES	7,950.41	318.02	8,268.43
7055	TIME & ONE-HALF	62,039.23	2,481.57	64,520.80
7105	EMPLOYERS SOCIAL SECURITY	98,141.00	3,925.64	102,066.64
7110	HOSPITALIZATION INSURANCE	332,096.19	38,290.69	370,386.88
7115	RETIREE HEALTH CARE	193,606.00	(15,314.23)	178,291.77
7120	RETIREMENT FUND CONTRIBUTION	252,664.99	44,191.11	296,856.10
7125	SPECIAL PENSION BENEFITS	6,227.10	-	6,227.10
7135	UNEMPLOYMENT COMPENSATION	2,104.90	-	2,104.90
7150	LONGEVITY PAY	12,550.46	(12,550.46)	-
7165	SHIFT DIFFERENTIAL	105.12	-	105.12
	TOTAL PERSONAL SERVICES	<u>2,316,443.96</u>	<u>115,300.68</u>	<u>2,431,744.64</u>
7260	SUPPLIES	133,185.26	-	133,185.26
7300	POSTAGE	200.00	-	200.00
7680	CLOTHING/CLEANING ALLOWANCE	12,475.03	-	12,475.03
	TOTAL SUPPLIES	<u>145,860.29</u>	<u>-</u>	<u>145,860.29</u>
8140	COMPUTER SERVICES	173,270.04	(96,913.59)	76,356.45
8160	ENGINEERING SERVICES	26,005.00	-	26,005.00
8180	CONTRACTUAL SERVICES	820,365.43	-	820,365.43
8355	CLAIMS	150,000.00	-	150,000.00
8500	TELEPHONE	24,555.12	-	24,555.12
9000	PRINTING & PUBLISHING	2,023.34	-	2,023.34
9210	ELECTRICITY	14,426.06	-	14,426.06
9220	WATER	6,151.80	-	6,151.80
9230	NATURAL GAS	6,074.57	-	6,074.57
9300	MAINTENANCE SERVICE	(79,130.18)	-	(79,130.18)
9310	HOME REPAIR	172,014.62	-	172,014.62
9330	PAVEMENT REPAIR	91,377.74	-	91,377.74
9420	EQUIPMENT RENTALS OR LEASE	1,096,447.18	-	1,096,447.18
9430	LAND RENTAL OR LEASE	3,115.19	-	3,115.19
9440	VEHICLE USAGE/CAR MILEAGE	643.00	-	643.00
9552	OTHER TRAVEL & TRAINING	615.52	-	615.52
9554	LOCAL BUSINESS EXPENSE	40.17	-	40.17
9610	FEES	170.00	-	170.00
	TOTAL OTHER SERVICES & CHARGES	<u>2,508,164.60</u>	<u>(96,913.59)</u>	<u>2,411,251.01</u>
9760	EQUIPMENT	7,429.74	-	7,429.74
9765	SOFTWARE	2,420.00	-	2,420.00
	TOTAL CAPITAL	<u>9,849.74</u>	<u>-</u>	<u>9,849.74</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 4,980,318.59</u>	<u>\$ 18,387.09</u>	<u>\$ 4,998,705.68</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2014  
RATE STUDY- TASKS NO. 4 & 5**

## ORGANIZATIONAL SUMMARY

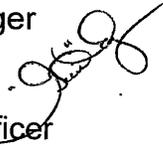
NO.	EXPENDITURE SUB-OBJECT DESCRIPTION	OPERATING EXPENSES	ADJUSTED COST FACTORS	ADJUSTED CURRENT ANNUAL CURRENT
7020	PERMANENT EMPLOYEES	\$ 5,196,304.96	\$ 207,852.20	\$ 5,404,157.16
7025	ACT.ASSIGNMENT	37,397.30	1,495.88	38,893.18
7040	TEMPORARY EMPLOYEES	45,388.33	1,815.53	47,203.86
7050	REGULAR HOURLY RATE	3,137.13	125.49	3,262.62
7055	TIME & ONE-HALF	143,378.31	5,735.14	149,113.45
7105	EMPLOYERS SOCIAL SECURITY	387,708.13	15,508.32	403,216.45
7110	HOSPITALIZATION INSURANCE	1,221,959.82	140,891.97	1,362,851.79
7115	RETIREE HEALTH CARE	778,633.75	(61,589.92)	717,043.83
7120	RETIREMENT FUND CONTRIBUTION	1,019,651.97	178,337.14	1,197,989.11
7125	SPECIAL PENSION BENEFITS	21,718.01	-	21,718.01
7135	UNEMPLOYMENT COMPENSATION	7,753.02	-	7,753.02
7150	LONGEVITY PAY	47,531.09	(47,531.09)	-
7165	SHIFT DIFFERENTIAL	13,557.02	-	13,557.02
	TOTAL PERSONAL SERVICES	<u>8,924,118.84</u>	<u>442,640.66</u>	<u>9,366,759.50</u>
7260	SUPPLIES	1,194,174.23	-	1,194,174.23
7300	POSTAGE	1,941.29	-	1,941.29
7680	CLOTHING/CLEANING ALLOWANCE	20,314.92	-	20,314.92
7800	INVENTORY - COST OF GOODS SOLD	33,892.05	-	33,892.05
	TOTAL SUPPLIES	<u>1,250,322.49</u>	<u>-</u>	<u>1,250,322.49</u>
8140	COMPUTER SERVICES	313,079.04	(575.41)	312,503.63
8160	ENGINEERING SERVICES	47,106.50	-	47,106.50
8180	CONTRACTUAL SERVICES	5,699,958.97	(774,575.89)	4,925,383.08
8355	CLAIMS	353,434.00	69,114.00	422,548.00
8450	INSURANCE PREMIUMS	191,323.00	-	191,323.00
8500	TELEPHONE	75,556.95	-	75,556.95
9000	PRINTING & PUBLISHING	11,344.79	-	11,344.79
9210	ELECTRICITY	2,291,744.50	(58,798.80)	2,232,945.70
9220	WATER	32,797.27	-	32,797.27
9230	NATURAL GAS	270,480.29	-	270,480.29
9300	MAINTENANCE SERVICE	20,147.04	-	20,147.04
9310	HOME REPAIR	172,014.62	-	172,014.62
9330	PAVEMENT REPAIR	91,377.74	-	91,377.74
9410	BUILDINGS RENTALS OR LEASE	21,347.09	-	21,347.09
9420	EQUIPMENT RENTALS OR LEASE	1,338,617.78	-	1,338,617.78
9430	LAND RENTAL OR LEASE	3,115.19	-	3,115.19
9440	VEHICLE USAGE/CAR MILEAGE	11,580.32	-	11,580.32
9550	PROFESSIONAL DEVELOPMENT	12,222.93	-	12,222.93
9552	OTHER TRAVEL & TRAINING	31,181.64	-	31,181.64
9554	LOCAL BUSINESS EXPENSE	5,270.43	-	5,270.43
9556	MEMBERSHIPS	9,363.00	-	9,363.00
9610	FEES	49,078.30	-	49,078.30
9620	BAD DEBT WRITE-OFFS	89,758.83	-	89,758.83
8150	311 CALL CENTER SERVICES	6,451.00	-	6,451.00
	TOTAL OTHER SERVICES & CHARGES	<u>11,148,351.22</u>	<u>(764,836.10)</u>	<u>10,383,515.12</u>
9740	BOOKS/OTHER MATERIALS/ARTIFACTS	927.78	-	927.78
9750	FURNITURE	11.72	-	11.72
9760	EQUIPMENT	49,124.23	-	49,124.23
9765	SOFTWARE	138,287.37	-	138,287.37
	TOTAL CAPITAL	<u>188,351.10</u>	<u>-</u>	<u>188,351.10</u>
9992	OPERATING TRANSFERS-A87 COST	635,371.00	136,893.00	772,264.00
9990	OPERATING TRANS OUT-SUBSIDIES	2,838,025.00	153,109.87	2,991,134.87
	TOTAL TRANSFERS/FEES	<u>3,473,396.00</u>	<u>290,002.87</u>	<u>3,763,398.87</u>
	GRAND TOTAL- EXPENDITURES	<u>\$ 24,984,539.65</u>	<u>\$ (32,192.57)</u>	<u>\$ 24,952,347.08</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 27, 2014

TO: Eric R. DeLong  
Deputy City Manager

FROM: Geri D. Eye, CPA   
Utility Financial Officer

**SUBJECT: 2014 SEWER RATE STUDY TASK #4  
FY14 OPERATING EXPENSES - SEWAGE PUMPING STATIONS**

The attached schedule allocates the direct cost for operating and maintaining system lifting and metering stations. The operating expense consists of direct labor, utilities, operating and maintenance supplies, repairs and maintenance, and equipment rental.

The overflow regulators are components of the integrated system and subsequently not included herein.

Attachment

GDE:gde

**CITY OF GRAND RAPIDS, MICHIGAN  
INVENTORY OF SEWAGE LIFT/METER STATIONS  
FOR THE YEAR ENDED JUNE 30, 2014**

<u>Station</u>	<u>Physical Location</u>	<u>Type</u>	<u>FY'14 Expenses</u>
Market Avenue	Grand Rapids	Interceptor	\$244,528.19
Millbank	Grand Rapids	Local	3,870.51
Eastlake	Grand Rapids	Local	8,354.71
Eastern	Grand Rapids	Trunk	7,869.57
Middleboro	Grand Rapids	Trunk	28.60
Oak Hollow	Grand Rapids Twmsp	Local	9,564.04
Kingsbury	Walker	Trunk	12,185.08
Bona Vista	Grand Rapids	Trunk	15,077.22
Aberdeen	Grand Rapids	Local	12,897.38
O'Brien	Walker	Trunk	31,590.46
Leonard Heights	Walker	Trunk	9,952.90
Guild	Grand Rapids	Local	7,256.30
Orchard Vista	Cascade Twmsp	Local	4,006.60
Brookview	Grand Rapids	Trunk	14,543.11
Remembrance Road	Walker	Local	85,576.61
Kraft Avenue	Cascade Twmsp	Local	6,350.61
Thornapple	Cascade Twmsp	Trunk	18,116.54
Thornhills	Cascade Twmsp	Local	10,995.98
Greenbrier	Grand Rapids Twmsp	Local	12,840.05
Shore Haven	Grand Rapids Twmsp	Local	11,636.93
Ada	Ada	Local	10,764.55
Robinhood	Grand Rapids Twmsp	Local	8,256.91
Lincoln School	Grand Rapids Twmsp	Local	4,785.05
Reeds Lake Blvd.	Grand Rapids Twmsp	Local	11,385.73
6000 28th Street	Cascade Twmsp	Local	9,348.30
Ada	Ada	Meter	3,927.25
East Grand Rapids	East Grand Rapids	Meter	3,580.15
Gaines Township	Gaines Township	Meter	3,252.84
Kentwood	Kentwood	Meter	5,303.05
Rickman Avenue	Grand Rapids	Local	7,087.31
Michigan Street	Grand Rapids	Local	5,442.96
Eagle Crest	Grand Rapids Twmsp	Local	10,368.73
East Paris	Grand Rapids Twmsp	Local	7,499.30
Alpine Estates	Walker	Local	10,323.94
Elmdale	Grand Rapids	Local	3,614.74
Collindale	Walker	Local	5,007.09
Saddleback	Grand Rapids Twmsp	Local	4,348.75
Arbor Hills Lift Station	Grand Rapids Twmsp	Local	7,273.30
Cypress Trails	Grand Rapids Twmsp	Local	5,015.30
Bird Avenue	Grand Rapids Twmsp	Local	29,919.28
Valentine	Grand Rapids Twmsp	Local	2,074.81
Cascade Springs	Cascade Twmsp	Local	15,466.96
Churchill Downs	Grand Rapids	Local	8,517.08
Woodsboro Court	Grand Rapids Twmsp	Local	5,984.30
Meadowood Trails	Cascade Twmsp	Local	4,833.37
Stonebridge	Grand Rapids Twmsp	Local	5,717.75
Burton/Spaulding	Cascade Twmsp	Local	0.00
Burton/Cacade	Cascade Twmsp	Local	13,163.06
Crahen	Grand Rapids Twmsp	Local	4,419.76
Jonathan Woods	Cascade Twmsp	Local	4,980.24
Watermark	Cascade Twmsp	Local	7,071.58
Mountain Ash	Tallmadge Twmsp	Local	5,274.25
Reeds Hollow	Grand Rapids Twmsp	Local	5,758.47
Front & Wealthy	Grand Rapids	Interceptor	0.00
16th Avenue Lift Station	Marne	Local	6,807.07
Hayes West Lift Station	Tallmadge	Local	9,254.11
Hayes East Lift Station	Tallmadge	Local	3,674.00
8th & Leonard LS	Tallmadge	Local	4,667.42
Summit Ridge LS	Grand Rapids	Local	4,140.42
Lake Michigan Estates	Tallmadge	Local	4,580.90
			<u>\$800,131.47</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 17, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Scott Buhrer *SB*  
Chief Financial Officer

**SUBJECT: 2014 SEWER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY14 operating costs are listed below.

Object Level 3 – 7060, 7020, 7040, 7055, 7025, 7045, 7050, 7030, 7035, 7190

GREIU wages were increased by 2.75% and 2.25% in FY2015 and FY2016, respectively. APA wages were increased by 2.95% in both FY2015 and FY2016. After converting these increases from a 2014 fiscal year to a 2015 calendar year basis, the result is a 3.91% factor for GREIU employees and a 4.47% factor for APA employees. A blended rate was then computed by weighting the calendar year percentages according to the percentage of Sewer Fund employees in each union (82% GREIU and 18% APA). Executive and non-reps amounted to less than 1.5% of the population and were therefore excluded. **The wage increase factor to translate FY2014 actual costs to estimated calendar 2015 will be 4.0% [3.91 X 82% + 4.47 X 18%].**

Object Level 3 – 8140/8355/9992

Adjust FY2014 actual cost to reflect adjustments in charges for central services rendered by the Information Technology Fund (data charges), the Insurance Payment Fund (property and general liability) and the General Operating Fund (A-87 cost allocation). The "Exhibit" workbook (inclusive of cost center allocations) maintained by the Budget Office has been utilized to blend FY2015 and FY2016 budget amounts thus arriving at an estimated 2015 calendar year rate as follows:

<b>8140-Data Charges</b>			
Cost Center	FY2015 Request	FY2016 Forecast	Calendar 2015 Estimate
4410	\$21,497	\$21,545	<b>\$21,521</b>
442301	\$214,389	\$214,864	<b>\$214,626</b>
442501	\$76,272	\$76,441	<b>\$76,356</b>
Total	\$312,158	\$312,850	\$312,503

<b>8355-General Liability Insurance</b>			
Cost Center	FY2015 Request	FY2016 Forecast	Calendar 2015 Estimate
4410	\$268,520	\$276,576	<b>\$272,548</b>

<b>9992-Contributions to Other Funds (A-87 Allocation)</b>			
Cost Center	FY2015 Request	FY2016 Forecast	Calendar 2015 Estimate
4410	\$760,851	\$783,677	<b>\$772,264</b>

Object Level 3 - 7105

Increase FY2014 actual FICA expense by 4.0% consistent with the known wage impacts detailed above.

Object Level 3 - 7110

The FY2015 Trend Report is not completed at this time. However, unfavorable health insurance cost trends were anticipated in the FY2014 Trend Report. In addition, dollars from the Early Retiree Reinsurance Program (ERRP) end after FY2014 increasing upward pressure on calendar 2015 rates. Finally, the three-year smoothing is less favorable for calendar 2015 rates than it was for calendar 2014 rates but has nonetheless helped to limit the projected increase in health insurance to 11.53%. **Increase FY2014 health insurance actual by 11.53% to reflect these anticipated rate changes.**

The projected FY15 (\$13,112) and FY16 (\$14,353) health insurance rates were each reduced by 3.2% for labor concession savings. The resulting amounts were blended into a 2015 calendar year rate and divided by the FY2014 base amount (\$11,918.64) to arrive at the increase factor [(((((\$13,112 \* 96.8% / 2) + (\$14,353 \* 96.8% / 2)) / \$11,918.64) - 1) \* 100].

Object Level 3 - 7115

Retiree health care ("RHC") rates are projected to trend down in FY2015 (to 12.30%) and FY2016 (to 12.23%) from a base year rate of 13.98% in FY2014. However, this decrease must be offset by the projected wage increases discussed above. Additionally, the Sewer Fund had a negative OPEB adjustment in the amount of -\$6,543 for FY2014.

The RHC factor after consideration of the above rate and wage adjustments is 91.16% (or a decrease of 8.84%) for GREIU members and 91.65% (or a decrease of 8.35%) for APA members. These factors are then applied to the FY2014 RHC balance before the OPEB adjustment (\$716,626). This result is compared to the FY2014 RHC balance after

the OPEB adjustment and the revised factor is weighted in accordance with union membership within the Sewer Fund.

GREIU: Step 1>> [(\$716,626 \* 91.16%) = \$653,276]  
Step 2>> [(((\$653,276 – (\$716,626 - \$6,543)) / (\$716,626 - \$6,543)) \* 100)]  
Step 3>> [-8.00% \* 82%]

APA: Step 1>> [(\$716,626 \* 91.65%) = \$656,788]  
Step 2>> [(((\$656,788 – (\$716,626 - \$6,543)) / (\$716,626 - \$6,543)) \* 100)]  
Step 3>> [-7.51% \* 18%]

Step 4>> [-6.56% + -1.35%]

The factor to establish calendar year 2015's retiree health care cost is -7.91%. **Decrease the total of fiscal year 2014's retiree health care by this percent to establish the cost for calendar year 2015.**

Object Level 3 - 7120

The pension expense factor to translate FY2014 actual costs to estimated calendar 2015 will be 17.49%. **Increase the total of fiscal year 2014's pension expense by this percent to establish the cost for calendar year 2015.** This reflects the effect of a General Pension rate change increase from FY14 of 21.14% to a calendar 2015 rate of 23.90% and an estimated wage increase of 4.0%. The calendar 2015 rate is a blend of the FY2015 rate (25.53%) and the FY2016 rate (22.27%).

The pension factor after consideration of the above rate and wage adjustments is 117.38% (or an increase of 17.38%) for GREIU members and 117.99% (or an increase of 17.99%) for APA members. These factors are then weighted in accordance with union membership within the Sewer Fund [(17.38 \* 82%) + (17.99 \* 18%)].

Object Level 3 – 7150

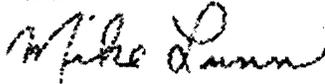
The factor to establish calendar year 2015's longevity pay cost is -100% as longevity has been eliminated beginning in FY2015. **Decrease the total of fiscal year 2014's longevity pay by this percent to establish the cost for calendar year 2015.**

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Michael J. Lunn   
Environmental Services Manager

**SUBJECT: 2014 SEWER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY14 operating costs are listed below:

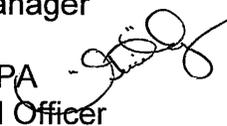
<u>ACCOUNT</u> <u>User Code</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
4423-8180	GVRBA Contractual Services	(\$774,575.89)
4423-9210	Consumers Energy Efficiency Program	(\$58,798.80)
4423-9210	Consumers Energy Green Generation Participation Agreement	(\$58,174.00)

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 22, 2014

TO: Eric R. DeLong  
Deputy City Manager

FROM: Geri D. Eye, CPA   
Utility Financial Officer

**SUBJECT: 2014 SEWER RATE STUDY TASK #6**

The Sewage Disposal System Fund's revenues and volumes by governmental unit for the year ended June 30, 2014, are disclosed on the attached page. In addition, actual volume comparisons for the past five (5) years by governmental unit are included herein.

Attachments

GDE:gde

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 6**

DETERMINE SEWAGE VOLUME AND REVENUE BY GOVERNMENTAL ENTITY FOR THE YEAR ENDED JUNE 30, 2014:

RETAIL:	SALES REVENUE	3 YR AVE BILLED VOL (GALLONS)
CITY OF GRAND RAPIDS (1)	\$ 31,373,442.76	4,976,802,292
CITY OF WALKER	4,556,996.09	618,002,088
CITY OF KENTWOOD	3,641,401.14	1,047,514,908
CASCADE TOWNSHIP	1,990,557.10	302,740,284
GRAND RAPIDS TOWNSHIP	2,142,922.85	294,689,560
TALLMADGE TOWNSHIP	276,805.82	13,091,496
WRIGHT TOWNSHIP (2)	255,525.76	14,185,584
SUB-TOTAL RETAIL (3)	\$ 44,237,651.52	7,267,026,212
WHOLESALE:		
CITY OF E. GRAND RAPIDS	\$ 571,971.80	373,608,567
ADA TOWNSHIP	1,090,631.24	332,217,771
GAINES TOWNSHIP (4)	118,975.53	75,428,000
SUB-TOTAL WHOLESALE	\$ 1,781,578.57	781,254,338
TOTAL	\$ 46,019,230.09	8,048,280,550
REVENUE CLASSIFICATION:		
4410 - 607055 RETAIL SEWAGE SERVICE CHARGE		\$ 44,165,650.87
4410 - 607056 WYOMING SEWAGE SERVICE CHARGE		72,000.65
4410 - 607060 WHOLESALE SEWAGE SERVICE CHARGE		1,781,578.57
		\$ 46,019,230.09

- (1) THE VOLUME & DOLLAR AMOUNT FOR THE CITY OF WYOMING ARE INCLUDED IN THE GRAND RAPIDS TOTALS.
- (2) CHARGES TO USERS IN WRIGHT TOWNSHIP ARE BASED ON A REU (RESIDENTIAL EQUIVALENT UNIT) CHARGE, IN LIEU OF COMMODITY & MONTHLY SERVICE CHARGES, AND AS SUCH DOES NOT RECORD ANY BILLED VOLUME IN RETAIL SERVICE CHARGES TO WRIGHT TOWNSHIP. THE AMOUNT INCLUDED ABOVE REFLECTS THE ESTIMATED BILLED VOLUME BASED ON THE WWTP'S LIFT STATION PUMPING REPORT FOR FY 2014.
- (3) A REVENUE ACCRUAL OF \$(253,413.57) HAS BEEN PRORATED TO ALL RETAIL CUSTOMER COMMUNITIES TO ACCRUE BILLINGS FROM THE LAST READING DATE THROUGH JUNE 30, 2014, AND ADJUST FOR PREVIOUS FISCAL YEAR ACCRUAL.
- (4) GAINES TWP RATES ARE CALCULATED BASED ON MOST RECENT FISCAL YEAR BILLED VOLUME PER CONTRACT.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
2014 RATE STUDY TASK NO. 6**

VOLUME COMPARISONS FOR FIVE (5) YEARS BY GOVERNMENTAL UNIT  
VOLUME = 1,000 GALLONS

<i>MUNICIPALITY</i>	<i>FY10</i>		<i>FY11</i>		<i>FY12</i>		<i>FY13</i>		<i>FY14</i>		<i>FY10-FY14 % CHANGE</i>
	<i>VOL BILLED</i>	<i>VOL BILLED</i>	<i>% CHANGE</i>								
GRAND RAPIDS	5,327,753	5,130,744	-3.70%	5,131,245	0.01%	4,947,696	-3.58%	4,851,466	-1.94%	-8.94%	
WALKER	630,592	628,009	-0.41%	619,441	-1.36%	603,938	-2.50%	630,628	4.42%	0.01%	
KENTWOOD	938,707	1,010,318	7.63%	1,039,550	2.89%	1,056,913	1.67%	1,046,081	-1.02%	11.44%	
CASCADE	287,725	286,529	-0.42%	302,532	5.59%	300,624	-0.63%	305,066	1.48%	6.03%	
GRAND RAPIDS TWP	300,605	297,595	-1.00%	297,317	-0.09%	301,274	1.33%	285,476	-5.24%	-5.03%	
TALLMADGE	13,005	12,739	-2.05%	12,180	-4.39%	12,904	5.94%	14,191	9.97%	9.12%	
WRIGHT TWP	14,379	13,370	-7.02%	12,457	-6.83%	15,564	24.94%	14,537	-6.60%	1.10%	
EAST GRAND RAPIDS	456,699	444,128	-2.75%	419,817	-5.47%	396,034	-5.67%	304,975	-22.99%	-33.22%	
ADA TWP	309,321	315,329	1.94%	309,502	-1.85%	309,437	-0.02%	377,714	22.06%	22.11%	
GAINES TWP	94,689	101,030	6.70%	112,093	10.95%	96,398	-14.00%	75,428	-21.75%	-20.34%	
<b>TOTAL</b>	<b>8,373,475</b>	<b>8,239,791</b>	<b>-1.60%</b>	<b>8,256,134</b>	<b>0.20%</b>	<b>8,040,782</b>	<b>-2.61%</b>	<b>7,905,562</b>	<b>-1.68%</b>	<b>-5.59%</b>	

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GRAND RAPIDS VOLUME COMPARED TO  
CUSTOMER COMMUNITIES

VOLUME = 1,000 GALLONS	<i>FY10</i>		<i>FY11</i>		<i>FY12</i>		<i>FY13</i>		<i>FY14</i>	
	<i>% OF TOTAL</i>	<i>VOL BILLED</i>	<i>% OF TOTAL</i>							
GRAND RAPIDS	63.63%	5,130,744	62.27%	5,131,245	62.15%	4,947,696	61.53%	4,851,466	61.37%	
CUSTOMER COMMUNITIES	36.37%	3,109,047	37.73%	3,124,889	37.85%	3,093,086	38.47%	3,054,096	38.63%	
<b>TOTAL</b>	<b>100.00%</b>	<b>8,239,791</b>	<b>100.00%</b>	<b>8,256,134</b>	<b>100.00%</b>	<b>8,040,782</b>	<b>100.00%</b>	<b>7,905,562</b>	<b>100.00%</b>	

\* Volumes were restated from previous Rate Studies to reflect actual billings without adjustment for accrued revenues.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 7**

OPERATING REVENUES OTHER THAN WASTEWATER RECEIPTS:

4423-476009	INDUSTRIAL PRETREATMENT PERMITS	\$ 55,852.69
4410-607001	MISCELLANEOUS SERVICE FEES	7,763.28
4410-607050	INSPECTION FEES - UTILITIES	40,331.00
4423-607057	INDUSTRIAL DISCHARGE AUTHORIZATION	1,600.00
4423-642003	SALES - OTHER	349.22
4423-642009	SALES OF SCRAP MATERIAL	1,808.53
4423-642019	INVENTORY WITHDRAWALS (SALES)	33,654.12
4425-642019	INVENTORY WITHDRAWALS (SALES)	237.93
4410-672002	INTEREST/PENALTIES ON SPEC ASSM	11,730.41
		<u>\$ 153,327.18</u>

CREDIT: UNDERUTILIZATION OF PENALTY CREDIT FROM PREVIOUS YEAR \$ 430,528.00

OTHER OPERATING REVENUES NOT INCLUDED:

CAPITAL CONTRIBUTION

4410-607051 SEWAGE FRONT FOOTAGE \$ 106,570.24

INTEGRATED SYSTEM CREDITS

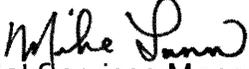
4410-607053	INTEGRATED SEWER CONNECTION	\$ 838,053.50
4423-607074	SEWAGE SURCHARGE	1,751,792.66
		<u>\$ 2,589,846.16</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 25, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Mike Lunn   
Environmental Services Manager

**SUBJECT: 2014 SEWER RATE STUDY- TASK #8**

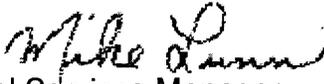
No significant changes in operating levels are anticipated to take effect by January 1, 2015, which would require adjustments to operating costs for the test period.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 25, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Mike Lunn   
Environmental Services Manager

**SUBJECT: 2014 SEWER RATE STUDY- TASK #9**

No significant changes in sewer revenues are anticipated to take effect by January 1, 2014, which would require an adjustment to operating revenue estimates as a whole.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 20, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Charles R. Schroeder, PE  
Assistant ESD Mgr. *C. Schroeder*

**SUBJECT: 2014 SEWER RATE STUDY – TASK #10**

The following are major sewage system projects (greater than \$100,000) that for rate study purposes, should be considered operative as of January 1, 2015.

<u>Description</u>	<u>Location</u>	<u>Proj Code</u>	<u>Cost</u>
Winchester Woods	Walker	Contribution	137,089
Ridges of Cascade	Cascade	Contribution	354,329
Stoneshire Estates Phase 2	Cascade	Contribution	274,225
Forest View Hospital	GR Twp	Contribution	132,681
Arena Place	Grand Rapids	Contribution	123,159
Carlton Avenue	Grand Rapids	221307-510	265,000
Richmond Street	Grand Rapids	221302-510	350,000
Fuller Ave – Mich. to Leonard & Race	Grand Rapids	221420-510	240,000
CSO 21	Grand Rapids	221925-535	4,465,000
Amtrak Station Relocation	Grand Rapids	221241-535	315,600
ESCSO 2C	Grand Rapids	221237-535	667,500
WWTP-N Final Clarifier Improvements	Integrated	220902-533	147,472
	Integrated	220902-534	284,273
	Integrated	220902-535	135,000
MARB Wetwell Dewatering	Grand Rapids	220908-535	300,000
WWTP WAS Thickening System	Integrated	221222-535	2,365,000
WWTP-N Secondary Treatment	Integrated	221701-520	4,925,000
	Integrated	228910-533	68,165
Television Truck Replacement	Grand Rapids	440021-510	320,000
CIPP Rehab of Sanitary Sewer	Grand Rapids	221902-534	187,957
CIPP Rehab of Sanitary Sewer	Grand Rapids	221902-535	663,360
	Cascade	221902-535	59,205
Var Loc CIPP Sewer Rehab	Grand Rapids	221310-535	101,432

CRS\ajp

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**TASK NO. 11**

COMPUTE ACCUMULATED COST, DEPRECIATION AND DEPRECIATION EXPENSE AS OF JUNE 30, 2014

**INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 1,633,122	\$ -	\$ -
LAND IMPROVEMENTS	16,315,449	12,978,769	282,146
BUILDINGS & STRUCTURES	50,145,375	29,516,055	937,391
PROCESS EQUIPMENT	62,187,149	33,632,977	1,587,397
AUXILIARY EQUIPMENT	28,254,555	24,050,895	404,447
MACHINERY & EQUIPMENT	5,145,874	4,805,869	110,935
OFFICE EQUIPMENT & FURNITURE	628,067	619,277	235
	<u>\$ 164,309,591</u>	<u>\$ 105,603,842</u>	<u>\$ 3,322,551</u>

**NON-INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND	\$ 3,111,413	\$ -	\$ -
LAND IMPROVEMENTS	3,486,637	1,173,027	174,504
BUILDINGS & STRUCTURES	10,948,179	2,818,542	259,062
PROCESS EQUIPMENT	16,842,826	6,069,949	524,690
AUXILIARY EQUIPMENT	3,898,571	2,580,095	208,316
MACHINERY & EQUIPMENT	1,646,924	1,278,676	154,223
OFFICE EQUIPMENT & FURNITURE	68,632	68,632	-
SERVICEMAINS - GRAND RAPIDS	341,971,732	95,761,868	6,545,381
SERVICEMAINS - WALKER	39,069,386	14,497,233	772,480
SERVICEMAINS - KENTWOOD	40,383,063	14,055,120	807,405
SERVICEMAINS - CASCADE TWP	20,160,039	7,598,852	403,353
SERVICEMAINS - GRAND RAPIDS TWP	18,019,069	6,607,862	356,435
SERVICEMAINS - TALLMADGE TWP	5,661,019	1,243,385	113,220
SERVICEMAINS - WRIGHT TWP	125,288	21,300	2,506
	<u>\$ 505,392,778</u>	<u>\$ 153,774,541</u>	<u>\$ 10,321,575</u>
TOTAL	<u>\$ 669,702,369</u>	<u>\$ 259,378,383</u>	<u>\$ 13,644,126</u>

SOURCE: GENERAL LEDGER, AS ADJUSTED, FOR JUNE 30, 2014.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 12**

TASK 12A DETERMINE WORKING CAPITAL NEEDS FOR MATERIALS AND SUPPLIES ON HAND.

MATERIALS AND SUPPLIES INVENTORY AS OF JUNE 30, 2014: \$ 1,031,190

TASK 12B DETERMINE WORKING CAPITAL NEEDS FOR PREPAYMENT OF OPERATING COSTS.

NO REQUIREMENT FOR PREPAYMENT OF OPERATING COSTS IS CALLED FOR IN THE ORDINARY CYCLE OF BUSINESS.

TASK 12C DETERMINE CASH WORKING CAPITAL NEEDS & DETERMINE TOTAL WORKING CAPITAL NEEDS.

MINIMUM CASH WORKING CAPITAL IS DEFINED AS THE SUM OF 90 DAYS ADJUSTED OPERATING EXPENSES.

ADJUSTED CURRENT ANNUAL EXPENSES = \$ 24,952,347 @ 90/365 = \$ 6,152,634

TOTAL WORKING CAPITAL NEEDS CONSIST OF THE FOLLOWING:

12A INVESTMENT IN INVENTORY	\$ 1,031,190
12B PREPAYMENT OF OPERATING EXPENSES	-
12C 90 DAY OPERATING EXPENSES	<u>6,152,634</u>
	<u><u>\$ 7,183,824</u></u>

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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 5, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Charles R. Schroeder, P.E.   
Assistant Environmental Services Manager

**SUBJECT: 2014 SEWER RATE STUDY- TASK #13**

In 2014, there was only one improvement project that involved existing zonegated facilities that received improvements within the City of Grand Rapids Sewer System and this same zonegated facility was modified slightly and was assigned a new section number. The existing zonegating maps, the "Report on Sewage Allocation and Zonegating of the Sewage System for Fiscal Year 2002" (B&V Zonegating Report), and the Joint Use List were all reviewed. From that review, the following are recommended changes for zonegating of the Sewer System facilities for the 2014 Sewer Rate Study:

1. Plaster Creek Sewer at Market Ave Sewer Repair
  - a. This site is new this year and has been assigned Zonegated section S22A.
  - b. The percentage of allocation for this site should follow those in Zonegated sections S22.

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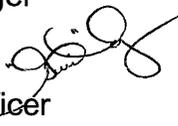
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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2014

TO: Eric R. DeLong  
Deputy City Manager

FROM: Geri D. Eye, CPA   
Utility Financial Officer

**SUBJECT: 2014 SEWER RATE STUDY TASK #13  
ZONEGATING & JOINT USE ALLOCATION METHODS**

Lengths and costs of all interceptor and trunk sewer mains that are zonedated were prorated according to the percentage of flow from contributing communities per the "Report on Sewage Flow Allocation and Zonedating of the Sewage System for Fiscal Year 2002" (Black & Veatch, Ltd. Zonedating Report dated September 2003). Jointly used lift stations were also prorated based on the B&V zonedating report.

CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
METHODOLOGY FOR I/I & OTHER FLOW APPORTIONMENT - TASK NO. 13

S-30

	MILLION GALLONS
1.) ANNUAL WASTEWATER TREATMENT PLANT FLOW	15,062.42
LESS: WHOLESALE BILLED FLOW	(758.12)
LESS: RETAIL BILLED FLOW	(7,147.46)
TOTAL RETAIL I/I & OTHER FLOW	7,156.84
2.) RETAIL INFLOW FROM SEPARATED AREAS (A)	549.78
RETAIL INFLOW FROM COMBINED AREAS - AMOUNT ESTIMATED (A)	732.67
LESS: ANNUAL BYPASS FROM (3) PUMPING STATIONS	-
LESS: IN-SYSTEM BYPASS & RETENTION BASIN OVERFLOW	-
TOTAL RETAIL INFLOW	1,282.45
3.) RETAIL INFILTRATION:	
TOTAL RETAIL I/I & OTHER FLOW	7,156.84
LESS: TOTAL RETAIL INFLOW (#2)	(1,282.45)
	5,874.39
LESS: MARKET AVE RETENTION BASIN (MARB) CAPTURE	(35.32)
TOTAL RETAIL INFILTRATION & OTHER FLOW	5,839.07
4.) ALLOCATION OF RETAIL INFILTRATION & OTHER FLOW - APPORTIONED ON THE BASIS OF B&V SUMMARY OF 1997 MONITORED FLOW DATA (B)	

	PRORATA SHARE OF RETAIL INFILTRA- TION & OTHER	MILLION GALLONS
<u>GOVERNMENTAL UNIT(S)</u>		
UTILITY PARTNERS	100.0000%	5,839.07
TOTAL	100.0000%	5,839.07

(A) BASED ON RECORDED RAINFALL @ WWTP & APPORTIONED PER BLACK & VEATCH'S SUMMARY OF 1997 MONITORED FLOW DATA.  
 (B) BASED ON INFILTRATION & OTHER FLOW APPORTIONED IN PREVIOUS YEAR & ADJUSTED FOR SYSTEM ADDITIONS & IMPROVEMENTS  
 IN EACH CUSTOMER COMMUNITY.

CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
METHODOLOGY FOR I/I & OTHER FLOW APPORTIONMENT - TASK NO. 13 (CONTINUED)

5.) SUMMARY: (IN MILLION GALLONS)

<u>GOVERNMENTAL UNIT(S)</u>	<u>BILLED FLOW (TASK #6)</u>	<u>INFLOW (#2 ABOVE)</u>	<u>INFILTRATION &amp; OTHER FLOW (#4 ABOVE)</u>	<u>MARB (A) (#3 ABOVE)</u>	<u>TOTAL PLANT FLOW</u>	<u>PERCENT OF TOTAL</u>	<u>TOTAL PLANT FLOW (MGD)</u>
UTILITY PARTNERS	7,830.15	1,282.45	5,839.07	34.98	14,986.65	99.4970%	41.0594
GAINES TWP	75.43	-	-	0.34	75.77	0.5030%	0.2076
TOTAL	<u>7,905.58</u>	<u>1,282.45</u>	<u>5,839.07</u>	<u>35.32</u>	<u>15,062.42</u>	<u>100.0000%</u>	<u>41.2670</u>

(A) BASED ON BILLED FLOW (TASK #6).

# MEMORANDUM

CITY OF GRAND RAPIDS

**Date:** July 31, 2014

**To:** Geri Eye, Utility Financial Officer

**From:** Mike Lunn *Mike Lunn*  
Environmental Services Manager

**Subject:** 2014 Sewer Rate Study - Wastewater Plant Flow Data

Listed below is the flow data measured in million gallons (MG) for the last two completed fiscal years. Plant flow decreased by 0.30% from 15,100.40 MG treated in FY13 to 15,062.42 MG treated in FY14.

Month	FY 2012	FY 2013	FY 2014	% incr (decr)
July	1,338.31	1,056.41	1,189.94	12.60%
August	1,329.91	1,088.57	1,093.67	0.50%
September	1,095.80	947.33	1,026.49	8.40%
October	1,132.82	1,133.31	1,094.13	-3.50%
November	1,149.36	970.74	1,225.71	26.30%
December	1,276.78	1,073.32	1,160.14	8.10%
January	1,291.29	1,202.64	1,258.85	4.70%
February	1,199.29	1,246.63	1,057.55	-15.20%
March	1,486.58	1,345.58	1,488.11	10.60%
April	1,279.82	2,014.65	1,513.54	-24.90%
May	1,253.16	1,578.28	1,554.35	-1.50%
June	1,087.98	1,442.94	1,399.94	-3.00%
<b>Total</b>	<b>14,921.10</b>	<b>15,100.40</b>	<b>15,062.42</b>	<b>-0.30%</b>

Data measured	FY 2012	FY 2013	FY 2014	% incr (decr)
Wastewater Treatment Plan (WWTP) avg. daily flow (MG)	40.880	41.371	41.380	0.00%
Rainfall recorded at WWTP (inches)	35.800	43.880	33.460	-23.70%
In-system overflows (MG) (report attached)	0.343	-	-	0.00%
Market Avenue Retention Basin (MARB) inflow (MG)	56.790	501.420	35.320	-93.00%
Market Avenue Retention Basin (MARB) over flow (MG)	-	435.870	-	-100.00%

cc: Mark DeClercq, City Engineer



# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 09, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Charles R. Schroeder, PE  
Assistant ESD Mgr. *C. Schroeder*

**SUBJECT: 2014 SEWER RATE STUDY – TASK #14**

Zonegating maps for the sewage system are included in the "Report on Sewage Flow Allocation and Zonegating of the Sewage System" from Black & Veatch, Ltd dated September 2003. The report also contains comprehensive information with respect to the basis for zonegating service mains and other system components, such as lift stations, that service more than one community. The zonegating model has been adjusted to recognize changes in flows related to the Saddleback Sewer project completed in 2010. All zonegating work papers are on file at the Wastewater Treatment Plant Administration Building located at 1300 Market Ave., SW. All zonegating maps are on file at the City Engineers Office located at 300 Monroe Ave, NW.

CRS\crs

*srs\stask14 2014*

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 15**

COMPUTE CONSTRUCTION COST RATE BASE (DEPRECIATED PLANT, PLUS WORKING CAPITAL, LESS CSO REVENUE REQUIREMENTS FOR CSO FIXED ASSETS INCLUDED IN TASK #11/21, LESS CONTRIBUTIONS BY OTHERS).

ORIGINAL CONSTRUCTION COST	- TASK #10	\$ 14,820,533	
	- TASK #11	668,897,369	
	- TASK #16/21	<u>(187,363,456)</u>	\$ 496,354,446
LESS: ACCUMULATED DEPRECIATION	- TASK #10	\$ -	
	TASK #11	259,279,270	
	TASK #16/21	<u>(50,849,152)</u>	<u>(208,430,118)</u>
			287,924,328
WORKING CAPITAL REQUIREMENT	- TASK #12	\$ 7,183,824	
		<u>7,183,824</u>	<u>7,183,824</u>
			295,108,152
CONTRIBUTIONS BY OTHERS	- TASK #21	\$ 186,544,567	
LESS: AMORTIZATION		(124,524,846)	
		<u>(62,019,721)</u>	<u>(62,019,721)</u>
CONSTRUCTION COST RATE BASE			<u><u>\$ 233,088,431</u></u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 29, 2014

TO: Geri D. Eye, CPA  
Utility Financial Officer

FROM: Scott A. Saindon, CPA  
Budget Analyst 

SUBJECT: **2014 SEWER RATE STUDY TASK #15A  
INTEGRATED SEWER CONNECTION FEES**

Attached is the Integrated Sewer Connection Fee Schedule as currently provided for in Chapter 27 of the City Code, with the addition of rates to be effective on January 1, 2015. The City Commission on June 27, 2000 established fees through calendar year 2004. Beginning January 1, 2005, the integrated sewer connection fees are to be calculated on a yearly basis as part of the annual Water/Sewer Rate Study. The Consumer Price Index used to determine rates effective January 1, 2015 is as follows:

August, 2013 Index	233.877
August, 2014 Index	237.852
Increase (decrease)	3.975
Percentage increase (decrease)	1.70%

SAS\sas

Attachment

Section 2.96 Integrated Sewer Connection Fee Schedule

When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Connection Base Fee Schedule

Water Meter Size (inches)	<u>1/01/14</u>	<u>1/01/15</u>
3/4 or less	\$ 2,873	\$ 2,922
1	4,798	4,880
1 ½	9,567	9,730
2	15,313	15,574
3	33,528	34,100
4	60,333	61,362
6 and over	134,083	136,370

Except as otherwise provided in the immediately succeeding paragraph, the foregoing integrated sewer connection base fee schedule for single-family and multi-family residential dwelling units shall be adjusted upward and downward as follows: A single-family residential dwelling unit located on a parcel containing twenty thousand (20,000) square feet shall pay the applicable integrated connection fee in accordance with the foregoing schedule. When determining the square footage of a residential parcel for the purposes of determining the appropriate integrated connection fee, parcel size may be adjusted downward to take into consideration such things as wetlands, lakes, streams and other unusual characteristics of the parcel in accordance with policies approved from time to time by the Utility Advisory Board. To the extent the size of a parcel, as adjusted, is greater than or less than twenty thousand (20,000) square feet, one-half the applicable integrated connection fee will increase or decrease by the same percentage increase or decrease in the parcel above or below twenty thousand (20,000) square feet. In the case of multi-family residential dwellings, in order to determine the size of the parcel assigned to each dwelling unit for purposes of calculating the integrated connection fee to be paid by each multi-family residential dwelling unit, the total square footage of the parcel, as adjusted, on which the multi-family residential dwelling is located shall be divided by the total number of residential units. Notwithstanding any other provision in this subsection, the integrated connection fee for a single-family residential dwelling unit or multi-family residential dwelling unit shall not exceed four and one-half times the applicable base integrated connection fee set forth in foregoing schedule.

There shall be no upward adjustment in the integrated sewer service connection fee payable for a single-family residential dwelling unit connecting to the Sewer System if (a) each of the following conditions are met (1) a building permit shall have been obtained, (2) the dwelling unit shall have been constructed, and (3) a certificate of occupancy shall have been issued prior to January 1, 2000 or (b) local building permit fees have been paid to the local governmental unit prior to January 1, 2000 for a single-family residential dwelling unit to be

constructed on or after January 1, 2000. When connecting to the Sewer System, Users living in or owning such single-family residential dwelling units shall pay the applicable base integrated connection fee set forth in the Integrated Connection Base Fee Schedule adjusted downward, if applicable, in accordance with the immediate preceding paragraph.

Effective January 1, 2005 and January 1<sup>st</sup> of every year thereafter, the Integrated Sewer Connection Base Fees shall be adjusted by a percentage, which is determined by the annual change in the Consumer Price Index (the "index") calculated as follows:

- (1) The Consumer Price Index shall be that Index referred to as the Consumer Price Index, US City Average, All Urban Consumers, published by the U.S. Department of Labor-Bureau of Statistics ((1982-84)=100). In the event the method of determining the Index is substantially altered, the basis for determining the annual change thereafter shall be the Index which is most comparable to the Index described above.
- (2) For the purpose of computing the percentage change each calendar year, the Index for the month of August for the prior calendar year shall be subtracted from the Index for the immediately-preceding August. The result so obtained (if positive) shall be divided by the Index for the month of August for the prior calendar year to obtain the percentage increase which shall be applied to the then current Integrated Sewer Connection Base Fee Schedule to determine the new calendar year schedule.

The foregoing Integrated Connection fee is due and payable at the time a User receives a permit to connect to the Sewer System. A permit issued by the City to connect to the Sewer System shall expire one hundred eighty (180) days from the date the permit was issued.

The user receiving services who applies for a larger water meter than the one presently in service shall pay an Integrated Connection Fee which is the difference in cost between the meter size in service and the one applied for in accordance with the Integrated Connection Fee in effect at the time of application. No credit or rebate shall be made in the case of application for a smaller meter size.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
CSO REVENUE REQUIREMENTS - TASK 16  
PRINCIPAL & INTEREST ON REVENUE BONDS & SRF  
DEBT FOR CALENDAR YEAR 2015 - ACCRUAL BASIS**

S-39

DATE	SRF/REVENUE REFERENCE		REVENUE BONDS			STATE REVOLVING FUNDS			TOTAL		TOTAL PRINCIPAL & INTEREST
	5073-	SERIES	PRINCIPAL	INTEREST	EST. FEES	PRINCIPAL	INTEREST	PRINCIPAL	INTEREST		
07/01/15	N/A	1998 (1)		\$ 422,406.88	\$ 150.00			\$ -	\$ 422,556.88	\$ 422,556.88	
01/01/16	N/A	1998 (1)	\$ 1,872,898.50	422,406.88	150.00			1,872,898.50	422,556.88	2,295,455.38	
07/01/15	N/A	2008 (2)		536,425.00	600.00			0.00	537,025.00	537,025.00	
01/01/16	N/A	2008 (2)	545,000.00	536,425.00	600.00			545,000.00	537,025.00	1,082,025.00	
07/01/15	N/A	2010A (3)		318,913.64	775.00			0.00	319,688.64	319,688.64	
01/01/16	N/A	2010A (3)		318,913.64	775.00			0.00	319,688.64	319,688.64	
07/01/15	N/A	2013 (4)		637,487.00	600.00			0.00	638,087.00	638,087.00	
01/01/16	N/A	2013 (4)	332,850.00	637,487.00	600.00			332,850.00	638,087.00	970,937.00	
01/01/15	N/A	2014 (5)		312,520.82	0.00			0.00	312,520.82	312,520.82	
07/01/15	N/A	2014 (5)		677,756.00	600.00			0.00	678,356.00	678,356.00	
01/01/16	N/A	2014 (5)	391,000.00	677,756.00	600.00			391,000.00	678,356.00	1,069,356.00	
04/01/15	10	1994B				150,000.00	1,500.00 (6)	150,000.00	1,500.00	151,500.00	
10/01/15		SRF					0.00	0.00	0.00	0.00	
03/31/16							0.00 (6)	0.00	0.00	0.00	
04/01/15	11	1995A				82,547.13	1,874.84 (6)	82,547.13	1,874.84	84,421.97	
10/01/15		SRF					1,892.36	0.00	1,892.36	1,892.36	
03/31/16						84,104.68	946.18 (6)	84,104.68	946.18	85,050.86	
04/01/15	12	1995B					2,362.50 (6)	0.00	2,362.50	2,362.50	
10/01/15		SRF				210,000.00	4,725.00	210,000.00	4,725.00	214,725.00	
03/31/16							1,181.25 (6)	0.00	1,181.25	1,181.25	
								<u>\$3,668,400.31</u>	<u>\$5,518,430.00</u>	<u>\$9,186,830.31</u>	

(1) PRORATED AMOUNT OF 1998 ISSUE RELATED TO CSO DEBT.

(2) DS ON ES CSO PORTION OF 2008 ISSUE. (\$24.805M)

(3) DS ON ES CSO PORTION OF 2010A&B ISSUE. (\$14.05M)

(4) PRORATED AMOUNT OF 2013 ISSUE RELATED TO CSO DEBT.

(5) PRORATED AMOUNT OF 2014 ISSUE RELATED TO CSO DEBT.

(6) PRORATED FOR APPLICABLE THREE (3) MONTH PERIOD IN CALENDAR YEAR 2015.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 16A**

INCLUDE MAJOR PROJECT COST FOR UPCOMING SYSTEM IMPROVEMENTS (NON-INTEGRATED)  
THE ESTIMATED TOTAL PROJECT COST FOR RECOMMENDED SEWAGE SYSTEM IMPROVEMENTS  
ARE SUMMARIZED IN THE FOLLOWING TABLE.

ITEM NO.	DESCRIPTION	ESTIMATED COST	BUDGET YEAR
1	ROBINHOOD LIFT STATION UPGRADES	\$530,000	2014
2	LIVINGSTON PUMP STATION-2ND DISCHARGE LINE FROM CN #1	\$3,310,000	2015
3	ESCSO #27	\$3,465,000	2015
4	KINGSBURY LIFT STATION REPLACEMENT	\$1,200,000	2015
5	ESCSO #28	\$3,400,000	2016
6	GODFREY AVE - LIBERTY ST TO OXFORD ST	\$3,090,000	2018
		<u>\$ 14,995,000</u>	

NOTE: NONE OF THE PROJECTS ABOVE ARE INCLUDED IN RECOMMENDED REVENUE REQUIREMENTS FOR CALENDAR YEAR 2015. COSTS SHOWN ARE IN 2014 DOLLARS.

SOURCE: CHUCK SCHROEDER, ASSISTANT ENVIRONMENTAL SERVICES MANAGER, DECEMBER 2014

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 17**

**BONDS - PRINCIPAL & INTEREST PAYMENTS (SENIOR)**

FISCAL YEAR ENDING JUNE 30,	CASH BASIS		
	PRINCIPAL	INTEREST	PRIN & INT
2015	\$ 6,485,000	\$ 11,711,530	\$ 18,196,530
2016	6,765,000	12,415,039	19,180,039
2017	7,080,000	12,118,058	19,198,058
2018	7,405,000	11,793,683	19,198,683
2019	7,775,000	11,432,708	19,207,708
2020	8,150,000	11,044,533	19,194,533
2021	8,510,000	10,634,433	19,144,433
2022	10,345,000	10,211,933	20,556,933
2023	10,860,000	9,681,945	20,541,945
2024	11,405,000	9,144,345	20,549,345
2025	11,970,000	8,578,095	20,548,095
2026	12,575,000	7,983,320	20,558,320
2027	13,210,000	7,357,786	20,567,786
2028	13,810,000	6,752,255	20,562,255
2029	9,740,000	6,117,380	15,857,380
2030	10,205,000	5,660,209	15,865,209
2031	10,685,000	5,180,992	15,865,992
2032	11,200,000	4,679,080	15,879,080
2033	11,765,000	4,122,008	15,887,008
2034	13,975,000	3,536,790	17,511,790
2035	12,410,000	2,841,211	15,251,211
2036	7,815,000	2,224,022	10,039,022
2037	8,195,000	1,844,837	10,039,837
2038	8,595,000	1,447,158	10,042,158
2039	6,220,000	1,047,798	7,267,798
2040	6,495,000	778,696	7,273,696
2041	6,775,000	497,636	7,272,636
2042	2,850,000	204,450	3,054,450
2043	805,000	82,750	887,750
2044	850,000	42,500	892,500
	<b>\$ 264,925,000</b>	<b>\$ 181,167,180</b>	<b>\$ 446,092,180</b>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 18**

DETERMINE SEWER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE BASE BY  
SUBTRACTING DEBT OUTSTANDING FROM THE TOTAL RATE BASE.

CONSTRUCTION COST RATE BASE - TASK NO. 15	\$ 233,088,431
LESS: BONDED INDEBTEDNESS (CASH BASIS) - TASK NO. 20	(135,539,075)
NET SEWER SYSTEM EQUITY	<u>\$ 97,549,356</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE OF RETURN ON EQUITY - TASK NO. 19**

AT THE APRIL 5, 1977, COMMITTEE OF THE WHOLE MEETING, THE CITY COMMISSION DECIDED THE LEVEL OF RETURN ON SEWER SYSTEM EQUITY. THE LEVEL DECIDED UPON WAS ONE PERCENT MORE THAN THE AVERAGE BOND BUYER'S INDEX OF MUNICIPAL BONDS FOR THE PREVIOUS TWELVE MONTH PERIOD.

BOND BUYER'S INDEX OF 20 MUNICIPAL BONDS

<u>DATE</u>	<u>RATE</u>	<u>DATE</u>	<u>RATE</u>
03-Oct-13	4.530%	03-Apr-14	4.440%
10-Oct-13	4.570%	10-Apr-14	4.320%
17-Oct-13	4.680%	17-Apr-14	4.320%
24-Oct-13	4.560%	24-Apr-14	4.330%
31-Oct-13	4.480%	01-May-14	4.330%
07-Nov-13	4.560%	08-May-14	4.310%
14-Nov-13	4.640%	15-May-14	4.260%
21-Nov-13	4.600%	22-May-14	4.280%
28-Nov-13	4.610%	29-May-14	4.260%
05-Dec-13	4.700%	05-Jun-14	4.370%
12-Dec-13	4.740%	12-Jun-14	4.370%
19-Dec-13	4.730%	19-Jun-14	4.360%
26-Dec-13	4.730%	26-Jun-14	4.290%
02-Jan-14	4.750%	03-Jul-14	4.310%
09-Jan-14	4.680%	10-Jul-14	4.380%
16-Jan-14	4.550%	17-Jul-14	4.360%
23-Jan-14	4.500%	24-Jul-14	4.290%
30-Jan-14	4.480%	31-Jul-14	4.330%
06-Feb-14	4.460%	07-Aug-14	4.310%
13-Feb-14	4.460%	14-Aug-14	4.240%
20-Feb-14	4.440%	21-Aug-14	4.210%
27-Feb-14	4.380%	28-Aug-14	4.170%
06-Mar-14	4.410%	04-Sep-14	4.090%
13-Mar-14	4.470%	11-Sep-14	4.140%
20-Mar-14	4.510%	18-Sep-14	4.170%
27-Mar-14	4.430%	25-Sep-14	4.110%
		<u>52 WEEKS</u>	<u>4.423%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 20**

DETERMINE COMPOSITE RATE OF RETURN ON CONSTRUCTION COST RATE BASE

	RATE BASE	@	RATE OF RETURN	=	RETURN ON INVESTMENT
SEWER SYSTEM EQUITY IN THE CONSTRUCTION COST RATE BASE (CCRB)	\$ 97,549,356	@	5.423%	=	\$ 5,290,102
SEWER SYSTEM INDEBTEDNESS IN THE CCRB					
1998 BONDS (refunded 1990 Bonds)	10,659,936	@	5.06%	=	539,393
2005 BONDS (refunded by 2014 Bonds)	685,000	@	4.90%	=	33,565
2008 BONDS	38,430,000	@	4.92%	=	1,890,756
2010 BONDS	29,625,000	@	5.00%	=	1,481,250
2010A&B BONDS	10,155,000	@	4.37%	=	443,774
2011 SRF BONDS (amount in CCRB)	5,209,559	@	2.50%	=	130,239
2012 BONDS (amount in CCRB)	20,159,155	@	4.48%	=	903,130
2013 BONDS (refunded 2004 Bonds)	7,741,825	@	4.43%	=	342,963
2014 BONDS (refunded 2005 Bonds)	12,873,600	@	4.99%	=	642,393
LESS INTEREST ON BOND RESERVE ACCOUNTS					(8,645)
	\$ 233,088,431				\$ 11,688,920
COMPOSITE RATE OF RETURN ON INVESTMENT			\$ 11,688,920	=	5.015%
			\$233,088,431		

**Noted Disclosure:**

TOTAL BONDED INDEBTEDNESS (from above)	\$ 135,539,075	TASK NO. 18
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**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONSTRUCTION COST RATE BASE & RETURN ON SYSTEM INVESTMENT- TASK NO. 21- PART1  
FISCAL YEAR ENDED JUNE 30, 2014**

**PHYSICAL LOCATION**

DESCRIPTION	INTEGRATED SYSTEM	RETAIL								WHOLESALE			TOTAL
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP		
COST	\$ 172,234,501	\$ 180,446,485	\$ 40,770,540	\$ 30,227,943	\$ 18,790,112	\$ 20,635,294	\$ 4,911,989	\$ 118,230	\$ -	\$ -	\$ -	\$ 468,135,094	
LESS: ACCUMULATED DEPRECIATION	105,603,842	52,156,107	15,093,005	12,192,267	7,607,859	7,005,350	1,218,099	57,588	-	-	-	200,934,117	
NET BOOK VALUE	\$ 66,630,659	\$ 128,290,378	\$ 25,677,535	\$ 18,035,676	\$ 11,182,253	\$ 13,629,944	\$ 3,693,890	\$ 60,642	\$ -	\$ -	\$ -	\$ 267,200,977	
WORKING CAPITAL REQUIREMENT	4,419,706	1,722,106	355,168	240,658	158,978	218,891	25,431	23,778	3,951	11,781	3,376	7,183,824	
	\$ 71,050,365	\$ 130,012,484	\$ 26,032,703	\$ 18,276,334	\$ 11,341,231	\$ 13,848,835	\$ 3,719,321	\$ 84,420	\$ 3,951	\$ 11,781	\$ 3,376	\$ 274,384,801	
CONTRIBUTIONS	47,745,498	54,116,293	23,076,918	22,971,859	16,831,006	14,520,547	4,560,073	-	-	-	-	183,822,194	
LESS AMORTIZATION	(43,047,553)	(44,048,100)	(10,439,989)	(11,275,427)	(7,255,166)	(5,866,737)	(1,070,348)	-	-	-	-	(123,003,320)	
	\$ (4,697,945)	\$ (10,068,193)	\$ (12,636,929)	\$ (11,696,432)	\$ (9,575,840)	\$ (8,653,810)	\$ (3,489,725)	\$ -	\$ -	\$ -	\$ -	\$ (60,818,874)	
CONSTRUCTION COST RATE BASE	\$ 66,352,420	\$ 119,944,291	\$ 13,395,774	\$ 6,579,902	\$ 1,765,391	\$ 5,195,025	\$ 229,596	\$ 84,420	\$ 3,951	\$ 11,781	\$ 3,376	\$ 213,565,927	
RETURN ON INVESTMENT- TASK 20	5.015%	\$ 3,327,574	\$ 6,015,206	\$ 671,798	\$ 329,982	\$ 88,534	\$ 260,531	\$ 11,514	\$ 4,234	\$ 198	\$ 591	\$ 10,710,331	

**ZONEGATED**

COST	\$ -	\$ (2,042,176)	\$ 8,545,085	\$ 2,973,022	\$ 4,663,911	\$ 5,009,271	\$ 818,289	\$ 1,286,161	\$ 219,660	\$ 5,993,098	\$ 753,031	\$ 28,219,352
LESS: ACCUMULATED DEPRECIATION	-	(1,100,906)	2,438,959	1,515,746	1,226,977	1,426,847	118,350	328,345	209,596	945,213	386,874	7,496,001
NET BOOK VALUE	\$ -	\$ (941,270)	\$ 6,106,126	\$ 1,457,276	\$ 3,436,934	\$ 3,582,424	\$ 699,939	\$ 957,816	\$ 10,064	\$ 5,047,885	\$ 366,157	\$ 20,723,351
WORKING CAPITAL REQUIREMENT	-	(941,270)	6,106,126	1,457,276	3,436,934	3,582,424	699,939	957,816	10,064	5,047,885	366,157	20,723,351
CONTRIBUTIONS	-	-	11,014	1,377,142	315,953	107,765	177	181	-	232,722	677,419	2,722,373
LESS AMORTIZATION	-	-	(11,014)	(798,742)	(183,253)	(63,372)	(177)	(181)	-	(134,979)	(329,808)	(1,521,526)
	\$ -	\$ -	\$ -	\$ (578,400)	\$ (132,700)	\$ (44,393)	\$ -	\$ -	\$ -	\$ (97,743)	\$ (347,611)	\$ (1,200,847)
CONSTRUCTION COST RATE BASE	\$ -	\$ (941,270)	\$ 6,106,126	\$ 878,876	\$ 3,304,234	\$ 3,538,031	\$ 699,939	\$ 957,816	\$ 10,064	\$ 4,950,142	\$ 18,546	\$ 19,522,504
RETURN ON INVESTMENT- TASK 19/21	\$ -	\$ (83,990)	\$ 544,850	\$ 78,422	\$ 294,837	\$ 315,699	\$ 62,456	\$ 85,466	\$ 898	\$ 441,701	\$ 930	\$ 1,741,269
RETURN ON INVESTMENT- TASK 19/21	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	8.923%	5.015%	
TOTAL RETURN ON INVESTMENT	\$ 3,327,574	\$ 5,931,216	\$ 1,216,648	\$ 408,404	\$ 383,371	\$ 576,230	\$ 73,970	\$ 89,700	\$ 1,096	\$ 442,292	\$ 1,099	\$ 12,451,600

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONSTRUCTION COST & ACCUMULATED DEPRECIATION- TASK NO. 21- PART2  
FISCAL YEAR ENDED JUNE 30, 2014**

**CONSTRUCTION COST**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL							WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP	
BY PHYSICAL LOCATION- TASK 11		\$ 164,309,591	\$ 374,702,611	\$42,458,482	\$40,383,063	\$ 20,858,696	\$ 20,775,615	\$ 6,017,965	\$ 196,346	\$ -	\$ -	\$ -	\$669,702,369
ADD: IN SERVICE- TASK 10		7,924,910	6,895,623	-	-	-	-	-	-	-	-	-	14,820,533
MARNE CONNECTOR AGREEMENT			(211,573)	-	-	-	-	-	-	-	-	-	(805,000)
SADDLEBACK SEWER			(1,187,160)	-	1,115,707	71,453	-	(515,311)	(78,116)	-	-	-	-
TASK 11/16/21- CSO FA AMT			(187,363,456)	-	-	-	-	-	-	-	-	-	(187,363,456)
LIFT STATIONS / CHAMBERS:													
FULLER-BROOKVIEW	\$ 1,252,893		(544,257)	-	-	-	544,257	-	-	-	-	-	-
FULTON- MIDDLEBORROW	37,983		(37,407)	-	-	-	37,407	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	458,953		(96,344)	90,506	-	-	-	5,838	-	-	-	-	-
WEALTHY	20,444		(12,777)	12,468	-	-	-	53	256	-	-	-	-
MARKET	12,965,095		(2,462,461)	2,018,276	-	-	378,581	32,413	33,191	-	-	-	-
VANPORTFLIET / LEONARD HTS	1,239,326		243,267	(243,267)	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	1,213,244		-	(140,117)	-	-	-	24,034	116,083	-	-	-	-
16th AVENUE	71,058		-	-	-	-	-	-	-	-	-	-	-
HAYES- WEST	141,105		-	-	-	-	-	(141,105)	141,105	-	-	-	-
HAYES- EAST	215,841		-	-	-	-	-	-	-	-	-	-	-
O'BRIEN	546,532		20,785	(52,959)	-	-	-	32,174	-	-	-	-	-
SERVICEMAINS			(11,542,542)	5,172,236	(8,297,805)	2,523,874	3,908,705	274,217	995,526	219,660	5,993,098	753,031	-
ADJUSTED BY ZONEGATING		\$ 172,234,501	\$ 178,404,309	\$49,315,625	\$33,200,965	\$ 23,454,023	\$25,644,565	\$ 5,730,278	\$ 1,404,391	\$ 219,660	\$ 5,993,098	\$ 753,031	\$496,354,446
ZONEGATING ADJUSTMENT		\$ -	\$ (2,042,176)	\$ 8,545,085	\$ 2,973,022	\$ 4,663,911	\$ 5,009,271	\$ 818,289	\$ 1,286,161	\$ 219,660	\$ 5,993,098	\$ 753,031	\$ 28,219,352
PHYSICAL LOCATION		\$ 172,234,501	\$ 180,446,485	\$40,770,540	\$30,227,943	\$ 18,790,112	\$ 20,635,294	\$ 4,911,989	\$ 118,230	\$ -	\$ -	\$ -	\$468,135,094

**ACCUMULATED DEPRECIATION**

BY PHYSICAL LOCATION- TASK 11		\$ 105,603,842	\$ 107,888,223	\$15,432,744	\$14,055,120	\$ 7,797,790	\$ 7,126,026	\$ 1,406,122	\$ 68,516	\$ -	\$ -	\$ -	\$259,378,383
ADD: IN SERVICE- TASK 10		-	-	-	-	-	-	-	-	-	-	-	-
MARNE CONNECTOR AGREEMENT			(135,310)	-	-	-	-	(58,077)	(10,928)	-	-	-	(204,315)
SADDLEBACK SEWER			-	-	99,486	5,716	-	-	-	-	-	-	105,202
TASK 11/16/21- CSO ACC DEP			(50,849,152)	-	-	-	-	-	-	-	-	-	(50,849,152)
LIFT STATIONS / CHAMBERS:													
FULLER-BROOKVIEW	\$ 653,083		(283,699)	-	-	-	283,699	-	-	-	-	-	-
FULTON- MIDDLEBORROW	37,435		(36,867)	-	-	-	36,867	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	135,850		(28,518)	26,790	-	-	-	1,728	-	-	-	-	-
WEALTHY	20,444		(12,777)	12,468	-	-	-	53	256	-	-	-	-
MARKET	5,225,111		(992,405)	813,393	-	-	152,573	13,063	13,376	-	-	-	-
VANPORTFLIET / LEONARD HTS	166,183		32,620	(32,620)	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	438,492		-	(50,642)	-	-	-	8,687	41,955	-	-	-	-
16th AVENUE	47,216		-	-	-	-	-	-	-	-	-	-	-
HAYES- WEST	73,707		-	-	-	-	-	(73,707)	73,707	-	-	-	-
HAYES- EAST	89,030		-	-	-	-	-	-	-	-	-	-	-
O'BRIEN	247,032		9,395	(23,938)	-	-	-	14,543	-	-	-	-	-
SERVICEMAINS			(4,536,309)	1,353,769	(446,593)	1,031,330	833,032	24,037	199,051	209,596	945,213	386,874	-
ADJUSTED BY ZONEGATING		\$ 105,603,842	\$ 51,055,201	\$17,531,964	\$13,708,013	\$ 8,834,836	\$ 8,432,197	\$ 1,336,449	\$ 385,933	\$ 209,596	\$ 945,213	\$ 386,874	\$208,430,118
ZONEGATING ADJUSTMENT		\$ -	\$ (1,100,906)	\$ 2,438,959	\$ 1,515,746	\$ 1,226,977	\$ 1,426,847	\$ 118,350	\$ 328,345	\$ 209,596	\$ 945,213	\$ 386,874	\$ 7,496,001
PHYSICAL LOCATION		\$ 105,603,842	\$ 52,156,107	\$15,093,005	\$12,192,267	\$ 7,607,859	\$ 7,005,350	\$ 1,218,099	\$ 57,588	\$ -	\$ -	\$ -	\$200,934,117

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONTRIBUTIONS & AMORTIZED CONTRIBUTIONS- TASK NO. 21- PART3  
FISCAL YEAR ENDED JUNE 30, 2014**

**CONTRIBUTIONS BY OTHERS**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL							WHOLESALE		TOTAL	
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP		GAINES TOWNSHIP
2013 RATE STUDY (LOCATION)		\$ 47,634,621	\$ 53,930,512	\$ 22,991,822	\$ 23,206,586	\$ 16,592,805	\$ 14,150,997	\$ 4,560,073	\$ -	\$ -	\$ -	\$ -	\$ 183,067,416
<b>ADDITIONS:</b>													
CONNECTION & FRONT FOOT FEES			19,630	17,850	59,280	2,800	7,010	-	-	-	-	-	106,570
FIXED ASSET CONTRIBUTIONS		110,877	166,151	67,246	(294,007)	235,401	362,540	-	-	-	-	-	648,208
		\$ 47,745,498	\$ 54,116,293	\$ 23,076,918	\$ 22,971,859	\$ 16,831,006	\$ 14,520,547	\$ 4,560,073	\$ -	\$ -	\$ -	\$ -	\$ 183,822,194
PLASTER CREEK INTERCEPTOR													
GRANT	\$ 2,244,621		-	-	1,377,142	315,953	105,699	-	-	-	232,722	46,464	
INTERCEPTOR	1,314,819		-	-	-	-	-	-	-	-	-	630,955	
LIFT STATION	70,753		-	11,014	-	-	2,066	177	181	-	-	-	
ADJUSTED BY ZONEGATING		\$ 47,745,498	\$ 54,116,293	\$ 23,087,932	\$ 24,349,001	\$ 17,146,959	\$ 14,628,312	\$ 4,560,250	\$ 181	\$ -	\$ 232,722	\$ 677,419	\$ 183,822,194
ZONEGATING ADJUSTMENT		\$ -	\$ -	\$ 11,014	\$ 1,377,142	\$ 315,953	\$ 107,765	\$ 177	\$ 181	\$ -	\$ 232,722	\$ 677,419	\$ -
PHYSICAL LOCATION		\$ 47,745,498	\$ 54,116,293	\$ 23,076,918	\$ 22,971,859	\$ 16,831,006	\$ 14,520,547	\$ 4,560,073	\$ -	\$ -	\$ -	\$ -	\$ 183,822,194

**AMORTIZED CONTRIBUTIONS**

2013 RATE STUDY (LOCATION)		\$ 42,082,139	\$ 42,973,583	\$ 10,012,154	\$ 10,815,146	\$ 6,920,900	\$ 5,583,416	\$ 979,101	\$ -	\$ -	\$ -	\$ -	\$ 119,366,439
CURRENT YEAR ADJUSTMENT		965,414	1,074,517	427,835	460,281	334,266	283,321	91,247	-	-	-	-	3,636,881
		\$ 43,047,553	\$ 44,048,100	\$ 10,439,989	\$ 11,275,427	\$ 7,255,166	\$ 5,866,737	\$ 1,070,348	\$ -	\$ -	\$ -	\$ -	\$ 123,003,320
PLASTER CREEK INTERCEPTOR													
GRANT	\$ 1,301,880		-	-	798,742	183,253	61,306	-	-	-	134,979	26,949	
INTERCEPTOR	631,113		-	-	-	-	-	-	-	-	-	302,859	
LIFT STATION	70,753		-	11,014	-	-	2,066	177	181	-	-	-	
ADJUSTED BY ZONEGATING		\$ 43,047,553	\$ 44,048,100	\$ 10,451,003	\$ 12,074,169	\$ 7,438,419	\$ 5,930,109	\$ 1,070,525	\$ 181	\$ -	\$ 134,979	\$ 329,808	\$ 123,003,320
ZONEGATING ADJUSTMENT		\$ -	\$ -	\$ 11,014	\$ 798,742	\$ 183,253	\$ 63,372	\$ 177	\$ 181	\$ -	\$ 134,979	\$ 329,808	\$ -
PHYSICAL LOCATION		\$ 43,047,553	\$ 44,048,100	\$ 10,439,989	\$ 11,275,427	\$ 7,255,166	\$ 5,866,737	\$ 1,070,348	\$ -	\$ -	\$ -	\$ -	\$ 123,003,320

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL							WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP	
<b>CONSTRUCTION COST- BY PHYSICAL LOCATION:</b>													
BY PHYSICAL LOCATION- TASK 11		\$ 164,309,591	\$ 381,974,914	\$ 39,069,386	\$ 40,383,063	\$ 20,160,039	\$ 18,019,069	\$ 5,661,019	\$ 125,288	\$ -	\$ -	\$ -	\$ 669,702,369
IN SERVICE- TASK 10		7,924,910	6,895,623	-	-	-	-	-	-	-	-	-	14,820,533
MARNE CONNECTOR AGREEMENT		-	(211,573)	-	-	-	-	(515,311)	(78,116)	-	-	-	(805,000)
SADDLEBACK SEWER		-	(1,187,160)	-	1,115,707	71,453	-	-	-	-	-	-	-
TASK 11/16/21- CSO COST		-	(187,363,456)	-	-	-	-	-	-	-	-	-	(187,363,456)
O'BRIEN		-	(546,532)	546,532	-	-	-	-	-	-	-	-	-
VANPORTFLIET / LEONARD HTS		-	(1,239,326)	1,239,326	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE		-	(1,213,244)	1,213,244	-	-	-	-	-	-	-	-	-
16th AVENUE		-	(71,058)	-	-	-	-	-	71,058	-	-	-	-
HAYES- WEST		-	(141,105)	-	-	-	-	141,105	-	-	-	-	-
HAYES- EAST		-	(215,841)	-	-	-	-	215,841	-	-	-	-	-
KINGSBURY	\$ 323,154		(323,154)	323,154	-	-	-	-	-	-	-	-	-
MEADOWOOD TRAILS	66,841		(66,841)	-	-	66,841	-	-	-	-	-	-	-
OAK HOLLOW	66,840		(66,840)	-	-	-	66,840	-	-	-	-	-	-
COLLINDALE	66,840		(66,840)	66,840	-	-	-	-	-	-	-	-	-
THORNAPPLE	224,216		(224,216)	-	-	224,216	-	-	-	-	-	-	-
6000 28TH ST	111,401		(111,401)	-	-	111,401	-	-	-	-	-	-	-
THORNHILLS	118,407		(118,407)	-	-	118,407	-	-	-	-	-	-	-
ROBINHOOD	178,399		(178,399)	-	-	-	178,399	-	-	-	-	-	-
CASCADE SPRINGS	65,478		(65,478)	-	-	65,478	-	-	-	-	-	-	-
SHOREHAVEN	72,602		(72,602)	-	-	-	72,602	-	-	-	-	-	-
EAGLECREST	152,332		(152,332)	-	-	-	152,332	-	-	-	-	-	-
GREENBRIER	48,486		(48,486)	-	-	-	48,486	-	-	-	-	-	-
LINCOLN SCHOOL	153,651		(153,651)	-	-	-	153,651	-	-	-	-	-	-
REEDS LAKE	962,898		(962,898)	-	-	-	962,898	-	-	-	-	-	-
KRAFT	72,602		(72,602)	-	-	72,602	-	-	-	-	-	-	-
ORCHARD VISTA	39,712		(39,712)	-	-	39,712	-	-	-	-	-	-	-
BIRD AVE-ALPINE ESTATES	797,860		(797,860)	-	-	-	797,860	-	-	-	-	-	-
EAST PARIS	323,478		(323,478)	-	-	-	323,478	-	-	-	-	-	-
SERVICE MAINS													
LESS: SERVICE MAINS- TOTAL SUBS- PHY. LOC.			(22,912,697)	(13,840,328)	(19,707,869)	(2,312,401)	(140,457)	(590,665)	-	-	-	-	(59,504,417)
ADD: SERVICE MAINS- TOTAL ADDS- PHY. LOC.			10,523,136	12,152,386	8,437,042	172,364	136	-	-	-	-	-	31,285,064
<b>TOTAL- PHYSICAL LOCATION COST</b>		<b>\$ 172,234,501</b>	<b>\$ 180,446,484</b>	<b>\$ 40,770,540</b>	<b>\$ 30,227,943</b>	<b>\$ 18,790,112</b>	<b>\$ 20,635,294</b>	<b>\$ 4,911,989</b>	<b>\$ 118,230</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 468,135,093</b>
<b>CONSTRUCTION COST- ZONEGATING:</b>													
LIFT STATIONS / CHAMBERS:													
FULLER-BROOKVIEW	\$ 1,252,893		(544,257)	-	-	-	544,257	-	-	-	-	-	-
FULTON- MIDDLEBORROW	37,983		(37,407)	-	-	-	37,407	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	458,953		(96,344)	90,506	-	-	-	5,838	-	-	-	-	-
WEALTHY	20,444		(12,777)	12,468	-	-	-	53	256	-	-	-	-
MARKET	12,965,095		(2,462,461)	2,018,276	-	-	378,581	32,413	33,191	-	-	-	-
VANPORTFLIET / LEONARD HTS	1,239,326		243,267	(243,267)	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	1,213,244		-	(140,117)	-	-	-	24,034	116,083	-	-	-	-
16th AVENUE	71,058		-	-	-	-	-	-	-	-	-	-	-
HAYES- WEST	141,105		-	-	-	-	-	(141,105)	141,105	-	-	-	-
HAYES- EAST	215,841		-	-	-	-	-	-	-	-	-	-	-
O'BRIEN	546,532		20,785	(52,959)	-	-	-	32,174	-	-	-	-	-
SERVICEMAINS- ZONEGATED COST			847,018	6,860,178	2,973,022	4,663,911	4,049,026	864,882	995,526	219,660	5,993,098	753,031	28,219,352
<b>TOTAL- ZONEGATED COST</b>		<b>\$ -</b>	<b>\$ (2,042,176)</b>	<b>\$ 8,545,085</b>	<b>\$ 2,973,022</b>	<b>\$ 4,663,911</b>	<b>\$ 5,009,271</b>	<b>\$ 818,289</b>	<b>\$ 1,286,161</b>	<b>\$ 219,660</b>	<b>\$ 5,993,098</b>	<b>\$ 753,031</b>	<b>\$ 28,219,352</b>
<b>GRAND TOTAL- COST</b>		<b>\$ 172,234,501</b>	<b>\$ 178,404,308</b>	<b>\$ 49,315,625</b>	<b>\$ 33,200,965</b>	<b>\$ 23,454,023</b>	<b>\$ 25,644,565</b>	<b>\$ 5,730,278</b>	<b>\$ 1,404,391</b>	<b>\$ 219,660</b>	<b>\$ 5,993,098</b>	<b>\$ 753,031</b>	<b>\$ 496,354,445</b>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL							WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP	
<b>ACCUMULATED DEPRECIATION- BY PHYSICAL LOCATION:</b>													
BY PHYSICAL LOCATION- TASK 11	\$ 105,603,842		\$ 109,750,789	\$ 14,497,233	\$ 14,055,120	\$ 7,598,852	\$ 6,607,862	\$ 1,243,385	\$ 21,300	\$ -	\$ -	\$ -	\$ 259,378,383
IN SERVICE- TASK 10	-		-	-	-	-	-	-	-	-	-	-	-
MARNE CONNECTOR AGREEMENT	-		(135,310)	-	-	-	-	(58,077)	(10,928)	-	-	-	(204,315)
SADDLEBACK SEWER					99,486	5,716							105,202
TASK 11/16/21- CSO ACC. DEPRECIATION			(50,849,152)										(50,849,152)
O'BRIEN			(247,032)	247,032									-
VANPORTFLIET			(166,183)	166,183									-
REMEMBRANCE / 3 MILE			(438,492)	438,492									-
16th AVENUE			(47,216)						47,216				-
HAYES- WEST			(73,707)					73,707					-
HAYES- EAST			(89,030)					89,030					-
KINGSBURY	\$ 74,892		(74,892)	74,892									-
MEADOWWOOD TRAILS	8,912		(8,912)			8,912							-
OAK HOLLOW	8,912		(8,912)				8,912						-
COLLINDALE	8,912		(8,912)	8,912									-
THORNAPPLE	83,789		(83,789)			83,789							-
6000 28TH ST	18,567		(18,567)			18,567							-
THORNHILLS	27,628		(27,628)			27,628							-
ROBINHOOD	47,573		(47,573)				47,573						-
CASCADE SPRINGS	32,739		(32,739)			32,739							-
SHOREHAVEN	19,361		(19,361)				19,361						-
EAGLECREST	35,544		(35,544)				35,544						-
GREENBRIER	9,697		(9,697)				9,697						-
LINCOLN SCHOOL	27,017		(27,017)				27,017						-
REEDS LAKE	149,872		(149,872)				149,872						-
KRAFT	19,361		(19,361)			19,361							-
ORCHARD VISTA	7,942		(7,942)			7,942							-
BIRD AVE-ALPINE ESTATES	112,362		(112,362)				112,362						-
EAST PARIS	107,826		(107,826)				107,826						-
SERVICE MAINS													-
LESS: SERVICE MAINS- TOTAL SUBS- PHY. LOC.			(9,849,478)	(2,722,808)	(3,575,043)	(280,523)	(120,793)	(129,946)	-	-	-	-	(16,678,591)
ADD: SERVICE MAINS- TOTAL ADDS- PHY. LOC.			5,101,824	2,383,069	1,612,704	84,877	117	-	-	-	-	-	9,182,591
	<u>\$ 105,603,842</u>		<u>\$ 52,156,107</u>	<u>\$ 15,093,005</u>	<u>\$ 12,192,267</u>	<u>\$ 7,607,860</u>	<u>\$ 7,005,350</u>	<u>\$ 1,218,099</u>	<u>\$ 57,588</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 200,934,118</u>
<b>ACCUMULATED DEPRECIATION- ZONEGATED</b>													
LIFT STATIONS / CHAMBERS:													
FULLER-BROOKVIEW	\$ 653,083		(283,699)	-	-	-	283,699	-	-	-	-	-	-
FULTON- MIDDLEBORROW	37,435		(36,867)	-	-	-	36,867	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	135,850		(28,518)	26,790	-	-	-	1,728	-	-	-	-	-
WEALTHY	20,444		(12,777)	12,468	-	-	-	53	256	-	-	-	-
MARKET	5,225,111		(992,405)	813,393	-	-	152,573	13,063	13,376	-	-	-	-
VANPORTFLIET	166,183		32,620	(32,620)	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	438,492		-	(50,642)	-	-	-	8,687	41,955	-	-	-	-
16th AVENUE	47,216		-	-	-	-	-	-	-	-	-	-	-
HAYES- WEST	73,707		-	-	-	-	-	(73,707)	73,707	-	-	-	-
HAYES- EAST	89,030		-	-	-	-	-	-	-	-	-	-	-
O'BRIEN	247,032		9,395	(23,938)	-	-	-	14,543	-	-	-	-	-
SERVICEMAINS-ZONEGATED ACC. DEPRECIATION			211,345	1,693,508	1,515,746	1,226,977	953,708	153,983	199,051	209,596	945,213	386,874	7,496,001
TOTAL- ZONEGATED ACC. DEPRECIATION	<u>\$ -</u>		<u>\$ (1,100,906)</u>	<u>\$ 2,438,959</u>	<u>\$ 1,515,746</u>	<u>\$ 1,226,977</u>	<u>\$ 1,426,847</u>	<u>\$ 118,350</u>	<u>\$ 328,345</u>	<u>\$ 209,596</u>	<u>\$ 945,213</u>	<u>\$ 386,874</u>	<u>\$ 7,496,001</u>
GRAND TOTAL- ACC. DEPRECIATION	<u>\$ 105,603,842</u>		<u>\$ 51,055,201</u>	<u>\$ 17,531,964</u>	<u>\$ 13,708,013</u>	<u>\$ 8,834,837</u>	<u>\$ 8,432,197</u>	<u>\$ 1,336,449</u>	<u>\$ 385,933</u>	<u>\$ 209,596</u>	<u>\$ 945,213</u>	<u>\$ 386,874</u>	<u>\$ 208,430,119</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED OPERATING EXPENSE ZONEGATING ALLOCATION BY GOVERNMENTAL UNIT - TASK #22  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	ADJUSTED EXPENSE BY COST CENTER	INTEGRATED SYSTEM	RETAIL							WHOLESALE		
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP
WASTEWATER TREATMENT	\$ 13,466,178	\$ 13,466,178										
LIFT STATIONS:												
A. INTERCEPTOR	250,334		202,788	38,969	-	-	7,310	626	641	-	-	-
B. TRUNK	111,958		35,142	49,869	-	18,547	6,496	1,904	-	-	-	-
C. LOCAL COLLECTOR	440,388		62,635	93,185	-	78,025	150,334	20,364	24,825	-	11,020	-
SEWER LINES:												
A. INTERCEPTOR	262,932		155,821	38,033	62,252	6,826	-	-	-	-	-	-
B. TRUNK	576,451		198,200	146,909	133,806	50,751	30,546	15,576	663	-	-	-
C. LOCAL COLLECTOR	4,159,323		2,605,566	513,801	405,160	246,481	317,440	46,127	24,748	-	-	-
D. ZONEGATING			(120,157)	26,365	(21,521)	33,630	36,658	(9,467)	15,687	8,862	22,512	7,431
BULK METERING STATIONS	16,444		-	-	5,429	-	-	-	-	3,665	4,020	3,330
CUSTOMER ACCOUNTING *	2,991,135		2,348,190	224,754	181,831	72,475	148,719	5,893	9,273			
INDUSTRIAL PRETREATMENT	618,690	618,690										
SUBTOTAL OPERATING EXPENSE	22,893,833	14,084,868	5,488,185	1,131,885	766,957	506,735	697,503	81,023	75,837	12,527	37,552	10,761
ADMINISTRATIVE EXPENSE	2,058,514	1,230,660	537,702	98,898	67,013	44,276	60,944	7,079	6,626	1,095	3,281	940
TOTAL	\$ 24,952,347	\$ 15,315,528	\$ 6,025,887	\$ 1,230,783	\$ 833,970	\$ 551,011	\$ 758,447	\$ 88,102	\$ 82,463	\$ 13,622	\$ 40,833	\$ 11,701

\* Reflects adjustment for circuit breaker provisions per the third amendment to W/S service agreements.

**METHOD OF DISTRIBUTION**

WASTEWATER TREATMENT	100.000%	100.00%										
LIFT STATIONS:	(54)											
A. INTERCEPTORS	(1)	100.000%	(1)	-	-	-	-	-	-	-	-	-
B. TRUNK	(8)	100.000%	(4)	(3)	-	(1)	-	-	-	-	-	-
C. LOCAL	(45)	100.000%	(9)	(3)	-	(9)	(17)	(5)	(1)	-	(1)	-
SEWER LINES:												
TOTAL MILES:	908.17											
A. INTERCEPTOR MILES	47.77	100.000%	59.263%	14.465%	23.676%	2.596%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
B. TRUNK LINES MILES	104.73	100.000%	34.383%	25.485%	23.212%	8.804%	5.299%	2.702%	0.115%	0.000%	0.000%	0.000%
C. LOCAL COLLECTOR MILES	755.67	100.000%	62.644%	12.353%	9.741%	5.926%	7.632%	1.109%	0.595%	0.000%	0.000%	0.000%
D. ZONEGATING MILES	(4)		(21.83)	4.79	(3.91)	6.11	6.66	(1.72)	2.85	1.61	4.09	1.35
BULK METERING STATIONS	(4)		-	-	(1)	-	-	-	-	(1)	(1)	(1)
CUSTOMER ACCTG (1) NO. OF METERS	74,276.00	100.000%	78.505%	7.514%	6.079%	2.423%	4.972%	0.197%	0.310%			
INDUSTRIAL PRETREATMENT		100.000%	58,311.00	5,581.00	4,515.00	1,800.00	3,693.00	146.00	230.00			
ADMINISTRATIVE EXPENSE (2)		100.000%	26.121%	4.804%	3.255%	2.151%	2.961%	0.344%	0.322%	0.053%	0.159%	0.046%

NOTES:

- (1) MAINTENANCE & COLLECTION COSTS ARE ALLOCATED ON THE NUMBER OF METERS, INCLUSIVE OF USERS FOR WRIGHT TWP.
- (2) ALLOCATED ON DIRECT OPERATING EXPENSE, ADJUSTED FOR ANY COST ASSIGNABLE EXCLUSIVELY TO GR OR RETAIL COMMUNITIES, IF APPLICABLE.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 23**

ASSIGN OTHER OPERATING REVENUES TO EACH GOVERNMENTAL ENTITY.

BASIS OF ALLOCATION: RETAIL BILLINGS BY GOVERNMENTAL ENTITY - TASK NO. 6 & 7

	<u>RETAIL BILLINGS</u>	<u>PERCENTAGE OF TOTAL</u>	<u>ALLOCATION *</u>
CITY OF GRAND RAPIDS	\$ 31,373,443	70.9202%	\$ 414,071
CITY OF WALKER	4,556,996	10.3012%	60,144
CITY OF KENTWOOD	3,641,401	8.2315%	48,060
CASCADE TOWNSHIP	1,990,557	4.4997%	26,272
GRAND RAPIDS TOWNSHIP	2,142,923	4.8441%	28,283
TALLMADGE TOWNSHIP	276,806	0.6257%	3,653
WRIGHT TOWNSHIP	255,526	0.5776%	3,372
	<u>\$ 44,237,652</u>	<u>100.0000%</u>	<u>\$ 583,855</u>

*\* Reflects adjustment for circuit breaker provisions per 3rd amendment of W/S agreements*

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ASSIGN DEPRECIATION EXPENSE TO CUSTOMER COMMUNITIES- TASK NO. 24  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	DEPRECIATION EXPENSE	INTEGRATED SYSTEM	RETAIL							WHOLESALE			TOTAL
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP	
BY PHYSICAL LOCATION- TASK 11		\$ 3,322,551	\$ 7,672,842	\$ 895,136	\$ 807,405	\$ 426,642	\$ 403,824	\$ 113,220	\$ 2,506	\$ -	\$ -	\$ -	\$ 13,644,126
ADD: IN SERVICE- TASK 10		264,164	170,483	-	-	-	-	-	-	-	-	-	434,647
MARNE CONNECTOR AGREEMENT			(4,785)	-	-	-	-	-	-	-	-	-	(16,655)
SADDLEBACK SEWER					22,313	1,429				(10,307)	(1,563)		23,742
LESS: TASK 11/16/21- CSO DEP. EXP.			(3,782,806)										(3,782,806)
LIFT STATIONS / CHAMBERS:													
FULLER-BROOKVIEW (GR)	\$ 46,649		(20,264)	-	-	-	20,264	-	-	-	-	-	-
FULTON- MIDDLEBORO (GR)	183		(180)	-	-	-	180	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	11,321		(2,377)	2,233	-	-	-	144	-	-	-	-	-
WEALTHY	-		-	-	-	-	-	-	-	-	-	-	-
MARKET	500,258		(95,015)	77,875	-	-	14,608	1,251	1,281	-	-	-	-
VANPORTLIET	34,991		6,868	(6,868)	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	62,642		-	(7,235)	-	-	-	1,241	5,994	-	-	-	-
O'BRIEN	12,023		457	(1,165)	-	-	-	708	-	-	-	-	-
KINGSBURY	10,772												
MEADOWWOOD TRAILS	2,228												
OAK HOLLOW	2,228												
COLLINDALE	2,228												
THORNAPPLE	7,474												
6000 28TH ST	3,713												
THORNHILLS	3,947												
ROBINHOOD	5,947												
CASCADE SPRINGS	2,183												
SHOREHAVEN	2,420												
EAGLECREST	5,078												
GREENBRIER	1,616												
LINCOLN SCHOOL	5,121												
REEDS LAKE	24,979												
KRAFT	2,420												
ORCHARD VISTA	1,324												
16TH AVE	1,570		(1,570)	-	-	-	-	-	1,570	-	-	-	-
HAYES- WEST	3,190		(3,190)	-	-	-	-	-	3,190	-	-	-	-
HAYES- EAST	9,893		(9,893)	-	-	-	-	9,893	-	-	-	-	-
BIRD AVE-ALPINE ESTATES	23,258		(23,258)	-	-	-	23,258	-	-	-	-	-	-
EAST PARIS	10,783		(10,783)	-	-	-	10,783	-	-	-	-	-	-
SERVICEMAINS			(208,440)	93,112	(171,131)	49,288	75,729	5,437	19,754	2,379	118,986	14,886	-
ADJUSTED BY ZONEGATING		3,586,715	3,688,089	1,053,088	658,587	477,359	548,646	121,587	32,732	2,379	118,986	14,886	10,303,054
LESS CONTRIBUTIONS AMORTIZED													
TASK NO. 21		(965,414)	(1,074,517)	(427,835)	(447,662)	(334,266)	(283,321)	(91,247)	-	-	-	(12,619)	(3,636,881)
TOTAL		\$ 2,621,301	\$ 2,613,572	\$ 625,253	\$ 210,925	\$ 143,093	\$ 265,325	\$ 30,340	\$ 32,732	\$ 2,379	\$ 118,986	\$ 2,267	\$ 6,666,173

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ACCUMULATE REVENUE REQUIREMENTS BY CUSTOMER COMMUNITIES- TASK NO. 25  
FISCAL YEAR ENDED JUNE 30, 2014**

COST CENTER	INTEGRATED SYSTEM	RETAIL							WHOLESALE			TOTAL
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP	
OPERATION & MAINTENANCE EXPENSE- TASK NO. 22	\$ 15,315,528	\$ 6,025,887	\$ 1,230,783	\$ 833,970	\$ 551,011	\$ 758,447	\$ 88,102	\$ 82,463	\$ 13,622	\$ 40,833	\$ 11,701	\$ 24,952,347
DEPRECIATION EXPENSE TASK NO. 24	2,621,301	2,613,572	625,253	210,925	143,093	265,325	30,340	32,732	2,379	118,986	2,267	6,666,173
RETURN ON SYSTEM INVESTMENT TASK NO. 21	3,327,574	5,931,216	1,216,648	408,404	383,371	576,230	73,970	89,700	1,096	442,292	1,099	12,451,600
REVENUE CREDITS- TASK NO. 23		(414,071)	(60,144)	(48,060)	(26,272)	(28,283)	(3,653)	(3,372)				(583,855)
CSO DEBT SERVICE REQUIREMENTS ALLOCATE:		9,186,830										9,186,830
INTEGRATED SYSTEM CREDITS		(1,534,610)	(251,275)	(342,767)	(149,525)	(112,855)	(13,730)	(7,550)	(84,789)	(92,745)	-	(2,589,846)
INTEGRATED SYSTEM (A)	(21,264,403)	12,536,816	2,052,762	2,800,198	1,221,526	921,959	112,163	61,677	692,676	757,666	106,960	-
LESS: CIRCUIT BREAKER (B)		(108,290)	-	(12,326)	-	-	(590)	-				(121,206)
	<u>\$ -</u>	<u>\$ 34,237,350</u>	<u>\$ 4,814,027</u>	<u>\$ 3,850,344</u>	<u>\$ 2,123,204</u>	<u>\$ 2,380,823</u>	<u>\$ 286,602</u>	<u>\$ 255,650</u>	<u>\$ 624,984</u>	<u>\$ 1,267,032</u>	<u>\$ 122,027</u>	<u>\$ 49,962,043</u>

(A) ALLOCATED TO CUSTOMER COMMUNITIES UNDER OLD CONTRACT BASIS OF PLANT FLOW. REMAINING ALLOCATION TO UAB PARTNERS UNDER UNIFORM SERVICE AGREEMENTS BASED ON PLANT FLOW & LAND, AS NOTED BELOW:  
(B) PURSUANT TO CITY AND CUSTOMER COMMUNITY CIRCUIT BREAKER, AS PROVIDED FOR BY THE THIRD AMENDMENT TO THE UNIFORM SERVICE AGREEMENTS.

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	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	ADA TOWNSHIP	GAINES TOWNSHIP	TOTAL
OLD METHOD- PLANT FLOW	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 106,960	\$ 106,960
NEW METHOD- PLANT FLOW / LAND	<u>12,536,816</u>	<u>2,052,762</u>	<u>2,800,198</u>	<u>1,221,526</u>	<u>921,959</u>	<u>112,163</u>	<u>61,677</u>	<u>692,676</u>	<u>757,666</u>	<u>-</u>	<u>21,157,443</u>
	<u>\$ 12,536,816</u>	<u>\$ 2,052,762</u>	<u>\$ 2,800,198</u>	<u>\$ 1,221,526</u>	<u>\$ 921,959</u>	<u>\$ 112,163</u>	<u>\$ 61,677</u>	<u>\$ 692,676</u>	<u>\$ 757,666</u>	<u>\$ 106,960</u>	<u>\$ 21,264,403</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 25a**

REVIEW THE REVENUE REQUIREMENTS TO ASSURE COMPLIANCE WITH THE APPLICABLE BOND ORDINANCE PROVISIONS.

	<u>YEAR ENDED</u> <u>6/30/</u>	<u>PRO FORMA *</u>
<b>REVENUES:</b>		
RETAIL/WHOLESALE SEWAGE SERVICE	\$ 46,019,230	\$ 48,450,039
CONNECTION FEES/FRONT FOOT FEES	944,624	719,100
SEWAGE SURCHARGES	1,751,793	2,015,265
OTHER OPERATING REVENUES	996,832	984,600
INTEREST ON INVESTMENTS	229,542	150,000
MISCELLANEOUS	7,564	20,000
<b>TOTAL REVENUES</b>	<b><u>\$ 49,949,585</u></b>	<b><u>\$ 52,339,004</u></b>
<b>OPERATING EXPENSES:</b>		
OPERATIONS & MAINTENANCE	\$ 24,227,159	\$ 25,828,880
DEPRECIATION	13,644,126	13,644,126
<b>TOTAL EXPENSES</b>	<b><u>\$ 37,871,285</u></b>	<b><u>\$ 39,473,006</u></b>
<b>ADDITIONS: DEPRECIATION</b>	<b><u>13,644,126</u></b>	<b><u>13,644,126</u></b>
<b>NET EARNINGS OF THE SYSTEM</b>	<b><u>\$ 25,722,426</u></b>	<b><u>\$ 26,510,124</u></b>
<b>DEBT SERVICE (CASH BASIS)</b>		
SERIES 2014 BONDS	\$ -	\$ 631,469
SERIES 2013 BONDS	1,537,188	2,032,100
SERIES 2012 BONDS	2,161,450	2,161,250
SERIES 2010A&B BONDS (after BAB subsidy)	1,277,483	1,254,270
SERIES 2010 BONDS	1,481,250	1,481,250
SERIES 2008 BONDS	4,393,863	4,395,913
SERIES 2005 BONDS	2,954,881	1,836,472
SERIES 2004 BONDS	224,850	-
SERIES 1998 BONDS	4,405,813	4,403,806
SENIOR LIEN	18,436,778	18,196,530
JUNIOR LIEN **	3,973,612	2,437,850
<b>TOTAL</b>	<b><u>\$ 22,410,390</u></b>	<b><u>\$ 20,634,380</u></b>
<b>COVERAGE RATIO - SENIOR DEBT</b>	<b><u>1.40</u></b>	<b><u>1.46</u></b>
<b>COVERAGE RATIO - ALL DEBT</b>	<b><u>1.15</u></b>	<b><u>1.28</u></b>

\* SEWAGE SERVICE ADJUSTED FOR RATE REVISIONS OF -2.46% AND 2.81% EFFECTIVE 1/1/14 AND 1/1/15, RESPECTIVELY; OTHER REVENUES AND OPERATIONS & MAINTENANCE EXPENSE PER 2015 FISCAL PLAN, ADJUSTED FOR CARRYFORWARDS.

\*\* AMOUNTS IN PRO FORMA ARE BASED ON MAXIMUM PRINCIPAL AND DO NOT INCLUDE PRINCIPAL FORGIVENESS IF NOT YET FINALIZED.

**SUMMARY**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INITIAL SYSTEM REVENUE REQUIREMENTS		\$ 50,083,249
REVENUES FROM CURRENT RATES		
REU CHARGE	\$ 250,402	
MONTHLY METER CHARGE	14,960,458	
MONTHLY BILLING CHARGE	3,105,905	
COMMODITY CHARGE	<u>30,282,051</u>	<u>(48,598,816)</u>
INITIAL REQUIRED REVENUE INCREASE (DECREASE)		<u>\$ 1,484,433</u>
INITIAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>3.05%</u>
INITIAL SYSTEM REVENUE REQUIREMENTS FROM ABOVE		\$ 50,083,249
LESS: AMOUNT OF CIRCUIT BREAKER RELIEF TO REDUCE RR's TO RETAIL		<u>(121,206)</u>
SYSTEM REVENUE REQUIREMENTS		<u>\$ 49,962,043</u>
ACTUAL REQUIRED AMOUNT OF REVENUE INCREASE (DECREASE)		<u>\$ 1,363,227</u>
ACTUAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>2.81%</u>

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 26**

METER SIZE	EQUIV. FACTOR	CITY OF GR		CITY OF WALKER		CITY OF KENTWOOD		CASCADE TWP		GR TWP		TALLMADGE TWP		WRIGHT TWP	
		METERS *	EQUIV.	METERS *	EQUIV.	METERS *	EQUIV.	METERS *	EQUIV.	METERS *	EQUIV.	METERS *	EQUIV.	USERS*	REU
A 3/4" or less	1.0000	54,367	54,367	4,996	4,996	3,512	3,512	1,372	1,372	3,338	3,338	122	122		-
B 1"	1.7778	2,211	3,931	347	617	468	832	214	380	235	418	14	25	-	-
C 1 1/4"	2.7778	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D 1 1/2"	4.0000	868	3,472	142	568	310	1,240	144	576	77	308	4	16	-	-
E 2"	7.1111	677	4,814	77	548	189	1,344	61	434	32	228	3	21	-	-
F 3"	16.0000	91	1,456	8	128	18	288	6	96	7	112	2	32	-	-
G 4"	28.4444	84	2,389	9	256	16	455	3	85	3	85	1	28	-	-
H 6" and over	64.0000	13	832	2	128	2	128	-	-	1	64	-	-	-	-
<i>Other- Wright Twp</i>		<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<b>TOTAL</b>		<b>58,311</b>	<b>71,261</b>	<b>5,581</b>	<b>7,241</b>	<b>4,515</b>	<b>7,799</b>	<b>1,800</b>	<b>2,943</b>	<b>3,693</b>	<b>4,553</b>	<b>146</b>	<b>244</b>	<b>230</b>	<b>341.687</b>
															<b>74,276</b>

\* Source: City of Grand Rapids, Michigan, Water/Sewer Customer Accounts/Meters Report, dated November 1, 2014.

**CITY OF GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \* \$ 34,237,350

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

71,261 meter equivalents x \$ 11.52 x 12 = \$ 9,851,121

MONTHLY BILLING CHARGE

58,311 meters x \$ 2.88 x 12 = 2,015,228

COMMODITY CHARGE

6,653,479 units (100 CF) x \$ 3.21 = 21,357,668 (33,224,017)

REQUIRED REVENUE INCREASE (DECREASE) \$ 1,013,333

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 3.05%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 108,290

**CITY OF GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

$$\frac{\text{INTEGRATED SYSTEM COST}}{\text{BILLED UNITS}} = \frac{\$21,723,646}{6,653,479} = \underline{\underline{\$ 3.27 /100 CF *}}$$

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **			\$ 34,237,350
NEW COMMODITY CHARGE			
6,653,479 x \$ 3.27		\$ 21,756,876	
NEW MONTHLY BILLING CHARGE			
58,311 x \$ 3.36 x 12		<u>2,351,100</u>	<u>(24,107,976)</u>
			<u><u>\$ 10,129,374</u></u>

$$\text{MONTHLY METER CHARGE} = \frac{\$10,129,374}{71,261 \times 12} = \underline{\underline{\$ 11.85 \text{ MONTHLY}}}$$

<u>METER SIZE</u>	<u>EQUIVALENT</u>	<u>MONTHLY SERVICE CHARGE</u>			<u>PRESENT</u>
		<u>METER</u>	<u>BILLING</u>	<u>TOTAL</u>	
3/4" or less	1.0000	\$ 11.85	\$ 3.36	\$ 15.21	\$ 14.40
1"	1.7778	21.07	3.36	24.43	23.36
1 1/4"	2.7778	32.92	3.36	36.28	34.88
1 1/2"	4.0000	47.40	3.36	50.76	48.96
2"	7.1111	84.27	3.36	87.63	84.80
3"	16.0000	189.60	3.36	192.96	187.20
4"	28.4444	337.07	3.36	340.43	330.56
6" and over	64.0000	758.40	3.36	761.76	740.16

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

\*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 108,290

**CITY OF WALKER, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS		\$	4,814,027
REVENUES FROM CURRENT RATES			
MONTHLY METER CHARGE			
7,241 meter equivalents	x	\$ 26.86	x 12 =
			\$ 2,333,919
MONTHLY BILLING CHARGE			
5,581 meters	x	\$ 2.88	x 12 =
			192,879
COMMODITY CHARGE			
826,206 units (100 CF)	x	\$ 2.68	=
			<u>2,214,232</u>
			<u>(4,741,030)</u>
REQUIRED REVENUE INCREASE (DECREASE)		\$	<u>72,997</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>1.54%</u>

**CITY OF WALKER, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.72 /100 CF \*  
 \$ 2.68 x 101.54%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 4,814,027
NEW COMMODITY CHARGE		
826,206 x \$ 2.72	\$ 2,247,280	
NEW MONTHLY BILLING CHARGE		
5,581 x \$ 3.36 x 12	225,026	(2,472,306)
		<u>\$ 2,341,721</u>

MONTHLY METER CHARGE =  $\frac{\$2,341,721}{7,241 \times 12} = \underline{\underline{\$ 26.95 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 26.95	\$ 3.36	\$ 30.31	\$ 29.74
1"	1.7778	47.91	3.36	51.27	50.63
1 1/4"	2.7778	74.86	3.36	78.22	77.49
1 1/2"	4.0000	107.80	3.36	111.16	110.32
2"	7.1111	191.64	3.36	195.00	193.88
3"	16.0000	431.20	3.36	434.56	432.64
4"	28.4444	766.58	3.36	769.94	766.90
6" and over	64.0000	1,724.80	3.36	1,728.16	1,721.92

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

**CITY OF KENTWOOD, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS \* \$ 3,850,344

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

7,799 meter equivalents x \$ 3.84 x 12 = \$ 359,378

MONTHLY BILLING CHARGE

4,515 meters x \$ 2.88 x 12 = 156,038

COMMODITY CHARGE

1,400,421 units (100 CF) x \$ 2.30 = 3,220,968 (3,736,384)

REQUIRED REVENUE INCREASE (DECREASE) \$ 113,960

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 3.05%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 12,326

**CITY OF KENTWOOD, MICHIGAN**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.37 /100 CF \*  
 \$ 2.30 x 103.05%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **		\$ 3,850,344
NEW COMMODITY CHARGE		
1,400,421 x \$ 2.37		\$ 3,318,998
NEW MONTHLY BILLING CHARGE		
4,515 x \$ 3.36 x 12	182,045	(3,501,043)
		\$ 349,301

MONTHLY METER CHARGE =  $\frac{\$349,301}{7,799 \times 12}$  = \$ 3.73 MONTHLY

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 3.73	\$ 3.36	\$ 7.09	\$ 6.72
1"	1.7778	6.63	3.36	9.99	9.71
1 1/4"	2.7778	10.36	3.36	13.72	13.55
1 1/2"	4.0000	14.92	3.36	18.28	18.24
2"	7.1111	26.52	3.36	29.88	30.19
3"	16.0000	59.68	3.36	63.04	64.32
4"	28.4444	106.10	3.36	109.46	112.11
6" and over	64.0000	238.72	3.36	242.08	248.64

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

\*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 12,326

**CASCADE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$ 2,123,204
LESS: CASH CONTRIBUTION	-
SYSTEM REVENUE REQUIREMENTS	\$ 2,123,204

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE			
2,943 meter equivalents	x	\$ 28.15	x 12 = \$ 994,145
MONTHLY BILLING CHARGE			
1,800 meters	x	\$ 2.88	x 12 = 62,208
COMMODITY CHARGE			
404,733 units (100 CF)	x	\$ 2.57	= <u>1,040,164</u>

REQUIRED REVENUE INCREASE (DECREASE)	\$ 26,687
--------------------------------------	-----------

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	1.27%
--	-------

**CASCADE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.60 /100 CF \*  
 \$ 2.57 x 101.27%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 2,123,204
NEW COMMODITY CHARGE		
404,733 x \$ 2.60		\$ 1,052,306
NEW MONTHLY BILLING CHARGE		
1,800 x \$ 3.36 x 12	72,576	(1,124,882)
		\$ 998,322

MONTHLY METER CHARGE =  $\frac{\$998,322}{2,943 \times 12} = \underline{\underline{\$ 28.27 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 28.27	\$ 3.36	\$ 31.63	\$ 31.03
1"	1.7778	50.26	3.36	53.62	52.93
1 1/4"	2.7778	78.53	3.36	81.89	81.08
1 1/2"	4.0000	113.08	3.36	116.44	115.48
2"	7.1111	201.03	3.36	204.39	203.06
3"	16.0000	452.32	3.36	455.68	453.28
4"	28.4444	804.12	3.36	807.48	803.59
6" and over	64.0000	1,809.28	3.36	1,812.64	1,804.48

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

**GRAND RAPIDS TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$	2,380,823
LESS: CASH CONTRIBUTION		<u>(2,400)</u>
SYSTEM REVENUE REQUIREMENTS	\$	<u>2,378,423</u>

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE		
4,553 meter equivalents	x \$ 24.40	x 12 = \$ 1,333,118
MONTHLY BILLING CHARGE		
3,693 meters	x \$ 2.88	x 12 = 127,630
COMMODITY CHARGE		
393,970 units (100 CF)	x \$ 2.34	= <u>921,890</u>
REQUIRED REVENUE INCREASE (DECREASE)		<u><u>(2,382,638)</u></u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u><u>-0.18%</u></u>

**GRAND RAPIDS TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.34 /100 CF \*  
 \$ 2.34 x 99.82%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS		\$ 2,378,423
NET OF CONTRIBUTION OF \$ 2,400		
NEW COMMODITY CHARGE		
393,970 x \$ 2.34	\$ 921,890	
NEW MONTHLY BILLING CHARGE		
3,693 x \$ 3.36 x 12	<u>148,902</u>	<u>(1,070,792)</u>
		<u>\$ 1,307,631</u>

MONTHLY METER CHARGE =  $\frac{\$1,307,631}{4,553 \times 12} = \underline{\underline{\$ 23.93 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 23.93	\$ 3.36	\$ 27.29	\$ 27.28
1"	1.7778	42.54	3.36	45.90	46.26
1 1/4"	2.7778	66.47	3.36	69.83	70.66
1 1/2"	4.0000	95.72	3.36	99.08	100.48
2"	7.1111	170.17	3.36	173.53	176.39
3"	16.0000	382.88	3.36	386.24	393.28
4"	28.4444	680.67	3.36	684.03	696.92
6" and over	64.0000	1,531.52	3.36	1,534.88	1,564.48

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2015

**TALLMADGE TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS *	\$	286,602
LESS: CASH CONTRIBUTION		-
SYSTEM REVENUE REQUIREMENTS	\$	<u>286,602</u>

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE			
244 meter equivalents	x	\$ 30.32	x 12 = \$ 88,777
MONTHLY BILLING CHARGE			
146 meters	x	\$ 2.88	x 12 = 5,046
COMMODITY CHARGE			
17,502 units (100 CF)	x	\$ 10.53	= <u>184,296</u> <u>(278,119)</u>
REQUIRED REVENUE INCREASE (DECREASE)			<u>\$ 8,483</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>3.05%</u>

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 590



**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

SYSTEM REVENUE REQUIREMENTS	\$	255,650
LESS: CASH CONTRIBUTION		(5,000)
SYSTEM REVENUE REQUIREMENTS	\$	<u>250,650</u>

REVENUES FROM CURRENT RATES

REU CHARGE

341.687 meter equivalents x \$ 61.07 x 12 = \$ 250,402

MONTHLY METER CHARGE

341.687 meter equivalents x \$ - x 12 = -

MONTHLY BILLING CHARGE

230 meters x \$ - x 12 = -

COMMODITY CHARGE

18,965 units (100 CF) x \$ - = - (250,402)

REQUIRED REVENUE INCREASE (DECREASE) \$ 248

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 0.10%

**WRIGHT TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

**MONTHLY REU CHARGE:**

$$\frac{\text{SYSTEM REVENUE REQUIREMENTS}}{\text{TOTAL REU'S * 12 MONTHS}} = \frac{\$250,650}{341.687 \times 12} = \$ \underline{\underline{61.13}} \quad \text{MONTHLY REU CHARGE *}$$

SYSTEM REVENUE REQUIREMENTS ARE NET OF CONTRIBUTION OF \$ 5,000

**EXAMPLES OF APPROXIMATE MONTHLY CHARGE BY NUMBER OF REU:**

<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>	<u>NUMBER OF REU</u>	<u>AMOUNT</u>
1.0000	\$ 61.13	7.5000	\$ 458.48	19.0000	\$ 1,161.47
1.5000	91.70	8.0000	489.04	20.0000	1,222.60
2.0000	122.26	8.5000	519.61	25.0000	1,528.25
2.5000	152.83	9.0000	550.17	30.0000	1,833.90
3.0000	183.39	9.5000	580.74	35.0000	2,139.55
3.5000	213.96	10.0000	611.30	40.0000	2,445.20
4.0000	244.52	11.0000	672.43	50.0000	3,056.50
4.4000	268.97	12.0000	733.56	60.0000	3,667.80
4.5000	275.09	13.0000	794.69	70.0000	4,279.10
5.0000	305.65	14.0000	855.82	80.0000	4,890.40
5.5000	336.22	15.0000	916.95	90.0000	5,501.70
6.0000	366.78	16.0000	978.08	100.0000	6,113.00
6.5000	397.35	17.0000	1,039.21	150.0000	9,169.50
7.0000	427.91	18.0000	1,100.34	200.0000	12,226.00

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	607,887
COMMODITY CHARGE			
373.609 units	x	\$	1,558.00
			582,083
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>25,804</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	17,097
MONTHLY SERVICE CHARGE			
\$1,540	x		12 MONTHS
			18,480
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>(1,383)</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>4.07%</u>

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

**SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 624,984
NEW COMMODITY CHARGE *	
373.609 x \$ 1,627.00 =	(607,862)
	<hr/>
	<u>\$ 17,122</u>

MONTHLY SERVICE CHARGE \* = \$ 17,122 / 12 = \$1,427

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

**ADA TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	664,921
COMMODITY CHARGE		
332.218 units     x     \$ 1,975.00		656,131
		656,131
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	\$	8,790
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	602,111
MONTHLY SERVICE CHARGE		
\$42,700             x     12 MONTHS		512,400
		512,400
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	\$	89,711
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		8.43%

**ADA TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 1,267,032
NEW COMMODITY CHARGE *	
332.218 x \$ 2,001.00 =	(664,768)
	<hr/>
	<u>\$ 602,264</u>

MONTHLY SERVICE CHARGE \* = \$602,264 / 12 = \$50,189

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

**GAINES TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 26**

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	106,960
COMMODITY CHARGE		
75.428 units     x     \$ 1,387.00		104,619
		104,619
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	\$	2,341
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$	15,067
MONTHLY SERVICE CHARGE		
\$1,333             x     12 MONTHS		15,996
		15,996
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	\$	(929)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		1.17%

**GAINES TOWNSHIP**  
**SEWER RATE STUDY**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**RATE ANALYSIS - TASK NO. 27**

SYSTEM REVENUE REQUIREMENTS	\$ 122,027
NEW COMMODITY CHARGE *	
75.428 x \$ 1,418.00 =	(106,957)
	<hr/>
	<u>\$ 15,070</u>

MONTHLY SERVICE CHARGE \* = \$ 15,070 / 12 = \$1,256

\* NEW RATES EFFECTIVE ON JANUARY 1, 2015

SEWER RATE STUDY  
 SEWAGE DISPOSAL SYSTEM FUND  
 RE-EVALUATE FRONT FOOT CHARGES  
 TASK NO. 28

The City Engineer's Office has reviewed current construction costs for sewer facilities and recommends the following front foot assessment rates:

	<u>2014</u>	<u>2015</u>	<u>% Increase</u>
Domestic Sewer User	\$ 80.00	\$ 85.00	6.25%
Commercial - Industrial User (Sewer over 8 in. diameter)	\$ 109.00	\$ 107.00	-1.83%

The rates are based on an average of prices quoted in bid proposals which have been received by the City Engineer's Office during the period July, 2013 through June, 2014. Calculations of the rates are on file in the City Engineer's Office.

SEWER RATE STUDY  
 SEWAGE DISPOSAL SYSTEM FUND  
 EVALUATE SEWER LATERAL CHARGES  
 TASK NO. 29

The City Engineer's Office has evaluated the cost for a six inch (6") sanitary sewer lateral and recommends that sewer lateral costs should be as follows:

<u>R.O.W. WIDTH</u>	<u>COST FOR 6-INCH LATERAL</u>		
	<u>2014</u>	<u>2015</u>	<u>% Increase</u>
50 ft.	\$2,400	\$2,300	-4.17%
60 ft.	\$2,850	\$2,750	-3.51%
66 ft.	\$3,100	\$3,000	-3.23%
80 ft.	\$3,650	\$3,600	-1.37%
100 ft.	\$4,500	\$4,400	-2.22%

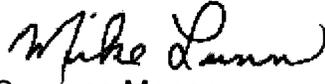
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# MEMORANDUM

CITY OF GRAND RAPIDS

**Date:** October 21, 2014

**To:** Geri Eye  
Utility Financial Officer

**From:** Michael Lunn   
Environmental Services Manager

**Subject:** Sewer Rate Study – Task #30 - Surcharges

The Wastewater Treatment plant has a limited amount of capacity which is typically allocated to industries having discharges exceeding ordinance limits. These industries are charged for utilizing this remaining plant capacity in four categories of conventional pollutants. These pollutants are: 1) Biochemical Oxygen Demand (BOD); 2) Total Suspended Solids (TSS); 3) Total Phosphorus (Phos); 4) and Ammonia Nitrogen (NH<sub>3</sub>). This benefits the industries in that it reduces their pretreatment requirements and benefits the system by utilizing available system capacity.

As shown on the attached sheets, the surcharge methodology includes evaluating various cost centers at the Wastewater Treatment plant and allocating costs based on unit process operating cost. Cumulative costs can then be allocated to the four conventional pollutant categories identified above to determine appropriate surcharge rates.

**City of Grand Rapids Michigan  
Sewage Disposal System Fund  
Evaluation of Wastewater Surcharges for Industrial Customers- BOD, TSS, Phos & NH3  
TASK NO. 30- Part 1**

Description	Rate Study Year		Wastewater Surcharges					
	2014	Volume	BOD	TSS	Phos	NH3	Industrial	Other
Operation & Maintenance (See Part 2)	\$ 24,952,347	\$ 3,822,879	\$ 3,751,280	\$ 4,576,611	\$ 899,907	\$ 415,501	\$ 618,690	\$ 10,867,479
Depreciation (See Part 3)	6,666,173	744,135	730,216	890,875	175,182	80,893	-	4,044,872
Return on System Investment (See Part 3)	12,451,600	944,632	926,962	1,130,909	222,382	102,689	-	9,124,026
<b>Total</b>	<b>\$ 44,070,120</b>	<b>\$ 5,511,646</b>	<b>\$ 5,408,458</b>	<b>\$ 6,598,395</b>	<b>\$ 1,297,471</b>	<b>\$ 599,083</b>	<b>\$ 618,690</b>	<b>\$ 24,036,377</b>

**Recommended Surcharge Rate - 2015**

**\$ 0.220    \$ 0.382    \$ 2.452    \$ 0.286**

**Actual Surcharge Rate - 2014**

**\$ 0.215    \$ 0.338    \$ 2.062    \$ 0.295**

**Change in Surcharge Rate - Amount- 2014 to 2015**

**\$ 0.005    \$ 0.044    \$ 0.390    \$ (0.009)**

**Change in Surcharge Rate - Percent- 2014 to 2015**

**2.33%    13.02%    18.91%    -3.05%**

Loadings - lb/day (Per Lunn email of 09/25/2014) \*  
Loadings - lb/year

<b>67,244</b>	<b>47,355</b>	<b>1,450</b>	<b>5,745</b>
24,544,060	17,284,575	529,250	2,096,925

\* Loadings are the average of the last three years.

Task No. 30 - Part 2

City of Grand Rapids Michigan  
Sewage Disposal System Fund  
Evaluation of High Strength Surcharges- BOD, TSS, Phos & NH3  
Allocation of Operation & Maintenance Expense & Determination of WWTP Allocation Factors

	Primary Allocation		Component Allocation (3)								
	Base Year- 2014	Calendar Year- 2015	See Task 30 - Part 4		Volume	Wastewater Surcharges				Industrial	Other
	Allocation (1)	Allocation (2)	Allocation Basis	Line No. Ref.		BOD	TSS	Phos	NH3		
<b>Wastewater Treatment Plant</b>											
Pre-Treatment	\$ 834,205	\$ 909,613	WWTP	(1)	\$ 909,613	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Primary Treatment	1,432,387	1,561,868	WWTP	(2)	-	468,560	937,121	-	156,187	-	-
Secondary Treatment	2,423,593	2,642,675	WWTP	(3)	660,669	1,057,070	396,401	396,401	132,134	-	-
Disinfection/Dechlorination	1,137,543	1,240,372	WWTP	(4)	1,240,372	-	-	-	-	-	-
Phosphorus Removal	690,255	752,651	WWTP	(5)	376,325	-	-	376,326	-	-	-
Residue Handling/Disposal	5,831,829	6,358,999	WWTP	(6)	635,900	2,225,650	3,243,089	127,180	127,180	-	-
	<u>\$ 12,349,812</u>	<u>\$ 13,466,178</u>			<u>\$ 3,822,879</u>	<u>\$ 3,751,280</u>	<u>\$ 4,576,611</u>	<u>\$ 899,907</u>	<u>\$ 415,501</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Lift Stations</b>											
Interceptor		250,334	Collection	(11)	-	-	-	-	-	-	250,334
Trunk		111,958	Collection	(11)	-	-	-	-	-	-	111,958
Local Collector		440,388	Collection	(11)	-	-	-	-	-	-	440,388
<b>Sewer Lines</b>											
Interceptor		262,932	Collection	(11)	-	-	-	-	-	-	262,932
Trunk		576,451	Collection	(11)	-	-	-	-	-	-	576,451
Local Collector		4,159,323	Collection	(11)	-	-	-	-	-	-	4,159,323
Bulk Meter Stations		16,444	Collection	(7)	-	-	-	-	-	-	16,444
Customer Accounting		2,991,135	Admin	(8)	-	-	-	-	-	-	2,991,135
Industrial Pretreatment		618,690	Industry	(9)	-	-	-	-	-	618,690	-
Subtotal		<u>\$ 22,893,833</u>			<u>\$ 3,822,879</u>	<u>\$ 3,751,280</u>	<u>\$ 4,576,611</u>	<u>\$ 899,907</u>	<u>\$ 415,501</u>	<u>\$ 618,690</u>	<u>\$ 8,808,965</u>
Admin		2,058,514	Admin	(10)	-	-	-	-	-	-	2,058,514
Total		<u>\$ 24,952,347</u>			<u>\$ 3,822,879</u>	<u>\$ 3,751,280</u>	<u>\$ 4,576,611</u>	<u>\$ 899,907</u>	<u>\$ 415,501</u>	<u>\$ 618,690</u>	<u>\$ 10,867,479</u>
<b>WWTP Allocation Factors</b>		<b>100.00%</b>			<b>28.388%</b>	<b>27.857%</b>	<b>33.986%</b>	<b>6.683%</b>	<b>3.086%</b>	<b>0.000%</b>	<b>0.000%</b>

(1) Based on 09/25/2014 Lunn email.

(2) Primary Allocation of Current Year for Calendar 2015, based on 2014 Base Year.

(3) Refer to Task 30- Part 4 as noted.

**Task No. 30 - Part 3**

**City of Grand Rapids Michigan  
Sewage Disposal System Fund  
Evaluation of High Strength Surcharges- BOD, TSS, Phos & NH3  
Allocation of Depreciation Expense & Return on System Investment**

*Depreciation Expense- Task 24*

<u>Description</u>	<u>Amount</u>	<u>Volume</u>	<u>Wastewater Surcharges</u>				<u>Industrial</u>	<u>Other</u>
			<u>BOD</u>	<u>TSS</u>	<u>Phos</u>	<u>NH3</u>		
Integrated System (1)	\$ 2,621,301	\$ 744,135	\$ 730,216	\$ 890,875	\$ 175,182	\$ 80,893	\$ -	\$ -
Other	4,044,872	-	-	-	-	-	-	4,044,872
<b>Total</b>	<b>\$ 6,666,173</b>	<b>\$ 744,135</b>	<b>\$ 730,216</b>	<b>\$ 890,875</b>	<b>\$ 175,182</b>	<b>\$ 80,893</b>	<b>\$ -</b>	<b>\$ 4,044,872</b>

*Return on System Investment- Task 21*

<u>Description</u>	<u>Amount</u>	<u>Volume</u>	<u>Wastewater Surcharges</u>				<u>Industrial</u>	<u>Other</u>
			<u>BOD</u>	<u>TSS</u>	<u>Phos</u>	<u>NH3</u>		
Integrated System (1)	\$ 3,327,574	\$ 944,632	\$ 926,962	\$ 1,130,909	\$ 222,382	\$ 102,689	\$ -	\$ -
Other	9,124,026	-	-	-	-	-	-	9,124,026
<b>Total</b>	<b>\$ 12,451,600</b>	<b>\$ 944,632</b>	<b>\$ 926,962</b>	<b>\$ 1,130,909</b>	<b>\$ 222,382</b>	<b>\$ 102,689</b>	<b>\$ -</b>	<b>\$ 9,124,026</b>

**(1) Allocated on WWTP Allocation Factors \***                      **28.3880%**                      **27.8570%**                      **33.9860%**                      **6.6830%**                      **3.0860%**

**\* Refer to Task No. 30 - Part 2**

**Task No. 30 - Part 4**

**City of Grand Rapids Michigan  
Sewage Disposal System Fund  
Evaluation of High Strength Surcharges- BOD, TSS, Phos & NH3  
Functional Cost Allocation Factors**

Line No. Ref.	Cost Function	Total %	Allocation Basis	Volume %	Wastewater Surcharges				Industrial %	Other %
					BOD %	TSS %	Phos %	NH3 %		
(1)	Pre-Treatment (a)	100.000%	WWTP	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
(2)	Primary Treatment (a)	100.000%	WWTP	0.000%	30.000%	60.000%	0.000%	10.000%	0.000%	0.000%
(3)	Secondary Treatment (a)	100.000%	WWTP	25.000%	40.000%	15.000%	15.000%	5.000%	0.000%	0.000%
(4)	Disinfection/Dechlorination (a)	100.000%	WWTP	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
(5)	Phosphorus Removal (a)	100.000%	WWTP	50.000%	0.000%	0.000%	50.000%	0.000%	0.000%	0.000%
(6)	Residue Handling/Disposal (a)	100.000%	WWTP	10.000%	35.000%	51.000%	2.000%	2.000%	0.000%	0.000%
(7)	Bulk Metering Stations	100.000%	Collection	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%
(8)	Customer Accounting	100.000%	Admin	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%
(9)	Industrial Pretreatment	100.000%	Industry	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%	0.000%
(10)	Admin	100.000%	Admin	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%
(11)	Collection System	100.000%	Collection	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%

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(a) With the exception of phosphorus removal, foregoing based on "Final Allocation Table" in August 1, 2003 memo from Randall Fisher & Mike Lunn to Eric DeLong regarding 2001 Surcharge Rate Evaluation. Evaluation by WWTP staff for 2013 RS Review concluded percentages for phosphorus removal shall remain allocated 50/50 to the categories above, as initially recommended in the 2006 RS Review, to recommend 2014 rate adjustments.

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWER RATE STUDY**  
**IPP PERMIT FEE STRUCTURE – TASK NO. 31**

The City of Grand Rapids Industrial Pretreatment Program (IPP) Permit fee structure is based on the actual cost of administration and implementation. Administration includes all the costs associated with document generation and handling as well as one annual site visit. The implementation costs include all sampling and associated laboratory analyses required by the permit. These two fees are identified on permit documents as a Permit Fee and an Analytical Fee.

**Permit Fee:** This fee is based on the actual costs associated with administering the permit program, including time spent on permit required inspections, clerical requirements, data handling requirements and all trunkline monitoring. This fee will be specific to the costs associated with the permit category.

**Analytical Fee:** This fee is based on actual costs associated with each permit. The costs, and an explanation of how they are determined, are outlined in an accompanying attachment. Labor time, including sampling and sample delivery to our laboratory, was derived from experience:

Composite samples:	1.5 hours each
Grab samples:	1.0 hours each

Four examples of analytical fees are attached herewith.

**City of Grand Rapids**  
**Cost of Services Provided by IPP**

**Last Update: 9/8/2014**

**Permit Fee: \$ 400.00**

**IPP Costs:**

**Labor: \$ 59.15 per hour**  
**Vehicle: \$ 2.95 per hour**  
**Sampler: \$ 35.00 per day**

**IPP Accounting:**

**Composite Labor: 1.5 hours per sample**  
**Grab Sample Labor: 1.0 hours per sample**

**Laboratory Costs:**

metals	\$	7.00	ea.
TSS	\$	7.00	ea.
BOD	\$	14.00	ea.
total phosphate	\$	13.50	ea.
pH	\$	5.00	ea.
EPA 624	\$	60.00	ea.
EPA 625	\$	115.00	ea.
BTEX/MTBE	\$	35.00	ea.
sulfide	\$	11.00	ea.
oil & grease	\$	25.00	ea.
total cyanide	\$	15.00	ea.
hex chrome	\$	10.00	ea.
fecal coliform	\$	25.00	ea.
Ammonia (NH3-N)	\$	9.00	ea.
Mercury (EPA 245.1 or 245.2)	\$	15.00	ea.

**Note: On all sheets, only text in RED can be changed**

**Explanation of Costs:**

**Labor:** Labor is the hourly pay rate of a Water Pollution Control Inspector (classification 21A @ "F" step = to \$29.5758 x 2) per the latest agreement between the City of Grand Rapids and the Grand Rapids Employees Independent Union plus 100% as specified in section 2.81(1) of the City of Grand Rapids Sewage Disposal System Ordinance. If personnel in a different classification are required, time will be billed based on that classification's pay scale plus 100%.

**Vehicle:** Hourly rate is the actual cost charged to City departments for vehicle use plus 25% for overhead.

**Sampler:** Sampler costs are derived from an average of the lowest quoted prices obtained from private suppliers in the greater Grand Rapids Area.

**Analysis:** Laboratory costs are based on the most recently approved competitive bid obtained for contract work provided to the Grand Rapids Wastewater Treatment Plant's Laboratory.

Permit No: Example 1

Company: Typical Metal Finisher 4 day sampling  
Facility Address:  
City, State, Zip

Permit Fee: \$ 400.00  
Analytical Fee: \$ 788.60  
Amount Due: \$ 1,188.60

Composite Samples: 4

*IPP Requirements:* man hours = 6.0 x \$ 59.15 = \$ 354.90  
sampler days = 4.0 x \$ 35.00 = \$ 140.00  
vehicle hours = 6.0 x \$ 2.95 = \$ 17.70

Total IPP Composite Costs: \$ 512.60

*Laboratory Analysis:* metals 7 x \$ 7.00 = \$ 49.00  
(each composite) TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

total per composite: \$ 49.00

Total Laboratory Composite Costs: \$ 196.00

Total Composite Sample Costs: \$ 708.60

Grab Samples: 4

*IPP Requirements:* man hours = 0.0 x \$ 59.15 = \$ -  
vehicle hours = 0.0 x \$ 2.95 = \$ -

Total IPP Grab Costs: \$ -

*Laboratory Analysis:* metals x \$ 7.00 = \$ -  
(each grab) TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH 1 x \$ 5.00 = \$ 5.00  
EPA 624 x \$ 60.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
BTEX/MTBE x \$ 35.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide 1 x \$ 15.00 = \$ 15.00  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

total per grab: \$ 20.00

Total Laboratory Grab Costs: \$ 80.00

Total Grab Sample Costs: \$ 80.00

Total Analytical Permit Costs: \$ 788.60

Permit No: Example 2

Company: Litho Process  
Facility Address:  
City, State, Zip

Permit Fee: \$ 400.00  
Analytical Fee: \$ 67.10  
Amount Due: \$ 467.10

**Composite Samples:**

*IPP Requirements:* man hours = 0.0 x \$ 59.15 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 2.95 = \$ -

**Total IPP Composite Costs:** \$ -

*Laboratory Analysis:* (each composite)  
metals x \$ 7.00 = \$ -  
TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

**total per composite:** \$ -

**Total Laboratory Composite Costs:** \$ -

**Total Composite Sample Costs:** \$ -

**Grab Samples:** 1

*IPP Requirements:* man hours = 1.0 x \$ 59.15 = \$ 59.15  
vehicle hours = 1.0 x \$ 2.95 = \$ 2.95

**Total IPP Grab Costs:** \$ 62.10

*Laboratory Analysis:* (each grab)  
metals x \$ 7.00 = \$ -  
TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH 1 x \$ 5.00 = \$ 5.00  
EPA 624 x \$ 60.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
BTEX/MTBE x \$ 35.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide x \$ 15.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

**total per grab:** \$ 5.00

**Total Laboratory Grab Costs:** \$ 5.00

**Total Grab Sample Costs:** \$ 67.10

**Total Analytical Permit Costs:** \$ 67.10

Permit No: Example 3

Company: Stripping Process  
Facility Address:  
City, State, Zip

Permit Fee: \$ 400.00  
Analytical Fee: \$ 102.10  
Amount Due: \$ 502.10

**Composite Samples:**

*IPP Requirements:* man hours = 0.0 x \$ 59.15 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 2.95 = \$ -

**Total IPP Composite Costs:** \$ -

*Laboratory Analysis:* (each composite)  
metals x \$ 7.00 = \$ -  
TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

**total per composite:** \$ -

**Total Laboratory Composite Costs:** \$ -

**Total Composite Sample Costs:** \$ -

**Grab Samples: 1**

*IPP Requirements:* man hours = 1.0 x \$ 59.15 = \$ 59.15  
vehicle hours = 1.0 x \$ 2.95 = \$ 2.95

**Total IPP Grab Costs:** \$ 62.10

*Laboratory Analysis:* (each grab)  
metals 5 x \$ 7.00 = \$ 35.00  
TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH 1 x \$ 5.00 = \$ 5.00  
EPA 624 x \$ 60.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
BTEX/MTBE x \$ 35.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide x \$ 15.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

**total per grab:** \$ 40.00

**Total Laboratory Grab Costs:** \$ 40.00

**Total Grab Sample Costs:** \$ 102.10

**Total Analytical Permit Costs:** \$ 102.10

Permit No: Example 4

Company: Silver User - photoprocessor  
Facility Address:  
City, State, Zip

Permit Fee: \$ 400.00  
Analytical Fee: \$ 207.30  
Amount Due: \$ 607.30

**Composite Samples:**

*IPP Requirements:* man hours = 0.0 x \$ 59.15 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 2.95 = \$ -

**Total IPP Composite Costs:** \$ -

*Laboratory Analysis:* (each composite)  
metals x \$ 7.00 = \$ -  
TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

**total per composite:** \$ -

**Total Laboratory Composite Costs:** \$ -

**Total Composite Sample Costs:** \$ -

**Grab Samples:** 3

*IPP Requirements:* man hours = 3.0 x \$ 59.15 = \$ 177.45  
vehicle hours = 3.0 x \$ 2.95 = \$ 8.85

**Total IPP Grab Costs:** \$ 186.30

*Laboratory Analysis:* (each grab)  
metals 1 x \$ 7.00 = \$ 7.00  
TSS x \$ 7.00 = \$ -  
BOD x \$ 14.00 = \$ -  
total phosphate x \$ 13.50 = \$ -  
pH x \$ 5.00 = \$ -  
EPA 624 x \$ 60.00 = \$ -  
EPA 625 x \$ 115.00 = \$ -  
BTEX/MTBE x \$ 35.00 = \$ -  
sulfide x \$ 11.00 = \$ -  
oil & grease x \$ 25.00 = \$ -  
total cyanide x \$ 15.00 = \$ -  
hex chrome x \$ 10.00 = \$ -  
fecal coliform x \$ 25.00 = \$ -  
other x = \$ -

**total per grab:** \$ 7.00

**Total Laboratory Grab Costs:** \$ 21.00

**Total Grab Sample Costs:** \$ 207.30

**Total Analytical Permit Costs:** \$ 207.30

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 14, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Charles R. Schroeder, PE *C. Schroeder*  
Assistant Environmental Services Manager

SUBJECT: **2014 SEWER RATE STUDY - TASK #32 – SANITARY SEWER  
OVERSIZING RATES**

Sanitary Sewer Oversizing rates are established as follows:

<u>Pipe Size</u>	<u>2014 Rate</u>	<u>2015 Rate</u>	<u>% Change</u>
8" to 10"	\$ 6.62/ft	\$ 6.99/ft	5.59%
8" to 12"	\$ 12.14/ft	\$ 12.70/ft	4.61%
8" to 15"	\$ 21.83/ft	\$ 22.87/ft	4.76%
10" to 12"	\$ 5.52/ft	\$ 5.71/ft	3.44%
10" to 15"	\$ 15.21/ft	\$ 15.88/ft	4.40%
12" to 15"	\$ 9.69/ft	\$ 10.17/ft	4.95%

These rates have been determined in accordance with the Sewage Disposal System Rules and Regulations and are approved for use from January 1, 2015 through December 31, 2015. Background information and calculations to establish these rates are on file in the Utility Engineering Distribution and Collection Division Office located at 1900 Oak Industrial Drive, NE. If you have any questions regarding this matter, please call me at extension 3690 (456-3690)

CRS/SS

*srs\stask32\_2014S[7]*

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 33**

SERVICE AREA MAPS AND SERVICE AREA LAND MASS SUMMARIES

The following summarizes Utility Service Districts (USD) land mass square miles for UAB partner communities, per information on file as of September 9, 2014:

<u>UAB Partners</u>	<u>Sq. Miles of USD by CC</u>	<u>Percent</u>
Grand Rapids	45.36	38.500%
Walker	20.17	17.119%
Kentwood	14.28	12.120%
Cascade	16.21	13.758%
Grand Rapids Township	7.95	6.748%
Tallmadge Township	2.44	2.071%
Wright Township	0.89	0.755%
East Grand Rapids	3.37	2.860%
Ada	7.15	6.069%
Total	117.82	100.000%

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 34**

INDIVIDUAL CIRCUIT BREAKER AND CITY & CUSTOMER COMMUNITY CIRCUIT BREAKER

The Third Amendment to the Water and Sanitary Sewer Agreements stipulates penalty fees shall be used to fund the circuit breaker provisions noted above. The following summarizes those values:

<u>Description</u>	<u>AMOUNT</u>	<u>PERCENT</u>
Individual Circuit Breaker (ICB)	\$ 94,672	12.50%
City & Customer Community Circuit Breaker (CCCCB)	662,702	87.50%
Total	<u>\$ 757,374</u>	<u>100.00%</u>

The following tables summarize the amount, if any, of the Circuit Breaker to be applied as a revenue credit in next year's Rate Study:

<u>Description</u>	<u>AMOUNT</u>	<u>PERCENT</u>
City & Customer Community Circuit Breaker Amount- Above	\$ 662,702	100.00%
Less: Amount Applied in Current Rate Study	(121,206)	-18.29%
Total CCCCCB Revenue Credit- Next Year's Rate Study	<u>\$ 541,496</u>	<u>81.71%</u>

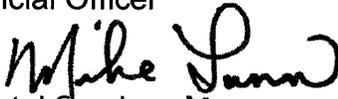
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# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 12, 2014

TO: Geri Eye  
Utility Financial Officer

FROM: Mike Lunn   
Environmental Services Manager

**SUBJECT: 2014 SEWER RATE STUDY - TASK #35- FDD Opt Out Charge**

The Footing Drain Disconnection Ordinance (FDD) Authorizes the City Manager or his designee to identify FDD Project Areas within the City of Grand Rapids based on the severity of System groundwater and stormwater inflow surcharge problems. Once designated, the ordinance requires homeowners within the FDD Project Areas to disconnect their footing drains from the City's sanitary sewer system at City expense.

The additional charge for non-compliance with the footing drain disconnection ordinance has been calculated based on current information and recommended to be \$72.74 which is the actual cost to the system for the additional flow.

ML

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWER RATE STUDY  
SEWER SUPPLY SYSTEM FUND  
TASK NO. 35**

DETERMINE FOOTING DRAIN OPT OUT SEWER RATE.

**1. Avoided Claims for Sewage Backups**

Annual claim costs

Annual Backup Claims	\$150,000 /year <sup>1</sup>	Estimated annual claims cost
System Retail Customers	74,276	Total retail customers <sup>2</sup>
Grand Rapids Retail Customers	<u>58,311</u>	Total retail customers in Grand Rapids <sup>2</sup>
Annual Cost	<b>\$2.02 /lyr/cust.</b>	Annual cost for claims in Grand Rapids

**2. Avoided Costs to treat the additional flow generated by footing drains**

Flow Estimate

DWF	43,800 gal/year	Average generation rate
WWF	<u>21,796</u> gal/year	Average generation rate
Total	65,596 gal/year	Average per house

Unit Conveyance & Treatment Costs

Annual average FD flows	0.065596 MG/yr	Average per house
Conveyance	\$385 /MG	Unit conveyance cost <sup>3</sup>
Treatment	<u>\$820</u> /MG	Unit treatment cost <sup>3</sup>
Conveyance & Treatment	\$1,205 /MG	
Annual Cost	<b>\$79.04 /lyr/cust.</b>	Annual cost for a connected FD

**3. Actual MDNRE penalties for SSO's**

Penalties for SSO

Grand Rapids Customers	58,311	
Penalties	\$25,000	Per occurrence
Potential SSOs	0 /year	Occurrences
Annual cost	0 \$/year	
	<b>\$0.00 /lyr/cust.</b>	Annual cost for penalties

**4. Avoided Transport & Future Projects**

Cost Per FDD

Pilot Project Costs	1,788 \$/yr/FDD cust.	Annual cost of FDD work <sup>5</sup>
FDD Equivalents	<u>25,598</u> FDD	FDDs needed to correct backup problems
Total Cost	\$45,769,224	Annualized Conveyance and Storage Costs
Grand Rapids Customers	<u>58,311</u>	Customers in Grand Rapids
Cost Per single Family Home	<b>\$784.92</b> \$/home/not removed	Annualized cost for Grand Rapids Customers

**5. Avoided Administrative (Engineering & Legal) Costs**

Associated with Administration of claims, construction

Legal	0.5	Citywide claims administration
Engineering	1.5	Citywide engineering investigation
Staffing	2.0	Total staffing
Rate	\$200,000 /year	Average loaded staffing rate <sup>4</sup>
Total	\$400,000 /year	
Customers	<u>58,311</u>	In Grand Rapids
	<b>\$6.86</b> \$/yr/cust.	

**Annual Cost Summary**

1. Avoided Claims	\$2.02	
2. Avoided Treatment	\$79.04	
3. Actual MDNRE Penalties for SSOs	\$0.00	
4. Avoided Future Projects	\$784.92	
5. Administration	<u>\$6.86</u>	
<b>TOTAL</b>	<b>\$872.84</b> \$/yr/cust.	
	<b>\$72.74</b> /month/cust.	Monthly fee for not disconnecting

**Notes:**

- <sup>1</sup> Sinking fund annual budget
- <sup>2</sup> Customer numbers per 2012 Rate Study
- <sup>3</sup> Value for sewer maintenance and WWTP costs from 2012 rate study.
- <sup>4</sup> Estimated staff rate with benefits
- <sup>5</sup> Total cost per FDD amortized over 20 years with 2.5% interest rate

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PRELIMINARY RATE STUDY

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** November 14, 2014

**TO:** Eric R. DeLong, Deputy City Manager

**FROM:** Geri D. Eye, CPA, Utility Financial Officer 

**SUBJECT:** 2014 PRELIMINARY WATER/SEWER RATE STUDY REPORT

The preliminary study, recommending water and sewer rates to be effective January 1, 2015, for Grand Rapids and the retail and wholesale partner communities it serves, is submitted herein for consideration. A table of contents immediately precedes the report's two sections and lists the respective tasks performed in reviewing the operating and financial performance of the Water Supply System and Sewage Disposal System. The annual study consists of a comprehensive review of the operating and capital costs by community, in conjunction with customer base variation and usage, and calculates recommended commodity and service rates based upon adherence to: (a) the uniform rate-setting methodology established in 1976-77 for customer communities not party to the uniform water and sewer service agreements; and (b) rate methodology changes contractually agreed in the uniform water and sewer service agreements for Utility Advisory Board (UAB) member customer communities. The methodology yields consistent performance in providing for the long-term needs of the water and sewage systems and assuring adequate debt service coverage pursuant to the systems' master bond ordinance covenants.

The City's 2014 review marks the 38<sup>th</sup> annual water/sewer rate study report and has identified Water Supply and Sewage Disposal System revenue requirements that result in modest utility rate increases. The preliminary 2014 water rate recommendation represents the first increase since 2011 and is the fourth lowest increase of ten in the last fourteen years. The preliminary 2014 sewer rate recommendation represents an increase consistently aligned with sewer's average performance over the past four years, during which time rates have fluctuated in a narrow band. Since 2010, sewer rates have increased at a rate that is just over a quarter of the consumer price index percentage increase during this same time period, demonstrating operating leadership's strong commitment to control costs.

The 2014 rate study continues to use the three year average of billed volume to calculate new rates in an effort to level year-over-year usage variability and achieve reasonably stable rate changes. Infrastructure investment in capital improvements largely explains the rate increases in both utility systems with increased depreciation expense and investment

## PRELIMINARY RATE STUDY

return revenue requirements to ensure timely satisfaction of all debt service obligations as they become due and payable. Both water and sewer have been very effective in optimizing business processes to limit operations and maintenance expenses. The 2014 rate study marks the first time that a supplemental revenue requirement has been added to water rates in order to ensure achievement of a debt coverage ratio in compliance with bond covenants, which is 1.2 times annual debt service.

A summary of the proposed revisions to set the 2015 rates for the systems are as follows:

1. Water Supply System revenue requirements reflect an increase of \$976,882 or 2.5% more than revenues generated by existing rates and charges. This rate increase includes known cost adjustments for several total compensation items including wages, health insurance, retiree health care, pension costs, and longevity pay and conservatively includes a supplemental revenue requirement amount to help preserve the system's AA investment grade bond rating.
2. Sewage Disposal System revenue requirements reflect an increase of \$1,363,227 or 2.81% more than revenues generated by existing rates and charges. This rate increase includes known cost adjustments for several total compensation items including wages, health insurance, retiree health care, pension costs, and longevity pay.
3. Water and sewer integrated connection fees were adjusted upward by a CPI increase factor of 1.70%.
4. Water and sewer front foot rates and charges for water service lines and sewer laterals were adjusted based on the average bid prices quoted in bid proposals received by the City Engineer's Office during the period from July, 2013, through June, 2014.
5. The Utility Advisory Board (UAB) unanimously approved fee and charge recommendations, including increases in inspection permits and meter testing scheduled in the Water System Rules and Regulations. In addition, the UAB also recommended approval of a new statement research fee, a security deposit decrease, and an increased unauthorized operation penalty of distribution valves, services valves, and curb stops.
6. Surcharge rates were adjusted for 2015 to reflect increased wastewater treatment plant costs and allocated on a three year average of loadings at the plant.
7. The cost of services provided by the Industrial Pretreatment Program remained the same, except for three items. The hourly labor rate increased 2.74%, the hourly vehicle rate decreased \$1.06 per hour, and the sulfide laboratory cost decreased by \$1 each.
8. Water and sewer oversizing rates increased due to the cost of materials.
9. The charge for non-compliance with the footing drain disconnection ordinance (FDD Opt Out Charge) decreased to \$72.74 from \$73.40 based on current information related to the actual cost to the system for the additional flow.

## PRELIMINARY RATE STUDY

Recommended rate adjustments incorporate provisions of the third amendment to the uniform service agreements with customer communities, which eliminates penalty fee credits from retail revenue requirements to fund the Individual Circuit Breaker (ICB) and the City and Customer Community Circuit Breaker (CCCCB). This amendment generated \$167,117 to support the ICB, the program aimed to assist retail customers requiring assistance in payment of their water/sewer bills, and represents an \$18,374 or 12% increase from the 2013 rate study. The third amendment also provides for a City and Customer Community Circuit Breaker, if sufficient funding is available, to limit each retail service area's revenue requirement change to a level in line with the overall systems' initial average change. Adequate funds were available in both utility systems to limit the revenue requirement changes. The City of Grand Rapids and Cascade Charter Township benefited from full water circuit breaker relief and the City of Grand Rapids, the City of Kentwood, and Tallmadge Charter Township received full sewer circuit breaker relief.

The following five schedules immediately follow this memo and supplement the rate study reports with water and sewer utility rate information by customer community:

- Summary of Revenue Requirement Changes
- Impact of Rate Adjustments on Wholesale Customer Communities
- Impact of Rate Adjustments on Domestic Users in Retail Customer Communities
- Impact of Rate Adjustments on Commercial Users in Retail Customer Communities
- Water & Sewer Rates for Grand Rapids and Retail Customer Communities

The preliminary 2014 water and sewer rates were announced and electronically delivered to the Utility Advisory Board partners and other customer communities on November 15, 2014. All customer communities have a thirty-day comment period following notification of the rates as provided in the water/sewer service agreements. Approval of customer community rates by the City Commission is scheduled for Tuesday, December 16, 2014.

Resolutions have been prepared providing for publication of the proposed ordinances amending the water and sewer rates and charges, establishing December 2, 2014, as the date for public hearing, and setting December 16, 2014, as the date to consider adoption of the proposed ordinances.

Attachments as named

GDE:gde

# PRELIMINARY RATE STUDY

**CITY OF GRAND RAPIDS, MICHIGAN  
2014 PRELIMINARY WATER/SEWER RATE STUDY  
SUMMARY OF REVENUE REQUIREMENT CHANGES  
FOR RATES EFFECTIVE JANUARY 1, 2015  
November 16, 2014**

	<u>WATER (1)</u>		<u>SEWER (1)</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
GRAND RAPIDS	\$ 695,392	3.02%	\$ 1,013,333	3.05%
WALKER	21,254	0.68%	72,997	1.54%
KENTWOOD	117,836	2.85%	113,960	3.05%
CASCADE TWP	92,126	3.02%	26,687	1.27%
GRAND RAPIDS TWP	(24,461)	-1.16%	(1,815)	-0.08%
TALLMADGE TWP	(2,977)	-1.97%	8,483	3.05%
WRIGHT TWP	NA	NA	5,248	2.10%
EAST GRAND RAPIDS	23,678	2.78%	24,421	4.07%
ADA TWP	34,551	2.99%	98,501	8.43%
OTTAWA COUNTY	19,483	1.33%	NA	NA
GAINES TWP	NA	NA	1,412	1.17%
<b>SYSTEM</b>	<b>\$ 976,882</b>	<b>2.50%</b>	<b>\$ 1,363,227</b>	<b>2.81%</b>

(1) Change in revenue requirements based on revenues currently generated from rates, customer base and volumes reported in the preliminary rate study (Includes consideration for relief from CCCCB).

**DISCLOSE RELIEF PROVIDED BY CITY & CUSTOMER COMMUNITY CIRCUIT BREAKER (CCCB)**

	<u>WATER</u>		<u>SEWER</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
SYSTEM CHANGE- ABOVE	\$ 976,882	2.50%	\$ 1,363,227	2.81%
ADD: CCCCB RELIEF	203,593	0.52%	121,206	0.24%
SYSTEM CHANGE- WITHOUT RELIEF	<u>\$ 1,180,475</u>	<u>3.02%</u>	<u>\$ 1,484,433</u>	<u>3.05%</u>

## PROPOSED GRAND RAPIDS ORDINANCE

\***84029** Com. Lenear, supported by Com. Lumpkins, moved adoption of the following resolution under the Consent Agenda:

**RESOLVED:**

1. The attached Ordinance amending Sections 2.34(2), 2.35(1), 2.40, 2.41.1, 2.41.2, and 2.45 to Chapter 26, Title II of the Grand Rapids City Code be published as part of the Proceedings.
2. As authorized by Article V, Sec. 10(b) of the City Charter, the attached summary of the proposed Ordinance be published in a newspaper of general circulation in lieu of publishing the full text thereof.
3. A public hearing be held on the proposed Ordinance on December 2, 2014, at 7:00 p.m. in the Commission Chambers on the ninth floor of City Hall.
4. The proposed ordinance be considered for adoption on December 16, 2014.
5. The City Clerk provide all notices of the public hearing as required by law.

### SUMMARY OF ORDINANCE 2014 - \_\_\_\_

This Ordinance amends Sections 2.34(2), 2.35(1), 2.40, 2.41.1, 2.41.2, and 2.45 to Chapter 26, Title II of the Grand Rapids City Code entitled "City Water System".

The proposed amendment to the Water Rates and Charges will do the following:

- Amend the front foot rate for a Domestic user from \$78.00 to \$75.00;
- Amend the front foot rate for a Commercial or Industrial user for a line larger than eight inches in diameter from \$103.00 to \$108.00;
- Amend the Integrated Water Connection Base Fee Schedule as detailed:

Water Meter Size (inches)	01/01/14	01/01/15
¾ or less	\$2,873	\$2,922
1	4,798	4,880
1 1/2	9,567	9,730
2	15,313	15,574
3	33,528	34,100
4	60,333	61,362
6 and over	134,083	136,370

- Amend the commodity rate for retail domestic, commercial and industrial users within the City of Grand Rapids from \$1.70 to \$1.76 per 100 cubic feet;
- Amend the monthly service charge for all users as detailed:

Water Meter Size (inches)	01/01/14	01/01/15
¾ or less	\$ 9.50	\$ 9.77
1	14.66	14.85
1 1/4	21.29	21.38
1 1/2	29.39	29.36
2	50.02	49.68
3	108.95	107.72
4	191.46	188.98
6 or larger	427.19	421.16

- Amend the charges for water service lines as detailed:

		50 Ft. R.O.W.	60 Ft. R.O.W.	66 Ft. R.O.W.	80 Ft. R.O.W.	100 Ft. R.O.W.
Cost for 1" Water Service	2014	\$2,250	\$2,600	\$2,800	\$3,200	\$3,900
	2015	2,300	2,650	2,800	3,250	3,900

## PROPOSED GRAND RAPIDS ORDINANCE

Cost for 1 ½ "Water Service	2014	3,100	3,500	3,750	4,400	5,200
	2015	3,000	3,400	3,600	4,200	4,900
Cost for 2" Water Service	2014	3,550	3,900	4,300	4,800	5,800
	2015	3,700	4,000	4,300	4,800	5,700

- Amend the tapping permits charges as detailed:

Connection Size	01/01/14	01/01/15
2" or Smaller	\$ 225	\$ 250
3" or Larger	Cost	\$ 250

- Amend the meter testing fee as detailed:

Water Meter Size (inches)	01/01/14	01/01/15
5/8" & ¾"	\$ 50	\$ 100
1"	\$ 50	\$ 200
1 ½"	\$ 75	\$ 200
2"	\$ 75	\$ 300
3"	Cost	\$ 400
4-6"	Cost	Cost

- Remove the wording from "Three (3) times the average quarterly bill (\$181.44)," amend "Minimum Charge (\$)" to "Minimum Deposit Amount," and amend the minimum charge from \$544.32 to \$500 under security deposit;
- Amend the miscellaneous charges as detailed:

Miscellaneous	01/01/14	01/01/15
Water Inspection Permit (Within City Limits)	\$ 40	\$ 45
Water Inspection Permit (Outside City Limits)	\$ 55	\$ 60
Sanitary Service Line Inspection Permit (Within City Limits)	\$ 40	\$ 45
Sanitary Service Line Inspection Permit (Outside City Limits)	\$ 55	\$ 60
Storm Service Line Inspection Permit (Within City Limits)	\$ 40	\$ 45
Storm Service Line Inspection Permit (Outside City Limits)	\$ 55	\$ 60
Footing Drain Lateral Inspection Permit (Within City Limits)	\$ 40	\$ 45
Footing Drain Lateral Inspection Permit (Outside City Limits)	\$ 55	\$ 60
Sewer Lateral Service Demolition/Cap Off Inspection Fee (Within City Limits)	\$ 40	\$ 45
Sewer Lateral Service Demolition/Cap Off Inspection Fee (Outside City Limits)	\$ 55	\$ 60

- Add "Statement Research Fee document creation for detailed history of usage, bills and/or payments made beyond 13 months from date of request" under Services and set the 2015 Fee (\$) at \$55.
- Amend the penalties wording and amounts as detailed:

Penalties	01/01/14	01/01/15
Processing/Review for shut-off, non-payment, returned payment, and/or cross connection non-compliance (Administration and/or Post Fee)	\$ 55	\$ 55
Unauthorized operation of distribution valves, service valves, and curb stops ** & ***	\$ 100	\$ 500

**PROPOSED GRAND RAPIDS ORDINANCE**

Unauthorized opening of bypass valve/tampering or meter removal ** & ***	\$ 100	\$ 100
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- Amend the water main oversizing rates as detailed:

	01/01/14	01/01/15
Description	Amount per lineal foot	Amount per lineal foot
8" to 12"	\$ 16.56	\$ 18.69
12" to 16"	\$ 21.78	\$ 21.60
8" to 16"	\$ 38.35	\$ 40.29

- Establish the Individual Circuit Breaker (ICB) program for calendar year 2015 at \$167,117;
- These proposed amendments shall be effective on January 1, 2015.

**NOTICE**

**Copies of this Ordinance are available for review and distribution from the Office of the City Clerk, 300 Monroe Ave., NW, Grand Rapids, MI 49503.**

**The City Commission will hold a public hearing on the proposed Ordinance changes on December 2, 2014, at 7:00 p.m. in the Commission Chambers on the ninth floor of City Hall.**

**AN ORDINANCE TO AMEND SECTIONS 2.34(2), 2.35(1), 2.40, 2.41.1, 2.41.2, and 2.45 TO CHAPTER 26 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING THE WATER RATES AND CHARGES**

**ORDINANCE NO. 2014-\_\_\_\_\_  
THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:**

Section 1. That Section 2.34(2) of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

- "(2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the watermain used for local distribution. The front foot rate shall be as follows:
- (a) Domestic User: \$76.00;
  - (b) Commercial or Industrial User;
    - 1. The same as a domestic user if the connection is made to a line eight (8) inches or less in diameter.
    - 2. For a line larger than eight (8) inches in diameter: \$108.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local distribution lines."

Section 2. That Section 2.35(1) of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

- "(1) When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

# PROPOSED GRAND RAPIDS ORDINANCE

## Integrated Water Connection Base Fee Schedule

Water Meter (or equivalent)	
<u>Size (inches)</u>	<u>Base Fee</u>
3/4 or less	\$2,922
1	4,880
1 ½	9,730
2	15,574
3	34,100
4	61,362
6 and over	136,370"

Section 3. That Section 2.40 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"2.40 Rates and Charges for Retail Customers Within the City of Grand Rapids.**

The following charges for water service provided retail users within the City of Grand Rapids shall be made.

### Commodity Rate

Domestic	\$1.76 per 100 cubic feet
Commercial	\$1.76 per 100 cubic feet
Industrial	\$1.76 per 100 cubic feet

### Monthly Service Charge

<u>Size of Meter</u>	<u>Charge</u>
3/4 inch or less	\$9.77
1 inch	14.685
1 1/4 inch	21.38
1 1/2 inch	29.36
2 inches	49.68
3 inches	107.72
4 inches	188.98
6 inches or larger	421.16"

Section 4. That Section 2.41.1 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.41.1 Miscellaneous Charges.**

**(1) Water Service Pipe Costs**, as reflected in Task #29 of the 2014 Water Rate Study:

		50 Ft. R.O.W.	60 Ft. R.O.W.	66 Ft. R.O.W.	80 Ft. R.O.W.	100 Ft. R.O.W.
Cost for 1" Water Service	2014	\$ 2,250	\$ 2,600	\$ 2,800	\$ 3,200	\$ 3,900
	2015	\$ 2,300	\$ 2,650	\$ 2,800	\$ 3,250	\$ 3,900
Cost for 1-1/2" Water Service	2014	\$ 3,100	\$ 3,500	\$ 3,750	\$ 4,400	\$ 5,200
	2015	\$ 3,000	\$ 3,400	\$ 3,600	\$ 4,200	\$ 4,900
Cost for 2" Water Service	2014	\$ 3,550	\$ 3,900	\$ 4,300	\$ 4,800	\$ 5,800
	2015	\$ 3,700	\$ 4,000	\$ 4,300	\$ 4,800	\$ 5,700

**PROPOSED GRAND RAPIDS ORDINANCE**

**(2) Miscellaneous Charges**, as reflected in Task #30 of the 2014 Water Rate Study:

**(a) Hydrant Use**

Weekly Pool Filling.....	\$75/wk + \$300 Refundable Deposit
Contractor Seasonal Hydrant Connection.....	
.....	\$75/wk + \$300 Non-Refundable Deposit
Tanker Hydrant Connection (Winter or Summer).....	
.....	\$25/week* + \$300 Non-Refundable Deposit
Hydrant Flow Test.....	\$200.00

\* Plus metered volume (based on average retail commodity rates)

**(b) Tapping Permits**

<u>Connection Size</u>	<u>Fee</u>
2" or Smaller	\$250.00
3" or Larger	250.00

**(c) Meter Installation and Seasonal Turn Off/On**

<u>Meter Size</u>	<u>Fee</u>
3/4" or Smaller	\$40.00
1"	45.00
1-1/2"	55.00
2"	60.00
3"	100.00
4"	200.00
6" and larger	250.00

**(d) Frozen/Damaged /Missing Meter**

<u>Meter Size</u>	<u>Fee</u>
3/4" or Smaller	\$150.00
1"	200.00
1-1/2" ECR	350.00
1-1/2" Turbo	500.00
1-1/2" Omni	820.00
2" ECR	450.00
2" Turbo	575.00
2" Omni	950.00
3" Turbo	750.00
3" Omni	1,170.00
4" Omni	2,205.00
6" and larger	3,530.00

**(e) Meter Reading**

Final or Actual Reading.....	\$35.00
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Meter Testing Fee: *(Paid by customer if meter is accurate, no charge if meter is faulty)*

5/8 & 3/4" Meter	\$100.00
1" Meter	200.00
1 1/2" Meter	200.00
2" Meter	300.00

**PROPOSED GRAND RAPIDS ORDINANCE**

3" Meter	400.00
4-6" Meter	Cost

**(f) Security Deposit**

Minimum Deposit Amount .....	\$500.00
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**(g) Miscellaneous**

Street Opening Permit.....	\$30.00
Water Inspection Permit (Within City Limits) .....	\$45.00
Water Inspection Permit (Outside City Limits).....	\$60.00
Sanitary Service Line Inspection Permit (Within City Limits).....	\$45.00
Sanitary Service Line Inspection Permit (Outside City Limits).....	\$60.00
Storm Service Line Inspection Permit (Within City Limits) .....	\$45.00
Storm Service Line Inspection Permit (Outside City Limits) .....	\$60.00
Footing Drain Lateral Inspection Permit (Within City Limits) .....	\$45.00
Footing Drain Lateral Inspection Permit (Outside City Limits).....	\$60.00
Sewer Lateral Service Demolition/Cap off Inspection Fee (Within City Limits) .....	\$45.00
Sewer Lateral Service Demolition/Cap off Inspection Fee (Outside City Limits) .....	\$60.00
Plumbing Service Re-Inspection Fee .....	\$40.00
Cross Connection Re-Inspection Fee .....	\$75.00

**(h) Services**

Customer Requested on-site service (non-scheduled) (appointment-customer issue only) .....	\$55.00
Turn-on/turn-off water for real-estate inspections.....	\$110.00
Statement Research Fee document creation for detailed history of usage, bills and/or payments made beyond 13 months from date of request .....	\$55.00

**(i) Penalties**

Late Payment Penalty .....	10% of net
Processing/Review for shut-off, non-payment, returned payment, and/or cross connection non-compliance (Administration and/or Post Fee) .....	\$55.00
Penalty for failure to keep appointment.....	\$35.00
Penalty for each missed appointment thereafter (related to same service).....	\$50.00
Unauthorized operation of distribution valves, service valves, and curb stops ** & *** .....	\$500.00
Unauthorized use of connection pipes for fire protection ** .....	\$100.00
Unauthorized opening of bypass valve/tampering or meter removal ** & *** .....	\$100.00
Unauthorized use of a hydrant .....	\$500.00
Use of illegal connection hydrant .....	\$500.00
Failure to return hydrant connection equipment and/or return of damaged hydrant connection equipment .....	\$500.00
Lost/non-returned hydrant wrench .....	\$50.00
Permit infractions/violations ** & *** .....	\$100.00
Returned check charge (verified with City Treasurer) .....	\$30.00

**PROPOSED GRAND RAPIDS ORDINANCE**

Unauthorized service tap of water main ..... \$500.00

- \*\* Plus double the commodity rate for estimated volume
- \*\*\* Penalties shall double with each subsequent infraction

**(3) Watermain Oversizing Rates**, as reflected in Task #32 of the 2014 Water Rate Study:

8 inch to 12 inch	\$18.69 per lineal foot
12 inch to 16 inch	\$21.60 per lineal foot
8 inch to 16 inch	\$40.29 per lineal foot"

Section 5. That Section 2.41.2 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.41.2 Circuit Breaker**

As agreed among the customer communities per the uniform water and sewer service agreement, the Individual Circuit Breaker (ICB) and City and Customer Community Circuit Breaker programs have been established in order to relieve hardship. The former program serves to assist eligible water customers, and the latter program serves to normalize rates among customer communities to the extent that funds are available for such purpose. These programs shall be administered according to the terms of the uniform water and sewer service agreement. The amount allocated for this purpose shall not exceed:

	Circuit Breaker
<u>Year</u>	<u>Allocation</u>
2015	\$167,117"

Section 6. That Section 2.45 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.45 Effective Date**

The rates, charges, and fees set forth in Section 2.34(2), 2.35(1), 2.40, 2.41.1, 2.41.2, and 2.45 shall be effective on January 1, 2015."

**\* CONSENT AGENDA APPROVAL**

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held November 18, 2014.

  
 \_\_\_\_\_  
 Darlene O'Neal, City Clerk

## PROPOSED GRAND RAPIDS ORDINANCE

\***84030** Com. Lenear, supported by Com. Lumpkins, moved adoption of the following resolution under the Consent Agenda:

**RESOLVED:**

1. The attached Ordinance amending Sections 2.95(2), 2.96(1), 2.101, 2.102, 2.102.1, and 2.105 to Chapter 27, Title II of the Grand Rapids City Code be published as part of the Proceedings.
2. As authorized by Article V, Sec. 10(b) of the City Charter, the attached summary of the proposed Ordinance be published in a newspaper of general circulation in lieu of publishing the full text thereof.
3. A public hearing be held on the proposed Ordinance on December 2, 2014, at 7:00 p.m. in the Commission Chambers on the ninth floor of City Hall.
4. The proposed ordinance be considered for adoption on December 16, 2014.
5. The City Clerk provide all notices of the public hearing as required by law.

### SUMMARY OF ORDINANCE 2014 - \_\_\_\_

This Ordinance amends Sections 2.95(2), 2.96(1), 2.101, 2.102, 2.102.1, and 2.105 to Chapter 27, Title II of the Grand Rapids City Code entitled "City Sewage Disposal System".

The proposed amendment to the Sewer Rates and Charges will do the following:

- Amend the front foot rate for a Domestic user from \$80.00 to \$85.00;
- Amend the front foot rate for a Commercial or Industrial user for a line larger than eight inches in diameter from \$109.00 to \$107.00;
- Amend the Integrated Sewer Connection Base Fee Schedule as detailed:

Water Meter Size (inches)	01/01/14	01/01/15
¾ or less	\$2,873	\$2,922
1	4,798	4,880
1 1/2	9,567	9,730
2	15,313	15,574
3	33,528	34,100
4	60,333	61,362
6 and over	134,083	136,370

- Amend the commodity rate for retail domestic, commercial and industrial users within the City of Grand Rapids from \$3.21 to \$3.27 per 100 cubic feet;
- Amend the monthly service charge for all users as detailed:

Water Meter Size (inches)	01/01/14	01/01/15
¾ or less	\$14.40	\$15.21
1	23.36	24.43
1 1/4	34.88	36.28
1 1/2	48.96	50.76
2	84.80	87.63
3	187.20	192.96
4	330.56	340.43
6 or larger	740.16	761.76

**PROPOSED GRAND RAPIDS ORDINANCE**

- Amend surcharges as detailed:

Surcharge	2014 Rate	2015 Rate
BOD	\$0.215	\$0.220
TSS	0.338	0.382
phosphorus	2.062	2.452
ammonia	0.295	0.286

- Amend the labor, vehicle, and sulfide costs on the schedule of charges that apply to any analysis which may be required as a part of a Significant Industrial User Discharge Permit from \$57.57 per hour to \$59.15 per hour, \$4.01 per hour to \$2.95 per hour, and \$12 each to \$11 each, respectively;
- Amend the charges for sewer laterals as detailed:

		50 Ft. R.O.W.	60 Ft. R.O.W.	66 Ft. R.O.W.	80 Ft. R.O.W.	100 Ft. R.O.W.
Cost for 6" Lateral	2014	\$2,400	\$2,850	\$3,100	\$3,650	\$4,500
	2015	2,300	2,750	3,000	3,600	4,400

- Amend the sewer oversizing rates as detailed:

	01/01/14	01/01/15
Description	Amount per lineal foot	Amount per lineal foot
8" to 10"	\$6.62	\$6.99
8" to 12"	12.14	12.70
8" to 15"	21.83	22.87
10" to 12"	5.52	5.71
10" to 15"	15.21	15.88
12" to 15"	9.69	10.17

- Amend the charge for non-compliance with the footing drain disconnection ordinance (FDD Opt Out Charge) from \$73.40 to \$72.74;
- These proposed amendments shall be effective on January 1, 2015.

**NOTICE**

Copies of this Ordinance are available for review and distribution from the Office of the City Clerk, 300 Monroe Ave., NW, Grand Rapids, MI 49503.

The City Commission will hold a public hearing on the proposed Ordinance changes on December 2, 2014, at 7:00 p.m. in the Commission Chambers on the ninth floor of City Hall.

**AN ORDINANCE TO AMEND SECTIONS 2.95(2), 2.96(1), 2.101, 2.102, 2.102.1, and 2.105 TO CHAPTER 27 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING THE SEWER RATES AND CHARGES**

**ORDINANCE NO. 2014-\_\_\_\_\_**

**THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:**

Section 1. That Section 2.95(2) of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

- “(2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting

## PROPOSED GRAND RAPIDS ORDINANCE

on the local collector sewer line from which he or she will receive service. The front foot rate shall be as follows:

- (a) Domestic User: \$85.00;
- (b) Commercial or Industrial User;
  - 1. The same as a domestic user if the connection is made to a local collector sewer line eight (8) inches or less in diameter.
  - 2. For a line larger than eight (8) inches in diameter: \$107.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local collector sewer lines.”

Section 2. That Section 2.96(1) of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

- “(1) When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

### Integrated Sewer Connection Base Fee Schedule

<u>Water Meter (or equivalent) Size (inches)</u>	<u>Base Fee</u>
3/4 or less	\$2,922
1	\$4,880
1 ½	\$9,730
2	\$15,574
3	\$34,100
4	\$61,362
6 and over	\$136,370”

Section 3. That Section 2.101 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

### **"2.101 Rates and Charges for Retail Users Within the City of Grand Rapids.**

The following rates and charges for sewage disposal service shall apply for users within the City of Grand Rapids:

#### Commodity Rate

Domestic	\$3.27 per 100 cubic feet
Commercial	\$3.27 per 100 cubic feet
Industrial	\$3.27 per 100 cubic feet

#### Monthly Service Charge

<u>Size of Meter</u>	<u>Charge</u>
3/4 inch or less	\$15.21
1 inch	24.43
1 1/4 inches	36.28
1 1/2 inches	50.76
2 inches	87.63
3 inches	192.96
4 inches	340.43
6 inches or larger	761.76”

## PROPOSED GRAND RAPIDS ORDINANCE

Section 4. That Section 2.102 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

### **“2.102 Surcharges and Permit Fees.**

- (1) If the City Manager determines that a discharge will not cause pass through or interference as defined in this Chapter, Industrial or Commercial users whether they are located within a retail service area or a bulk service area shall be charged a surcharge if the concentration of their discharge exceeds a five-day BOD of two hundred fifty (250) mg/l, and/or TSS of two hundred fifty (250) mg/l, or any phosphorus of fifteen (15) mg/l. That charge shall be twenty-two and zero-tenth cents (\$0.220) per pound of BOD and thirty-eight and two-tenth cents (\$0.382) per pound of TSS and two dollars and forty-five and two-tenth cents (\$2.452) per pound of phosphorus in excess of the above limits. In addition, all industrial or commercial users shall be charged a surcharge for ammonia concentrations exceeding thirty-eight (38) mg/l. The charge shall be twenty-eight and six-tenth cents (\$0.286) per pound of ammonia in excess of the above limit. Discharge concentrations of these substances and the resulting surcharge shall be based on at least three composite samples per quarter. This sampling shall be performed by either the City or the Industrial User as determined by the City Manager.
- (2) The fee for a Significant Industrial User Discharge Permit as provided for in Section 2.70 of this Chapter whether they are located within a retail service area or a bulk service area shall be four hundred dollars (\$400.00) per year and an analytical fee based upon Section 2.102(3).
- (3) The following schedule of charges shall apply to any analysis which may be required as a part of a Significant Industrial User Discharge Permit:

Metals	\$7.00 each
TSS	\$7.00 each
BOD	\$14.00 each
Total Phosphate	\$13.50 each
pH	\$5.00 each
EPA 624	\$60.00 each
EPA 625	\$115.00 each
BTEX/MTBE	\$35.00 each
Sulfide	\$11.00 each
Oil and Grease	\$25.00 each
Total Cyanide	\$15.00 each
Hexavalent Chromium	\$10.00 each
Fecal Coliform	\$25.00 each
Mercury	\$15.00 each
Ammonia	\$9.00 each
Labor	\$59.15 hour
Sampler	\$35.00 day
Vehicle	\$2.95 hour

- (4) These charges will be reviewed annually and may change to reflect the current cost of providing these services.”

Section 5. That Section 2.102.1 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

### **“Sec. 2.102.1 Miscellaneous Charges**

## PROPOSED GRAND RAPIDS ORDINANCE

(1) **Sewer Lateral Charges**, as reflected in Task #29 of the 2014 Sewer Rate Study:

<u>R.O.W. WIDTH</u>	<u>COST FOR 6-INCH LATERAL</u>	
	<u>2014</u>	<u>2015</u>
50 ft.	\$2,400	\$2,300
60 ft.	\$2,850	\$2,750
66 ft.	\$3,100	\$3,000
80 ft.	\$3,650	\$3,600
100 ft.	\$4,500	\$4,400

(2) **Sewer Oversizing Rates**, as reflected in Task #32 of the 2014 Sewer Rate Study:

<u>Description</u>	<u>Amount</u> <u>(Per lineal foot)</u>
8" to 10"	\$6.99
8" to 12"	\$12.70
8" to 15"	\$22.87
10" to 12"	\$5.71
10" to 15"	\$15.88
12" to 15"	\$10.17

(3) **Footing Drain Disconnect Opt Out Charge**, as reflected in Task #35 of the 2014 Sewer Rate Study, and as authorized by Section 2.115 of this Code:

\$72.74/customer/month"

Section 6. That Section 2.105 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.105 Effective Date**

The rates, charges, and fees set forth in Section 2.95(2), 2.96(1), 2.101, 2.102, 2.102.1, and 2.105 shall be effective on January 1, 2015."

\* CONSENT AGENDA APPROVAL

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held November 18, 2014.

  
\_\_\_\_\_  
Darlene O'Neal, City Clerk

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NOTICE OF PUBLIC HEARING

STATE OF MICHIGAN )  
County of Kent  
and County of Ottawa

ss. Deja McHerron

Being duly sworn deposes and say he/she is Principal Clerk of



**THE GRAND RAPIDS PRESS**  
DAILY EDITION

a newspaper published and circulated in the County of Kent and the County of Ottawa and otherwise qualified according to Supreme Court Rule; and that the annexed notice, taken from said paper, has been duly published in said paper on the following day(days) \_\_\_\_\_

November 30 A.D. 2014

Sworn to and subscribed before me this 1 day of December 2014

MARIETTA FOLEY  
Notary Public, State of Michigan  
County of Kent  
My Commission Expires: December 23, 2016

**CITY OF GRAND RAPIDS**

**A PUBLIC HEARING ON PROPOSED WATER/SEWER RATES AND CHARGES FOR 2015**

will be held at 7:00 p.m. on Tuesday, December 2, 2014, in the Grand Rapids City Commission Chambers, 9th floor of City Hall, 300 Monroe Avenue, NW, Grand Rapids, MI

The City of Grand Rapids has completed the "Preliminary Water/Sewer 2014 Rate Study" report, which is the basis for recommending rates to become effective January 1, 2015, for all residential, commercial, and industrial users. That report, which also includes information on the Individual Circuit Breaker Program, the program aimed to help retail users requiring assistance in payment of their water/sewer bills, is available for public inspection in the City Clerk's Office, 2nd floor of City Hall, between 8:00 a.m. and 5:00 p.m. weekdays.

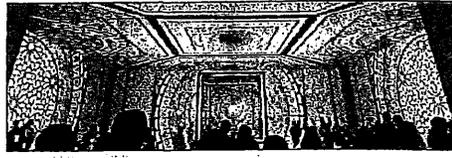
We encourage all water/sewer users to attend this public hearing on December 2, 2014.

713294701

# NOTICE OF PUBLIC HEARING

ATZ / SUNDAY, NOVEMBER 30, 2014 / THE GRAND RAPIDS PRESS

## Local



ArtPrize patrons look at Anila Quayyum Agha's 'Intersections' in October. (Mike Combes)

### GRAND RAPIDS

## Encore: GRAM to host ArtPrize works all year

Eleven pieces selected for ArtPrize Encore

By Todd Chace

Grand Rapids Art Museum will feature 11 works of art from ArtPrize 2014 artists in a curated exhibit called "ArtPrize Encore."

This is the third year GRAM has curated a show following the world's largest art competition each fall in Grand Rapids.

The 11 works were culled from 1,836 entries in the 2014 competition. During ArtPrize, they were hosted in several venues, including GRAM.

Now, "Encore," a year-round exhibit at the museum, will feature a rotating selection of these 11 selections alongside the museum's permanent collection through Oct. 12, the end of ArtPrize 2015.

Four of the "Encore" entries were displayed at GRAM during ArtPrize. This includes the winning entry, "Intersections," by Anila Quayyum Agha, which will be shown at the museum until Jan. 25, before it is returned to the artist.

"I have found that artists revisit many familiar themes throughout the ages," chief curator Ron Platt said. "ArtPrize Encore" presents a fun and enlightening opportunity for the viewer to draw connections between the works of contemporary artists with works from other times and cultures."

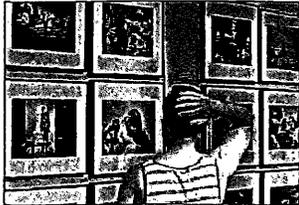
This year's collection features photography, installations, print, film, drawing and sculpture.

"By curating some of the strongest ArtPrize 2014 entries...the museum has extended the conversation within our community beyond the 19-day event and throughout the year," ArtPrize Executive Director Christian Gaines said.

Here are the 11 works included in the exhibition:



Above, the media previews Suzanne Opton's "Soldier" in September. Below, Jeffrey Beurkens reacts while looking at Christopher Capozzello's "The Distance Between Us."



- Anila Quayyum Agha, "Intersections."
- Christopher Capozzello, "The Distance Between Us."
- Lucy Gleadowing, "Feather Child 3" (her original ArtPrize entry was "Feather Child 1").
- Salvador Jimenez Flores, "I Am Not Who You Think I Am, '10 no soy quien crees que soy."
- Zach Mory, "24 Circles and Diamonds."
- Suzanne Opton, "Soldier."
- Tanya Rogir, "Sandscape."
- Lara Robertson, "Twin Star Event."
- Leslie A. Grossman, "Guts (and lack thereof)."
- Shannon Mosing, "Based on Things That Happened (Somewhere We've Never Been)."
- Patricia Villalobos Echeverria, "MARE#02 from the Marea Series."

### GRANDVILLE

## Library won't add Sunday hours yet

By Matt Vander Bunte

Kent District Library wants to add hours at several branches starting in January, but proposed Sunday hours in Grandville won't take effect then.

The Grandville City Council last week approved an extra hour of Friday evening service at the library, 4055 Maple St. SW, but leaders in a 6-1 vote postponed a decision on whether to open the library for four Sunday hours, as KDL proposed.

"Some of them want to test the political wind a little bit," said Mayor Steve Mans, who cast the lone vote against postponing a

decision. "I'd rather just do the right thing, because I think the people already have spoken. The library millage was overwhelmingly passed. We did the survey. How many polls do we take?"

KDL voters in August approved a 45 percent property tax increase to fund the system that operates 19 branches around Kent County, with 57 percent support across the county and 60 percent support in Grandville. The library now wants to use some of that money to increase hours across the district, and already has added time at its Alpine, Catalina and Spencer branches.

New hours are not final, but will focus on days branches currently are closed and on days when branches have only a few open hours, said Michele Bolavenue-Fox, KDL's assistant director.

An extra Friday evening hour also is likely for many branches.

"All of our branches traditionally close at 5 o'clock on Fridays," Bolavenue-Fox said. "Our patrons want to come in and pick up their holds (after work). They want to come in and pick up movies (for the weekend)."

"We are giving that option to all the branches that are adding hours."



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- MLive LANSING
- Muskegon Chronicle
- The Saginaw News

**CITY OF GRAND RAPIDS**

**A PUBLIC HEARING ON PROPOSED WATER/SEWER RATES AND CHARGES FOR 2015**

\*Held at 7:00 p.m. on Tuesday, December 2, 2014, in the Grand Rapids City Commission Chambers, 9th floor of City Hall, 300 Market Avenue, N.W., Grand Rapids, MI.

\*The City of Grand Rapids has completed the "Final Water/Sewer 2014 Rate Study" report, which is the basis for recommending rates to become effective January 1, 2015, for all residential, commercial, and industrial users. The report, which also includes information on the Individual Credit Breakdown Program, the program aimed to help ratepayers reduce their customer payment difficulty - and/or view bills, is available for public inspection in the City Clerk's Office, 2nd floor of City Hall, between 8:00 a.m. and 5:00 p.m., weekdays.

We encourage all water/sewer users to attend this public hearing on December 2, 2014.

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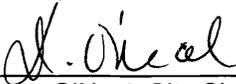
See the full list of participating businesses for complete details. Management reserves the right to change.

## PUBLIC HEARING - GRAND RAPIDS ORDINANCE

**84101** Pursuant to Commission File No. 84029, dated November 18, 2014, a public hearing was held on this date to consider an amendment to Chapter 26, Title II of the Code of the City of Grand Rapids (Water Rates and Charges).

At the conclusion of said hearing, President Bliss declared the hearing closed and referred the matter to the Committee of the Whole.

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 2, 2014.

  
\_\_\_\_\_  
Darlene O'Neal, City Clerk

## PUBLIC HEARING - GRAND RAPIDS ORDINANCE

**84102** Pursuant to Commission File No. 84030, dated November 18, 2014, a public hearing was held on this date to consider an amendment to Chapter 27, Title II of the Code of the City of Grand Rapids (Sewer Rates and Charges).

At the conclusion of said hearing, President Bliss declared the hearing closed and referred the matter to the Committee of the Whole.

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 2, 2014.

  
\_\_\_\_\_  
Darlene O'Neal, City Clerk

## FINAL ADOPTION OF RATE ORDINANCE

**84112** An Ordinance to amend Chapter 26 of Title II of the City Code amending Water Rates and Charges was presented to the City Commission on November 18, 2014 under File No. 84029 and a public hearing was held on December 2, 2014 under File No. 84101. The aforementioned ordinance shall be considered for adoption this date.

Com. Gutowski, supported by Com. Bliss, moved adoption of the following ordinance:

**AN ORDINANCE TO AMEND SECTIONS 2.34(2), 2.35(1), 2.40,  
2.41.1, 2.41.2, and 2.45 OF CHAPTER 26 OF TITLE II  
OF THE CODE OF THE CITY OF GRAND RAPIDS  
AMENDING WATER RATES AND CHARGES**

**ORDINANCE NO. 2014-87**

**THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:**

Section 1. That Section 2.34(2) of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"(2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the watermain used for local distribution. The front foot rate shall be as follows:

- (a) Domestic User: \$76.00;
- (b) Commercial or Industrial User;
  - 1. The same as a domestic user if the connection is made to a line eight (8) inches or less in diameter.
  - 2. For a line larger than eight (8) inches in diameter: \$108.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local distribution lines."

Section 2. That Section 2.35(1) of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

"(1) When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

Integrated Water Connection Base Fee Schedule

Water Meter (or equivalent) Size (inches)	Base Fee
3/4 or less	\$2,922
1	4,880
1 ½	9,730
2	15,574
3	34,100
4	61,362
6 and over	136,370"

Section 3. That Section 2.40 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"2.40 Rates and Charges for Retail Customers Within the City of Grand Rapids.**

The following charges for water service provided retail users within the City of Grand Rapids shall be made.

## FINAL ADOPTION OF RATE ORDINANCE

### Commodity Rate

Domestic	\$1.76 per 100 cubic feet
Commercial	\$1.76 per 100 cubic feet
Industrial	\$1.76 per 100 cubic feet

### Monthly Service Charge

<u>Size of Meter</u>	<u>Charge</u>
3/4 inch or less	\$9.77
1 inch	14.685
1 1/4 inch	21.38
1 1/2 inch	29.36
2 inches	49.68
3 inches	107.72
4 inches	188.98
6 inches or larger	421.16"

Section 4. That Section 2.41.1 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.41.1 Miscellaneous Charges.**

**(1) Water Service Pipe Costs, as reflected in Task #29 of the 2014 Water Rate Study:**

		50 Ft. <u>R.O.W.</u>	60 Ft. <u>R.O.W.</u>	66 Ft. <u>R.O.W.</u>	80 Ft. <u>R.O.W.</u>	100 Ft. <u>R.O.W.</u>
Cost for 1" Water	2014	\$ 2,250	\$ 2,600	\$ 2,800	\$ 3,200	\$ 3,900
Service	2015	\$ 2,300	\$ 2,650	\$ 2,800	\$ 3,250	\$ 3,900
Cost for 1-1/2"	2014	\$ 3,100	\$ 3,500	\$ 3,750	\$ 4,400	\$ 5,200
Water Service	2015	\$ 3,000	\$ 3,400	\$ 3,600	\$ 4,200	\$ 4,900
Cost for 2" Water	2014	\$ 3,550	\$ 3,900	\$ 4,300	\$ 4,800	\$ 5,800
Service	2015	\$ 3,700	\$ 4,000	\$ 4,300	\$ 4,800	\$ 5,700

**(2) Miscellaneous Charges, as reflected in Task #30 of the 2014 Water Rate Study:**

**(a) Hydrant Use**

Weekly Pool Filling.....	\$75/wk + \$300 Refundable Deposit
Contractor Seasonal Hydrant Connection .....	
.....	\$75/wk + \$300 Non-Refundable Deposit
Tanker Hydrant Connection (Winter or Summer) .....	
.....	\$25/week* + \$300 Non-Refundable Deposit
Hydrant Flow Test.....	\$200.00

\* Plus metered volume (based on average retail commodity rates)

**(b) Tapping Permits**

<u>Connection Size</u>	<u>Fee</u>
2" or Smaller	\$250.00
3" or Larger	250.00

**(c) Meter Installation and Seasonal Turn Off/On**

<u>Meter Size</u>	<u>Fee</u>
3/4" or Smaller	\$40.00
1"	45.00
1-1/2"	55.00

## FINAL ADOPTION OF RATE ORDINANCE

2"	60.00
3"	100.00
4"	200.00
6" and larger	250.00

**(d) Frozen/Damaged/Missing Meter**

<u>Meter Size</u>	<u>Fee</u>
3/4" or Smaller	\$150.00
1"	200.00
1-1/2" ECR	350.00
1-1/2" Turbo	500.00
1-1/2" Omni	820.00
2" ECR	450.00
2" Turbo	575.00
2" Omni	950.00
3" Turbo	750.00
3" Omni	1,170.00
4" Omni	2,205.00
6" and larger	3,530.00

**(e) Meter Reading**

Final or Actual Reading..... \$35.00

Meter Testing Fee: *(Paid by customer if meter is accurate, no charge if meter is faulty)*

5/8 & 3/4" Meter	\$100.00
1" Meter	200.00
1 1/2" Meter	200.00
2" Meter	300.00
3" Meter	400.00
4-6" Meter	Cost

**(f) Security Deposit**

Minimum Deposit Amount ..... \$500.00

**(g) Miscellaneous**

Street Opening Permit.....	\$30.00
Water Inspection Permit (Within City Limits) .....	\$45.00
Water Inspection Permit (Outside City Limits).....	\$60.00
Sanitary Service Line Inspection Permit (Within City Limits) ....	\$45.00
Sanitary Service Line Inspection Permit (Outside City Limits) ..	\$60.00
Storm Service Line Inspection Permit (Within City Limits) .....	\$45.00
Storm Service Line Inspection Permit (Outside City Limits) .....	\$60.00
Footing Drain Lateral Inspection Permit (Within City Limits) ....	\$45.00
Footing Drain Lateral Inspection Permit (Outside City Limits) ..	\$60.00
Sewer Lateral Service Demolition/Cap off Inspection Fee (Within City Limits) .....	\$45.00
Sewer Lateral Service Demolition/Cap off Inspection Fee (Outside City Limits).....	\$60.00
Plumbing Service Re-Inspection Fee .....	\$40.00
Cross Connection Re-Inspection Fee .....	\$75.00

# FINAL ADOPTION OF RATE ORDINANCE

**(h) Services**

Customer Requested on-site service (non-scheduled) (appointment-customer issue only) .....	\$55.00
Turn-on/turn-off water for real-estate inspections.....	\$110.00
Statement Research Fee document creation for detailed history of usage, bills and/or payments made beyond 13 months from date of request .....	\$55.00

**(i) Penalties**

Late Payment Penalty .....	10% of net
Processing/Review for shut-off, non-payment, returned payment, and/or cross connection non-compliance (Administration and/or Post Fee) .....	\$55.00
Penalty for failure to keep appointment.....	\$35.00
Penalty for each missed appointment thereafter (related to same service).....	\$50.00
Unauthorized operation of distribution valves, service valves, and curb stops ** & ***.....	\$500.00
Unauthorized use of connection pipes for fire protection**.....	\$100.00
Unauthorized opening of bypass valve/tampering or meter removal ** & *** .....	\$100.00
Unauthorized use of a hydrant .....	\$500.00
Use of illegal connection hydrant .....	\$500.00
Failure to return hydrant connection equipment and/or return of damaged hydrant connection equipment.....	\$500.00
Lost/non-returned hydrant wrench .....	\$50.00
Permit infractions/violations ** & *** .....	\$100.00
Returned check charge (verified with City Treasurer) .....	\$30.00
Unauthorized service tap of water main.....	\$500.00

\*\* Plus double the commodity rate for estimated volume

\*\*\* Penalties shall double with each subsequent infraction

**(3) Watermain Oversizing Rates**, as reflected in Task #32 of the 2014 Water Rate Study:

8 inch to 12 inch	\$18.69 per lineal foot
12 inch to 16 inch	\$21.60 per lineal foot
8 inch to 16 inch	\$40.29 per lineal foot"

Section 5. That Section 2.41.2 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.41.2 Circuit Breaker**

As agreed among the customer communities per the uniform water and sewer service agreement, the Individual Circuit Breaker (ICB) and City and Customer Community Circuit Breaker programs have been established in order to relieve hardship. The former program serves to assist eligible water customers, and the latter program serves to normalize rates among customer communities to the extent that funds are available for such purpose. These programs shall be administered according to the terms of the uniform water and sewer service agreement. The amount allocated for this purpose shall not exceed:

Year	Circuit Breaker Allocation
2015	\$167,117"

## FINAL ADOPTION OF RATE ORDINANCE

Section 6. That Section 2.45 of Chapter 26 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**"Sec. 2.45 Effective Date**

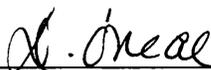
The rates, charges, and fees set forth in Section 2.34(2), 2.35(1), 2.40, 2.41.1, 2.41.2, and 2.45 shall be effective on January 1, 2015."

Ordinance adopted: Yeas: -5 Coms. Bliss, Gutowski, Kelly, Shaffer, Mayor Heartwell  
Nays: -2 Coms. Lenear, Lumpkins

Com. Lumpkins, supported by Com. Lenear, moved that the ordinance take immediate effect pursuant to Section 9 of Title V of the City Charter.

Adopted: Yeas: -7 Nays: -0

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 16, 2014.

  
\_\_\_\_\_  
Darlene O'Neal, City Clerk

## FINAL ADOPTION OF RATE ORDINANCE

**84113** An Ordinance to amend Chapter 27 of Title II of the City Code amending Sewer Rates and Charges was presented to the City Commission on November 18, 2014 under File No. 84030 and a public hearing was held on December 2, 2014 under File No. 84102. The aforementioned ordinance shall be considered for adoption this date.

Com. Gutowski, supported by Com. Bliss, moved adoption of the following ordinance:

### **AN ORDINANCE TO AMEND SECTIONS 2.95(2), 2.96(1), 2.101, 2.102, 2.102.1, and 2.105 OF CHAPTER 27 OF TITLE II OF THE CODE OF THE CITY OF GRAND RAPIDS AMENDING SEWER RATES AND CHARGES**

#### **ORDINANCE NO. 2014-88**

#### **THE PEOPLE OF THE CITY OF GRAND RAPIDS DO ORDAIN:**

Section 1. That Section 2.95(2) of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

“(2) The charge shall be known as the front foot rate and be determined by multiplying the rate per foot by the number of feet the property owner has fronting on the local collector sewer line from which he or she will receive service. The front foot rate shall be as follows:

(a) Domestic User: \$85.00;

(b) Commercial or Industrial User;

1. The same as a domestic user if the connection is made to a local collector sewer line eight (8) inches or less in diameter.

2. For a line larger than eight (8) inches in diameter: \$107.00.

This charge will be annually reviewed and may change to reflect the current average cost of installation of local collector sewer lines.”

Section 2. That Section 2.96(1) of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

“(1) When a property owner or user is requested or required to connect to the System and has not previously paid or been assessed a connection fee, the following connection fee schedule shall apply:

#### Integrated Sewer Connection Base Fee Schedule

Water Meter  
(or equivalent)

Size (inches)

3/4 or less

1

1 ½

2

3

4

6 and over

Base Fee

\$2,922

\$4,880

\$9,730

\$15,574

\$34,100

\$61,362

\$136,370”

Section 3. That Section 2.101 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

## FINAL ADOPTION OF RATE ORDINANCE

### "2.101 Rates and Charges for Retail Users Within the City of Grand Rapids.

The following rates and charges for sewage disposal service shall apply for users within the City of Grand Rapids:

#### Commodity Rate

Domestic	\$3.27 per 100 cubic feet
Commercial	\$3.27 per 100 cubic feet
Industrial	\$3.27 per 100 cubic feet

#### Monthly Service Charge

<u>Size of Meter</u>	<u>Charge</u>
3/4 inch or less	\$15.21
1 inch	24.43
1 1/4 inches	36.28
1 1/2 inches	50.76
2 inches	87.63
3 inches	192.96
4 inches	340.43
6 inches or larger	761.76"

Section 4. That Section 2.102 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

### "2.102 Surcharges and Permit Fees.

- (1) If the City Manager determines that a discharge will not cause pass through or interference as defined in this Chapter, Industrial or Commercial users whether they are located within a retail service area or a bulk service area shall be charged a surcharge if the concentration of their discharge exceeds a five-day BOD of two hundred fifty (250) mg/l, and/or TSS of two hundred fifty (250) mg/l, or any phosphorus of fifteen (15) mg/l. That charge shall be twenty-two and zero-tenth cents (\$0.220) per pound of BOD and thirty-eight and two-tenth cents (\$0.382) per pound of TSS and two dollars and forty-five and two-tenth cents (\$2.452) per pound of phosphorus in excess of the above limits. In addition, all industrial or commercial users shall be charged a surcharge for ammonia concentrations exceeding thirty-eight (38) mg/l. The charge shall be twenty-eight and six-tenth cents (\$0.286) per pound of ammonia in excess of the above limit. Discharge concentrations of these substances and the resulting surcharge shall be based on at least three composite samples per quarter. This sampling shall be performed by either the City or the Industrial User as determined by the City Manager.
- (2) The fee for a Significant Industrial User Discharge Permit as provided for in Section 2.70 of this Chapter whether they are located within a retail service area or a bulk service area shall be four hundred dollars (\$400.00) per year and an analytical fee based upon Section 2.102(3).
- (3) The following schedule of charges shall apply to any analysis which may be required as a part of a Significant Industrial User Discharge Permit:

Metals	\$7.00 each
TSS	\$7.00 each
BOD	\$14.00 each
Total Phosphate	\$13.50 each
pH	\$5.00 each
EPA 624	\$60.00 each
EPA 625	\$115.00 each

## FINAL ADOPTION OF RATE ORDINANCE

BTEX/MTBE	\$35.00 each
Sulfide	\$11.00 each
Oil and Grease	\$25.00 each
Total Cyanide	\$15.00 each
Hexavalent Chromium	\$10.00 each
Fecal Coliform	\$25.00 each
Mercury	\$15.00 each
Ammonia	\$9.00 each
Labor	\$59.15 hour
Sampler	\$35.00 day
Vehicle	\$2.95 hour

- (4) These charges will be reviewed annually and may change to reflect the current cost of providing these services.”

Section 5. That Section 2.102.1 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**“Sec. 2.102.1 Miscellaneous Charges**

- (1) Sewer Lateral Charges**, as reflected in Task #29 of the 2014 Sewer Rate Study:

<u>R.O.W. WIDTH</u>	<u>COST FOR 6-INCH LATERAL</u>	
	<u>2014</u>	<u>2015</u>
50 ft.	\$2,400	\$2,300
60 ft.	\$2,850	\$2,750
66 ft.	\$3,100	\$3,000
80 ft.	\$3,650	\$3,600
100 ft.	\$4,500	\$4,400

- (2) Sewer Oversizing Rates**, as reflected in Task #32 of the 2014 Sewer Rate Study:

<u>Description</u>	<u>Amount (Per lineal foot)</u>
8” to 10”	\$6.99
8” to 12”	\$12.70
8” to 15”	\$22.87
10” to 12”	\$5.71
10” to 15”	\$15.88
12” to 15”	\$10.17

- (3) Footing Drain Disconnect Opt Out Charge**, as reflected in Task #35 of the 2014 Sewer Rate Study, and as authorized by Section 2.115 of this Code:

\$72.74/customer/month”

Section 6. That Section 2.105 of Chapter 27 of Title II of the Code of the City of Grand Rapids be amended to read as follows:

**“Sec. 2.105 Effective Date**

The rates, charges, and fees set forth in Section 2.95(2), 2.96(1), 2.101, 2.102, 2.102.1, and 2.105 shall be effective on January 1, 2015.”

Ordinance adopted: Yeas: -5 Coms. Bliss, Gutowski, Kelly, Shaffer, Mayor Heartwell  
Nays: -2 Coms. Lenear, Lumpkins.

## FINAL ADOPTION OF RATE ORDINANCE

Com. Gutowski, supported by Com. Shaffer, moved that the ordinance take immediate effect pursuant to Section 9 of Title V of the City Charter.

Adopted:            Yeas: -7            Nays: -0

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 16, 2014.

  
\_\_\_\_\_  
Darlene O'Neal, City Clerk

INTRODUCTION OF RESOLUTION APPROVING CUSTOMER COMMUNITY RATES

CW03



CITY OF GRAND RAPIDS  
AGENDA ACTION REQUEST

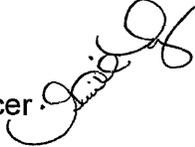
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**DATE:** December 9, 2014

**TO:** Gregory A. Sundstrom, City Manager

**COMMITTEE:** Committee of the Whole

**LIAISON:** Greg Sundstrom, City Manager

**FROM:** Geri D. Eye, CPA, Utility Financial Officer 

**SUBJECT:** 2015 CUSTOMER COMMUNITY WATER/SEWER RATES  
FINAL APPROVAL OF RESOLUTION

The 2014 Preliminary Water/Sewer Rate Study recommended water and sewer utility rate adjustments as of January 1, 2015, for Grand Rapids and each customer community serviced by the water supply and sewage disposal systems. City Commission approval of rate adjustments for customer communities is required through resolution.

Utility Advisory Board (UAB) partners and other customer communities were notified of the recommended rate adjustments on November 15, 2014, followed by a thirty-day comment period expiring on December 15, 2014, as provided in the water and sanitary sewer service agreements. Rate review meetings with the customer communities were held on November 19 and 20, 2014, and the UAB recommended approval of the proposed water and sewer rates on November 20, 2014. To-date, all rate questions have been satisfactorily answered, no comments from the customer communities have been received, and both Wright and Grand Rapids Charter townships have each independently elected to contribute \$5,000 and \$2,400, respectively, to their reduce sewer rates effective January 1, 2015.

In summary, Water Supply System revenue requirements reflect a 2.5% increase, or an additional \$976,882 more than revenues generated by the existing rates and charges, and the Sewage Disposal System revenue requirements reflect a 2.81% increase, or an additional \$1,363,227 more than revenues generated by the existing rates and charges.

The attached resolution approves the recommended water and sewer rates for the City's retail and wholesale customer communities for calendar year 2015. A summary of water and sewer revenue requirement changes, the retail and wholesale summary water and sewer rate sheets, and a rate schedule for each customer community is included with the resolution.

Attachments as named

GDE:gde

cc: Eric DeLong, Deputy City Manager  
Pamela Ritsema, Managing Director Enterprise Services  
Michael Lunn, Environmental Services Manager  
Charles Schroeder, Environmental Services Assistant Manager

Scott Buhner, Chief Financial Officer  
Joellen Thompson, Water System Manager  
Wayne Jernberg, Water System Assistant Manager  
Nicole Pasch, (Acting) Administrative Services Officer I

**INTRODUCTION OF RESOLUTION APPROVING CUSTOMER COMMUNITY RATES**

YOUR COMMITTEE OF THE WHOLE recommends adoption of the following resolution approving the attached adjusted water and sewer rates in accordance with the 2014 water/sewer rate review.

**CORRECT IN FORM**

\_\_\_\_\_  
**DEPARTMENT OF LAW**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**COMMITTEE OF THE WHOLE**

Com. \_\_\_\_\_, supported by Com. \_\_\_\_\_, moved adoption of the following resolution:

WHEREAS, the Water/Sewer rate studies have been undertaken and completed for the years 1976 through 2013,

WHEREAS, the 2014 Water/Sewer Rate Review has been completed using the same general methodology as the 1976 through 2013 Water/Sewer Rate Studies, as adjusted where appropriate for the uniform water and sanitary sewer service agreements.

RESOLVED, that the attached water and sewer rates are approved and shall be effective January 1, 2015.

FURTHER, RESOLVED, that the City Clerk is directed to notify the contractual water and sewer service customers in writing of the water and sewer rates, and the Mayor and City Clerk are authorized to take any action as may be required to evidence the new water and sewer rates.

*DRAFTED BY: Geri D. Eye, CPA, Utility Financial Officer*

## APPROVAL OF CUSTOMER COMMUNITY RATES

\***84156** Com. Bliss, supported by Com. Gutowski, moved adoption of the following resolution under the Consent Agenda:

WHEREAS:

(1) The Water/Sewer rate studies have been undertaken and completed for the years 1976 through 2013; and

(2) The 2014 Water/Sewer Rate Review has been completed using the same general methodology as the 1976 through 2013 Water/Sewer Rate Studies, as adjusted where appropriate for the uniform water and sanitary sewer service agreements; therefore

RESOLVED:

(1) That the attached water and sewer rates are approved and shall be effective January 1, 2015; and

(2) That the City Clerk is directed to notify the contractual water and sewer service customers in writing of the water and sewer rates, and the Mayor and City Clerk are authorized to take any action as may be required to evidence the new water and sewer rates.

\* CONSENT AGENDA APPROVAL

I hereby certify that the foregoing is a true transcript of the action of the City Commission of the City of Grand Rapids, Michigan, in public session held December 16, 2014.



Darlene O'Neal, City Clerk

Page has been removed from published Rate Study.

Page has been removed from published Rate Study.

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Ms. Sarah Bydalek, City Clerk  
City of Walker  
4243 Remembrance Road NW  
Grand Rapids, MI 49504

Dear Sarah:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for the City of Walker are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

Darlene O'Neal  
City Clerk

DO/pas/rb

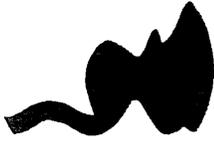
Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Mr. Dan Kasunic, Clerk  
City of Kentwood  
4900 Breton Avenue SE  
Kentwood, MI 49518-8848

Dear Dan:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for the City of Kentwood are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

Darlene O'Neal  
City Clerk

DO/pas/rb

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Mr. Ronald Goodyke, Clerk  
Cascade Charter Township  
2865 Thornhills SE  
Grand Rapids, MI 49546-7192

Dear Mr. Goodyke:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Cascade Charter Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

A handwritten signature in black ink that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/pas/rb

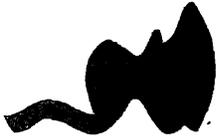
Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Mr. Ed Robinette, Clerk  
Grand Rapids Charter Township  
1836 East Beltline NE  
Grand Rapids, MI 49525

Dear Ed:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Grand Rapids Charter Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

Darlene O'Neal  
City Clerk

DO/pas/rb

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Ms. Lenore Cook, Clerk  
Tallmadge Township Offices  
0-1451 Leonard Street NW  
Grand Rapids, MI 49504

Dear Ms. Cook:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Tallmadge Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

A handwritten signature in cursive script that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/pas/rb

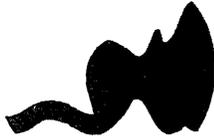
Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Ms. Theresa Frank, Township Clerk  
Wright Township  
1565 Jackson  
P.O. Box 255  
Marne, MI 49435

Dear Ms. Frank:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Wright Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

Darlene O'Neal  
City Clerk

DO/pas/rb

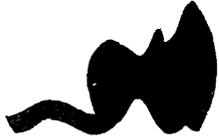
Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Gerri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Ms. Karen Brower, Clerk  
City of East Grand Rapids  
750 Lakeside Drive SE  
East Grand Rapids, MI 49506

Dear Karen:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for the City of East Grand Rapids are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

A handwritten signature in cursive script that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/pas/rb

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Ms. Susan Burton, Clerk  
Ada Township  
7330 Thornapple River Drive  
P.O. Box 370  
Ada, MI 49301

Dear Susan:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Ada Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

A handwritten signature in cursive script that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/pas/rb

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Gerri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Mr. Patrick J. Staskiewicz, P.E.  
Director of Public Utilities  
County of Ottawa  
Board of County Road Commissioners  
U.S. 31 at Rosy Mound Drive, P.O. Box 739  
Grand Haven, MI 49417

Dear Mr. Staskiewicz:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Ottawa County are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

Darlene O'Neal  
City Clerk

DO/pas/rb

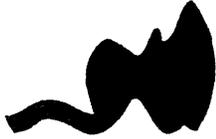
Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

CUSTOMER COMMUNITY RATE NOTIFICATION LETTER

CITY CLERK



CITY OF GRAND RAPIDS

December 22, 2014

Ms. Crystal Osterink, Clerk  
Gaines Charter Township  
8555 Kalamazoo Ave., S.E.  
Caledonia, MI 49316-8270

Dear Crystal:

The "2014 Preliminary Water/Sewer Rate Study" recommended water and sewer rate adjustments for the City of Grand Rapids and each customer community contracting with the City of Grand Rapids for water and sewer services.

Customer communities were electronically notified of the recommended rate changes on November 15, 2014, followed by a thirty-day comment period. Additionally, rate review meetings were held on November 19 and 20, 2014, with customer communities.

On December 16, 2014, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2015. A certified copy of the resolution and the approved rate schedules for Gaines Charter Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

A handwritten signature in cursive script that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/pas/rb

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Geri D. Eye, CPA, Utility Financial Officer

GRAND RAPIDS CITY CLERK  
300 MONROE AVENUE, N.W., GRAND RAPIDS, MICHIGAN 49503  
TELEPHONE (616) 456-3010 • FAX (616) 456-4607

**CITY OF GRAND RAPIDS, MICHIGAN  
2014 FINAL WATER/SEWER RATE STUDY  
WATER & SEWER RATES FOR GRAND RAPIDS & RETAIL CUSTOMER COMMUNITIES  
EFFECTIVE JANUARY 1, 2015  
December 16, 2014**

**WATER RATES**

COMMODITY	METER CODE	GRAND RAPIDS	WALKER	KENTWOOD	CASCADE	GR. RAPIDS TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP
CHARGE (HCF)		\$ 1.76	\$ 1.58	\$ 1.56	\$ 2.14	\$ 1.69	\$ 3.46	NA
<b>MONTHLY SERVICE CHARGE BY METER SIZE</b>								
3/4" & Less	A	\$ 9.77	\$ 12.08	\$ 14.65	\$ 20.14	\$ 14.65	\$ 6.57	NA
1"	B	\$ 14.85	\$ 18.96	\$ 23.52	\$ 33.28	\$ 23.52	\$ 9.16	NA
1-1/4"	C	\$ 21.38	\$ 27.80	\$ 34.93	\$ 50.18	\$ 34.93	\$ 12.49	NA
1-1/2"	D	\$ 29.36	\$ 38.60	\$ 48.88	\$ 70.84	\$ 48.88	\$ 16.56	NA
2"	E	\$ 49.68	\$ 66.10	\$ 84.38	\$ 123.42	\$ 84.38	\$ 26.92	NA
3"	F	\$ 107.72	\$ 144.68	\$ 185.80	\$ 273.64	\$ 185.80	\$ 56.52	NA
4"	G	\$ 188.98	\$ 254.69	\$ 327.79	\$ 483.95	\$ 327.79	\$ 97.96	NA
6" & Over	H	\$ 421.16	\$ 569.00	\$ 733.48	\$ 1,084.84	\$ 733.48	\$ 216.36	NA

**SEWER RATES**

COMMODITY	METER CODE	GRAND RAPIDS	WALKER	KENTWOOD	CASCADE	GR. RAPIDS TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP
CHARGE (HCF)		\$ 3.27	\$ 2.72	\$ 2.37	\$ 2.60	\$ 2.34	\$ 10.85	NA
REU Charge (Monthly) *		NA	NA	NA	NA	NA	NA	\$ 61.13
<b>MONTHLY SERVICE CHARGE BY METER SIZE</b>								
3/4" & Less	A	\$ 15.21	\$ 30.31	\$ 7.09	\$ 31.63	\$ 27.29	\$ 34.38	NA
1"	B	\$ 24.43	\$ 51.27	\$ 9.99	\$ 53.62	\$ 45.90	\$ 58.51	NA
1-1/4"	C	\$ 36.28	\$ 78.22	\$ 13.72	\$ 81.89	\$ 69.83	\$ 89.53	NA
1-1/2"	D	\$ 50.76	\$ 111.16	\$ 18.28	\$ 116.44	\$ 99.08	\$ 127.44	NA
2"	E	\$ 87.63	\$ 195.00	\$ 29.88	\$ 204.39	\$ 173.53	\$ 223.95	NA
3"	F	\$ 192.96	\$ 434.56	\$ 63.04	\$ 455.68	\$ 386.24	\$ 499.68	NA
4"	G	\$ 340.43	\$ 769.94	\$ 109.46	\$ 807.48	\$ 684.03	\$ 885.71	NA
6" & Over	H	\$ 761.76	\$ 1,728.16	\$ 242.08	\$ 1,812.64	\$ 1,534.88	\$ 1,988.64	NA

\* REU - Residential Equivalent Unit (Wright Township Only)

**FIRE PROTECTION RATES- ALL GOVERNMENTAL UNITS**

6"	H	\$ 16.00	10"	J	\$ 44.48
8"	I	\$ 28.40	12"	K	\$ 64.00

**NOTE:** Monthly defined as 1/12th of 365 days.

**CITY OF GRAND RAPIDS, MICHIGAN  
2014 FINAL WATER/SEWER RATE STUDY  
WATER & SEWER RATES FOR WHOLESALE CUSTOMER COMMUNITIES  
EFFECTIVE JANUARY 1, 2015  
December 16, 2014**

	<b>2015</b>
<b>EAST GRAND RAPIDS</b>	
WATER - SERVICE (MONTHLY)	\$ 16,064.00
- COMMODITY (100 CF)	1.12
SEWER - SERVICE (MONTHLY)	1,427.00
- COMMODITY (MG)	1,627.00
<b>ADA TWP</b>	
WATER - SERVICE	\$ 31,538.00
- COMMODITY	1.27
SEWER - SERVICE	50,189.00
- COMMODITY	2,001.00
<b>OTTAWA COUNTY</b>	
WATER - SERVICE	\$ -
- COMMODITY	1.24
<b>GAINES TWP</b>	
SEWER - SERVICE	\$ 1,256.00
- COMMODITY	1,418.00

**NOTE: Monthly defined as 1/12th of 365 days.**

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