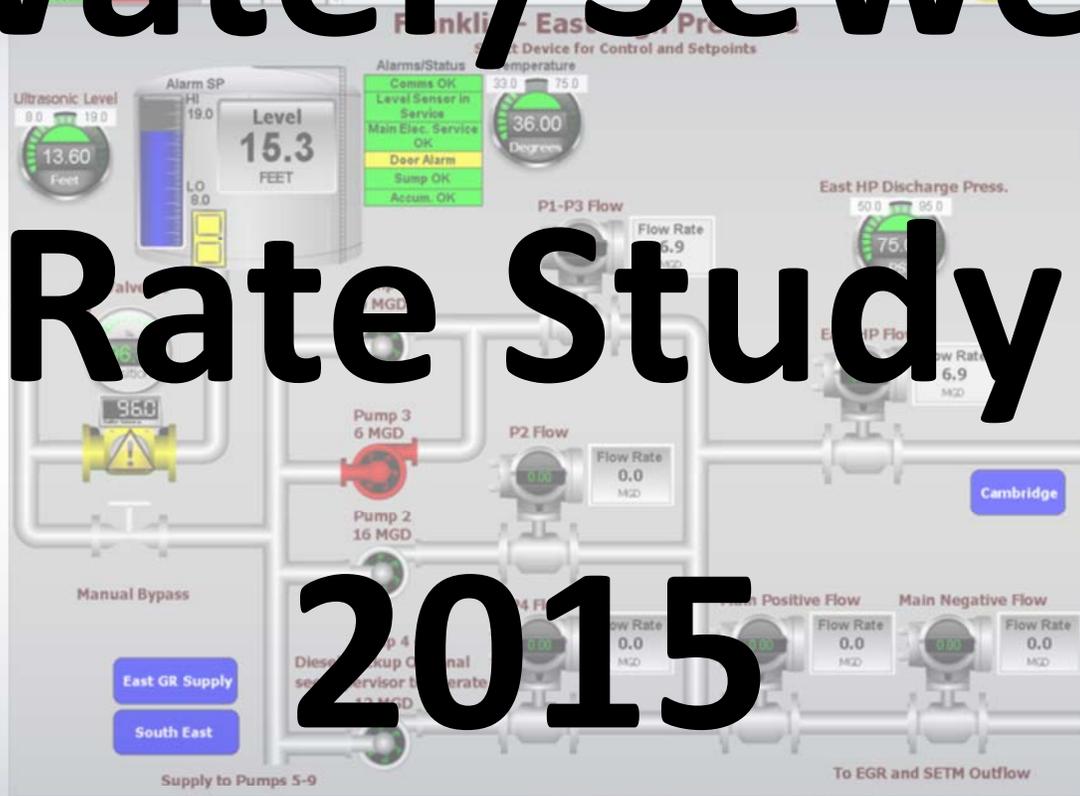
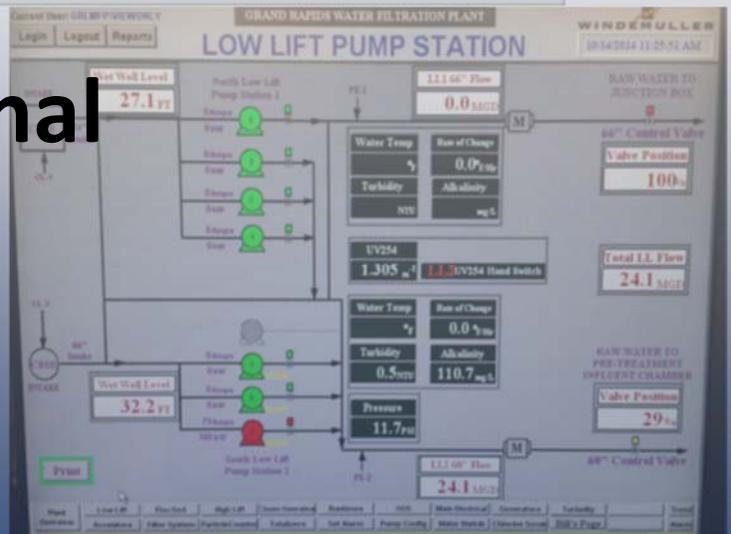


City of Grand Rapids, Michigan

# Water/Sewer



Final



# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** January 4, 2016

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

**FROM:** Molly J. Eastman   
Utility Financial Officer

**SUBJECT:** 2015 WATER/SEWER RATE STUDY – FINAL REPORT

The final study, setting water and sewer rates effective January 1, 2016, 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 2015 review marked the 39<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 \$399,363, or 1.00% more than revenue generated by existing rates and charges and includes a supplemental revenue requirement to help ensure satisfactory debt coverage.
2. Sewage Disposal System revenue requirements increased \$149,339, or 0.30% 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 five 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 \$156,969 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, Walker, 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.

Five 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 two schedules show comparative water and sewer monthly service and commodity rate adjustments for the City's retail and wholesale customer communities.

Announcement of the proposed 2016 water and sewer rates to the UAB partners and other customer communities was made November 13, 2015, and the City Commission approved the customer community rates by resolution on December 15, 2015.

Pursuant to Section 2.33 and 2.94 of the City Code, on November 17, 2015, the preliminary rate study with explanatory materials were filed with the City Clerk, made available online at [www.grcity.us/watersewerratestudy](http://www.grcity.us/watersewerratestudy), and notice of availability of such information was published in the newspaper at least twenty (20) days prior to adoption of the resolution to provide for opportunities for public comment. The City Commission approved the final water and sewer rates by resolution on December 15, 2015.

Attachments as named

MJE: mje

**CITY OF GRAND RAPIDS, MICHIGAN  
2015 FINAL WATER/SEWER RATE STUDY  
SUMMARY OF REVENUE REQUIREMENT CHANGES  
FOR RATES EFFECTIVE JANUARY 1, 2016  
December 29, 2015**

	<u>WATER (1)</u>		<u>SEWER (1)</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
GRAND RAPIDS	\$ 486,107	2.07%	\$ 253,447	0.75%
WALKER	64,834	2.06%	(87,570)	-1.82%
KENTWOOD	(13,375)	-0.31%	136,783	3.59%
CASCADE TWP	63,774	2.06%	16,347	0.75%
GRAND RAPIDS TWP	20,132	0.96%	(5,634)	-0.24%
TALLMADGE TWP	3,089	2.06%	(3,775)	-1.22%
WRIGHT TWP (2)	N/A	N/A	(63,154)	-20.33%
NET OF CONTRIBUTION OF:			5,000	
EAST GRAND RAPIDS	(56,578)	-6.45%	6,055	1.06%
ADA TWP	(67,197)	-5.78%	(93,334)	-7.35%
OTTAWA COUNTY	(101,423)	-6.79%	NA	NA
GAINES TWP	N/A	N/A	1,273	0.74%
CALEDONIA TWP	N/A	N/A	(16,099)	-13.96%
<b>SYSTEM</b>	<b>\$ 399,363</b>	<b>1.00%</b>	<b>\$ 149,339</b>	<b>0.30%</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).

(2) Wright Twp contributed \$5,000 in 2015 Rate Study for 2016 sewer revenue requirements & rates.

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

	<u>WATER</u>		<u>SEWER</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
SYSTEM CHANGE- ABOVE	\$ 40,178,439	1.00%	\$ 49,868,027	0.30%
ADD: CCCCB RELIEF	461,379	1.16%	330,719	0.67%
ADD: CAPITAL INVESTMENT REIMBURSEMENT			(108,205)	-0.22%
SYSTEM CHANGE- WITHOUT RELIEF	<u>\$ 40,639,818</u>	<u>2.16%</u>	<u>\$ 50,090,541</u>	<u>0.75%</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2015 FINAL WATER/SEWER RATE STUDY**  
**IMPACT OF RATE ADJUSTMENTS ON DOMESTIC USERS**  
**BY CUSTOMER COMMUNITY \***  
**December 29, 2015**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2015</u>	<u>2016</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 71.55	\$ 73.11	\$ 1.56	2.18%
SEWER	104.49	105.75	1.26	1.21%
	<u>\$ 176.04</u>	<u>\$ 178.86</u>	<u>\$ 2.82</u>	1.60%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 74.16	\$ 75.93	\$ 1.77	2.39%
SEWER	139.89	137.58	(2.31)	-1.65%
	<u>\$ 214.05</u>	<u>\$ 213.51</u>	<u>\$ (0.54)</u>	-0.25%
RATIO TO GR	1.22	1.19		
<b>KENTWOOD</b>				
WATER	\$ 81.39	\$ 81.33	\$ (0.06)	-0.07%
SEWER	63.93	66.27	2.34	3.66%
	<u>\$ 145.32</u>	<u>\$ 147.60</u>	<u>\$ 2.28</u>	1.57%
RATIO TO GR	0.83	0.83		
<b>CASCADE TWP</b>				
WATER	\$ 111.78	\$ 114.45	\$ 2.67	2.39%
SEWER	141.69	143.01	1.32	0.93%
	<u>\$ 253.47</u>	<u>\$ 257.46</u>	<u>\$ 3.99</u>	1.57%
RATIO TO GR	1.44	1.44		
<b>GRAND RAPIDS TWP</b>				
WATER	\$ 84.51	\$ 85.44	\$ 0.93	1.10%
SEWER	123.99	123.87	(0.12)	-0.10%
	<u>\$ 208.50</u>	<u>\$ 209.31</u>	<u>\$ 0.81</u>	0.39%
RATIO TO GR	1.18	1.17		
<b>TALLMADGE TWP</b>				
WATER	\$ 102.75	\$ 105.75	\$ 3.00	2.92%
SEWER	298.44	295.17	(3.27)	-1.10%
	<u>\$ 401.19</u>	<u>\$ 400.92</u>	<u>\$ (0.27)</u>	-0.07%
RATIO TO GR	2.28	2.24		

\* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE DOMESTIC CUSTOMER  
QUARTERLY CONSUMPTION OF: WATER- 24.00 UNITS OR 17,952 GALLONS  
SEWER - 18.00 UNITS OR 13,464 GALLONS  
NO. OF MONTHS: 3

Note: The average water consumption depicted above reflects an increase of one (1) units from last year's rate study.  
Sewer also reflects an increase of two (2) units from last year's rate study. The average quarterly consumption  
for water and sewer last year was 23 and 16 units, respectively.

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

<b>WRIGHT TWP-</b>				
SEWER (No. of REU 1.00)	<u>\$ 183.39</u>	<u>\$ 146.10</u>	<u>\$ (37.29)</u>	-20.33%

**CITY OF GRAND RAPIDS, MICHIGAN  
2015 FINAL WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON COMMERCIAL USERS  
BY CUSTOMER COMMUNITY  
December 29, 2015**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2015</u>	<u>2016</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 414.15	\$ 424.68	\$ 10.53	2.54%
SEWER	750.18	743.04	(7.14)	-0.95%
	<u>\$ 1,164.33</u>	<u>\$ 1,167.72</u>	<u>\$ 3.39</u>	0.29%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 388.68	\$ 396.24	\$ 7.56	1.95%
SEWER	716.85	703.38	(13.47)	-1.88%
	<u>\$ 1,105.53</u>	<u>\$ 1,099.62</u>	<u>\$ (5.91)</u>	-0.53%
RATIO TO GR	0.95	0.94		
<b>KENTWOOD</b>				
WATER	\$ 398.16	\$ 397.47	\$ (0.69)	-0.17%
SEWER	520.56	539.88	19.32	3.71%
	<u>\$ 918.72</u>	<u>\$ 937.35</u>	<u>\$ 18.63</u>	2.03%
RATIO TO GR	0.79	0.80		
<b>CASCADE TWP</b>				
WATER	\$ 549.24	\$ 560.10	\$ 10.86	1.98%
SEWER	699.06	704.31	5.25	0.75%
	<u>\$ 1,248.30</u>	<u>\$ 1,264.41</u>	<u>\$ 16.11</u>	1.29%
RATIO TO GR	1.07	1.08		
<b>GRAND RAPIDS TWP</b>				
WATER	\$ 425.46	\$ 429.87	\$ 4.41	1.04%
SEWER	622.08	619.53	(2.55)	-0.41%
	<u>\$ 1,047.54</u>	<u>\$ 1,049.40</u>	<u>\$ 1.86</u>	0.18%
RATIO TO GR	0.90	0.90		
<b>TALLMADGE TWP</b>				
WATER	\$ 754.08	\$ 758.97	\$ 4.89	0.65%
SEWER	2,421.48	2,392.29	(29.19)	-1.21%
	<u>\$ 3,175.56</u>	<u>\$ 3,151.26</u>	<u>\$ (24.30)</u>	-0.77%
RATIO TO GR	2.73	2.70		

\* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE COMMERCIAL CUSTOMER  
 QUARTERLY CONSUMPTION OF : WATER- 210.00 UNITS OR 157,080 GALLONS  
 SEWER - 207.00 UNITS OR 154,836 GALLONS  
 NO. OF MONTHS: 3

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

<b>WRIGHT TWP</b>				
SEWER (No. of REU 1.00)	<u>\$ 183.39</u>	<u>\$ 146.10</u>	<u>\$ (37.29)</u>	-20.33%

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2015 FINAL WATER/SEWER RATE STUDY**  
**WATER & SEWER RATES FOR GRAND RAPIDS & RETAIL CUSTOMER COMMUNITIES**  
**EFFECTIVE JANUARY 1, 2016**  
**December 29, 2015**

**WATER RATES**

COMMODITY	METER CODE	GRAND RAPIDS	WALKER	KENTWOOD	CASCADE	GR. RAPIDS TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP
CHARGE (HCF)		\$ 1.81	\$ 1.61	\$ 1.56	\$ 2.18	\$ 1.71	\$ 3.53	NA
<b>MONTHLY SERVICE CHARGE BY METER SIZE</b>								
3/4" & Less	A	\$ 9.89	\$ 12.43	\$ 14.63	\$ 20.71	\$ 14.80	\$ 7.01	NA
1"	B	\$ 14.86	\$ 19.38	\$ 23.29	\$ 34.10	\$ 23.59	\$ 9.74	NA
1-1/4"	C	\$ 21.25	\$ 28.31	\$ 34.42	\$ 51.31	\$ 34.89	\$ 13.25	NA
1-1/2"	D	\$ 29.06	\$ 39.22	\$ 48.02	\$ 72.34	\$ 48.70	\$ 17.54	NA
2"	E	\$ 48.94	\$ 67.00	\$ 82.65	\$ 125.88	\$ 83.86	\$ 28.46	NA
3"	F	\$ 105.74	\$ 146.38	\$ 181.58	\$ 278.86	\$ 184.30	\$ 59.66	NA
4"	G	\$ 185.26	\$ 257.51	\$ 320.09	\$ 493.03	\$ 324.92	\$ 103.34	NA
6" & Over	H	\$ 412.46	\$ 575.02	\$ 715.82	\$ 1,104.94	\$ 726.70	\$ 228.14	NA

**SEWER RATES**

COMMODITY	METER CODE	GRAND RAPIDS	WALKER	KENTWOOD	CASCADE	GR. RAPIDS TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP
CHARGE (HCF)		\$ 3.22	\$ 2.67	\$ 2.46	\$ 2.62	\$ 2.33	\$ 10.72	NA
REU Charge (Monthly) *		NA	NA	NA	NA	NA	NA	\$ 48.70
<b>MONTHLY SERVICE CHARGE BY METER SIZE</b>								
3/4" & Less	A	\$ 15.93	\$ 29.84	\$ 7.33	\$ 31.95	\$ 27.31	\$ 34.07	NA
1"	B	\$ 25.50	\$ 50.23	\$ 10.22	\$ 53.99	\$ 45.74	\$ 57.75	NA
1-1/4"	C	\$ 37.81	\$ 76.45	\$ 13.93	\$ 82.32	\$ 69.43	\$ 88.20	NA
1-1/2"	D	\$ 52.86	\$ 108.50	\$ 18.46	\$ 116.94	\$ 98.38	\$ 125.42	NA
2"	E	\$ 91.16	\$ 190.07	\$ 30.00	\$ 205.08	\$ 172.08	\$ 220.15	NA
3"	F	\$ 200.58	\$ 423.14	\$ 62.98	\$ 456.90	\$ 382.66	\$ 490.82	NA
4"	G	\$ 353.77	\$ 749.43	\$ 109.15	\$ 809.45	\$ 677.47	\$ 869.75	NA
6" & Over	H	\$ 791.46	\$ 1,681.70	\$ 241.06	\$ 1,816.74	\$ 1,519.78	\$ 1,952.42	NA

\* REU - Residential Equivalent Unit (Wright Township Only)

**FIRE PROTECTION RATES- ALL GOVERNMENTAL UNITS**

6"	H	\$ 16.40	10"	J	\$ 45.59
8"	I	\$ 29.11	12"	K	\$ 65.60

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

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2015 FINAL WATER/SEWER RATE STUDY**  
**IMPACT OF RATE ADJUSTMENTS ON WHOLESALE CUSTOMER COMMUNITIES**  
**EFFECTIVE JANUARY 1, 2016**  
**December 29, 2015**

	<u>2015</u>	<u>2016</u>	<u>PERCENTAGE CHANGE</u>
<b>EAST GRAND RAPIDS</b>			
WATER - SERVICE (MONTHLY)	\$ 16,064.00	\$15,936.00	-0.80%
- COMMODITY (100 CF)	1.12	\$1.03	-8.04%
SEWER - SERVICE (MONTHLY)	1,427.00	\$1,306.00	-8.48%
- COMMODITY (MG)	1,627.00	1,649.00	1.35%
<b>ADA TWP</b>			
WATER - SERVICE	\$ 31,538.00	\$31,083.00	-1.44%
- COMMODITY	1.27	\$1.17	-7.87%
SEWER - SERVICE	50,189.00	\$42,300.00	-15.72%
- COMMODITY	2,001.00	2,005.00	0.20%
<b>OTTAWA COUNTY</b>			
WATER - SERVICE	\$ -	\$ -	N/A
- COMMODITY	1.24	\$1.16	-6.45%
<b>GAINES TWP</b>			
SEWER - SERVICE	\$ 1,256.00	\$ 1,093.00	-12.98%
- COMMODITY	1,418.00	1,447.00	2.05%
<b>CALEDONIA TWP</b>			
SEWER - SERVICE	\$ -	\$ 523.00	N/A
- COMMODITY	-	3,541.00	N/A

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

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

**Table of Contents**

<u>Task No.</u>		<u>Page</u>
1	Inventory of Plant and Equipment	W 1
2	Cost of Plant and Equipment	W 1
3	Source of Funding for Plant and Equipment	W 1
4	Operating Costs for the Test Period	W 2
5	Adjustments to Operating Costs	W 4
6	Water Volumes and Revenues	W24
7	Other Operating Revenues	W27
8	Changes in Operating Levels	W28
9	Changes in Operating Revenues	W29
10	System Additions and Retirements	W30
11	Fixed Assets-Cost, Accumulated Depreciation and Depreciation	W31
12	Working Capital Needs	W32
13	Joint Use Facilities-Zonegated	W34
14	Update Water Map	W36
15	Construction Cost Rate Base	W37
15a	Integrated Water Connection Fees	W38
16	Future Non-Integrated Improvements	W41
17	Tabulation of Bonds	W42
18	Water System Equity	W43
19	Rate of Return-Bond Buyer's Index	W44
20	Composite Rate of Return	W45
21	Rate of Return by Customer Community	W46
22	Adjusted Operating Cost by Customer Community-Zonegated	W50
23	Other Operating Revenues by Customer Community	W51
24	Depreciation Expense by Customer Community	W52
25	Revenue Requirement Summary by Customer Community	W54
25a	Revenue Requirements-Bond Ordinance Provision	W55
26	Comparative Summary of System Revenue Levels	W56
26 / 27	Revenue Levels / Rate Schedules by Customer Community	W58
28	Front Foot Charges	W76
29	Water Service Charges	W77
30	Water System Rates & Regulations – Miscellaneous Rates/Charges	W78
31	There is No Task 31 for the Water Rate Study	W82
32	Water Main Oversizing	W83
33	Utility Service District Areas	W84
34	Circuit Breaker – Individual and City & Customer Community	W85
35	There is No Task 35 for the Water Rate Study	W86

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ANNUAL RATE REVIEW**

**Table of Contents**

<u>Task No.</u>		<u>Page</u>
1	Inventory of Plant and Equipment	S 1
2	Cost of Plant and Equipment	S 1
3	Source of Funding for Plant and Equipment	S 1
4	Operating Costs for the Test Period	S 2
5	Adjustments to Operating Costs	S 4
6	Sewer Volumes and Revenues	S18
7	Other Operating Revenues	S21
8	Changes in Operating Levels	S22
9	Changes in Operating Revenues	S23
10	System Additions and Retirements	S24
11	Fixed Assets-Cost, Accumulated Depreciation & Depreciation	S25
12	Working Capital Needs	S26
13	Joint Use Facilities-Zonegated	S27
14	Update Sewer Map	S32
15	Construction Cost Rate Base	S33
15a	Integrated Sewer Connection Fees	S34
16	CSO Debt Service Requirements	S37
16A	Future Non-Integrated Improvements	S38
17	Tabulation of Bonds	S39
18	Sewer System Equity	S40
19	Rate of Return-Bond Buyer's Index	S41
20	Composite Rate of Return	S42
21	Rate of Return by Customer Community	S44
22	Adjusted Operating Cost by Customer Community-Zonegated	S49
23	Other Operating Revenues by Customer Community	S50
24	Depreciation Expense by Customer Community	S51
25	Revenue Requirement Summary by Customer Community	S52
25a	Revenue Requirements-Bond Ordinance Provision	S53
26	Comparative Summary of System Revenue Levels	S54
26 / 27	Revenue Levels / Rate Schedules by Customer Community	S56
28	Front Foot Charges	S78
29	Sewer Lateral Charges	S79
30	Surcharges for BOD, TSS, Phosphorus & Ammonia	S81
31	Industrial Pretreatment Permit & Laboratory Fees	S86
32	Sanitary Sewer Oversizing	S92
33	Utility Service District Areas	S93
34	Circuit Breaker -- Individual and City & Customer Community	S94
35	Footing Drain Opt Out	S96

**CITY OF GRAND RAPIDS, MICHIGAN  
APPENDIXES  
ANNUAL WATER/SEWER RATE REVIEW**

**Table of Contents**

<b><u>Description</u></b>	<b><u>Page</u></b>
Introduction of Preliminary Rates and Initiation of Public Comment Period	A
Approved Resolution Approving Proposed Grand Rapids Water/Sewer Rates	B
Notice of Public Comment Period	C
Approved Resolution Approving Proposed Partner Community Water/Sewer Rates	D
Community Contributions	E
Customer Community Rate Notification Letter (11)	F

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
SYSTEM ADDITIONS AND IMPROVEMENTS  
FOR THE YEAR ENDED JUNE 30, 2015  
TASKS NO. 1, 2, & 3**

COMMUNITY	LOCAL		INTERMEDIATE		PRIMARY		TOTALS	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
Grand Rapids								
Construction	2,623	0.50	5,230	0.99	0	0.00	7,853	1.49
Abandonment	(4,441)	(0.84)	(4,560)	(0.86)	0	0.00	(9,001)	(1.70)
CSO Construction	7,871	1.49	3,548	0.67	0	0.00	11,419	2.16
CSO Abandonment	(9,073)	(1.72)	(3,499)	(0.66)	0	0.00	(12,572)	(2.38)
	(3,020)	(0.57)	719	0.14	0	0.00	(2,301)	(0.43)
Kentwood								
Construction	1,189	0.23	0	0.00	92	0.02	1,281	0.25
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	1,189	0.23	0	0.00	92	0.02	1,281	0.25
Cascade Twp.								
Construction	7,221	1.37	1,299	0.25	0	0.00	8,520	1.62
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	7,221	1.37	1,299	0.25	0	0.00	8,520	1.62
G.R. Twp.								
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
Tallmadge Twp.								
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
Walker								
Construction	1,552	0.29	0	0.00	0	0.00	1,552	0.29
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	1,552	0.29	0	0.00	0	0.00	1,552	0.29
<b>*TOTAL*</b>	<b>6,942</b>	<b>1.32</b>	<b>2,018</b>	<b>0.39</b>	<b>92</b>	<b>0.02</b>	<b>9,052</b>	<b>1.73</b>

	CONTRIBUTIONS		
	COMM	OTHER	TOTAL
Integrated	\$ -	\$ -	\$ -
Grand Rapids	86,183	-	86,183
Walker	115,548	-	115,548
Kentwood	146,712	-	146,712
Cascade Twp.	891,009	-	891,009
Grand Rapids Twp.	-	-	-
Tallmadge Twp.	-	-	-
<b>*TOTAL*</b>	<b>\$ 1,239,452</b>	<b>\$ -</b>	<b>\$ 1,239,452</b>



CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #4, PART 2  
 FISCAL YEAR ENDED JUNE 30, 2015

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	\$ 6,296,533	\$ 6,296,533													
PUMPING STATIONS:															
A. PRIMARY TRANSPORT	1,226,308	1,226,308													
B. INTERMEDIATE TRANSPORT	1,616,702		1,294,586	49,899	272,217										
WATERMAINS:															
A. PRIMARY TRANSPORT	307,048		252,157	16,980	24,149	8,858	4,904								
B. INTERMEDIATE TRANSPORT	1,591,644		610,745	330,855	286,560	211,641	130,228	21,615							
C. LOCAL DISTRIBUTION	4,265,691		3,131,528	333,748	289,982	234,997	262,767	12,669							
RETAIL CUSTOMER METERING	2,278,940		1,718,458	184,799	148,929	101,572	119,986	5,196							
SUBTOTAL OPERATING EXPENSE	17,582,866	7,522,841	7,007,474	916,281	1,021,837	557,068	517,885	39,480							
ENGINEERING SERVICES	1,081,195	462,590	430,899	56,341	62,839	34,252	31,841	2,433							
ADMINISTRATIVE EXPENSE	2,297,130	957,937	950,488	116,672	130,128	70,930	65,937	5,038							
TOTAL	\$ 20,961,191	\$ 8,943,368	\$ 8,388,861	\$ 1,089,294	\$ 1,214,804	\$ 662,250	\$ 615,663	\$ 46,951	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>METHOD OF DISTRIBUTION</b>															
FILTRATION PLANTS	100.00%	100.00%													
PUMPING STATIONS															
A. PRIMARY TRANSPORT	100.00%	100.00%													
B. INTERMEDIATE TRANSPORT	100.00%		80.076%	3.086%	16.838%										
MEMO															
WATERMAINS															
TOTAL MILES:			1,169.14												
A. PRIMARY TRANSPORT			82.123%	5.530%	7.865%	2.885%	1.597%								
MILES			47.82	3.22	4.58	1.68	0.93								
B. INTERMEDIATE TRANSPORT			38.372%	20.787%	18.004%	13.297%	8.182%	1.358%							
MILES			115.83	62.75	54.35	40.14	24.70	4.10							
C. LOCAL DISTRIBUTION			73.412%	7.824%	6.798%	5.509%	6.160%	0.297%							
MILES			593.93	63.30	55.00	44.57	49.84	2.40							
RETAIL CUSTOMER METERING (1)			75.406%	8.109%	6.535%	4.457%	5.265%	0.228%							
NUMBER OF METERS			61,956.00	6,663.00	5,369.00	3,662.00	4,326.00	187.00							
ENGINEERING SERVICES (2)			42.785%	5.211%	5.812%	3.168%	2.945%	0.225%							
ADMINISTRATIVE EXPENSE (3)			41.377%	5.079%	5.665%	3.088%	2.870%	0.219%							

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

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, 2015

ACTIVITY CODE	ACTIVITY	ADJUSTED EXPENSE BY ACTIVITY	PUMPING STATIONS			WATERMAINS		RETAIL CUSTOMER METERING	ENGIN. SERVICES	ADMIN. EXPENSE
			PRIMARY	INTERM.	PRIMARY TRANSPORT	INTERMED. TRANSPORT	LOCAL DISTRIBUTION			
0430	TREASURER-CUSTOMER SERVICE	\$ 540,274					\$ 540,274			
4312	WATER-CUSTOMER SERVICE *	2,804,580					2,804,580			
4315	ENGINEERING	1,086,831						1,086,831		
4320	COLDBROOK CONTROL	719,117	719,117							
4322	COLDBROOK DISTRIBUTION	1,670,306	398,871	1,271,435						
4331	FIELD OPERATIONS	6,506,939			324,111	1,680,092				
4342	FILTRATION	6,951,354								
	SUBTOTAL OPERATING EXPENSE	20,279,401	1,117,988	1,271,435	324,111	1,680,092	3,344,854	1,086,831	-	
4311	ADMINISTRATION	3,660,246							3,660,246	
	TOTAL	\$ 23,939,647	\$ 1,117,988	\$ 1,271,435	\$ 324,111	\$ 1,680,092	\$ 3,344,854	\$ 1,086,831	\$ 3,660,246	

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

METHOD OF DISTRIBUTION	ADJUSTED EXPENSE BY ACTIVITY	PRIMARY	INTERM.	PRIMARY TRANSPORT	INTERMED. TRANSPORT	LOCAL DISTRIBUTION	RETAIL CUSTOMER METERING	ENGIN. SERVICES	ADMIN. EXPENSE
0430	TREASURER-CUSTOMER SERVICE						100.000%		
4312	WATER-CUSTOMER SERVICE						100.000%		
4315	ENGINEERING							100.000%	
4320	COLDBROOK CONTROL	100.000%							
4322	COLDBROOK DISTRIBUTION	23.880%	76.120%						
4331	FIELD OPERATIONS	4.981%	25.820%	58.23	301.87	69.199%			
	TOTAL MILES OF MAIN					809.04			
4342	FILTRATION								100.000%
4311	ADMINISTRATION								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, 2015

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	\$ 6,951,354	\$ 6,951,354												
PUMPING STATIONS:														
A. PRIMARY TRANSPORT	1,117,988	1,117,988												
B. INTERMEDIATE TRANSPORT	1,271,435		1,018,112	39,242	214,081									
WATERMAINS:														
A. PRIMARY TRANSPORT	324,111		266,170	17,923	25,491	9,351	5,176							
B. INTERMEDIATE TRANSPORT	1,680,092		644,684	349,241	302,484	223,402	137,465	22,816						
C. LOCAL DISTRIBUTION	4,502,736		3,305,548	352,294	306,096	248,056	277,369	13,373						
RETAIL CUSTOMER METERING	3,344,854		2,522,221	271,234	218,586	149,080	176,107	7,626						
SUBTOTAL OPERATING EXPENSE	19,192,570	8,069,342	7,756,735	1,029,934	1,066,738	629,889	596,117	43,815						
ENGINEERING SERVICES	1,086,831	456,958	439,243	58,319	60,406	35,670	33,757	2,478						
ADMINISTRATIVE EXPENSE	3,660,246	1,514,492	1,513,951	193,287	200,203	118,220	111,880	8,213						
<b>TOTAL</b>	<b>\$ 23,939,647</b>	<b>\$ 10,040,792</b>	<b>\$ 9,709,929</b>	<b>\$ 1,281,540</b>	<b>\$ 1,327,347</b>	<b>\$ 783,779</b>	<b>\$ 741,754</b>	<b>\$ 54,506</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

W-5

**METHOD OF DISTRIBUTION**

FILTRATION PLANTS	100.00%	100.00%												
PUMPING STATIONS														
A. PRIMARY TRANSPORT	100.00%	100.00%												
B. INTERMEDIATE TRANSPORT	100.00%		80.076%	3.086%	16.838%									
MEMO														
WATERMAINS														
TOTAL MILES:	1,169.14													
A. PRIMARY TRANSPORT	58.23													
B. INTERMEDIATE TRANSPORT	301.87													
C. LOCAL DISTRIBUTION	809.04													
RETAIL CUSTOMER METERING (1)	82,163.00													
NUMBER OF METERS														
ENGINEERING SERVICES (2)		42.045%	40.415%	5.366%	5.558%	3.282%	3.106%	0.228%						
ADMINISTRATIVE EXPENSE (3)		100.000%	41.362%	5.281%	5.470%	3.230%	3.057%	0.224%						

**NOTES:**

- (1) ALLOCATION BASED ON NUMBER OF METERS.
- (2) ALLOCATION BASED ON DIRECT OPERATING EXPENSE.
- (3) ALLOCATION BASED ON 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, 2015  
 RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4301, 4311 & 4480 - ADMINISTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 564,049.82	\$ 13,311.58	\$ 577,361.40
7040	TEMPORARY EMPLOYEES	608.82	14.37	623.19
7055	TIME & ONE-HALF	148.18	3.50	151.68
7105	EMPLOYERS SOCIAL SECURITY	39,991.68	943.80	40,935.48
7110	HOSPITALIZATION INSURANCE	88,601.79	6,441.35	95,043.14
7115	RETIREE HEALTH CARE	71,874.49	6,008.71	77,883.20
7120	RETIREMENT FUND CONTRIBUTION	134,402.82	(26,867.12)	107,535.70
7125	SPECIAL PENSION BENEFITS	247.13	-	247.13
7135	UNEMPLOYMENT COMPENSATION	801.04	-	801.04
	TOTAL PERSONAL SERVICES	<u>900,725.77</u>	<u>(143.81)</u>	<u>900,581.96</u>
7260	SUPPLIES	3,338.73	-	3,338.73
	TOTAL SUPPLIES	<u>3,338.73</u>	<u>-</u>	<u>3,338.73</u>
8140	COMPUTER SERVICES	54,133.00	3,992.00	58,125.00
8160	ENGINEERING SERVICES	16,323.25	-	16,323.25
8180	CONTRACTUAL SERVICES	227,253.96	300,000.00	527,253.96
8355	GENERAL LIABILITY INSURANCE/CLAIMS	278,460.00	33,100.00	311,560.00
8450	INSURANCE PREMIUMS	158,914.63	-	158,914.63
8500	TELEPHONE	5,738.70	-	5,738.70
8800	COMMUNITY PROMOTION	202.00	-	202.00
9000	PRINTING & PUBLISHING	4,500.12	-	4,500.12
9300	MAINTENANCE SERVICE	1,536.88	-	1,536.88
9430	LAND RENTAL OR LEASE	2,683.37	-	2,683.37
9440	VEHICLE USAGE/CAR MILEAGE	3,581.99	-	3,581.99
9550	PROFESSIONAL DEVELOPMENT	8,171.64	10,000.00	18,171.64
9552	OTHER TRAVEL & TRAINING	24,572.25	-	24,572.25
9554	LOCAL BUSINESS EXPENSE	188.77	-	188.77
9556	MEMBERSHIPS	16,299.59	-	16,299.59
9610	FEES	7,052.21	-	7,052.21
9616	ADMINISTRATIVE SERVICES (ICB)	83,558.50	(83,558.50)	-
9620	BAD DEBT WRITE-OFFS	22,536.55	-	22,536.55
xxxx	SENIOR DEBT COVERAGE RATIO ADJ		940,000.00	940,000.00
	TOTAL OTHER SERVICES & CHARGES	<u>915,707.41</u>	<u>1,203,533.50</u>	<u>2,119,240.91</u>
9760	EQUIPMENT	1,065.90	-	1,065.90
9765	SOFTWARE	1,382.31	-	1,382.31
9800	CONSTRUCTION IN PROGRESS	(11,000.00)	-	(11,000.00)
	TOTAL CAPITAL	<u>(8,551.79)</u>	<u>-</u>	<u>(8,551.79)</u>
9992	OPERATING TRANSFERS-A87 COST	485,910.00	159,726.00	645,636.00
	TOTAL TRANSFERS/FEES	<u>485,910.00</u>	<u>159,726.00</u>	<u>645,636.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,297,130.12</u>	<u>\$ 1,363,115.69</u>	<u>\$ 3,660,245.81</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2015  
 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	\$ 1,236,296.56	\$ 429,176.60	\$ 1,665,473.16
7025	ACT.ASSIGNMENT	1,024.82	24.19	1,049.01
7040	TEMPORARY EMPLOYEES	7,175.56	169.34	7,344.90
7055	TIME & ONE-HALF	79,031.22	1,865.14	80,896.36
7105	EMPLOYERS SOCIAL SECURITY	96,306.35	2,272.83	98,579.18
7110	HOSPITALIZATION INSURANCE	350,210.73	25,460.32	375,671.05
7115	RETIREE HEALTH CARE	168,472.58	14,084.31	182,556.89
7120	RETIREMENT FUND CONTRIBUTION	318,612.00	(63,690.54)	254,921.46
7125	SPECIAL PENSION BENEFITS	49.70	-	49.70
7135	UNEMPLOYMENT COMPENSATION	2,025.95	-	2,025.95
7165	SHIFT DIFFERENTIAL	1,028.44	-	1,028.44
	TOTAL PERSONAL SERVICES	<u>2,260,233.91</u>	<u>409,362.19</u>	<u>2,669,596.10</u>
7260	SUPPLIES	268,584.38	-	268,584.38
7300	POSTAGE	3,948.22	-	3,948.22
7680	CLOTHING/CLEANING ALLOWANCE	255.00	-	255.00
	TOTAL SUPPLIES	<u>272,787.60</u>	<u>-</u>	<u>272,787.60</u>
8140	COMPUTER SERVICES	212,999.00	15,707.00	228,706.00
8140	COMPUTER SERVICES (CIS-DEPR & ROI)		423,893.00	423,893.00
8180	CONTRACTUAL SERVICES	719,167.32	509,194.00	1,228,361.32
8500	TELEPHONE	13,652.95	-	13,652.95
9000	PRINTING & PUBLISHING	2,979.52	-	2,979.52
9300	MAINTENANCE SERVICE	187,618.77	300,000.00	487,618.77
9420	EQUIPMENT RENTALS OR LEASE	137,325.22	-	137,325.22
9440	VEHICLE RENTAL/CAR MILEAGE	12,845.08	-	12,845.08
9610	FEES	4,305.46	-	4,305.46
8150	311 CALL CENTER SERVICES	552,537.00	-	552,537.00
	TOTAL OTHER SERVICES & CHARGES	<u>1,843,430.32</u>	<u>1,248,794.00</u>	<u>3,092,224.32</u>
9760	EQUIPMENT	5,589.76	-	5,589.76
	TOTAL CAPITAL	<u>5,589.76</u>	<u>-</u>	<u>5,589.76</u>
	ORGANIZATIONAL UNIT TOTAL (GROSS)	\$ 4,382,041.59	\$ 1,658,156.19	\$ 6,040,197.78
	LESS: SDSF CONTRIBUTION *	<u>(2,627,977.00)</u>	<u>(607,640.90)</u>	<u>(3,235,617.90)</u>
	ORGANIZATIONAL UNIT TOTAL (NET)	<u>\$ 1,754,064.59</u>	<u>\$ 1,050,515.29</u>	<u>\$ 2,804,579.88</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, 2015  
 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	\$ 501,296.05	\$ 11,830.59	\$ 513,126.64
7025	ACT.ASSIGNMENT	1,430.20	33.75	1,463.95
7040	TEMPORARY EMPLOYEES	1,883.75	44.46	1,928.21
7055	TIME & ONE-HALF	3,022.49	71.33	3,093.82
7105	EMPLOYERS SOCIAL SECURITY	36,077.99	851.44	36,929.43
7110	HOSPITALIZATION INSURANCE	109,710.16	7,975.93	117,686.09
7115	RETIREE HEALTH CARE	65,475.74	5,473.77	70,949.51
7120	RETIREMENT FUND CONTRIBUTION	123,876.92	(24,763.00)	99,113.92
7125	SPECIAL PENSION BENEFITS	92.65	-	92.65
7135	UNEMPLOYMENT COMPENSATION	753.29	-	753.29
	TOTAL PERSONAL SERVICES	<u>843,619.24</u>	<u>1,518.27</u>	<u>845,137.51</u>
7260	SUPPLIES	3,710.75	-	3,710.75
	TOTAL SUPPLIES	<u>3,710.75</u>	<u>-</u>	<u>3,710.75</u>
8140	COMPUTER SERVICES	55,825.00	4,117.00	59,942.00
8180	CONTRACTUAL SERVICES	103,774.11	-	103,774.11
8500	TELEPHONE	5,686.52	-	5,686.52
9300	MAINTENANCE SERVICE	5,520.46	-	5,520.46
9330	PAVEMENT REPAIR	1,462.20	-	1,462.20
9420	EQUIPMENT RENTALS OR LEASE	28,380.23	-	28,380.23
9440	VEHICLE RENTAL/CAR MILEAGE	1,000.00	-	1,000.00
9556	MEMBERSHIPS	75.00	-	75.00
	TOTAL OTHER SERVICES & CHARGES	<u>201,723.52</u>	<u>4,117.00</u>	<u>205,840.52</u>
9760	EQUIPMENT	8,885.76	-	8,885.76
	TOTAL CAPITAL	<u>8,885.76</u>	<u>-</u>	<u>8,885.76</u>
9994	OPERATING TRANS-DEV CENTER	23,256.00	-	23,256.00
	TOTAL TRANSFERS/FEES	<u>23,256.00</u>	<u>-</u>	<u>23,256.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,081,195.27</u>	<u>\$ 5,635.27</u>	<u>\$ 1,086,830.54</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2015  
 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	\$ 272,462.52	\$ 6,430.12	\$ 278,892.64
7050	REGULAR HOURLY RATE	3,364.03	79.39	3,443.42
7055	TIME & ONE-HALF	75,728.91	1,787.20	77,516.11
7105	EMPLOYERS SOCIAL SECURITY	37,535.56	885.84	38,421.40
7110	HOSPITALIZATION INSURANCE	94,769.97	6,889.78	101,659.75
7115	RETIREE HEALTH CARE	49,007.24	4,097.01	53,104.25
7120	RETIREMENT FUND CONTRIBUTION	100,911.89	(20,172.29)	80,739.60
7135	UNEMPLOYMENT COMPENSATION	611.90	-	611.90
7165	SHIFT DIFFERENTIAL	5,259.61	-	5,259.61
	TOTAL PERSONAL SERVICES	<u>639,651.63</u>	<u>(2.95)</u>	<u>639,648.68</u>
7260	SUPPLIES	778.73	-	778.73
7680	CLOTHING/CLEANING ALLOWANCE	249.95	-	249.95
	TOTAL SUPPLIES	<u>1,028.68</u>	<u>-</u>	<u>1,028.68</u>
8140	COMPUTER SERVICES	37,594.00	-	37,594.00
8500	TELEPHONE	32,821.66	-	32,821.66
9300	MAINTENANCE SERVICE	372.50	-	372.50
9420	EQUIPMENT RENTALS OR LEASE	7,296.54	-	7,296.54
9440	VEHICLE USAGE/CAR MILEAGE	200.00	-	200.00
9556	MEMBERSHIPS	95.00	-	95.00
9610	FEES	60.00	-	60.00
	TOTAL OTHER SERVICES & CHARGES	<u>78,439.70</u>	<u>-</u>	<u>78,439.70</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 719,120.01</u>	<u>\$ (2.95)</u>	<u>\$ 719,117.06</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2015  
 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	\$ 357,008.21	\$ 8,425.39	\$ 365,433.60
7025	ACT.ASSIGNMENT	143.50	3.39	146.89
7055	TIME & ONE-HALF	3,164.04	74.67	3,238.71
7105	EMPLOYERS SOCIAL SECURITY	25,589.09	603.90	26,192.99
7110	HOSPITALIZATION INSURANCE	87,029.13	6,327.02	93,356.15
7115	RETIREE HEALTH CARE	47,106.40	3,938.10	51,044.50
7120	RETIREMENT FUND CONTRIBUTION	90,295.29	(18,050.03)	72,245.26
7135	UNEMPLOYMENT COMPENSATION	507.26	-	507.26
7165	SHIFT DIFFERENTIAL	240.78	-	240.78
	TOTAL PERSONAL SERVICES	<u>611,083.70</u>	<u>1,322.44</u>	<u>612,406.14</u>
7260	SUPPLIES	56,436.42	10,000.00	66,436.42
7680	CLOTHING/CLEANING ALLOWANCE	369.85	-	369.85
	TOTAL SUPPLIES	<u>56,806.27</u>	<u>10,000.00</u>	<u>66,806.27</u>
8140	COMPUTER SERVICES	30,074.00	2,218.00	32,292.00
8180	CONTRACTUAL SERVICES	61,074.50	55,000.00	116,074.50
8500	TELEPHONE	3,882.51	-	3,882.51
9210	ELECTRICITY	1,207,586.26	150,000.00	1,357,586.26
9220	WATER	2,705.41	-	2,705.41
9230	NATURAL GAS	70,993.64	-	70,993.64
9300	MAINTENANCE SERVICE	14,348.29	-	14,348.29
9420	EQUIPMENT RENTALS OR LEASE	62,377.33	-	62,377.33
9552	OTHER TRAVEL & TRAINING	300.00	-	300.00
9610	FEES	630.97	-	630.97
9622	REFUSE COLLECTION CHARGES	2,027.33	-	2,027.33
xxxx	FACILITY RENTALS		(672,124.30)	(672,124.30)
	TOTAL OTHER SERVICES & CHARGES	<u>1,456,000.24</u>	<u>(464,906.30)</u>	<u>991,093.94</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,123,890.21</u>	<u>\$ (453,583.86)</u>	<u>\$ 1,670,306.35</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2015  
 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	\$ 1,539,700.90	\$ 128,936.94	\$ 1,668,637.84
7025	ACT.ASSIGNMENT	3,031.56	71.54	3,103.10
7040	TEMPORARY EMPLOYEES	56,985.69	1,344.86	58,330.55
7055	TIME & ONE-HALF	190,218.83	4,489.16	194,707.99
7105	EMPLOYERS SOCIAL SECURITY	123,380.02	2,911.77	126,291.79
7110	HOSPITALIZATION INSURANCE	370,410.21	26,928.82	397,339.03
7115	RETIREE HEALTH CARE	197,848.41	16,540.13	214,388.54
7120	RETIREMENT FUND CONTRIBUTION	373,688.28	(74,700.29)	298,987.99
7135	UNEMPLOYMENT COMPENSATION	4,187.45	-	4,187.45
7165	SHIFT DIFFERENTIAL	1,927.10	-	1,927.10
	TOTAL PERSONAL SERVICES	<u>2,861,378.45</u>	<u>106,522.93</u>	<u>2,967,901.38</u>
7260	SUPPLIES	323,653.65	-	323,653.65
7300	POSTAGE	17.76	-	17.76
7680	CLOTHING/CLEANING ALLOWANCE	745.48	-	745.48
7800	INVENTORY - COST OF GOODS SOLD	1,859.85	-	1,859.85
	TOTAL SUPPLIES	<u>326,276.74</u>	<u>-</u>	<u>326,276.74</u>
8140	COMPUTER SERVICES	149,619.00	11,033.00	160,652.00
8180	CONTRACTUAL SERVICES	109,154.23	-	109,154.23
8500	TELEPHONE	18,218.66	-	18,218.66
9220	WATER	1,150.00	-	1,150.00
9230	NATURAL GAS	28,949.40	-	28,949.40
9300	MAINTENANCE SERVICE	84,305.55	90,000.00	174,305.55
9330	PAVEMENT REPAIR	1,601,778.59	-	1,601,778.59
9420	EQUIPMENT RENTALS OR LEASE	878,108.77	-	878,108.77
9440	VEHICLE USAGE/CAR MILEAGE	2,030.00	-	2,030.00
9552	OTHER TRAVEL & TRAINING	1,600.53	-	1,600.53
9554	LOCAL BUSINESS EXPENSE	310.72	-	310.72
9556	MEMBERSHIPS	1,555.27	-	1,555.27
9610	FEES	0.83	-	0.83
	TOTAL OTHER SERVICES & CHARGES	<u>2,933,641.46</u>	<u>101,033.00</u>	<u>3,034,674.46</u>
9760	EQUIPMENT	43,086.22	135,000.00	178,086.22
	TOTAL CAPITAL	<u>43,086.22</u>	<u>135,000.00</u>	<u>178,086.22</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 6,164,382.87</u>	<u>\$ 342,555.93</u>	<u>\$ 6,506,938.80</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2015  
 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	\$ 1,609,006.31	\$ 37,972.55	\$ 1,646,978.86
7025	ACT.ASSIGNMENT	2,620.50	61.84	2,682.34
7050	REGULAR HOURLY RATE	1,086.55	25.64	1,112.19
7055	TIME & ONE-HALF	116,356.97	2,746.02	119,102.99
7105	EMPLOYERS SOCIAL SECURITY	123,749.31	2,920.48	126,669.79
7110	HOSPITALIZATION INSURANCE	379,337.44	27,577.83	406,915.27
7115	RETIREE HEALTH CARE	208,988.87	17,471.47	226,460.34
7120	RETIREMENT FUND CONTRIBUTION	395,829.99	(79,126.42)	316,703.57
7135	UNEMPLOYMENT COMPENSATION	2,240.86	-	2,240.86
7165	SHIFT DIFFERENTIAL	8,583.82	-	8,583.82
	TOTAL PERSONAL SERVICES	<u>2,847,800.62</u>	<u>9,649.41</u>	<u>2,857,450.03</u>
7260	SUPPLIES	869,724.53	-	869,724.53
7300	POSTAGE	71.88	-	71.88
	TOTAL SUPPLIES	<u>869,796.41</u>	<u>-</u>	<u>869,796.41</u>
8140	COMPUTER SERVICES	135,333.00	50,346.00	185,679.00
8160	ENGINEERING SERVICES	35.00	-	35.00
8180	CONTRACTUAL SERVICES	137,480.60	303,000.00	440,480.60
8500	TELEPHONE	11,353.60	-	11,353.60
9210	ELECTRICITY	1,930,007.34	(58,175.00)	1,871,832.34
9230	NATURAL GAS	216,288.23	-	216,288.23
9300	MAINTENANCE SERVICE	83,121.11	350,000.00	433,121.11
9420	EQUIPMENT RENTALS OR LEASE	55,174.21	-	55,174.21
9440	VEHICLE USAGE/CAR MILEAGE	800.00	-	800.00
9556	MEMBERSHIPS	436.00	-	436.00
9610	FEES	478.00	-	478.00
9622	REFUSE COLLECTION CHARGES	701.12	-	701.12
	TOTAL OTHER SERVICES & CHARGES	<u>2,571,208.21</u>	<u>645,171.00</u>	<u>3,216,379.21</u>
9765	SOFTWARE	7,728.05	-	7,728.05
	TOTAL CAPITAL	<u>7,728.05</u>	<u>-</u>	<u>7,728.05</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 6,296,533.29</u>	<u>\$ 654,820.41</u>	<u>\$ 6,951,353.70</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED ACTUAL EXPENSE  
 YEAR ENDED JUNE 30, 2015  
 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	\$ 106,324.00	\$ 2,509.25	\$ 108,833.25
7040	TEMPORARY EMPLOYEES	530.28	12.51	542.79
7105	EMPLOYERS SOCIAL SECURITY	7,933.16	187.22	8,120.38
7110	HOSPITALIZATION INSURANCE	32,234.78	2,343.47	34,578.25
7115	RETIREE HEALTH CARE	15,079.64	1,260.66	16,340.30
7120	RETIREMENT FUND CONTRIBUTION	28,680.37	(5,733.21)	22,947.16
7135	UNEMPLOYMENT COMPENSATION	178.25	-	178.25
	TOTAL PERSONAL SERVICES	<u>190,960.48</u>	<u>579.90</u>	<u>191,540.38</u>
7260	SUPPLIES	3,891.97	-	3,891.97
	TOTAL SUPPLIES	<u>3,891.97</u>	<u>-</u>	<u>3,891.97</u>
8140	COMPUTER SERVICES	18,523.00	1,213.00	19,736.00
8180	CONTRACTUAL SERVICES	17,867.00	-	17,867.00
8355	GENERAL LIABILITY INSURANCE/CLAIMS	2,813.00	13,606.00	16,419.00
8500	TELEPHONE	68.00	-	68.00
9410	BUILDINGS RENTALS OR LEASE	7,894.00	-	7,894.00
9440	VEHICLE USAGE/CAR MILEAGE	22,820.72	-	22,820.72
9610	FEES	256,683.17	-	256,683.17
	TOTAL OTHER SERVICES & CHARGES	<u>326,668.89</u>	<u>14,819.00</u>	<u>341,487.89</u>
9760	EQUIPMENT	3,353.61	-	3,353.61
	TOTAL CAPITAL	<u>3,353.61</u>	<u>-</u>	<u>3,353.61</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 524,874.95</u>	<u>\$ 15,398.90</u>	<u>\$ 540,273.85</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2015  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL SUMMARY

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				CURRENT
7020	PERMANENT EMPLOYEES	\$ 6,186,144.37	\$ 638,593.02	\$ 6,824,737.39
7025	ACT.ASSIGNMENT	8,250.58	194.71	8,445.29
7040	TEMPORARY EMPLOYEES	67,184.10	1,585.54	68,769.64
7050	REGULAR HOURLY RATE	4,450.58	105.03	4,555.61
7055	TIME & ONE-HALF	467,670.64	11,037.02	478,707.66
7105	EMPLOYERS SOCIAL SECURITY	490,563.16	11,577.28	502,140.44
7110	HOSPITALIZATION INSURANCE	1,512,304.21	109,944.52	1,622,248.73
7115	RETIREE HEALTH CARE	823,853.37	68,874.16	892,727.53
7120	RETIREMENT FUND CONTRIBUTION	1,566,297.56	(313,102.90)	1,253,194.66
7125	SPECIAL PENSION BENEFITS	389.48	-	389.48
7135	UNEMPLOYMENT COMPENSATION	11,306.00	-	11,306.00
7165	SHIFT DIFFERENTIAL	17,039.75	-	17,039.75
	TOTAL PERSONAL SERVICES	<u>11,155,453.80</u>	<u>528,808.38</u>	<u>11,684,262.18</u>
7260	SUPPLIES	1,530,119.16	10,000.00	1,540,119.16
7300	POSTAGE	4,037.86	-	4,037.86
7680	CLOTHING/CLEANING ALLOWANCE	1,620.28	-	1,620.28
7800	INVENTORY - COST OF GOODS SOLD	1,859.85	-	1,859.85
	TOTAL SUPPLIES	<u>1,537,637.15</u>	<u>10,000.00</u>	<u>1,547,637.15</u>
8140	COMPUTER SERVICES	694,100.00	88,626.00	782,726.00
8140	COMPUTER SERVICES (CIS-DEPR & ROI)	-	423,893.00	423,893.00
8160	ENGINEERING SERVICES	16,358.25	-	16,358.25
8180	CONTRACTUAL SERVICES	1,375,771.72	1,167,194.00	2,542,965.72
8355	GENERAL LIABILITY INSURANCE / CLAIMS	281,273.00	46,706.00	327,979.00
8450	INSURANCE PREMIUMS	158,914.63	-	158,914.63
8500	TELEPHONE	91,422.60	-	91,422.60
8800	COMMUNITY PROMOTION	202.00	-	202.00
9000	PRINTING & PUBLISHING	7,479.64	-	7,479.64
9210	ELECTRICITY	3,194,453.51	91,825.00	3,286,278.51
9220	WATER	3,855.41	-	3,855.41
9230	NATURAL GAS	316,231.27	-	316,231.27
9300	MAINTENANCE SERVICE	376,823.56	740,000.00	1,116,823.56
9330	PAVEMENT REPAIR	1,603,240.79	-	1,603,240.79
9410	BUILDINGS RENTALS OR LEASE	7,894.00	-	7,894.00
9420	EQUIPMENT RENTALS OR LEASE	1,168,662.30	-	1,168,662.30
9430	LAND RENTAL OR LEASE	2,683.37	-	2,683.37
9440	VEHICLE RENTAL/CAR MILEAGE	43,277.79	-	43,277.79
9550	PROFESSIONAL DEVELOPMENT	8,171.64	10,000.00	18,171.64
9552	OTHER TRAVEL AND TRAINING	26,472.78	-	26,472.78
9554	LOCAL BUSINESS EXPENSE	499.49	-	499.49
9556	MEMBERSHIPS	18,460.86	-	18,460.86
9610	FEES	269,210.64	-	269,210.64
9616	ADMINISTRATIVE SERVICES	83,558.50	(83,558.50)	-
9620	BAD DEBT WRITE-OFFS	22,536.55	-	22,536.55
9622	REFUSE COLLECTION CHARGES	2,728.45	-	2,728.45
8150	311 CALL CENTER SERVICES	552,537.00	-	552,537.00
xxxx	SENIOR DEBT COVERAGE RATIO ADJ	-	940,000.00	940,000.00
xxxx	FACILITY RENTALS	-	(672,124.30)	(672,124.30)
	TOTAL OTHER SERVICES & CHARGES	<u>10,326,819.75</u>	<u>2,752,561.20</u>	<u>13,079,380.95</u>
9760	EQUIPMENT	61,981.25	135,000.00	196,981.25
9765	SOFTWARE	9,110.36	-	9,110.36
9800	CONSTRUCTION IN PROGRESS	(11,000.00)	-	(11,000.00)
	TOTAL CAPITAL	<u>60,091.61</u>	<u>135,000.00</u>	<u>195,091.61</u>
9994	OPERATING TRANS-DEV CENTER	23,256.00	-	23,256.00
9992	OPERATING TRANSFERS-A87 COST	485,910.00	159,726.00	645,636.00
	TOTAL TRANSFERS/FEES	<u>509,166.00</u>	<u>159,726.00</u>	<u>668,892.00</u>
	GRAND TOTAL- EXPENDITURES	\$ 23,589,168.31	\$ 3,586,095.58	\$ 27,175,263.89
	LESS: SDSF CONTRIBUTION	(2,627,977.00)	(607,640.90)	(3,235,617.90)
	NET TOTAL- EXPENDITURES	<u>\$ 20,961,191.31</u>	<u>\$ 2,978,454.68</u>	<u>\$ 23,939,645.99</u>

*This page intentionally left blank.*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 21, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Jenessa B. Carter  
Financial Analyst

**SUBJECT: 2015 WATER RATE STUDY TASK #4  
FY15 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

JBC:jbc

ALLOCATION OF COLDBROOK PUMPING TO WATER PUMPING FACILITIES

STATION	ENERGY COST	PERCENT	EXPENDITURE ALLOCATION	
			ACTUAL	ADJUSTED
ALGER	\$ 62,965	5.20%	\$ 110,743	\$ 87,092
BOOSTER A	7,576	0.63%	13,325	10,479
BOOSTER D	26,299	2.18%	46,254	36,376
BRISTOL	28,371	2.35%	49,899	39,242
COLDBROOK	184,407	15.27%	324,330	255,070
COVELL	43,341	3.59%	76,228	59,948
EAST PARIS	154,775	12.82%	272,217	214,081
FRANKLIN	353,177	29.25%	621,164	488,506
LEFFINGWELL	987	0.08%	1,736	1,365
LIVINGSTON	193,841	16.05%	340,926	268,116
WILSON	91,532	7.58%	160,986	126,605
BURTON	12,434	1.03%	21,869	17,198
DEAN LAKE	47,881	3.97%	84,213	66,228
TOTAL	<u>\$ 1,207,586</u>	<u>100.00%</u>	<u>\$ 2,123,890</u>	<u>\$ 1,670,306</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 6, 2015

TO: Molly Eastman  
Utility Financial Officer

FROM: Scott Buhrer *SB*  
Chief Financial Officer

**SUBJECT: 2015 WATER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY15 operating costs are listed below.

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

GREIU wages were increased by 2.25% and 0.00% in FY2016 and FY2017, respectively. APA wages were increased by 2.95% and 0.00% in FY2016 and FY2017. After converting these increases from a 2015 fiscal year to a 2016 calendar year basis, the result is a 2.25% factor for GREIU employees and a 2.95% 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 (84% GREIU and 16% APA). Executive and non-reps amounted to less than 1.7% of the population and were therefore excluded. **The wage increase factor to translate FY2015 actual costs to estimated calendar 2016 will be 2.36%** [2.25 X 84% + 2.95 X 16%].

Object Level 3 – 8140/8355/9992

Adjust FY2015 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 FY2016 and FY2017 budget amounts thus arriving at an estimated 2016 calendar year rate as follows:

<b>8140-Data Charges</b>			
Cost Center	FY2016 Request	FY2017 Forecast	Calendar 2016 Est.
04302020	\$19,145	\$20,326	<b>\$19,736</b>
4311	\$56,384	\$59,865	<b>\$58,125</b>
43121001	\$221,858	\$235,553	<b>\$228,706</b>
431501	\$58,147	\$61,736	<b>\$59,942</b>
432001	\$0	\$0	<b>\$0</b>
432201	\$31,325	\$33,258	<b>\$32,292</b>
433101	\$155,842	\$165,462	<b>\$160,652</b>
434201	\$180,120	\$191,238	<b>\$185,679</b>
<b>Total</b>	<b>\$722,821</b>	<b>\$767,438</b>	<b>\$745,132</b>

<b>8355-General Liability Insurance</b>			
Cost Center	FY2016 Request	FY2017 Forecast	Calendar 2016 Estimate
04302020	\$15,787	\$17,050	<b>\$16,419</b>
4311	\$299,577	\$323,543	<b>\$311,560</b>
Total	\$315,364	\$340,593	\$327,979

<b>9992-Contributions to Other Funds (A-87 Allocation)</b>			
Cost Center	FY2016 Request	FY2017 Forecast	Calendar 2016 Estimate
4311	\$636,094	\$655,177	<b>\$645,636</b>

Object Level 3 - 7105

Increase FY2015 actual FICA expense by 2.36% consistent with the known wage impacts detailed above.

Object Level 3 - 7110

The FY2016 Trend Report is not completed at this time. However, unfavorable health insurance cost trends were anticipated in the FY2015 Trend Report. In addition, dollars from the Early Retiree Reinsurance Program (ERRP) ended after FY2014 increasing upward pressure on rates. Finally, the three-year smoothing is less favorable for calendar 2016 rates than it was for calendar 2015 rates but has nonetheless helped to limit the projected increase in health insurance to 7.27%. **Increase FY2015 health insurance actual by 7.27% to reflect these anticipated rate changes.**

The projected FY16 (\$13,406) and FY17 (\$14,725) health insurance rates were blended into a 2016 calendar year rate and divided by the FY2015 base amount (\$13,112) to arrive at the increase factor [(((((\$13,406 + \$14,725) / 2)) / \$13,112) - 1) \* 100].

Object Level 3 - 7115

Retiree health care (“RHC”) rates are projected to trend up in FY2016 (to 13.75%) and FY2017 (to 13.64%) from a base year rate of 11.92% in FY2015. This increase is amplified by the projected wage adjustments discussed above. Additionally, the Water Fund had a positive OPEB adjustment in the amount of \$64,807 for FY2015.

The RHC factor after consideration of the above rate and wage adjustments is 117.48% (or an increase of 17.48%) for GREIU members and 118.28% (or an increase of 18.28%) for APA members. These factors are then applied to the FY2015 RHC balance before the OPEB adjustment (\$759,046). This result is compared to the FY2015 RHC balance after the OPEB adjustment and the revised factor is weighted in accordance with union membership within the Water Fund.

GREIU: Step 1>> [(\$759,046 \* 117.48%) = \$891,727]  
Step 2>> [(((\$891,727 - (\$759,046 + \$64,807)) / (\$759,046 + \$64,807)) \* 100)]  
Step 3>> [8.24% \* 84%]

APA: Step 1>> [(\$759,046 \* 118.28%) = \$897,800]  
Step 2>> [(((\$897,800 - (\$759,046 + \$64,807)) / (\$759,046 + \$64,807)) \* 100)]  
Step 3>> [8.98% \* 16%]  
Step 4>> [6.92% + 1.44%]

The factor to establish calendar year 2016's retiree health care cost is 8.36%. **Increase the total of fiscal year 2015's retiree health care by this percent to establish the cost for calendar year 2016.**

Object Level 3 - 7120

The pension expense factor to translate FY2015 actual costs to estimated calendar 2016 will be -19.99%. **Decrease the total of fiscal year 2015's pension expense by this percent to establish the cost for calendar year 2016.** This reflects the effect of a General Pension rate change decrease from FY15 of 25.53% to a calendar 2016 rate of 19.96% and an estimated wage increase of 2.36%. The calendar 2016 rate is a blend of the FY2016 rate (21.82%) and the FY2017 rate (18.09%).

The pension factor after consideration of the above rate and wage adjustments is 79.92% (or a decrease of 20.08%) for GREIU members and 80.47% (or a decrease of 19.53%) for APA members. These factors are then weighted in accordance with union membership within the Water Fund [(-20.08 \* 84%) + (-19.53 \* 16%)].

Supplemental Revenue Requirement: Debt Coverage & Capital Requirement Adjustment

The water system is increasing its reliance on using cash to fund capital projects. **In an effort to continue improving on the coverage ratio which was 1.25 at June 30, 2015, and to maintain an adequate cash balance for capital requirements, operating and maintenance expenditures were increased by \$940,000.** With this supplemental revenue requirement adjustment, the forecasted debt coverage ratio will be 1.36. This adjustment should be recorded to an integrated cost center.

*This page intentionally left blank.*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 27, 2015

TO: Molly J. Eastman  
Utility Financial Officer

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

**SUBJECT: 2015 WATER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY15 operating costs are listed below:

<u>ACCOUNT</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
<u>User Code</u>		
4311-8180	Comprehensive Master Plan – deferred in FY15	\$250,000.00
4311-8180	Contractual Services – deferred in FY15	\$50,000.00
4311-9550	Professional Development - deferred in FY15	\$10,000.00
4312-varies	High Vacancies in FY15	\$400,000.00
4312-8140	Cayenta Customer Information System	\$423,893.00
4312-8180	Cayenta Utilities Upgrade Project	\$409,194.00
4312-8180	Cayenta Utilities Upgrade – Position Backfill	\$100,000.00
4312-9300	Meter Restock – deferred FY15 expense	\$300,000.00
4322-9210	Electricity	\$150,000.00
4322-8180	Contractual Services	\$55,000.00
4322-7260	Supplies	\$10,000.00
4331-varies	Personnel – temp workers and vacancies in FY15	\$92,600.00
4331-9300	Maintenance Service	\$90,000.00
4331-9760	Equipment	\$135,000.00
4342-8180	Chlorine Spill Clean Up	\$150,000.00
4342-8180	Sludge Hauling – deferred in FY15	\$153,000.00
4342-9210	Consumer’s Energy Green Generation Participation Agreement	(\$58,174.00)
4342-9300	Tank Painting and Deferred Maintenance	\$350,000.00
JCT		

*This page intentionally left blank.*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 1, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Jenessa B. Carter  
Financial Analyst

**SUBJECT: 2015 WATER RATE STUDY TASK #6**

The Water Supply System Fund's revenue and volumes by governmental unit for the year ending June 30, 2015, are disclosed on the attached page. In addition, actual volume comparisons for the past five (5) years by governmental unit are included herein.

Attachments

JBC:jbc



**CITY OF GRAND RAPIDS, MICHIGAN  
WATER SUPPLY SYSTEM FUND  
2015 RATE STUDY TASK NO. 6**

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

MUNICIPALITY	FY11		FY12		FY13		FY14		FY15		FY11 - FY15 % CHANGE
	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE							
GRAND RAPIDS	6,225,309	2.07%	6,354,409	2.07%	6,838,225	7.61%	6,168,995	-9.79%	5,992,342	-2.86%	-3.74%
WALKER	850,755	1.84%	866,427	1.84%	962,373	11.07%	904,358	-6.03%	850,477	-5.96%	-0.03%
KENTWOOD	1,214,620	5.72%	1,284,088	5.72%	1,418,559	10.47%	1,298,223	-8.48%	1,236,055	-4.79%	1.76%
CASCADE TWP	581,868	3.00%	599,311	3.00%	706,642	17.91%	616,971	-12.69%	597,335	-3.18%	2.66%
GRAND RAPIDS TWP	455,087	8.39%	493,252	8.39%	600,669	21.78%	480,353	-20.03%	475,723	-0.96%	4.53%
TALLMADGE TWP	17,173	5.68%	18,149	5.68%	20,159	11.07%	21,621	7.25%	21,283	-1.56%	23.93%
EAST GRAND RAPIDS**	449,849	1.08%	454,722	1.08%	461,100	1.40%	454,401	-1.45%	456,742	0.52%	1.53%
OTTAWA COUNTY	666,164	14.56%	763,172	14.56%	828,241	8.53%	898,135	8.44%	900,454	0.26%	35.17%
ADA TWP	480,928	3.09%	495,797	3.09%	486,804	-1.81%	454,141	-6.71%	444,487	-2.13%	-7.58%
<b>TOTAL</b>	<b>10,941,753</b>	<b>3.54%</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>10,974,896</b>	<b>-2.85%</b>	<b>0.30%</b>
VOLUME PUMPED	12,488,000		13,176,000		13,438,000		12,997,000		12,362,000		
% BILLED TO PUMPED	87.6%		86.0%		91.7%		86.9%		88.8%		
GRAND RAPIDS VOLUME COMPARED TO CUSTOMER COMMUNITIES											
VOLUME = 1,000 GALLONS	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>% OF TOTAL</b>
GRAND RAPIDS	56.89%	6.354,409	56.09%	6,838,225	55.49%	6,168,995	54.61%	5,992,342	54.60%		
CUSTOMER COMMUNITIES	43.11%	4,974,918	43.91%	5,484,547	44.51%	5,128,203	45.39%	4,982,554	45.40%		
<b>TOTAL</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>	<b>10,974,896</b>	<b>100.00%</b>	<b>100.00%</b>	

\* Volumes were restated from previous Rate Studies to reflect actual billings without adjustment for accrued revenues.  
\*\* Volume billed for FY15 is estimated based on three year average due to a faulty meter.

**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	\$ 7,560.00
4311-476012	TAPPING PERMITS	24,175.00
4311-607001	MISCELLANEOUS SERVICE FEES	464,365.00
4311-607050	INSPECTION FEES - UTILITIES	42,396.00
4311-607052	METER SETTING FEES	29,975.00
4311-642009	SALE OF SCRAP MATERIAL	20.32
4311-642019	INVENTORY WITHDRAWALS	2,039.56
4311-642024	UNMETERED WATER	98,126.03
4311-672002	PENALTIES ON SPECIAL ASSESSMENTS	8,535.32
		<u>\$ 677,192.23</u>

CREDIT: UNDERUTILIZATION OF PENALTY CREDIT FROM PREVIOUS YEAR \$ 303,523.00

OTHER OPERATING REVENUES NOT INCLUDED:

CAPITAL CONTRIBUTION & INTEGRATED SYSTEM (LAKELINE CREDIT)

4311-607051	WATER FRONT FOOTAGE	\$ 217,172.00
4311-607053	INTEGRATED WATER CONNECTION	941,160.00
		<u>\$ 1,158,332.00</u>

OFFSETTING CREDIT TO CUSTOMER ACCOUNTING ACTIVITY EXPENSES:

4311-699001	BILLABLE EXPENSE - SEWAGE DISPOSAL SYSTEM *	<u>\$ 2,627,977.00</u>
-------------	---	------------------------

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

# MEMORANDUM

CITY OF GRAND RAPIDS

Date: September 14, 2015

To: Molly J. Eastman  
Utility Financial Officer

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

**Subject: 2015 WATER RATE STUDY – TASK #8**

No significant changes in operating levels are anticipated to take effect by January 1, 2016, which would require adjustments to operating costs for the test period.

JCT

# MEMORANDUM

CITY OF GRAND RAPIDS

Date: September 14, 2015

To: Molly J. Eastman  
Utility Financial Officer

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

**Subject: 2015 WATER RATE STUDY – TASK #9**

No significant changes in water revenues are anticipated to take effect by January 1, 2016, which would require adjustments to operating revenue estimates as a whole.

JCT

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** October 20, 2015

**TO:** Molly J. Eastman  
Utility Financial Officer

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

**SUBJECT: 2015 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, 2016.

<u>Description</u>	<u>Location</u>	<u>Proj. Code</u>	<u>Cost</u>
Remembrance Rd & Wilson Ave	Walker	Contribution	\$125,677
28 <sup>th</sup> St. SE & Public Easement SE	Cascade	Contribution	\$148,480
Bridge St. & Summer Ave	Grand Rapids	221561-510	\$250,000
East Beltline Ave & Public Easement	GR Twp	Contribution	\$135,000
PE NW & Lake Michigan Dr	Tallmadge Twp	Contribution	\$229,000
Wilson Pump Station	Walker	221717-510	\$724,000
Sydney Dr. & Macy Dr.	Walker	Contribution	\$130,510
Maynard Ave	Walker	Contribution	\$600,000
Creston Plaza	Grand Rapids	Contribution	\$322,500
College Ave SE	Grand Rapids	451505-510	\$380,000
Bartlett, Finney, Williams	Grand Rapids	451501-510	\$400,000
CSO 27-DWRF	Grand Rapids	221513-520	\$3,500,000
CSO 27	Grand Rapids	221513-510	\$288,000
Livingston 2 <sup>nd</sup> Transmission Main 1A	Grand Rapids	221707-520	\$1,748,000
Livingston 2 <sup>nd</sup> Transmission Main 1A	Grand Rapids	221916-510	\$670,000
Livingston 2 <sup>nd</sup> Transmission Main 1B	Grand Rapids	221707-520	\$2,850,000
Livingston 2 <sup>nd</sup> Transmission Main 1B	Grand Rapids	221916-510	\$1,650,000
Woodward/Lafayette	Grand Rapids	221216-510	\$1,150,000
State St – Jefferson to Lafayette	Grand Rapids	221507-510	\$235,000

WJ\wj

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

COMPUTE ACCUMULATED COST, DEPRECIATION AND DEPRECIATION EXPENSE AS OF JUNE 30, 2015

**INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND & EASEMENTS	\$ 2,507,974	\$ -	\$ -
LAND IMPROVEMENTS	1,987,789	1,400,782	52,163
BUILDINGS & STRUCTURES	46,988,822	23,520,880	869,507
STORAGE	7,584,993	5,738,063	208,204
PROCESS EQUIPMENT	60,730,423	35,138,242	1,289,899
AUXILIARY EQUIPMENT	16,301,362	12,901,366	318,676
METERS	7,375,481	7,375,481	-
MACHINERY & EQUIPMENT	3,001,209	2,801,172	101,543
OFFICE EQUIPMENT & FURNITURE	622,184	622,184	-
WATERMAINS	55,592,968	18,720,473	711,308
	<u>\$ 202,693,205</u>	<u>\$ 108,218,643</u>	<u>\$ 3,551,300</u>

**NON-INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND & EASEMENTS	\$ 1,899,209	\$ -	\$ -
LAND IMPROVEMENTS	1,204,988	903,864	41,327
BUILDINGS & STRUCTURES	11,381,293	3,675,859	246,029
STORAGE	12,706,875	5,498,962	305,830
PROCESS EQUIPMENT	5,565,783	2,950,916	150,870
AUXILIARY EQUIPMENT	5,247,202	3,210,848	437,052
MACHINERY & EQUIPMENT	2,257,526	2,201,051	22,589
OFFICE EQUIPMENT & FURNITURE	533,805	493,528	9,150
WATERMAINS - GRAND RAPIDS	133,786,026	31,950,115	1,722,488
WATERMAINS - WALKER	22,210,252	6,950,415	295,367
WATERMAINS - KENTWOOD	29,105,912	7,703,302	362,254
WATERMAINS - CASCADE TWP	21,709,248	5,685,124	284,919
WATERMAINS - GRAND RAPIDS TWP	17,896,954	4,264,506	237,817
WATERMAINS - TALLMADGE TWP	2,014,737	360,417	26,863
	<u>\$ 267,519,810</u>	<u>\$ 75,848,907</u>	<u>\$ 4,142,555</u>
TOTAL	<u>\$ 470,213,015</u>	<u>\$ 184,067,550</u>	<u>\$ 7,693,855</u>

SOURCE: GENERAL LEDGER, AS ADJUSTED, FOR JUNE 30, 2015.

**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, 2015: \$ 1,483,748

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 = \$ 23,939,647 @ 90/365 = \$ 5,902,927

TOTAL WORKING CAPITAL NEEDS CONSIST OF THE FOLLOWING:

12A	INVESTMENT IN INVENTORY	\$ 1,483,748
12B	PREPAYMENT OF OPERATING EXPENSES	-
12C	90 DAY OPERATING EXPENSES	<u>5,902,927</u>
		<u><u>\$ 7,386,675</u></u>

*This page intentionally left blank.*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2015

TO: Molly J. Eastman  
Utility Financial Officer

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

**SUBJECT: 2015 WATER RATE STUDY- TASK #13**

In 2015, there was an improvement project that involved the construction of a new zoned facility within the City of Grand Rapids Water System. The existing zoned maps, the Zoned Cross Reference List and the Joint Use List were all reviewed. From that review, the following are recommended changes for zoning of the Water System facilities for the 2015 Water Rate Study:

1. Livingston – 2<sup>nd</sup> Transmission Main 1A & 1B
  - a. This project is being assigned Zoned section W124.
  - b. The percentage of allocation for this section should follow those in Zoned section W31

WJ

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2015

TO: Eric R. DeLong  
Deputy City Manager

FROM: Molly J. Eastman  
Utility Financial Officer

**SUBJECT: 2015 WATER RATE STUDY TASK #13  
ZONEGATING & JOINT USE ALLOCATION METHODS**

Lengths and costs of all primary and intermediate transmission mains that are zoned are 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 14, 2015

TO: Molly Eastman  
Utility Financial Officer

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

**SUBJECT: 2015 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 2015 zoned information. The water maps will be completely updated by the end of calendar year 2015. All 2015 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	\$ 15,536,167	
	- TASK #11	470,213,015	
		<hr/>	\$ 485,749,182
LESS: ACCUMULATED DEPRECIATION	- TASK #11	\$ 184,067,550	
	- TASK #10	-	(184,067,550)
		<hr/>	<hr/>
			301,681,632
WORKING CAPITAL REQUIREMENT	- TASK #12	\$ 7,386,675	
		<hr/>	<hr/>
			7,386,675
			<hr/>
			309,068,307
CONTRIBUTIONS BY OTHERS	- TASK #21	\$ 88,453,257	
LESS: AMORTIZATION		(29,840,011)	
		<hr/>	<hr/>
			(58,613,246)
CONSTRUCTION COST RATE BASE			<hr/> <hr/>
			\$ 250,455,061

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 29, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Jenessa B. Carter  
Financial Analyst

**SUBJECT: 2015 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, 2016. 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, 2016 is as follows:

August, 2014 Index	237.852
August, 2015 Index	238.316
Increase (decrease)	0.464
Percentage increase (decrease)	0.20%

JBC\jbc

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>1/01/15</u>	<u>1/01/16</u>
3/4 or less	\$ 2,922	\$ 2,928
1	4,880	4,890
1 ½	9,730	9,750
2	15,574	15,606
3	34,100	34,170
4	61,362	61,488
6 and over	136,370	136,650

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	SCADA IMPROVEMENTS	2,200,000	2014
2	FOUR MILE ROAD ELEVATED TANK	2,998,000	2015
3	ESCSO #27	3,919,000	2015
4	FRANKLIN PS - VFD'S AND NEW MOTOR STARTERS	1,349,000	2015
5	ESCSO #28A	2,360,000	2016
6	LOGAN, SWEET AND COLDBROOK WATERMAIN	915,000	2016
7	JEFFERSON WATERMAIN REPLACEMENTS	1,632,000	2016
8	OAKLAND WATERMAIN REPLACEMENTS	1,137,000	2016
9	TAYLOR & COLDBROOK WATERMAINS	1,210,500	2016
10	LOGAN & OAKDALE WATERMAINS	1,263,000	2016
11	EAST PARIS TANK IMPROVEMENTS	1,500,000	2017
12	ESCSO #28B	1,800,000	2017
13	METER SYSTEM UPGRADES	2,500,000	2017
14	LIVINGSTON DISCHARGE LINE PHASES 2 & 3	6,324,000	2017
15	SOUTH WALKER WATERMAIN PHASE 3	2,000,000	2017
16	BURTON WATERMAIN	1,980,000	2017
17	ADAMS/ALGER PRESSURE DISTRICT MODIFICATIONS	1,600,000	2017
18	FULTON, LANGELY AND DIVISION WATERMAINS	3,258,000	2018
19	MAYNARD WATERMAIN PHASE 2	600,000	2018
20	CASCADE NORTH RIVER CROSSING	3,600,000	2018
21	EMERALD AND OMENA WM REPLACEMENTS	1,283,000	2019
22	BERKSHIRE, ROSEWOOD AND KENT RIDGE WM REPL.	2,359,000	2019
23	TREMONT, GRIGGS AND FRANKLIN WATERMAIN	2,653,500	2020
24	CEDAR AND VALLEY WATERMAINS	1,552,800	2020
25	BOOSTER D IMPROVEMENTS	500,000	2020
		<u>\$ 52,493,800</u>	

NOTE: NONE OF THE PROJECTS ABOVE ARE INCLUDED IN RECOMMENDED REVENUE REQUIREMENTS FOR CALENDAR YEAR 2016. COSTS SHOWN ARE IN 2015 DOLLARS.

SOURCE: WAYNE JERNBERG, ASSISTANT WATER SYSTEM MANAGER, OCTOBER 2015

**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
2016	\$9,515,000	\$4,095,609	\$13,610,609
2017	10,040,000	3,852,184	13,892,184
2018	10,375,000	3,389,384	13,764,384
2019	5,355,000	2,901,384	8,256,384
2020	5,620,000	2,664,684	8,284,684
2021	2,020,000	2,414,859	4,434,859
2022	2,120,000	2,318,809	4,438,809
2023	2,230,000	2,217,621	4,447,621
2024	2,355,000	2,110,871	4,465,871
2025	2,475,000	1,997,990	4,472,990
2026	2,610,000	1,879,190	4,489,190
2027	2,740,000	1,753,490	4,493,490
2028	2,890,000	1,621,590	4,511,590
2029	2,740,000	1,479,890	4,219,890
2030	2,875,000	1,342,890	4,217,890
2031	3,020,000	1,197,940	4,217,940
2032	3,175,000	1,045,680	4,220,680
2033	3,335,000	885,605	4,220,605
2034	3,500,000	717,465	4,217,465
2035	3,680,000	541,005	4,221,005
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
	<b>\$ 89,640,000</b>	<b>\$ 41,338,999</b>	<b>\$ 130,978,999</b>

**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	\$ 250,455,061
LESS: BONDED INDEBTEDNESS (CASH BASIS) - TASK NO. 20	(104,942,989)
NET WATER SYSTEM EQUITY	<u>\$ 145,512,072</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>
11-Sep-14	4.140%	12-Mar-15	3.620%
18-Sep-14	4.170%	19-Mar-15	3.520%
25-Sep-14	4.110%	26-Mar-15	3.520%
02-Oct-14	4.110%	02-Apr-15	3.490%
09-Oct-14	4.010%	09-Apr-15	3.490%
16-Oct-14	3.870%	16-Apr-15	3.450%
23-Oct-14	3.900%	23-Apr-15	3.520%
30-Oct-14	3.900%	30-Apr-15	3.620%
06-Nov-14	3.980%	07-May-15	3.740%
13-Nov-14	3.980%	14-May-15	3.740%
20-Nov-14	3.930%	21-May-15	3.810%
27-Nov-14	3.940%	28-May-15	3.730%
04-Dec-14	3.830%	04-Jun-15	3.810%
11-Dec-14	3.650%	11-Jun-15	3.870%
18-Dec-14	3.650%	18-Jun-15	3.790%
25-Dec-14	3.650%	25-Jun-15	3.800%
01-Jan-15	3.560%	02-Jul-15	3.850%
08-Jan-15	3.420%	09-Jul-15	3.760%
15-Jan-15	3.290%	16-Jul-15	3.820%
22-Jan-15	3.360%	23-Jul-15	3.750%
29-Jan-15	3.360%	30-Jul-15	3.750%
05-Feb-15	3.490%	06-Aug-15	3.750%
12-Feb-15	3.600%	13-Aug-15	3.690%
19-Feb-15	3.620%	20-Aug-15	3.730%
26-Feb-15	3.620%	27-Aug-15	3.790%
05-Mar-15	3.680%	03-Sep-15	3.820%
		<u>52 WEEKS</u>	<u>3.732%</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)	\$ 145,512,072	@ 4.732%	= \$ 6,885,631
WATER SYSTEM INDEBTEDNESS IN THE CCRB			
1993 BONDS ( <i>Fixed Rate Conversion</i> )	16,500,000	@ 5.86%	= 966,900
2009 BONDS (amount in CCRB)	28,948,183	@ 4.98%	= 1,441,620
2010 BONDS (refunded 2000 Bonds)	19,870,000	@ 4.59%	= 912,033
2013 BONDS	2,790,000	@ 2.76%	= 77,004
2011 DWRF BONDS	1,456,301	@ 2.50%	= 36,408
2011 DWRF BONDS (amount in CCRB)	3,185,000	@ 2.50%	= 79,625
2012 DWRF BONDS (amount in CCRB)	3,393,193	@ 2.50%	= 84,830
2012 DWRF BONDS	618,514	@ 2.00%	= 12,370
2014 DWRF BONDS (amount in CCRB)	2,811,798	@ 2.50%	= 70,295
2014 QECB BONDS (amount in CCRB)	-	@ 2.54%	= -
2015 BONDS	25,370,000	@ 5.00%	= 1,268,500
LESS INTEREST ON BOND RESERVE ACCOUNTS			(2,824)
	\$ 250,455,061		\$ 11,832,392
COMPOSITE RATE OF RETURN ON INVESTMENT		\$ 11,832,392	= 4.724%
		\$250,455,061	
<b><u>Noted Disclosure:</u></b>			
TOTAL BONDED INDEBTEDNESS (from above)	\$ 104,942,989	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, 2015

PHYSICAL LOCATION

DESCRIPTION	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	\$ 202,693,205	\$ 164,812,273	\$ 24,374,354	\$ 34,526,168	\$ 21,852,735	\$ 16,409,273	\$ 2,243,737	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 466,911,745
LESS: ACCUMULATED DEPRECIATION	108,218,643	45,208,100	7,159,949	8,531,311	5,683,659	3,880,785	360,417	-	-	-	-	-	-	-	179,041,864
NET BOOK VALUE	\$ 94,474,562	\$ 119,604,173	\$ 17,215,405	\$ 25,994,857	\$ 16,169,076	\$ 12,528,488	\$ 1,883,320	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 287,869,881
WORKING CAPITAL REQUIREMENT	3,105,727	2,805,681	398,142	430,791	325,457	251,516	18,762	-	-	29,030	-	-	-	-	7,386,675
CONTRIBUTIONS	\$ 97,580,289	\$ 122,409,854	\$ 17,613,547	\$ 26,425,648	\$ 16,494,533	\$ 12,780,004	\$ 1,902,082	\$ -	\$ -	\$ 29,030	\$ -	\$ -	\$ -	\$ -	\$ 295,256,556
LESS AMORTIZATION	242,824	21,157,192	17,475,989	16,810,554	18,011,944	12,687,743	2,014,737	-	-	-	-	-	-	-	88,400,983
	(24,282)	(10,877,441)	(5,482,001)	(4,920,593)	(4,860,993)	(3,258,812)	(364,969)	-	-	-	-	-	-	-	(29,789,091)
CONSTRUCTION COST RATE BASE	\$ (218,542)	\$ (10,279,751)	\$ (11,993,988)	\$ (11,889,961)	\$ (13,150,951)	\$ (9,428,931)	\$ (1,649,768)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (58,611,892)
	\$ 97,361,747	\$ 112,130,104	\$ 5,619,559	\$ 14,535,687	\$ 3,343,582	\$ 3,351,073	\$ 252,314	\$ -	\$ -	\$ 29,030	\$ -	\$ -	\$ -	\$ -	\$ 236,644,664
RETURN ON INVESTMENT- TASK 4/5	\$ 4,599,369	\$ 5,236,796	\$ 265,468	\$ 686,666	\$ 157,951	\$ 158,305	\$ 11,919	\$ -	\$ -	\$ 1,371	\$ -	\$ -	\$ -	\$ -	\$ 60,230
RETURN ON INVESTMENT- TASK 20															\$ 11,118,864
															4.724%

ZONEGATED

COST	\$ -	\$ (5,318,071)	\$ 603,886	\$ 3,419,406	\$ 10,859,267	\$ 3,712,044	\$ 195,258	\$ -	\$ -	\$ 3,786,944	\$ -	\$ -	\$ -	\$ -	\$ 18,837,437
LESS: ACCUMULATED DEPRECIATION	-	(3,026,056)	455,924	1,695,307	2,808,399	1,306,547	97,435	-	-	1,213,627	-	-	-	-	5,025,686
NET BOOK VALUE	-	(2,292,015)	147,962	1,724,099	8,050,868	2,405,497	97,823	\$ -	\$ -	2,573,317	\$ -	\$ -	\$ -	\$ -	13,811,751
WORKING CAPITAL REQUIREMENT	-	(2,292,015)	147,962	1,724,099	8,050,868	2,405,497	97,823	-	-	2,573,317	-	-	-	-	-
CONTRIBUTIONS	-	-	-	14,926	3,609	23,005	-	-	-	10,734	-	-	-	-	52,274
LESS AMORTIZATION	-	-	-	(14,539)	(3,516)	(22,409)	-	-	-	(10,456)	-	-	-	-	(50,920)
CONSTRUCTION COST RATE BASE	-	(2,292,015)	147,962	1,723,712	8,050,775	2,404,901	97,823	\$ -	\$ -	2,573,039	\$ -	\$ -	\$ -	\$ -	13,810,397
RETURN ON INVESTMENT- TASK 19/20	\$ -	\$ (188,679)	\$ 12,180	\$ 141,896	\$ 662,740	\$ 197,971	\$ 8,053	\$ -	\$ -	\$ 211,813	\$ -	\$ -	\$ -	\$ -	\$ 1,136,872
RETURN ON INVESTMENT- TASK 19/20	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%			8.232%					8.232%
TOTAL RETURN ON INVESTMENT	\$ 4,599,369	\$ 5,048,117	\$ 277,648	\$ 828,562	\$ 820,691	\$ 356,276	\$ 19,972	\$ -	\$ -	\$ 213,184	\$ -	\$ -	\$ -	\$ -	\$ 12,255,736

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 CONSTRUCTION COST & ACCUMULATED DEPRECIATION- TASK NO. 21- PART 2  
 FISCAL YEAR ENDED JUNE 30, 2015

COST CENTER BY PHYSICAL LOCATION- TASK 11 IN SERVICE- TASK 10	AMOUNT	CONSTRUCTION COST										TOTAL			
		RETAIL					WHOLESALE								
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	EAST GR	CITY OF OTTAWA	ADA TOWNSHIP	TOTAL				
	\$ 202,693,205	\$ 164,707,129	\$ 23,042,844	\$ 38,148,898	\$ 21,709,248	\$ 17,896,954	\$ 2,014,737	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 470,213,015
	-	13,443,500	1,580,187	-	148,480	135,000	229,000	-	-	-	-	-	-	-	15,536,167
<b>PUMPING STATIONS:</b>															
KNAPP SERVICE CENTER	\$ 3,379,233	(1,532,010)	-	437,442	105,770	674,225	-	-	-	-	-	-	-	314,573	-
LIVINGSTON	2,090,217	(370,805)	-	106,037	25,480	163,162	-	-	-	-	-	-	-	76,126	-
FRANKLIN	6,949,487	(3,971,006)	-	1,609,084	832,966	353,520	-	-	679,312	-	-	-	-	496,124	-
LEFFINGWELL	141,009	(63,929)	-	18,254	4,414	28,134	-	-	-	-	-	-	-	13,127	-
BRISTOL	612,700	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS	5,103,995	-	-	(2,420,468)	2,420,468	-	-	-	-	-	-	-	-	-	-
BURTON	219,892	(58,092)	-	-	-	-	-	-	58,092	-	-	-	-	-	-
COLDBROOK PS PUMP 2	389,279	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>STORAGE TANKS:</b>															
ELKS	236,335	(181,063)	174,349	-	-	-	6,714	-	-	-	-	-	-	-	-
KNAPP	118,570	(21,034)	-	6,015	1,445	9,256	-	-	-	-	-	-	-	4,318	-
CAMBRIDGE	116,070	(90,391)	-	73,803	5,951	-	-	-	10,637	-	-	-	-	-	-
PATTERSON	3,938,991	-	-	(1,867,987)	1,867,987	-	-	-	-	-	-	-	-	-	-
WATERMANS		(12,368,097)	180,860	1,834,496	5,589,793	861,066	188,544	-	830,662	-	-	-	-	2,882,676	-
<b>ADJUSTED BY ZONEGATING</b>															
	\$ 202,693,205	\$ 159,494,202	\$ 24,978,240	\$ 37,945,574	\$ 32,712,002	\$ 20,121,317	\$ 2,438,995	\$ -	\$ 1,578,703	\$ -	\$ -	\$ -	\$ -	\$ 3,786,944	\$ 485,749,182
<b>LESS: ZONEGATING ADJUSTMENT</b>															
	\$ -	\$ (5,318,071)	\$ 603,886	\$ 3,419,406	\$ 10,859,267	\$ 3,712,044	\$ 195,258	\$ -	\$ 1,578,703	\$ -	\$ -	\$ -	\$ -	\$ 3,786,944	\$ 18,837,437
<b>PHYSICAL LOCATION</b>															
	\$ 202,693,205	\$ 164,812,273	\$ 24,374,354	\$ 34,526,188	\$ 21,852,735	\$ 16,409,273	\$ 2,243,737	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 466,911,745
<b>ACCUMULATED DEPRECIATION</b>															
BY PHYSICAL LOCATION- TASK 11	\$ 108,218,643	\$ 48,654,821	\$ 7,285,853	\$ 9,598,186	\$ 5,685,124	\$ 4,264,506	\$ 360,417	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 184,067,550
IN SERVICE- TASK 10															
<b>PUMPING STATIONS:</b>															
KNAPP SERVICE CENTER	\$ 2,082,997	(944,348)	-	269,644	65,198	415,600	-	-	-	-	-	-	-	193,906	-
LIVINGSTON	899,365	(159,547)	-	45,625	10,963	70,204	-	-	-	-	-	-	-	32,755	-
FRANKLIN	3,072,843	(1,755,853)	-	711,486	368,311	156,316	-	-	300,370	-	-	-	-	219,370	-
LEFFINGWELL	137,376	(62,280)	-	17,783	4,300	27,409	-	-	-	-	-	-	-	12,788	-
BRISTOL	285,651	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EAST PARIS	1,692,238	-	-	(802,510)	802,510	-	-	-	-	-	-	-	-	-	-
BURTON	49,787	-	-	-	-	-	-	-	-	-	-	-	-	-	-
COLDBROOK PS PUMP 2	25,952	(3,873)	-	-	-	-	-	-	3,873	-	-	-	-	-	-
<b>STORAGE TANKS:</b>															
ELKS	236,335	(181,063)	174,349	-	-	-	6,714	-	-	-	-	-	-	-	-
KNAPP	116,070	(20,590)	-	5,888	1,415	9,060	-	-	-	-	-	-	-	4,227	-
CAMBRIDGE	116,070	(90,391)	-	73,803	5,951	-	-	-	10,637	-	-	-	-	-	-
PATTERSON	202,646	-	-	(96,101)	96,101	-	-	-	-	-	-	-	-	-	-
WATERMANS		(3,254,832)	154,671	402,814	1,452,185	244,237	90,721	-	159,623	-	-	-	-	750,581	-
<b>ADJUSTED BY ZONEGATING</b>															
	\$ 108,218,643	\$ 42,182,044	\$ 7,614,873	\$ 10,226,618	\$ 8,492,058	\$ 5,187,332	\$ 457,852	\$ -	\$ 474,503	\$ -	\$ -	\$ -	\$ -	\$ 1,213,627	\$ 184,067,550
<b>LESS: ZONEGATING ADJUSTMENT</b>															
	\$ -	\$ (3,026,056)	\$ 455,924	\$ 1,695,307	\$ 2,808,399	\$ 1,306,547	\$ 97,435	\$ -	\$ 474,503	\$ -	\$ -	\$ -	\$ -	\$ 1,213,627	\$ 5,025,686
<b>PHYSICAL LOCATION</b>															
	\$ 108,218,643	\$ 45,208,100	\$ 7,158,949	\$ 8,531,311	\$ 5,683,659	\$ 3,880,785	\$ 360,417	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,041,864



CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
 FISCAL YEAR ENDED JUNE 30, 2015

COST CENTER BY PHYSICAL LOCATION-TASK 11 IN SERVICE- TASK 10	AMOUNT	CONSTRUCTION COST-BY PHYSICAL LOCATION										TOTAL	
		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			
\$ 202,693,205		\$ 174,582,707	\$ 22,210,252	\$ 21,709,248	\$ 17,895,954	\$ 2,074,737							\$ 470,213,015
		13,443,500	1,580,187		148,480	135,000	229,000						15,536,167
		(612,700)	612,700										
		(5,103,995)	5,103,995										
		(219,892)	219,892										
		(3,938,991)	3,938,991										
		(20,287,069)	(725,425)	(7,212,962)	(6,200)	(2,208,247)							(30,439,903)
		6,948,713	476,748	3,590,233	1,207	585,566							11,602,467
		\$ 164,812,273	\$ 24,374,354	\$ 34,526,169	\$ 21,852,735	\$ 16,409,273	\$ 2,243,737						\$ 466,911,746
CONSTRUCTION COST-ZONEGATING													
		\$ (1,532,010)	\$ 437,442	\$ 105,770	\$ 674,225	\$ -	\$ -	\$ -	\$ 314,573	\$ -			\$ -
		(370,805)	106,037	25,480	163,162				76,126				
		(3,971,006)	1,609,084	832,966	353,520			679,312	496,124				
		(63,929)	18,254	4,414	28,134				13,127				
			(2,420,468)	2,420,468									
		(68,092)						58,092					
		(181,063)	174,349				6,714						
		(21,034)		6,015	1,445	9,256			4,318				
		(90,391)		73,803	5,951			10,637					
		(1,867,987)		1,867,987									
		970,259	429,537	5,457,226	5,594,786	2,483,747	188,544	830,662	2,882,676				18,837,437
		(5,318,071)	\$ 603,886	\$ 3,419,406	\$ 10,859,267	\$ 3,712,044	\$ 195,258	\$ 1,578,703	\$ 3,786,944				18,837,437
		\$ 159,494,202	\$ 24,978,240	\$ 37,945,575	\$ 32,712,002	\$ 20,121,317	\$ 2,438,995	\$ 1,578,703	\$ 3,786,944				\$ 485,749,183
ACCUMULATED DEPRECIATION-BY PHYSICAL LOCATION													
		\$ 108,218,643	\$ 50,885,143	\$ 6,950,415	\$ 7,703,302	\$ 5,685,124	\$ 360,417	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 184,067,550
		(285,651)	285,651										
		(1,692,238)	1,692,238										
		(49,787)	49,787										
		(202,646)	202,646										
		(6,277,970)	(396,148)	(2,149,264)	(1,819)	(575,152)							(8,400,353)
		1,831,249	269,244	1,082,389	354	191,430							3,374,666
		\$ 45,208,100	\$ 7,158,949	\$ 8,551,311	\$ 5,683,659	\$ 3,880,784	\$ 360,417	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,041,863
ACCUMULATED DEPRECIATION-ZONEGATING													
		\$ (944,348)	\$ 269,644	\$ 65,198	\$ 415,600	\$ -	\$ -	\$ -	\$ 193,906	\$ -			\$ -
		(159,547)	45,625	10,963	70,204				32,755				
		(1,755,853)	711,486	368,311	156,316			300,370	219,370				
		(62,280)	17,783	4,300	27,409				12,788				
			(802,510)	802,510									
		(3,873)						3,873					
		(181,063)	174,349				6,714						
		(20,590)		5,888	1,415	9,060			4,227				
		(90,391)		73,803	5,951			10,637					
				(96,101)	96,101								
		191,889	281,575	1,469,689	1,453,650	627,958	90,721	159,623	750,581				5,025,686
		(3,026,056)	\$ 455,924	\$ 2,808,399	\$ 1,306,547	\$ 97,435	\$ 474,503	\$ -	\$ 1,213,627				5,025,686
		\$ 42,182,044	\$ 7,614,873	\$ 10,226,618	\$ 8,492,058	\$ 5,187,331	\$ 457,852	\$ 474,503	\$ 1,213,627				\$ 184,067,549

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ADJUSTED OPERATING EXPENSE ZONEGATED BY GOVERNMENTAL UNIT - TASK #22  
 FISCAL YEAR ENDED JUNE 30, 2015

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	\$ 6,951,354	\$ 6,951,354												
PUMPING STATIONS:														
A. PRIMARY TRANSPORT	1,117,988	1,117,988												
B. INTERMEDIATE TRANSPORT	1,271,435		665,857	34,153	248,018	165,460	59,265		47,751					50,931
WATERMAINS:														
A. PRIMARY TRANSPORT	324,111		166,425	31,727	59,001	33,840	13,081		8,181					11,020
B. INTERMEDIATE TRANSPORT	1,680,092		629,950	345,074	287,632	249,124	127,670		118					13,525
C. LOCAL DISTRIBUTION	4,502,736		3,305,548	352,294	306,096	248,056	277,369							-
RETAIL CUSTOMER METERING *	3,344,854		2,522,221	271,234	218,586	149,080	176,107							-
SUBTOTAL OPERATING EXPENSE	19,192,570	8,069,342	7,290,001	1,034,482	1,119,333	845,560	653,492		56,050					75,476
ENGINEERING SERVICES	1,086,831	456,957	412,811	58,580	63,384	47,886	37,007		3,174					4,271
ADMINISTRATIVE EXPENSE	3,660,246	1,514,491	1,426,349	194,152	210,073	158,707	122,651		10,518					14,156
TOTAL	\$ 23,939,647	\$ 10,040,790	\$ 9,129,161	\$ 1,287,214	\$ 1,392,790	\$ 1,052,153	\$ 813,150		\$ 69,742					\$ 93,903

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

METHOD OF DISTRIBUTION

FILTRATION PLANTS	100.00%													
PUMPING STATIONS														
A. PRIMARY TRANSPORT	100.00%													
B. INTERMEDIATE TRANSPORT	100.00%		52.370%	2.686%	19.507%	13.014%	4.661%		3.756%					4.006%
MEMO														
WATERMAINS														
TOTAL MILES:	1,169.14													
A. PRIMARY TRANSPORT	58.23		51.348%	9.789%	18.204%	10.441%	4.036%		2.524%					3.400%
B. INTERMEDIATE TRANSPORT	301.87		29.90	5.70	10.60	6.08	2.35		1.47					1.98
C. LOCAL DISTRIBUTION	809.04		37.495%	20.539%	17.120%	14.828%	7.599%		0.007%					0.805%
RETAIL CUSTOMER METERING (1)	82,163.00		113.19	62.00	51.68	44.76	22.94		0.02					2.43
NUMBER OF METERS			73.412%	7.824%	6.798%	5.509%	6.160%		0.297%					-
ENGINEERING SERVICES (2)			593.93	63.30	55.00	44.57	49.84		-					-
ADMINISTRATIVE EXPENSE (3)			75.406%	8.109%	6.535%	4.457%	5.265%		0.228%					-
			61,956.00	6,663.00	5,369.00	3,662.00	4,326.00		187.00					-
			37.983%	5.390%	5.832%	4.406%	3.405%		0.292%					0.393%
			38.969%	5.304%	5.739%	4.336%	3.351%		0.287%					0.387%

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	\$ 21,692,756	65.1225%	\$ 638,666
CITY OF WALKER	2,893,917	8.6876%	85,201
CITY OF KENTWOOD	3,890,866	11.6805%	114,552
CASCADE TOWNSHIP	2,762,949	8.2945%	81,345
GRAND RAPIDS TOWNSHIP	1,948,549	5.8496%	57,368
TALLMADGE TOWNSHIP	121,688	0.3653%	3,583
	<u>\$ 33,310,725</u>	<u>100.0000%</u>	<u>\$ 980,715</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, 2015

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		\$ 3,551,300	\$ 2,788,620	\$ 323,684	\$ 480,652	\$ 284,919	\$ 237,817	\$ 26,863				\$ 7,693,855
IN SERVICE- TASK 10		-	179,246	35,549	-	1,980	1,800	3,053				221,628
PUMPING STATIONS:												
KNAPP SERVICE CENTER	\$ 92,899		(42,117)	-	12,026	2,908	18,535	-	-	-	8,648	-
LIVINGSTON	51,792		(9,187)	-	2,627	631	4,043	-	-	-	1,886	-
FRANKLIN	208,505		(119,141)	-	48,277	24,991	10,607	-	20,381	-	14,885	-
LEFFINGWELL	908		(412)	-	118	28	181	-	-	-	85	-
BRISTOL	15,870		-	-	-	-	-	-	-	-	-	-
EAST PARIS	137,768		-	-	(65,334)	65,334	-	-	-	-	-	-
BURTON	12,447		-	-	-	-	-	-	-	-	-	-
COLDBROOK PS PUMP 2	12,976		(1,936)	-	-	-	-	-	1,936	-	-	-
STORAGE TANKS:												
ELKS	-		-	-	-	-	-	-	-	-	-	-
KNAPP	-		-	-	-	-	-	-	-	-	-	-
CAMBRIDGE	-		-	-	-	-	-	-	-	-	-	-
PATTERSON	101,837		-	-	(48,294)	48,294	-	-	-	-	-	-
WATERMANS			(160,391)	2,411	22,617	73,661	11,118	2,514	10,143	37,927	-	-
ADJUSTED BY ZONEGATING		3,551,300	2,634,682	361,644	452,689	502,746	284,101	32,430	32,460	63,431	-	7,915,483
LESS DEPR ON CIS (TASK 4/5)												
LESS CONTRIBUTIONS AMORTIZED		(8,094)	(282,107)	(236,110)	(225,645)	(235,503)	(171,188)	(26,863)	-	-	-	(363,663)
TASK NO. 21		\$ 3,543,206	\$ 1,988,912	\$ 125,534	\$ 227,044	\$ 267,243	\$ 112,913	\$ 5,567	\$ 32,460	\$ 63,431	-	\$ 6,366,310
TOTAL												

*This page intentionally left blank.*

CITY OF GRAND RAPIDS, MICHIGAN  
 WATER SUPPLY SYSTEM FUND  
 ACCUMULATE REVENUE REQUIREMENTS BY CUSTOMER COMMUNITIES- TASK NO. 25  
 FISCAL YEAR ENDED JUNE 30, 2015

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	\$ 10,040,790	\$ 9,129,161	\$ 1,287,214	\$ 1,392,790	\$ 1,052,153	\$ 813,150	\$ 60,744	\$ 69,742	\$ -	\$ 93,903	\$ 23,939,647	
DEPRECIATION EXPENSE TASK NO. 24	3,543,206	1,988,912	125,534	227,044	267,243	112,913	5,567	32,460	-	63,431	6,366,310	
RETURN ON SYSTEM INVESTMENT TASK NO. 21	4,599,369	5,048,117	277,648	828,562	820,691	356,276	19,972	91,917	-	213,184	12,255,736	
REVENUE CREDITS- TASK NO. 23	-	(638,666)	(85,201)	(114,552)	(81,345)	(57,368)	(3,583)	-	-	-	(980,715)	
ALLOCATE:												
INTEG CONN. FEE CREDIT (A)	-	(513,491)	(101,005)	(113,472)	(75,002)	(52,574)	(5,353)	(37,226)	-	(43,037)	(941,160)	
INTEGRATED SYSTEM (A)	(18,183,365)	9,161,611	1,802,123	2,024,551	1,338,191	938,005	95,513	664,195	1,391,308	767,868	-	
LESS: CIRCUIT BREAKER (B)	-	(183,347)	(94,743)	-	(163,335)	-	(19,954)	-	-	-	(461,379)	
	\$ -	\$ 23,992,297	\$ 3,211,570	\$ 4,244,923	\$ 3,158,596	\$ 2,110,402	\$ 152,906	\$ 821,088	\$ 1,391,308	\$ 1,095,349	\$ 40,178,439	

(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.

	<u>YEAR ENDED 6/30/15</u>	<u>PRO FORMA *</u>
<b>REVENUES:</b>		
RETAIL/WHOLESALE WATER SALES	\$ 36,812,057	\$ 37,788,283
CONNECTION FEES/FRONT FOOT FEES	1,158,332	955,000
BILLABLE TO SDS FUND	1,899,516	2,409,394
OTHER OPERATING REVENUES	2,164,006	2,141,452
INTEREST ON INVESTMENTS	219,509	183,171
MISCELLANEOUS	691,654	673,425
TOTAL REVENUES	<u>\$ 42,945,074</u>	<u>\$ 44,150,725</u>
<b>OPERATING EXPENSES:</b>		
OPERATIONS & MAINTENANCE	\$ 23,589,168	\$ 25,666,628
DEPRECIATION	<u>8,286,863</u>	<u>8,286,863</u>
TOTAL EXPENSES	<u>\$ 31,876,031</u>	<u>\$ 33,953,491</u>
ADDITIONS: DEPRECIATION	<u>8,286,863</u>	<u>8,286,863</u>
NET EARNINGS OF THE SYSTEM	<u>\$ 19,355,906</u>	<u>\$ 18,484,097</u>
<b>DEBT SERVICE (CASH BASIS)</b>		
SERIES 1993 BONDS	\$ 3,599,800	\$ 3,596,200
SERIES 2005 BONDS	2,271,188	-
SERIES 2009 BONDS	1,969,740	1,257,015
SERIES 2010 BONDS	7,327,100	7,318,500
SERIES 2013 BONDS	371,569	360,669
SERIES 2015 BONDS	-	<u>1,078,225</u>
SENIOR LIEN	<u>15,539,397</u>	<u>13,610,609</u>
JUNIOR LIEN **	<u>564,875</u>	<u>745,223</u>
TOTAL	<u>16,104,272</u>	<u>14,355,832</u>
COVERAGE RATIO - SENIOR DEBT	<u>1.25</u>	<u>1.36</u>
COVERAGE RATIO - ALL DEBT	<u>1.20</u>	<u>1.29</u>

\* WATER SALES ADJUSTED FOR RATE REVISIONS OF 2.50% AND 1.00% EFFECTIVE 1/1/15 AND 1/1/16, RESPECTIVELY; OTHER REVENUES AND OPERATIONS & MAINTENANCE EXPENSE PER 2016 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		\$ 40,639,818
REVENUES FROM CURRENT RATES		
MONTHLY METER CHARGE	\$ 10,371,859	
MONTHLY BILLING CHARGE	3,094,459	
COMMODITY CHARGE	25,626,053	
MONTHLY FIRE PROTECTION	657,056	
ANNUAL HYDRANT CHARGE	<u>29,650</u>	<u>(39,779,076)</u>
INITIAL REQUIRED REVENUE INCREASE (DECREASE)		<u>\$ 860,742</u>
INITIAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>2.16%</u>
INITIAL SYSTEM REVENUE REQUIREMENTS FROM ABOVE		
		\$ 40,639,818
LESS: AMOUNT OF CIRCUIT BREAKER RELIEF TO REDUCE RR's TO RETAIL		<u>(461,379)</u>
SYSTEM REVENUE REQUIREMENTS		<u>\$ 40,178,439</u>
ACTUAL REQUIRED AMOUNT OF REVENUE INCREASE (DECREASE)		<u>\$ 399,363</u>
ACTUAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>1.00%</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	55,968	55,968	5,528	5,528	3,553	3,553	2,678	2,678	3,719	3,719	134	134
B 1"	1.7778	2,509	4,461	465	827	638	1,134	342	608	315	560	20	36
C 1 1/4"	2.7778	-	-	-	-	-	-	-	-	-	-	-	-
D 1 1/2"	4.0000	1,156	4,624	221	884	405	1,620	246	984	120	480	7	28
E 2"	7.1111	842	5,988	104	740	205	1,458	98	697	43	306	3	21
F 3"	16.0000	96	1,536	10	160	21	336	7	112	8	128	2	32
G 4"	28.4444	82	2,332	8	228	12	341	3	85	2	57	1	28
H 6" and over	64.0000	14	896	2	128	2	128	-	-	1	64	-	-
		60,667	75,805	6,338	8,495	4,836	8,570	3,374	5,164	4,208	5,314	167	279

**FIRE PROTECTION SERVICE**

H 6"	980	226	299	152	94	16
I 8"	272	75	201	114	23	2
J 10"	15	6	10	2	-	-
K 12"	22	18	23	20	1	2
	1,289	325	533	288	118	20
TOTAL	61,956	6,663	5,369	3,662	4,326	187
TOTAL						82,163

Source: City of Grand Rapids, Michigan, Water/Sewer Customer Accounts/Meters Report, dated July 30, 2015.

**CITY OF GRAND RAPIDS, MICHIGAN**

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

SYSTEM REVENUE REQUIREMENTS \* \$ 23,992,297

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

75,805 meter equivalents x \$ 6.53 x 12 = \$ 5,940,080

MONTHLY BILLING CHARGE

60,667 meters x \$ 3.24 x 12 = 2,358,733

COMMODITY CHARGE

8,466,828 units (100 CF) x \$ 1.76 = 14,901,617

MONTHLY FIRE PROTECTION

305,760

ANNUAL HYDRANT CHARGE

- (23,506,190)

REQUIRED REVENUE INCREASE (DECREASE)

\$ 486,107

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

2.07%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 183,347

**CITY OF GRAND RAPIDS, MICHIGAN**

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

COMMODITY CHARGE:

$$\frac{\text{COMMODITY CHARGE @ 64\%}}{\text{BILLED UNITS}} = \frac{\$15,355,070}{8,466,828} = \underline{\underline{\$ 1.81 /100 \text{ CF}^*}}$$

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **		\$ 23,992,297
NEW COMMODITY CHARGE		
8,466,828 x \$ 1.81		\$ 15,324,959
NEW MONTHLY BILLING CHARGE		
60,667 x \$ 3.50 x 12		2,548,014
MONTHLY FIRE PROTECTION CHARGE		305,760
ANNUAL HYDRANT CHARGE		-
		<u>(18,178,733)</u>
		<u><u>\$ 5,813,564</u></u>

$$\text{MONTHLY METER CHARGE} = \frac{\$5,813,564}{75,805 \times 12} = \underline{\underline{\$ 6.39 \text{ MONTHLY}}}$$

<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	\$ 6.39	\$ 3.50	\$ 9.89	\$ 9.77
1"	1.7778	11.36	3.50	14.86	14.85
1 1/4"	2.7778	17.75	3.50	21.25	21.38
1 1/2"	4.0000	25.56	3.50	29.06	29.36
2"	7.1111	45.44	3.50	48.94	49.68
3"	16.0000	102.24	3.50	105.74	107.72
4"	28.4444	181.76	3.50	185.26	188.98
6" and over	64.0000	408.96	3.50	412.46	421.16

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016

\*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 183,347

**CITY OF WALKER, MICHIGAN**

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

SYSTEM REVENUE REQUIREMENTS \* \$ 3,211,570

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

8,495 meter equivalents x \$ 8.84 x 12 = \$ 901,150

MONTHLY BILLING CHARGE

6,338 meters x \$ 3.24 x 12 = 246,421

COMMODITY CHARGE

1,210,877 units (100 CF) x \$ 1.58 = 1,913,186

MONTHLY FIRE PROTECTION

85,979

ANNUAL HYDRANT CHARGE

-

(3,146,736)

REQUIRED REVENUE INCREASE (DECREASE)

\$ 64,834

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

2.06%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 94,743

**CITY OF WALKER, MICHIGAN**

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

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.61 /100 CF \*  
 \$ 1.58 x 102.06%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS \*\* \$ 3,211,570

NEW COMMODITY CHARGE  
 1,210,877 x \$ 1.61 \$ 1,949,512

NEW MONTHLY BILLING CHARGE  
 6,338 x \$ 3.50 x 12 266,196

MONTHLY FIRE PROTECTION CHARGE 85,979

ANNUAL HYDRANT CHARGE - (2,301,687)

\$ 909,883

MONTHLY METER CHARGE =  $\frac{\$909,883}{8,495 \times 12}$  = \$ 8.93 MONTHLY

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 8.93	\$ 3.50	\$ 12.43	\$ 12.08
1"	1.7778	15.88	3.50	19.38	18.96
1 1/4"	2.7778	24.81	3.50	28.31	27.80
1 1/2"	4.0000	35.72	3.50	39.22	38.60
2"	7.1111	63.50	3.50	67.00	66.10
3"	16.0000	142.88	3.50	146.38	144.68
4"	28.4444	254.01	3.50	257.51	254.69
6" and over	64.0000	571.52	3.50	575.02	569.00

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016  
 \*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 94,743

**CITY OF KENTWOOD, MICHIGAN**

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

SYSTEM REVENUE REQUIREMENTS \$ 4,244,923

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

8,570 meter equivalents x \$ 11.41 x 12 = \$ 1,173,404

MONTHLY BILLING CHARGE

4,836 meters x \$ 3.24 x 12 = 188,024

COMMODITY CHARGE

1,761,513 units (100 CF) x \$ 1.56 = 2,747,960

MONTHLY FIRE PROTECTION

148,910

ANNUAL HYDRANT CHARGE

- (4,258,298)

REQUIRED REVENUE INCREASE (DECREASE)

\$ (13,375)

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES

-0.31%

**CITY OF KENTWOOD, MICHIGAN**

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

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.56 /100 CF \*  
 \$ 1.56 x 99.69%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 4,244,923
NEW COMMODITY CHARGE	
1,761,513 x \$ 1.56	\$ 2,747,960
NEW MONTHLY BILLING CHARGE	
4,836 x \$ 3.50 x 12	203,112
MONTHLY FIRE PROTECTION CHARGE	148,910
ANNUAL HYDRANT CHARGE	<u>-</u>
	<u>(3,099,982)</u>
	<u>\$ 1,144,941</u>

MONTHLY METER CHARGE =  $\frac{\$1,144,941}{8,570 \times 12}$  = \$ 11.13 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	\$ 11.13	\$ 3.50	\$ 14.63	\$ 14.65
1"	1.7778	19.79	3.50	23.29	23.52
1 1/4"	2.7778	30.92	3.50	34.42	34.93
1 1/2"	4.0000	44.52	3.50	48.02	48.88
2"	7.1111	79.15	3.50	82.65	84.38
3"	16.0000	178.08	3.50	181.58	185.80
4"	28.4444	316.59	3.50	320.09	327.79
6" and over	64.0000	712.32	3.50	715.82	733.48

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016

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

SYSTEM REVENUE REQUIREMENTS \* \$ 3,158,596

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE			
5,164 meter equivalents	x	\$ 16.90	x 12 = \$ 1,047,259
MONTHLY BILLING CHARGE			
3,374 meters	x	\$ 3.24	x 12 = 131,181
COMMODITY CHARGE			
856,037 units (100 CF)	x	\$ 2.14	= 1,831,919
MONTHLY FIRE PROTECTION			
			84,463
ANNUAL HYDRANT CHARGE			
		-	(3,094,822)
REQUIRED REVENUE INCREASE (DECREASE)			\$ 63,774
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			2.06%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 163,335

**CASCADE TOWNSHIP**

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

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.18 /100 CF \*  
 \$ 2.14 x 102.06%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **		\$ 3,158,596
NEW COMMODITY CHARGE		
856,037 x \$ 2.18	\$ 1,866,161	
NEW MONTHLY BILLING CHARGE		
3,374 x \$ 3.50 x 12	141,708	
MONTHLY FIRE PROTECTION CHARGE	84,463	
ANNUAL HYDRANT CHARGE	<u>-</u>	<u>(2,092,332)</u>
		<u>\$ 1,066,264</u>

MONTHLY METER CHARGE =  $\frac{\$1,066,264}{5,164 \times 12}$  = \$ 17.21 MONTHLY

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 17.21	\$ 3.50	\$ 20.71	\$ 20.14
1"	1.7778	30.60	3.50	34.10	33.28
1 1/4"	2.7778	47.81	3.50	51.31	50.18
1 1/2"	4.0000	68.84	3.50	72.34	70.84
2"	7.1111	122.38	3.50	125.88	123.42
3"	16.0000	275.36	3.50	278.86	273.64
4"	28.4444	489.53	3.50	493.03	483.95
6" and over	64.0000	1,101.44	3.50	1,104.94	1,084.84

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016  
 \*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 163,335

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

SYSTEM REVENUE REQUIREMENTS \$ 2,110,402

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE			
5,314 meter equivalents	x	\$ 11.41	x 12 = \$ 727,593
MONTHLY BILLING CHARGE			
4,208 meters	x	\$ 3.24	x 12 = 163,607
COMMODITY CHARGE			
693,737 units (100 CF)	x	\$ 1.69	= 1,172,416
MONTHLY FIRE PROTECTION			26,654
ANNUAL HYDRANT CHARGE			-
			<u>(2,090,270)</u>
REQUIRED REVENUE INCREASE (DECREASE)			<u>\$ 20,132</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>0.96%</u>

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

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 1.71 /100 CF \*  
 \$ 1.69 x 100.96%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS	\$ 2,110,402
NEW COMMODITY CHARGE 693,737 x \$ 1.71	\$ 1,186,290
NEW MONTHLY BILLING CHARGE 4,208 x \$ 3.50 x 12	176,736
MONTHLY FIRE PROTECTION CHARGE	26,654
ANNUAL HYDRANT CHARGE	<u>-</u> (1,389,680)
	<u><u>\$ 720,722</u></u>

MONTHLY METER CHARGE =  $\frac{\$720,722}{5,314 \times 12} = \underline{\underline{\$ 11.30 \text{ MONTHLY}}}$

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 11.30	\$ 3.50	\$ 14.80	\$ 14.65
1"	1.7778	20.09	3.50	23.59	23.52
1 1/4"	2.7778	31.39	3.50	34.89	34.93
1 1/2"	4.0000	45.20	3.50	48.70	48.88
2"	7.1111	80.36	3.50	83.86	84.38
3"	16.0000	180.80	3.50	184.30	185.80
4"	28.4444	321.42	3.50	324.92	327.79
6" and over	64.0000	723.20	3.50	726.70	733.48

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016

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

SYSTEM REVENUE REQUIREMENTS \* \$ 152,906

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE			
279 meter equivalents	x	\$ 3.33	x 12 = \$ 11,149
MONTHLY BILLING CHARGE			
167 meters	x	\$ 3.24	x 12 = 6,493
COMMODITY CHARGE			
28,103 units (100 CF)	x	\$ 3.46	= 97,236
MONTHLY FIRE PROTECTION			
			5,290
ANNUAL HYDRANT CHARGE			
		29,650	(149,817)
REQUIRED REVENUE INCREASE (DECREASE)			\$ 3,089

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 2.06%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 19,954

**TALLMADGE TOWNSHIP**

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

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 3.53 /100 CF \*  
 \$ 3.46 x 102.06%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **		\$ 152,906
NEW COMMODITY CHARGE		
28,103 x \$ 3.53	\$	99,204
NEW MONTHLY BILLING CHARGE		
167 x \$ 3.50 x 12		7,014
MONTHLY FIRE PROTECTION CHARGE		5,290
ANNUAL HYDRANT CHARGE		<u>29,650</u>
		<u>(141,157)</u>
		<u>\$ 11,749</u>

MONTHLY METER CHARGE =  $\frac{\$11,749}{279 \times 12}$  = \$ 3.51 MONTHLY

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 3.51	\$ 3.50	\$ 7.01	\$ 6.57
1"	1.7778	6.24	3.50	9.74	9.16
1 1/4"	2.7778	9.75	3.50	13.25	12.49
1 1/2"	4.0000	14.04	3.50	17.54	16.56
2"	7.1111	24.96	3.50	28.46	26.92
3"	16.0000	56.16	3.50	59.66	56.52
4"	28.4444	99.84	3.50	103.34	97.96
6" and over	64.0000	224.64	3.50	228.14	216.36

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016  
 \*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 19,954

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS *		\$	626,969
COMMODITY CHARGE			
(100CF) 611,516 units	x	\$ 1.12	684,898
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>(57,929)</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	194,119
MONTHLY SERVICE CHARGE			
\$16,064	x	12 MONTHS	192,768
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>1,351</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>-6.45%</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	\$	821,088
NEW COMMODITY CHARGE *		
611,516 x \$1.03 =		(629,861)
		<hr/>
	\$	<u>191,227</u>

MONTHLY SERVICE CHARGE \* = \$ 191,227 / 12 = \$15,936

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS *		\$ 724,831
COMMODITY CHARGE		
(100CF) 617,394 units x \$ 1.27		784,090
		784,090
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$ (59,259)
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 370,518
MONTHLY SERVICE CHARGE		
\$31,538 x 12 MONTHS		378,456
		378,456
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$ (7,938)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		-5.78%

\* NET OF INTEGRATED CONNECTION FEE CREDIT.

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

SYSTEM REVENUE REQUIREMENTS	\$ 1,095,349
NEW COMMODITY CHARGE *	
617,394 x \$1.17 =	(722,351)
	<hr/>
	<u>\$ 372,998</u>

MONTHLY SERVICE CHARGE \* = \$ 372,998 / 12 = \$31,083

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$ 1,391,308
COMMODITY CHARGE	
(100CF) 1,203,815 units x \$ 1.24	1,492,731
	_____
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)	<u><u>\$ (101,423)</u></u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS	\$ -
MONTHLY SERVICE CHARGE	
\$0 x 12 MONTHS	-
	_____
REQUIRED SERVICE REVENUE INCREASE (DECREASE)	<u><u>\$ -</u></u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	<u><u>-6.79%</u></u>

**OTTAWA COUNTY**

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

SYSTEM REVENUE REQUIREMENTS \$ 1,391,308

NEW COMMODITY CHARGE \*  
1,203,815 x \$1.16 = (1,396,425)

---

\$ (5,117)

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

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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>2015</u>	<u>2016</u>	<u>% Increase</u>
Domestic Water User	\$ 76.00	\$ 82.00	7.89%
Commercial - Industrial User (Watermain over 8 in. diameter)	\$ 108.00	\$ 122.00	12.96%

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, 2014 through June, 2015. 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	2015	\$ 2,300	\$ 2,650	\$ 2,800	\$ 3,250	\$ 3,900
	2016	\$ 2,250	\$ 2,550	\$ 2,750	\$ 3,200	\$ 3,800
Cost for 1-1/2" Water Service	2015	\$ 3,000	\$ 3,400	\$ 3,600	\$ 4,200	\$ 4,900
	2016	\$ 3,300	\$ 3,700	\$ 4,000	\$ 4,500	\$ 5,300
Cost for 2" Water Service	2015	\$ 3,700	\$ 4,000	\$ 4,300	\$ 4,800	\$ 5,700
	2016	\$ 4,300	\$ 4,800	\$ 5,000	\$ 5,600	\$ 6,600

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	-2.17%	-3.77%	-1.79%	-1.54%	-2.56%
Increase for 1-1/2" Water Service	10.00%	8.82%	11.11%	7.14%	8.16%
Increase for 2" Water Service	16.22%	20.00%	16.28%	16.67%	15.79%

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** October 8, 2015

**TO:** Molly J. Eastman  
Utility Financial Officer

**FROM:** Nicole N. Pasch, Administrative Services Officer

**SUBJECT:** 2015 WATER RATE STUDY TASK #30  
FEES, CHARGES, and PENALTIES

Miscellaneous fees and penalties contained within the Water System Rules and Regulations have been reviewed with staff.

Minor wording changes were made for clarification and enforcement purposes, which resulted in some fees being eliminated as separate fees and included in a more comprehensive format.

The following are recommended changes in fee amounts:

#### Fire Protection Monthly Charges

- All sizes increased 2.5%, consistent with water rate increase in 2015

#### Hydrant Use

- Hydrant Permit Fee Introduced of \$25 for pool filling and \$300 for other uses, this takes the place of the non-refundable deposit for other uses
- Other fees remained the same

#### Tapping Permits

- All tap fees are changed to \$300

#### Meter Installation and Service On/Off Requests

- Normal Service Hours 8am to 7pm M-F were initiated
- Meter Installation costs increased by 10% rounded
- Seasonal Off Requests changed to \$50, but are not inclusive of the on request and meter install
- Unscheduled On/Off Requests were introduced with price differences for time of service
- Real Estate Inspections did not change

#### Meter Replacement (Non-System Planned/Scheduled Replacement)

- Costs were simplified in structure and were adjusted to meet current meter bid prices

#### Meter Reading

- Meter Interface Unit Replacement fee introduced of \$150

#### Miscellaneous

- Inspection Permits increased \$5 both inside and outside the City Limits
- Street Opening Permit and Cross Connection Re-inspection fee did not change
- Irrigation Service Cut/Cap Inspection Fee introduced for \$50

#### Services

- Customer requested on-site service (Customer Issue) increased to \$100

#### Penalties

- More comprehensive penalty fees were created/combined in an effort to simplify and make clear the direction provided in Water System Rules and Regulations.
  - Unauthorized operation, tampering, or removal of any Water or Sanitary Sewer System owned or maintained valve, asset, infrastructure, or equipment (for example, but not limited to, bypass valves, distribution valves, service valves, meters, meter reading equipment, hydrants, and curb stops) \*\* & \*\*\* for \$500
  - Unauthorized or illegal connection to any Water or Sanitary Sewer System owned pipe, property, and/or private plumbing system served by the Water and/or Sanitary Sewer System \*\* & \*\*\* for \$500
    - *\*\*Plus double the commodity rate for estimated volume and any unbilled readiness to serve charges that may apply*
    - *\*\*\*Penalties shall double with each subsequent infraction*
- Failure to return or return of damaged hydrant connections were increased to meet current bid prices
- Return of damaged, but repairable hydrant connection was introduced for \$1,000

#### Miscellaneous Damage or Loss

- Any cost recovery due to damage caused or undue oversight of any location, account, or infrastructure of the Water and/or Sanitary Sewer System will be charged in accordance with cost recovery methodology for time and materials, including a 10% administrative charge for processing was introduced for cost + 10%

NP

Cc: Joellen Thompson, Water System Manager  
Mike Lunn, Environmental Services Manager  
Wayne Jernberg, Assistant Water System Manager  
Arden Postma, Hydraulic Engineer  
Dave Harran, Utility Field Operations Superintendent

**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>2015 Fee (\$)</b>	<b>2016 Fee (\$)</b>	<b>% Change</b>
<b>Fire Protection Monthly (based on pipe size)</b>			
6"	\$16.00	\$16.40	2.5%
8"	\$28.40	\$29.11	2.5%
10"	\$44.48	\$45.59	2.5%
12"	\$64.00	\$65.60	2.5%
<b>Hydrant Use</b>			
		\$25	
Hydrant Use Permit for Pool Filling Only (each connection rental)	NA	+ \$300 Refundable Deposit	
Hydrant Use Permit (each connection rental)	NA	\$300	
Metered Hydrant Connection Use Fee (per rental up to one-season)	\$300 (Non-refundable Deposit) + \$25/week*	\$25/week + metered volume*	0%
Non-Metered Hydrant Connection Use Fee (per rental up to one season under special conditions ONLY)	\$300 (Non-refundable Deposit) + \$75/week	\$75/week	0%
Hydrant Flow Test	\$200	\$200	0%
<i>* Plus metered volume (at retail commodity rate of approved hydrant area)</i>			
<b>Tapping Permits</b>			
All sizes	\$250	\$300	20%
<b>Meter Installation and Service On/Off Requests</b>			
<i>Normal Service Hours 8am - 7pm M-F all non-emergency service requests must be scheduled</i>			
<i>¾" and Smaller</i>			
¾"	\$40	\$45	13%
1"	\$45	\$50	11%
1 ½"	\$55	\$60	9%
2"	\$60	\$65	8%
3"	\$100	\$110	10%
4" or larger	\$200	\$220	10%
Seasonal Off Request Scheduled Meter Pull	\$40-\$250	\$50	
Unscheduled On/Off Request Normal Service Hours	NA	\$25	
Unscheduled On/Off Request After Service Hours	NA	\$60	
Real Estate Inspection On & Off Request Scheduled (may also need meter install)	\$110	\$110	0%
<b>Meter Replacement (Non-System Planned/Scheduled Replacement)</b>			
<i>Meter Replacement Fee: Charged to customer at time of discovery of a system known meter that requires replacement outside of Water System planned replacement program scheduling as a result of infrastructure loss (Frozen/Missing/Stolen/Damaged), unnecessary replacement, and/or customer request. Customer requested meter replacement requires meter testing prior to approval.</i>			
<i>¾" and Smaller</i>			
¾"	\$150	\$175	16.7%
1"	\$200	\$250	25.0%
1 ½"	\$820	\$800	-2.4%
2"	\$950	\$900	-5.3%
3"	\$1,170	\$1,100	-6.0%
4" or larger	Cost	Cost	
<b>Meter Reading</b>			
Final or Actual Reading	\$35	\$35	0%
Meter Interface Unit Replacement	NA	\$150	
<b>Meter Testing</b>			
<i>Meter Testing Fee: Charged and paid by customer prior to test, if test results find the meter to read in error beyond AWWA acceptance and in the benefit of the Water System, the fee will be refunded and a new meter will be set.</i>			
<i>¾" and Smaller</i>			
¾"	\$100	\$100	0%
1"	\$200	\$200	0%
1 ½"	\$200	\$200	0%
2"	\$300	\$300	0%
3"	\$400	\$400	0%
4"	Cost	Cost	
<b>Security Deposit</b>			
Minimum Deposit Amount	\$500	\$500	0%
<b>Miscellaneous</b>			
Street Opening Permit	\$30	\$30	0%
Water Inspection Permit (Within City Limits)	\$45	\$50	11%
Water Inspection Permit (Outside City Limits)	\$60	\$65	8%
Sanitary Service Line Inspection Permit (Within City Limits)	\$45	\$50	11%
Sanitary Service Line Inspection Permit (Outside City Limits)	\$60	\$65	8%

**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>2015 Fee (\$)</b>	<b>2016 Fee (\$)</b>	<b>% Change</b>
Storm Service Line Inspection Permit (Within City Limits)	\$45	\$50	11%
Storm Service Line Inspection Permit (Outside City Limits)	\$60	\$65	8%
Footing Drain Lateral Inspection Permit (Within City Limits)	\$45	\$50	11%
Footing Drain Lateral Inspection Permit (Outside City Limits)	\$60	\$65	8%
Sewer Lateral Service Demolition/Cap off Inspection Fee (Within City Limits)	\$45	\$50	11%
Sewer Later Service Demolition/Cap off Inspection Fee (Outside City Limits)	\$60	\$65	8%
Plumbing Service Re-inspection Fee	\$45	\$50	11%
Cross Connection Re-inspection Fee	\$75	\$75	0%
Irrigation Service Cut/Cap Administrative Fee	NA	\$50	
<b>Services</b>			
Customer requested on-site service (Customer Issue)	\$55	\$100	82%
Research Fee for document creation of account or location information (FOIA request may still be required)	\$55	\$55	0%
<b>Penalties</b>			
Late Payment Penalty	10% of Net	10% of Net	
Administrative Fee for review or processing of account for non-payment, returned payment, shut-off, posting of property, and/or backflow non-compliance	\$55	\$55	0%
Missed Appointment	\$35	\$35	0%
Repeat Missed Appointment (each time related to same service)	\$50	\$50	0%
Unauthorized operation, tampering, or removal of any Water or Sanitary Sewer System owned or maintained, valve, asset, infrastructure, or equipment (for example, but not limited to, bypass valves, distribution valves, service valves, meters, meter reading equipment, hydrants, and curb stops) ** & ***	\$500	\$500	0%
Unauthorized or Illegal connection to any Water or Sanitary Sewer System owned pipe, property, and/or private plumbing system served by the Water and/or Sanitary Sewer System ** & ***	\$500	\$500	0%
Failure to return or return of damaged beyond repair of non-metered hydrant connection equipment	\$500	\$550	10%
Failure to return or return of damaged beyond repair of metered hydrant connection equipment	\$500	\$2,000	300%
Return of repairable metered hydrant connection equipment	NA	\$1,000	
Lost/non-returned hydrant wrench	\$50	\$50	0%
Return check or payment charge (City Treasurer processing fee)	\$30	\$30	0%
Permit infractions/violations ** & ***	\$100	\$100	0%
Unauthorized service tap of Water or Sewer main** & ***	\$500	\$500	0%
<b>** Plus double the commodity rate for estimated volume and any unbilled readiness to serve charges that may apply</b>			
<b>*** Penalties shall double with each subsequent infraction</b>			
<b>Miscellaneous Damage or Loss</b>			
Any cost recovery due to damage caused or undue oversight of any location, account, or infrastructure of the Water and/or Sanitary Sewer System will be charged in accordance with cost recovery methodology for time and materials, including a 10% administrative charge for processing.		Cost + 10%	

**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:** September 30, 2015

**TO:** Molly Eastman  
Utility Financial Officer

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

**SUBJECT:** **2015 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"	\$18.69/ft	\$21.45/ft	14.8%
12"-16"	\$21.60/ft	\$24.85/ft	15.0%
8"-16"	\$40.29/ft	\$46.30/ft	14.9%

These rates have been determined in accordance with the Water System Rules and Regulations, and are approved for use from January 1, 2016 through December 31, 2016. 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 October 6, 2015:

UAB Partners	Sq. Miles of USD by CC	Percent
Grand Rapids	45.36	35.068%
Walker	25.43	19.660%
Kentwood	14.00	10.823%
Cascade	20.45	15.810%
Grand Rapids Township	10.93	8.450%
Tallmadge Township	2.66	2.056%
East Grand Rapids	3.37	2.605%
Ada	7.15	5.528%
Total	129.35	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)	\$ 65,911	12.50%
City & Customer Community Circuit Breaker (CCCCB)	461,379	87.50%
Total	<u>\$ 527,290</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	\$ 461,379	100.00%
Less: Amount Applied in Current Rate Study	(461,379)	-100.00%
Total CCCC B Revenue Credit- Next Year's Rate Study	<u>\$ -</u>	<u>0.00%</u>

*This page intentionally left blank.*

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
SYSTEM ADDITIONS AND IMPROVEMENTS  
FOR THE YEAR ENDED JUNE 30, 2015  
TASKS NO. 1, 2, & 3**

COMMUNITY	LOCAL		TRUNK		INTERCEPTOR		TOTALS	
	FEET	MILES	FEET	MILES	FEET	MILES	FEET	MILES
Grand Rapids								
Construction	3,779	0.72	202	0.04	0	0.00	3,981	0.76
Abandonment	(3,791)	(0.72)	(165)	(0.03)	0	0.00	(3,956)	(0.75)
CSO Construction	6,023	1.14	446	0.08	2,233	0.42	8,702	1.64
CSO Abandonment	(5,196)	(0.98)	(802)	(0.15)	(2,522)	(0.48)	(8,520)	(1.61)
	815	0.16	(319)	(0.06)	(289)	(0.06)	207	0.04
Kentwood								
Construction	0	0.00	2,417	0.46	4,759	0.90	7,176	1.36
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	0	0.00	2,417	0.46	4,759	0.90	7,176	1.36
Cascade Twp.								
Construction	7,192	1.36	0	0.00	0	0.00	7,192	1.36
Abandonment	(1,010)	(0.19)	0	0.00	0	0.00	(1,010)	(0.19)
	6,182	1.17	0	0.00	0	0.00	6,182	1.17
G.R. Twp.								
Construction	505	0.10	0	0.00	0	0.00	505	0.10
Abandonment	(417)	(0.08)	(70)	(0.01)	0	0.00	(487)	(0.09)
	88	0.02	(70)	(0.01)	0	0.00	18	0.01
Tallmadge Twp.								
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
Walker								
Construction	1,444	0.27	0	0.00	0	0.00	1,444	0.27
Abandonment	0	0.00	0	0.00	0	0.00	0	0.00
	1,444	0.27	0	0.00	0	0.00	1,444	0.27
Wright Twp								
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>*TOTAL*</b>	<b>8,529</b>	<b>1.62</b>	<b>2,028</b>	<b>0.39</b>	<b>4,470</b>	<b>0.84</b>	<b>15,027</b>	<b>2.85</b>

	CONTRIBUTIONS		
	COMM	OTHER	TOTAL
Integrated	\$ -	\$ -	\$ -
Grand Rapids	156,826	-	156,826
Kentwood	-	386,215	386,215
Cascade Twp.	720,087	60,487	780,574
Grand Rapids Twp.	138,701	-	138,701
Tallmadge Twp.	-	-	-
Walker	137,089	-	137,089
Wright Twp.	-	-	-
<b>*TOTAL*</b>	<b>\$ 1,152,703</b>	<b>\$ 446,702</b>	<b>\$ 1,599,405</b>

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
OPERATING EXPENSE ALLOCATION BY COST CENTER - TASK #4, PART 1  
FISCAL YEAR ENDED JUNE 30, 2015

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	INTERCEPTOR	TRUNK	LOCAL COLLECTOR				
4423	WASTEWATER TREATMENT (LESS 442305)	\$ 15,212,786	\$ 14,383,481	\$ 130,527	\$ 460,026						\$ 6,858				
4425	SEWER MAINTENANCE	5,259,767				280,661	606,925	4,372,181							
4413	CUSTOMER SERVICE *	2,627,977										2,627,977			
442305	INDUSTRIAL PRETREATMENT	696,325											696,325		
4410	SUBTOTAL OPERATING EXPENSE ADMINISTRATION	23,796,855	14,383,481	130,527	460,026	280,661	606,925	4,372,181			6,858	2,627,977	696,325		-
	TOTAL	\$ 25,530,027	\$ 14,383,481	\$ 130,527	\$ 460,026	\$ 280,661	\$ 606,925	\$ 4,372,181			\$ 6,858	\$ 2,627,977	\$ 696,325		\$ 1,733,172

\* 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	94.549%														
	B. LIFT & METER STATIONS	5.451%	(1)	(7)	(45)						(4)					
	NO. OF STATIONS															
4425	SEWER MAINTENANCE	100.000%														
	TOTAL MILES	911.02														
	A. INTERCEPTOR MILES	48.61				5.336%										
	B. TRUNK LINES MILES	105.12				11.539%			11.539%							
	C. LOCAL COLLECTOR MILES	757.29				83.125%		83.125%								
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, 2015

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	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	
WASTEWATER TREATMENT	\$ 14,383,481	\$ 14,383,481												
LIFT STATIONS:														
A. INTERCEPTOR	231,894													
B. TRUNK	130,527		65,848				21,604							
C. LOCAL COLLECTOR	460,026		77,834				103,031	157,478	29,215	14,377			12,839	
SEWER LINES:														
A. INTERCEPTOR	280,661		39,896		70,496		7,160							
B. TRUNK	606,925		154,098		143,016		53,233	31,985	16,338	692				
C. LOCAL COLLECTOR	4,372,181		540,533		424,976		265,304	333,073	48,400	25,971				
BULK METERING STATIONS	6,858				3,107									950
CUSTOMER ACCOUNTING	2,627,977		197,939		160,885		65,647	130,978	5,571	8,120				
INDUSTRIAL PRETREATMENT	696,325													
SUBTOTAL OPERATING EXPENSE	23,796,855	15,079,806		1,076,148	802,480		515,979	653,514	99,524	49,160			14,077	950
ADMINISTRATIVE EXPENSE	1,733,172	1,061,429		75,747	56,484		36,318	45,999	7,005	3,460			991	67
TOTAL	\$ 25,530,027	\$ 16,141,235		\$ 1,151,895	\$ 858,964		\$ 552,297	\$ 699,513	\$ 106,529	\$ 52,620			\$ 15,068	\$ 1,017

METHOD OF DISTRIBUTION

WASTEWATER TREATMENT														
A. TREATMENT PLANT	100.000%	100.000%												
B. LIFT & METER STATIONS (1)	100.000%													
NO. OF STATIONS	(57)	(13)	(6)	(1)	(1)	(10)	(17)	(5)	(1)	(1)	(1)	(2)	(1)	
SEWER LINES:														
TOTAL MILES:	911.02													
A. INTERCEPTOR		58,116%	14,215%	25,118%		2,551%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
MILES	48.61	28.25	6.91	12.21		1.24								
B. TRUNK LINES		34,199%	25,390%	23,564%		8,771%	5,270%	2,692%	0.114%	0.114%	0.000%	0.000%	0.000%	0.000%
MILES	105.12	35.95	26.69	24.77		9.22	5.54	2.83	0.12	0.12	0.000%	0.000%	0.000%	0.000%
C. LOCAL COLLECTOR		62,530%	12,363%	9,720%		6,068%	7,618%	1,107%	0.594%	0.594%	0.000%	0.000%	0.000%	0.000%
MILES	757.29	473.54	93.62	73.61		45.95	57.69	8.38	4.50	4.50	0.000%	0.000%	0.000%	0.000%
CUSTOMER ACCTG (2)														
NO. OF METERS	74,415.00	58,298.00	5,605.00	6,122%	4,984%	2,498%	4,984%	0.212%	0.309%	230.00	0.000%	0.000%	0.000%	0.004%
INDUSTRIAL PRETREATMENT														
ADMINISTRATIVE EXPENSE (3)	100.000%	100.000%												
	100.000%	61.243%	4.370%	3.259%	2.095%	2.654%	0.404%	0.200%	0.006%	0.000%	0.000%	0.057%	0.004%	

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, 2015

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	INTERCEPTOR	TRUNK	LOCAL COLLECTOR				
4423	WASTEWATER TREATMENT (LESS 442305)	\$ 14,521,772	\$ 13,695,370	\$ 231,091	\$ 130,074	\$ 458,437					\$ 6,800				
4425	SEWER MAINTENANCE	5,286,037					282,063	609,956	4,394,018						
4413	CUSTOMER SERVICE *	3,235,618											3,235,618		
442305	INDUSTRIAL PRETREATMENT	696,341												696,341	
4410	SUBTOTAL OPERATING EXPENSE ADMINISTRATION	23,739,768	13,695,370	231,091	130,074	458,437	282,063	609,956	4,394,018		6,800		3,235,618	696,341	-
	TOTAL	\$ 26,057,856	\$ 13,695,370	\$ 231,091	\$ 130,074	\$ 458,437	\$ 282,063	\$ 609,956	\$ 4,394,018		\$ 6,800		\$ 3,235,618	\$ 696,341	\$ 2,318,088

\* 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	94.309%														
	B. LIFT & METER STATIONS	5.691%	(1)	(7)	(45)						(5)					
	NO. OF STATIONS	(58)														
4425	SEWER MAINTENANCE	100.000%														
	TOTAL MILES	911.02														
	A. INTERCEPTOR MILES	48.61					5.336%									
	B. TRUNK LINES MILES	105.12					11.539%									
	C. LOCAL COLLECTOR MILES	757.29					83.125%		83.125%							
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  
ADJUSTED OPERATING EXPENSE ALLOCATION BY GOVERNMENTAL UNIT - TASK #5, PART 2  
FISCAL YEAR ENDED JUNE 30, 2015

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	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	
WASTEWATER TREATMENT	\$ 13,695,370	\$ 13,695,370												
LIFT STATIONS:														
A. INTERCEPTOR	231,091		231,091											
B. TRUNK	130,074		42,925	65,619			21,530							
C. LOCAL COLLECTOR	458,437		65,026	77,565			102,675	156,935	29,114	14,328			12,794	
SEWER LINES:														
A. INTERCEPTOR	282,063		163,924	40,095	70,849		7,195							
B. TRUNK	609,956		208,599	154,868	143,730		53,499	32,145	16,420	695				
C. LOCAL COLLECTOR	4,394,018		2,747,580	543,232	427,099		266,629	334,736	48,642	26,100				
BULK METERING STATIONS	6,800				3,097									766
CUSTOMER ACCOUNTING	3,235,618		2,534,879	243,707	198,085		80,826	161,263	6,860	9,998				
INDUSTRIAL PRETREATMENT	696,341													
SUBTOTAL OPERATING EXPENSE	23,739,768	14,391,711	5,994,024	1,125,086	842,860	532,354	685,079	101,036	51,121	146	14,028	766		
ADMINISTRATIVE EXPENSE	2,318,088	1,370,024	628,777	107,103	80,236	50,678	65,216	9,618	4,866	148	1,335	73		
TOTAL	\$ 26,057,856	\$ 15,761,735	\$ 6,622,801	\$ 1,232,189	\$ 923,096	\$ 583,032	\$ 750,295	\$ 110,654	\$ 55,987	\$ 1,705	\$ 15,363	\$ 839		

METHOD OF DISTRIBUTION

WASTEWATER TREATMENT														
A. TREATMENT PLANT	100.000%	100.000%												
B. LIFT & METER STATIONS (1)	100.000%		(13)	(6)	(1)	(10)	(17)	(5)	(1)	(1)	(2)	(1)		
NO. OF STATIONS														
SEWER LINES:														
TOTAL MILES:	911.02													
A. INTERCEPTOR	100.000%	58.116%	14.215%	6.91	12.21	2.551%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	
MILES	48.61	28.25	6.91	23,564%	1.24	8.771%	5.270%	2.692%	0.114%	0.000%	0.000%	0.000%	0.000%	
B. TRUNK LINES	100.000%	34.199%	25.390%	26.69	24.77	9.22	5.54	2.83	0.12	0.000%	0.000%	0.000%	0.000%	
MILES	105.12	35.95	12,363%	97,20%	73.61	6,068%	7,618%	1,107%	0.594%	0.000%	0.000%	0.000%	0.000%	
C. LOCAL COLLECTOR	100.000%	62.530%	93.62	45.95	45.95	45.95	57.69	8.38	4.50	0.000%	0.000%	0.000%	0.000%	
MILES	757.29	473.54	78,343%	7,532%	6,122%	2,498%	4,984%	0.212%	0.309%	0.000%	0.000%	0.000%	0.000%	
CUSTOMER ACCTG (2)	100.000%	58,298.00	5,605.00	4,556.00	1,859.00	3,709.00	158.00	230.00	0.000%	0.000%	0.000%	0.000%	0.000%	
NO. OF METERS	74,415.00													
INDUSTRIAL PRETREATMENT	100.000%	100.000%												
ADMINISTRATIVE EXPENSE (3)	100.000%	59.102%	4.620%	3.461%	2.186%	2.813%	0.415%	0.210%	0.006%	0.001%	0.058%	0.003%		

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, 2015  
RATE STUDY- TASKS NO. 4 & 5**

ORGANIZATIONAL UNIT: 4401, 4410 & 4480 - ADMINISTRATION

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				EXPENSES
7020	PERMANENT EMPLOYEES	\$ 235,950.17	\$ 5,615.61	\$ 241,565.78
7040	TEMPORARY EMPLOYEES	608.82	14.49	623.31
7055	TIME & ONE-HALF	1,011.05	24.06	1,035.11
7105	EMPLOYERS SOCIAL SECURITY	19,082.30	454.16	19,536.46
7110	HOSPITALIZATION INSURANCE	46,086.78	3,350.51	49,437.29
7115	RETIREE HEALTH CARE	33,723.23	2,020.02	35,743.25
7120	RETIREMENT FUND CONTRIBUTION	63,193.63	(12,626.09)	50,567.54
7125	SPECIAL PENSION BENEFITS	96.78	-	96.78
7135	UNEMPLOYMENT COMPENSATION	399.41	-	399.41
7165	SHIFT DIFFERENTIAL	13.20	-	13.20
	TOTAL PERSONAL SERVICES	<u>400,165.37</u>	<u>(1,147.24)</u>	<u>399,018.13</u>
7260	SUPPLIES	10,940.01	-	10,940.01
	TOTAL SUPPLIES	<u>10,940.01</u>	<u>-</u>	<u>10,940.01</u>
8140	COMPUTER SERVICES	21,497.00	(14,003.00)	7,494.00
8160	ENGINEERING SERVICES	19,570.75	-	19,570.75
8180	CONTRACTUAL SERVICES	71,090.08	500,000.00	571,090.08
8355	CLAIMS	268,520.00	93,887.00	362,407.00
8450	INSURANCE PREMIUMS	191,442.73	-	191,442.73
8500	TELEPHONE	3,783.49	-	3,783.49
9000	PRINTING & PUBLISHING	2,614.45	-	2,614.45
9410	BUILDINGS RENTALS OR LEASE	22,407.45	-	22,407.45
9420	EQUIPMENT RENTALS OR LEASE	3,032.21	-	3,032.21
9440	VEHICLE USAGE/CAR MILEAGE	8,319.11	-	8,319.11
9550	PROFESSIONAL DEVELOPMENT	2,007.46	-	2,007.46
9552	OTHER TRAVEL & TRAINING	4,906.10	-	4,906.10
9554	LOCAL BUSINESS EXPENSE	9,000.29	-	9,000.29
9556	MEMBERSHIPS	4,628.03	-	4,628.03
9610	FEES	5,397.08	-	5,397.08
9620	BAD DEBT WRITE-OFFS	17,184.25	-	17,184.25
8150	311 CALL CENTER SERVICES	4,717.00	-	4,717.00
	TOTAL OTHER SERVICES & CHARGES	<u>660,117.48</u>	<u>579,884.00</u>	<u>1,240,001.48</u>
9760	EQUIPMENT	(99,285.68)	-	(99,285.68)
9765	SOFTWARE	384.27	-	384.27
	TOTAL CAPITAL	<u>(98,901.41)</u>	<u>-</u>	<u>(98,901.41)</u>
9992	OPERATING TRANSFERS-A87 COST	760,851.00	6,179.00	767,030.00
	TOTAL TRANSFERS/FEES	<u>760,851.00</u>	<u>6,179.00</u>	<u>767,030.00</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 1,733,172.45</u>	<u>\$ 584,915.76</u>	<u>\$ 2,318,088.21</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2015  
RATE STUDY- TASKS NO. 4 & 5**

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

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST FACTORS	CURRENT ANNUAL EXPENSES
9990	OPERATING TRANS OUT-SUBSIDIES	\$ 2,627,977.00	\$ 607,640.90	\$ 3,235,617.90
	TOTAL TRANSFERS/FEES	<u>2,627,977.00</u>	<u>607,640.90</u>	<u>3,235,617.90</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 2,627,977.00</u>	<u>\$ 607,640.90</u>	<u>\$ 3,235,617.90</u>

*\* 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, 2015  
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	\$ 3,202,809.63	\$ 76,226.87	\$ 3,279,036.50
7025	ACT.ASSIGNMENT	5,636.00	134.14	5,770.14
7040	TEMPORARY EMPLOYEES	13,474.22	320.69	13,794.91
7050	REGULAR HOURLY RATE	3,519.56	83.77	3,603.33
7055	TIME & ONE-HALF	65,679.63	1,563.18	67,242.81
7105	EMPLOYERS SOCIAL SECURITY	235,502.91	5,604.97	241,107.88
7110	HOSPITALIZATION INSURANCE	760,881.80	55,316.11	816,197.91
7115	RETIREE HEALTH CARE	434,979.79	26,055.29	461,035.08
7120	RETIREMENT FUND CONTRIBUTION	804,476.23	(160,734.35)	643,741.88
7125	SPECIAL PENSION BENEFITS	67.52	-	67.52
7135	UNEMPLOYMENT COMPENSATION	4,996.92	-	4,996.92
7150	LONGEVITY PAY	77.09	-	77.09
7165	SHIFT DIFFERENTIAL	14,068.85	-	14,068.85
	TOTAL PERSONAL SERVICES	<u>5,546,170.15</u>	<u>4,570.67</u>	<u>5,550,740.82</u>
7260	SUPPLIES	975,636.47	-	975,636.47
7680	CLOTHING/CLEANING ALLOWANCE	4,787.65	-	4,787.65
7800	INVENTORY - COST OF GOODS SOLD	42,334.56	-	42,334.56
	TOTAL SUPPLIES	<u>1,022,758.68</u>	<u>-</u>	<u>1,022,758.68</u>
8140	COMPUTER SERVICES	214,389.00	76,752.00	291,141.00
8180	CONTRACTUAL SERVICES	5,483,682.54	(657,338.56)	4,826,343.98
8500	TELEPHONE	27,826.07	-	27,826.07
9000	PRINTING & PUBLISHING	2,543.96	-	2,543.96
9210	ELECTRICITY	2,256,892.49	(114,998.72)	2,141,893.77
9220	WATER	39,438.08	-	39,438.08
9230	NATURAL GAS	203,032.15	-	203,032.15
9300	MAINTENANCE SERVICE	67,153.81	-	67,153.81
9420	EQUIPMENT RENTALS OR LEASE	191,911.15	-	191,911.15
9440	VEHICLE RENTAL/CAR MILEAGE	3,007.50	-	3,007.50
9550	PROFESSIONAL DEVELOPMENT	7,361.95	-	7,361.95
9552	OTHER TRAVEL & TRAINING	42,374.87	-	42,374.87
9554	LOCAL BUSINESS EXPENSE	877.86	-	877.86
9556	MEMBERSHIPS	2,932.00	-	2,932.00
9558	PUBLICATIONS AND SUBSCRIPTIONS	2,808.79	-	2,808.79
9610	FEES	21,359.87	-	21,359.87
	TOTAL OTHER SERVICES & CHARGES	<u>8,567,592.09</u>	<u>(695,585.28)</u>	<u>7,872,006.81</u>
9760	EQUIPMENT	17,023.63	-	17,023.63
9765	SOFTWARE	59,241.75	-	59,241.75
	TOTAL CAPITAL	<u>76,265.38</u>	<u>-</u>	<u>76,265.38</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 15,212,786.30</u>	<u>\$ (691,014.61)</u>	<u>\$ 14,521,771.69</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2015  
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	\$ 385,346.77	\$ 9,171.25	\$ 394,518.02
7025	ACT.ASSIGNMENT	249.34	5.93	255.27
7055	TIME & ONE-HALF	236.42	5.63	242.05
7105	EMPLOYERS SOCIAL SECURITY	25,905.08	616.54	26,521.62
7110	HOSPITALIZATION INSURANCE	79,710.30	5,794.94	85,505.24
7115	RETIREE HEALTH CARE	47,147.80	2,824.15	49,971.95
7120	RETIREMENT FUND CONTRIBUTION	92,107.96	(18,403.17)	73,704.79
7135	UNEMPLOYMENT COMPENSATION	506.53	-	506.53
	TOTAL PERSONAL SERVICES	<u>631,210.20</u>	<u>15.27</u>	<u>631,225.47</u>
7260	SUPPLIES	6,647.38	-	6,647.38
7300	POSTAGE	2,537.40	-	2,537.40
7680	CLOTHING/CLEANING ALLOWANCE	1,265.00	-	1,265.00
	TOTAL SUPPLIES	<u>10,449.78</u>	<u>-</u>	<u>10,449.78</u>
8180	CONTRACTUAL SERVICES	34,948.21	-	34,948.21
8500	TELEPHONE	(60.00)	-	(60.00)
9000	PRINTING & PUBLISHING	603.95	-	603.95
9420	EQUIPMENT RENTALS OR LEASE	18,638.18	-	18,638.18
9556	MEMBERSHIPS	370.00	-	370.00
8150	311 CALL CENTER SERVICES	165.00	-	165.00
	TOTAL OTHER SERVICES & CHARGES	<u>54,665.34</u>	<u>-</u>	<u>54,665.34</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 696,325.32</u>	<u>\$ 15.27</u>	<u>\$ 696,340.59</u>

**CITY OF GRAND RAPIDS, MICHIGAN**  
**SEWAGE DISPOSAL SYSTEM FUND**  
**ADJUSTED ACTUAL EXPENSE**  
**YEAR ENDED JUNE 30, 2015**  
**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	\$ 1,366,652.73	\$ 32,526.33	\$ 1,399,179.06
7025	ACT.ASSIGNMENT	7,900.86	188.04	8,088.90
7040	TEMPORARY EMPLOYEES	9,274.89	220.74	9,495.63
7055	TIME & ONE-HALF	120,388.82	2,865.25	123,254.07
7105	EMPLOYERS SOCIAL SECURITY	107,397.55	2,556.06	109,953.61
7110	HOSPITALIZATION INSURANCE	367,565.54	26,722.01	394,287.55
7115	RETIREE HEALTH CARE	186,205.45	11,153.71	197,359.16
7120	RETIREMENT FUND CONTRIBUTION	345,838.67	(69,098.57)	276,740.10
7125	SPECIAL PENSION BENEFITS	85.44	-	85.44
7135	UNEMPLOYMENT COMPENSATION	2,271.03	-	2,271.03
7165	SHIFT DIFFERENTIAL	269.54	-	269.54
	TOTAL PERSONAL SERVICES	<u>2,513,850.52</u>	<u>7,133.57</u>	<u>2,520,984.09</u>
7260	SUPPLIES	215,074.11	-	215,074.11
7680	CLOTHING/CLEANING ALLOWANCE	9,306.33	-	9,306.33
	TOTAL SUPPLIES	<u>224,380.44</u>	<u>-</u>	<u>224,380.44</u>
8140	COMPUTER SERVICES	76,272.00	19,137.00	95,409.00
8180	CONTRACTUAL SERVICES	954,765.32	-	954,765.32
8500	TELEPHONE	38,236.83	-	38,236.83
9210	ELECTRICITY	9,824.07	-	9,824.07
9220	WATER	6,940.74	-	6,940.74
9230	NATURAL GAS	8,722.73	-	8,722.73
9300	MAINTENANCE SERVICE	17,567.25	-	17,567.25
9310	HOME REPAIR	60,960.50	-	60,960.50
9330	PAVEMENT REPAIR	93,009.14	-	93,009.14
9420	EQUIPMENT RENTALS OR LEASE	1,090,359.47	-	1,090,359.47
9430	LAND RENTAL OR LEASE	4,166.27	-	4,166.27
9440	VEHICLE USAGE/CAR MILEAGE	690.00	-	690.00
9552	OTHER TRAVEL & TRAINING	4,530.26	-	4,530.26
9554	LOCAL BUSINESS EXPENSE	23.25	-	23.25
9556	MEMBERSHIPS	1,991.27	-	1,991.27
9610	FEES	252.79	-	252.79
8150	311 CALL CENTER SERVICES	5,698.00	-	5,698.00
	TOTAL OTHER SERVICES & CHARGES	<u>2,374,009.89</u>	<u>19,137.00</u>	<u>2,393,146.89</u>
9760	EQUIPMENT	147,525.77	-	147,525.77
	TOTAL CAPITAL	<u>147,525.77</u>	<u>-</u>	<u>147,525.77</u>
	ORGANIZATIONAL UNIT TOTAL	<u>\$ 5,259,766.62</u>	<u>\$ 26,270.57</u>	<u>\$ 5,286,037.19</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ADJUSTED ACTUAL EXPENSE  
YEAR ENDED JUNE 30, 2015  
RATE STUDY- TASKS NO. 4 & 5**

## ORGANIZATIONAL SUMMARY

EXPENDITURE SUB-OBJECT		OPERATING	ADJUSTED	ADJUSTED
NO.	DESCRIPTION	EXPENSES	COST	CURRENT
			FACTORS	ANNUAL
				CURRENT
7020	PERMANENT EMPLOYEES	\$ 5,190,759.30	\$ 123,540.06	\$ 5,314,299.36
7025	ACT.ASSIGNMENT	13,786.20	328.11	14,114.31
7040	TEMPORARY EMPLOYEES	23,357.93	555.92	23,913.85
7050	REGULAR HOURLY RATE	3,519.56	83.77	3,603.33
7055	TIME & ONE-HALF	187,315.92	4,458.12	191,774.04
7105	EMPLOYERS SOCIAL SECURITY	387,887.84	9,231.73	397,119.57
7115	RETIREE HEALTH CARE	702,056.27	42,053.17	744,109.44
7120	RETIREMENT FUND CONTRIBUTION	1,305,616.49	(260,862.18)	1,044,754.31
7125	SPECIAL PENSION BENEFITS	249.74	-	249.74
7135	UNEMPLOYMENT COMPENSATION	8,173.89	-	8,173.89
7150	LONGEVITY PAY	77.09	-	77.09
7165	SHIFT DIFFERENTIAL	14,351.59	-	14,351.59
	TOTAL PERSONAL SERVICES	<u>9,091,396.24</u>	<u>10,572.27</u>	<u>9,101,968.51</u>
7260	SUPPLIES	1,208,297.97	-	1,208,297.97
7300	POSTAGE	2,537.40	-	2,537.40
7680	CLOTHING/CLEANING ALLOWANCE	15,358.98	-	15,358.98
7800	INVENTORY - COST OF GOODS SOLD	42,334.56	-	42,334.56
	TOTAL SUPPLIES	<u>1,268,528.91</u>	<u>-</u>	<u>1,268,528.91</u>
8140	COMPUTER SERVICES	312,158.00	81,886.00	394,044.00
8160	ENGINEERING SERVICES	19,570.75	-	19,570.75
8180	CONTRACTUAL SERVICES	6,544,486.15	(157,338.56)	6,387,147.59
8355	CLAIMS	268,520.00	93,887.00	362,407.00
8450	INSURANCE PREMIUMS	191,442.73	-	191,442.73
8500	TELEPHONE	69,786.39	-	69,786.39
9000	PRINTING & PUBLISHING	5,762.36	-	5,762.36
9210	ELECTRICITY	2,266,716.56	(114,998.72)	2,151,717.84
9220	WATER	46,378.82	-	46,378.82
9230	NATURAL GAS	211,754.88	-	211,754.88
9300	MAINTENANCE SERVICE	84,721.06	-	84,721.06
9310	HOME REPAIR	60,960.50	-	60,960.50
9330	PAVEMENT REPAIR	93,009.14	-	93,009.14
9410	BUILDINGS RENTALS OR LEASE	22,407.45	-	22,407.45
9420	EQUIPMENT RENTALS OR LEASE	1,303,941.01	-	1,303,941.01
9430	LAND RENTAL OR LEASE	4,166.27	-	4,166.27
9440	VEHICLE USAGE/CAR MILEAGE	12,016.61	-	12,016.61
9550	PROFESSIONAL DEVELOPMENT	9,369.41	-	9,369.41
9552	OTHER TRAVEL & TRAINING	51,811.23	-	51,811.23
9554	LOCAL BUSINESS EXPENSE	9,901.40	-	9,901.40
9556	MEMBERSHIPS	9,921.30	-	9,921.30
9558	SUBSCRIPTIONS AND PUBLICATIONS	2,808.79	-	2,808.79
9610	FEES	27,009.74	-	27,009.74
9620	BAD DEBT WRITE-OFFS	17,184.25	-	17,184.25
8150	311 CALL CENTER SERVICES	10,580.00	-	10,580.00
	TOTAL OTHER SERVICES & CHARGES	<u>11,656,384.80</u>	<u>(96,564.28)</u>	<u>11,559,820.52</u>
9760	EQUIPMENT	65,263.72	-	65,263.72
9765	SOFTWARE	59,626.02	-	59,626.02
	TOTAL CAPITAL	<u>124,889.74</u>	<u>-</u>	<u>124,889.74</u>
9992	OPERATING TRANSFERS-A87 COST	760,851.00	6,179.00	767,030.00
9990	OPERATING TRANS OUT-SUBSIDIES	2,627,977.00	607,640.90	3,235,617.90
	TOTAL TRANSFERS/FEES	<u>3,388,828.00</u>	<u>613,819.90</u>	<u>4,002,647.90</u>
	GRAND TOTAL- EXPENDITURES	<u>\$ 25,530,027.69</u>	<u>\$ 527,827.89</u>	<u>\$ 26,057,855.58</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 14, 2015

TO: Eric R. DeLong  
Deputy City Manager

FROM: Molly J. Eastman  
Utility Financial Officer

**SUBJECT: 2015 SEWER RATE STUDY TASK #4  
FY15 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

MJE:mje

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE PUMPING STATIONS OPERATING COSTS  
FOR THE YEAR ENDED JUNE 30, 2015**

<u>Station</u>	<u>Physical Location</u>	<u>Type</u>	<u>FY2015 4423 Expenses</u>
Market Avenue Pump Station	Grand Rapids	Interceptor	\$231,893.76
Millbank Lift Station	Grand Rapids	Local	\$6,943.97
Eastlake Lift Station	Grand Rapids	Local	\$8,372.27
Eastern Lift Station	Grand Rapids	Trunk	\$8,445.11
Middleboro Lift Station	Grand Rapids	Trunk	\$0.00
Oak Hollow Lift Station	Grand Rapids Twmsp	Local	\$9,424.15
Kingsbury Lift Station	Walker	Trunk	\$12,765.37
Bona Vista Lift Station	Grand Rapids	Trunk	\$19,632.24
Aberdeen Lift Station	Grand Rapids	Local	\$11,177.28
O'Brien Lift Station	Walker	Trunk	\$41,309.21
Leonard Heights Lift Station	Walker	Trunk	\$11,773.22
Guild Lift Station	Grand Rapids	Local	\$6,165.56
Orchard Vista Lift Station	Cascade Twmsp	Local	\$4,149.04
Brookview Lift Station	Grand Rapids	Trunk	\$14,997.14
Remembrance Road Lift Station	Walker	Local	\$62,210.41
Kraft Avenue Lift Station	Cascade Twmsp	Local	\$11,137.81
Thornapple Lift Station	Cascade Twmsp	Trunk	\$21,604.38
Thornhills Lift Station	Cascade Twmsp	Local	\$11,779.64
Greenbrier Lift Station	Grand Rapids Twmsp	Local	\$14,599.46
Shore Haven Lift Station	Grand Rapids Twmsp	Local	\$7,663.75
Ada Lift Station	Ada	Local	\$12,838.64
Robinhood Lift Station	Grand Rapids Twmsp	Local	\$11,857.93
Lincoln School Lift Station	Grand Rapids Twmsp	Local	\$2,184.22
Reeds Lake Blvd. Lift Station	Grand Rapids Twmsp	Local	\$7,074.43
6000 28th Street Lift Station	Cascade Twmsp	Local	\$7,560.71
Ada Meter Station	Ada	Meter	\$1,238.66
East Grand Rapids Meter Station	East Grand Rapids	Meter	\$1,562.59
Rickman Avenue Lift Station	Grand Rapids	Local	\$7,808.25
Michigan Street Lift Station	Grand Rapids	Local	\$5,228.98
Eagle Crest Lift Station	Grand Rapids Twmsp	Local	\$10,610.43
East Paris Lift Station	Grand Rapids Twmsp	Local	\$18,176.44
Alpine Estates Lift Station	Walker	Local	\$10,448.69
Elmdale Lift Station	Grand Rapids	Local	\$4,689.33
Collindale Lift Station	Walker	Local	\$5,174.79
Bird Avenue Lift Station	Grand Rapids Twmsp	Local	\$28,765.01
Monroe & Howland Regulator Station	Grand Rapids	Local	\$2,106.24
Division & Weston Regulator Station	Grand Rapids	Trunk	\$1,810.84
Ionia & Logan Regulator Station	Grand Rapids	Trunk	\$3,595.81
First & Front Regulator Station	Grand Rapids	Trunk	\$0.00
Front & Wealthy Regulator Station	Grand Rapids	Interceptor	\$267.07
Butterworth Regulator Station	Grand Rapids	Trunk	\$1,082.59
Ionia & Stevens Regulator Station	Grand Rapids	Trunk	\$2,441.43
Ionia & Hall Regulator Station	Grand Rapids	Trunk	\$0.00
Valentine Lift Station	Grand Rapids Twmsp	Local	\$3,113.77
Cascade Springs Lift Station	Cascade Twmsp	Local	\$8,574.20
Churchill Downs Lift Station	Grand Rapids	Local	\$8,215.37
Woodsboro Court Lift Station	Grand Rapids Twmsp	Local	\$7,933.55
Meadowood Trails Lift Station	Cascade Twmsp	Local	\$8,600.03
Gaines Township Meter Station	Gaines Township	Meter	\$949.64
Kentwood Meter Station	Kentwood	Meter	\$3,107.37
Stonebridge Lift Station	Grand Rapids Twmsp	Local	\$5,947.70
Burton/Cacade Lift Station	Cascade Twmsp	Local	\$18,880.69
Crahen Lift Station	Grand Rapids Twmsp	Local	\$9,224.48
Jonathan Woods Lift Station	Cascade Twmsp	Local	\$6,736.88
Watermark Lift Station	Cascade Twmsp	Local	\$25,612.01
Mountain Ash Lift Station	Tallmadge Twmsp	Local	\$4,850.42
Reeds Hollow Lift Station	Grand Rapids Twmsp	Local	\$4,381.88
Celebration Village Lift Station	Grand Rapids Twmsp	Trunk	\$10,944.57
Saddleback Lift Station	Grand Rapids Twmsp	Local	\$4,139.05
Arbor Hills Lift Station	Grand Rapids Twmsp	Local	\$7,898.37
16th Avenue Lift Station	Marne	Local	\$14,377.31
Hayes West Lift Station	Wright TWP	Local	\$9,065.56
Hayes East Lift Station	Wright TWP	Local	\$6,015.00
Cypress Trails Lift Station	Grand Rapids Twmsp	Local	\$4,483.58
8th & Leonard Lift Station	Tallmadge Twmsp	Local	\$4,475.68
Summit Ridge Lift Station	Grand Rapids	Local	\$6,651.42
Lake Michigan Estates	Tallmadge Twmsp	Local	\$4,808.16
			<u>\$851,553.54</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 1, 2015

TO: Molly Eastman  
Utility Financial Officer

FROM: Scott Buhner   
Chief Financial Officer

**SUBJECT: 2015 SEWER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY15 operating costs are listed below.

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

GREIU wages were increased by 2.25% and 0.00% in FY2016 and FY2017, respectively. APA wages were increased by 2.95% and 0.00% in FY2016 and FY2017. After converting these increases from a 2015 fiscal year to a 2016 calendar year basis, the result is a 2.25% factor for GREIU employees and a 2.95% 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 1.7% of the population and were therefore excluded. **The wage increase factor to translate FY2015 actual costs to estimated calendar 2016 will be 2.38% [2.25 X 82% + 2.95 X 18%].**

Object Level 3 – 8140/8355/9992

Adjust FY2015 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 FY2016 and FY2017 budget amounts thus arriving at an estimated 2016 calendar year rate as follows:

<b>8140-Data Charges</b>			
Cost Center	FY2016 Request	FY2017 Forecast	Calendar 2016 Estimate
4410	\$7,269	7,718	<b>\$7,494</b>
442301	\$282,424	\$299,858	<b>\$291,141</b>
442501	\$92,552	\$98,265	<b>\$95,409</b>
Total	\$382,245	\$405,841	\$394,044

<b>8355-General Liability Insurance</b>			
Cost Center	FY2016 Request	FY2017 Forecast	Calendar 2016 Estimate
4410	\$348,468	\$376,345	<b>\$362,407</b>

<b>9992-Contributions to Other Funds (A-87 Allocation)</b>			
Cost Center	FY2016 Request	FY2017 Forecast	Calendar 2016 Estimate
4410	\$755,694	\$778,365	<b>\$767,030</b>

Object Level 3 - 7105

Increase FY2015 actual FICA expense by 2.38% consistent with the known wage impacts detailed above.

Object Level 3 - 7110

The FY2016 Trend Report is not completed at this time. However, unfavorable health insurance cost trends were anticipated in the FY2015 Trend Report. In addition, dollars from the Early Retiree Reinsurance Program (ERRP) ended after FY2014 increasing upward pressure on rates. Finally, the three-year smoothing is less favorable for calendar 2016 rates than it was for calendar 2015 rates but has nonetheless helped to limit the projected increase in health insurance to 7.27%. **Increase FY2015 health insurance actual by 7.27% to reflect these anticipated rate changes.**

The projected FY16 (\$13,406) and FY17 (\$14,725) health insurance rates were blended into a 2016 calendar year rate and divided by the FY2015 base amount (\$13,112) to arrive at the increase factor  $[\frac{((\frac{(\$13,406 + \$14,725)}{2}))}{\$13,112} - 1] * 100$ ].

Object Level 3 - 7115

Retiree health care ("RHC") rates are projected to trend up in FY2016 (to 13.75%) and FY2017 (to 13.64%) from a base year rate of 11.92% in FY2015. This increase is amplified by the projected wage adjustments discussed above. Additionally, the Sewer Fund had a positive OPEB adjustment in the amount of \$69,425 for FY2015.

The RHC factor after consideration of the above rate and wage adjustments is 117.48% (or an increase of 17.48%) for GREIU members and 118.28% (or an increase of 18.28%) for APA members. These factors are then applied to the FY2015 RHC balance before the OPEB adjustment (\$632,631). This result is compared to the FY2015 RHC balance after the OPEB adjustment and the revised factor is weighted in accordance with union membership within the Sewer Fund.

GREIU: Step 1>> [(\$632,631 \* 117.48%) = \$743,215]  
Step 2>> [(((\$743,215 – (\$632,631 + \$69,425)) / (\$632,631 + \$69,425)) \*  
100)]  
Step 3>> [5.86% \* 82%]

APA: Step 1>> [(\$632,631 \* 118.28%) = \$748,276]  
Step 2>> [(((\$748,276 – (\$632,631 + \$69,425)) / (\$632,631 + \$69,425)) \*  
100)]  
Step 3>> [6.58% \* 18%]  
Step 4>> [4.81% + 1.18%]

The factor to establish calendar year 2016's retiree health care cost is 5.99%. **Increase the total of fiscal year 2015's retiree health care by this percent to establish the cost for calendar year 2016.**

Object Level 3 - 7120

The pension expense factor to translate FY2015 actual costs to estimated calendar 2016 will be -19.98%. **Decrease the total of fiscal year 2015's pension expense by this percent to establish the cost for calendar year 2016.** This reflects the effect of a General Pension rate change decrease from FY15 of 25.53% to a calendar 2016 rate of 19.96% and an estimated wage increase of 2.38%. The calendar 2016 rate is a blend of the FY2016 rate (21.82%) and the FY2017 rate (18.09%).

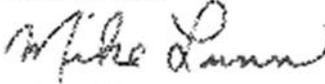
The pension factor after consideration of the above rate and wage adjustments is 79.92% (or a decrease of 20.08%) for GREIU members and 80.47% (or a decrease of 19.53%) for APA members. These factors are then weighted in accordance with union membership within the Sewer Fund [(-20.08 \* 82%) + (-19.53 \* 18%)].

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 14, 2015

TO: Molly J. Eastman  
Acting Utility Financial Officer

FROM: Michael J. Lunn   
Environmental Services Manager

**SUBJECT: 2015 SEWER RATE STUDY TASK #5  
KNOWN COST ADJUSTMENTS**

Known cost adjustments by which to adjust FY15 operating costs are listed below:

<u>ACCOUNT</u> <u>User Code</u>	<u>DESCRIPTION</u>	<u>AMOUNT</u>
4410-8180	CMP Contractual Services	\$250,000.00
4410-8180	Maximo Conversion to Cityworks	\$250,000.00
4423-8180	GVRBA Contractual Services	(\$657,338.56)
4423-9210	Consumers Energy Green Generation Participation Agreement	\$58,174.00
4423-9210	Consumers Energy Efficiency Program	\$56,824.72

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: August 31, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Jenessa B. Carter  
Financial Analyst

**SUBJECT: 2015 SEWER RATE STUDY TASK #6**

The Sewage Disposal System Fund's revenues and volumes by governmental unit for the year ended June 30, 2015, are disclosed on the attached page. In addition, actual volume comparisons for the past five (5) years by governmental unit are included herein.

Attachments

JBC:jbc

**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, 2015:

RETAIL:	SALES REVENUE	3 YR AVE BILLED VOL (GALLONS)
CITY OF GRAND RAPIDS (1)	\$ 32,947,598.13	4,871,671,640
CITY OF WALKER	4,698,222.67	614,626,364
CITY OF KENTWOOD	3,676,083.53	1,033,771,904
CASCADE TOWNSHIP	2,185,642.66	309,956,240
GRAND RAPIDS TOWNSHIP	2,359,373.68	291,179,196
TALLMADGE TOWNSHIP	321,912.46	14,318,216
WRIGHT TOWNSHIP (2)	249,639.66	10,071,929
SUB-TOTAL RETAIL (3)	\$ 46,438,472.79	7,145,595,489
WHOLESALE:		
CITY OF E. GRAND RAPIDS	\$ 555,375.71	341,195,000
CALEDONIA TOWNSHIP (4)	N/A	26,242,000
ADA TOWNSHIP	1,201,168.89	333,926,320
GAINES TOWNSHIP (5)	173,920.86	111,500,000
SUB-TOTAL WHOLESALE	\$ 1,930,465.46	812,863,320
TOTAL	\$ 48,368,938.25	7,958,458,809
REVENUE CLASSIFICATION:		
4410 - 607055 RETAIL SEWAGE SERVICE CHARGE		\$ 46,369,173.63
4410 - 607056 WYOMING SEWAGE SERVICE CHARGE		69,299.16
4410 - 607060 WHOLESALE SEWAGE SERVICE CHARGE		1,930,465.46
		\$ 48,368,938.25

- (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 2015.
- (3) A REVENUE ACCRUAL OF \$(474,892.82) HAS BEEN PRORATED TO ALL RETAIL CUSTOMER COMMUNITIES TO ACCRUE BILLINGS FROM THE LAST READING DATE THROUGH JUNE 30, 2015, AND ADJUST FOR PREVIOUS FISCAL YEAR ACCRUAL.
- (4) CALEDONIA TOWNSHIP WAS ADDED TO THE SANITARY SEWER SYSTEM IN SEPTEMBER 2015. NO REVENUE WAS COLLECTED PRIOR TO JUNE 30, 2015. THREE YEAR AVERAGE IS ONLY BASED ON ONE YEAR OF PROVIDED DATA.
- (5) GAINES TWP RATES ARE CALCULATED BASED ON MOST RECENT FISCAL YEAR BILLED VOLUME PER CONTRACT.

**CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
2015 RATE STUDY TASK NO. 6**

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

MUNICIPALITY	FY11		FY12		FY13		FY14		FY15		FY11-FY15	
	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE	VOL BILLED	% CHANGE
GRAND RAPIDS	5,130,744	0.01%	5,131,245	0.01%	4,947,696	-3.58%	4,851,466	-1.94%	4,815,852	-0.73%	4,815,852	-6.14%
WALKER	628,009	-1.36%	619,441	-1.36%	603,938	-2.50%	630,628	4.42%	609,313	-3.38%	609,313	-2.98%
KENTWOOD	1,010,318	2.89%	1,039,550	2.89%	1,056,913	1.67%	1,046,081	-1.02%	998,322	-4.57%	998,322	-1.19%
CASCADE	286,529	5.59%	302,532	5.59%	300,624	-0.63%	305,066	1.48%	324,180	6.27%	324,180	13.14%
GRAND RAPIDS TWP	297,595	-0.09%	297,317	-0.09%	301,274	1.33%	285,476	-5.24%	286,787	0.46%	286,787	-3.63%
TALLMADGE	12,739	-4.39%	12,180	-4.39%	12,904	5.94%	14,191	9.97%	15,860	11.76%	15,860	24.50%
WRIGHT TWP	13,370	-6.83%	12,457	-6.83%	15,564	24.94%	14,537	-6.60%	15,661	7.73%	15,661	17.14%
EAST GRAND RAPIDS	444,128	-5.47%	419,817	-5.47%	396,034	-5.67%	304,975	-22.99%	322,576	5.77%	322,576	-27.37%
ADA TWP	315,329	-1.85%	309,502	-1.85%	309,437	-0.02%	377,714	22.06%	314,628	-16.70%	314,628	-0.22%
GAINES TWP	101,030	10.95%	112,093	10.95%	96,398	-14.00%	75,428	-21.75%	111,500	47.82%	111,500	10.36%
<b>TOTAL</b>	<b>8,239,791</b>	<b>0.20%</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>7,814,679</b>	<b>-1.15%</b>	<b>7,814,679</b>	<b>-5.16%</b>

GRAND RAPIDS VOLUME COMPARED TO  
CUSTOMER COMMUNITIES

VOLUME = 1,000 GALLONS	FY11		FY12		FY13		FY14		FY15	
	% OF TOTAL	VOL BILLED	% OF TOTAL	% OF TOTAL						
GRAND RAPIDS	62.27%	5,131,245	62.15%	4,947,696	61.53%	4,851,466	61.37%	4,815,852	61.63%	61.63%
CUSTOMER COMMUNITIES	37.73%	3,124,889	37.85%	3,093,086	38.47%	3,054,096	38.63%	2,998,827	38.37%	38.37%
<b>TOTAL</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>	<b>7,814,679</b>	<b>100.00%</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	\$ 50,686.84
4410-607001	MISCELLANEOUS SERVICE FEES	11,349.88
4423-607001	MISCELLANEOUS SERVICE FEES	489.00
4410-607050	INSPECTION FEES - UTILITIES	40,331.00
4410-607031	PRELIM/DESIGN/CONSTR ENGINEERING	(3,831.73)
4423-607057	INDUSTRIAL DISCHARGE AUTHORIZATION	900.00
4423-642003	SALES - OTHER	342.72
4423-642009	SALES OF SCRAP MATERIAL	710.78
4423-642019	INVENTORY WITHDRAWALS (SALES)	41,601.54
4410-672002	INTEREST/PENALTIES ON SPEC ASSM	2,957.93
		<u>\$ 145,537.96</u>

CREDIT: UNDERUTILIZATION OF PENALTY CREDIT FROM PREVIOUS YEAR \$ 541,496.00

OTHER OPERATING REVENUES NOT INCLUDED:

CAPITAL CONTRIBUTION

4410-607059	SEWAGE CONNECTION FEES	\$ -
4410-607051	SEWAGE FRONT FOOTAGE	\$ 120,265.00
		<u>\$ 120,265.00</u>

INTEGRATED SYSTEM CREDITS

4410-607053	INTEGRATED SEWER CONNECTION	\$ 929,275.00
4423-607074	SEWAGE SURCHARGE	1,728,329.03
		<u>\$ 2,657,604.03</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 30, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Mike Lunn   
Environmental Services Manager

**SUBJECT: 2015 SEWER RATE STUDY- TASK #8**

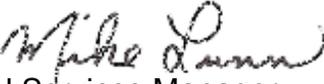
No significant changes in operating levels are anticipated to take effect by January 1, 2016, which would require adjustments to operating costs for the test period.

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 30, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Mike Lunn   
Environmental Services Manager

**SUBJECT: 2015 SEWER RATE STUDY- TASK #9**

An approximate increase of \$116,854 in sewer revenues is expected to be collected in 2016 due to the addition of wholesale customer Caledonia Township.

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** October 20, 2015

**TO:** Molly J. Eastman  
Utility Financial Officer

**FROM:** Charles R. Schroeder, PE  
Assistant ESD Manager

**SUBJECT: 2015 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, 2016.

<u>Description</u>	<u>Location</u>	<u>Proj. Code</u>	<u>Cost</u>
WWTP Berm Improvements	Integrated	221408-510	\$375,000
WWTP Berm Improvements	Integrated	TBD	\$2,050,000
Creston Plaze	Grand Rapids	Contribution	\$207,500
Schribner Ave	Grand Rapids	Contribution	\$650,900
Bartlett, Finney, Williams	Grand Rapids	451501-536	\$600,000
CSO 27	Grand Rapids	221513-536	\$7,780,000
Livingston Transmission Main 1A	Grand Rapids	221707-536	\$615,000
Livingston Transmission Main 1B	Grand Rapids	221707-536	\$1,800,000
State St – Jefferson to Lafayette	Grand Rapids	221507-510	\$325,000
Cascade Rd Sanitary Sewer	Cascade	Contribution	\$164,850
Fox River Dr. & Dean Lake Ave	GR Twp	Contribution	\$137,000
Agape Plastics Public Easement	Tallmadge Twp	Contribution	\$115,780

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

COMPUTE ACCUMULATED COST, DEPRECIATION AND DEPRECIATION EXPENSE AS OF JUNE 30, 2015

**INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND & EASEMENTS	\$ 1,633,122	\$ -	\$ -
LAND IMPROVEMENTS	16,315,449	13,260,449	281,680
BUILDINGS & STRUCTURES	50,307,655	30,510,785	994,730
PROCESS EQUIPMENT	70,406,864	35,362,746	1,729,769
AUXILIARY EQUIPMENT	28,282,612	24,391,996	341,101
MACHINERY & EQUIPMENT	6,101,268	4,554,922	(250,947)
OFFICE EQUIPMENT & FURNITURE	494,401	485,845	(133,432)
	<u>\$ 173,541,371</u>	<u>\$ 108,566,743</u>	<u>\$ 2,962,901</u>

**NON-INTEGRATED SYSTEM**

	ORIGINAL COST	ACCUMULATED DEPRECIATION	DEPRECIATION EXPENSE
LAND & EASEMENTS	\$ 3,132,008	\$ -	\$ -
LAND IMPROVEMENTS	3,486,637	1,347,531	174,504
BUILDINGS & STRUCTURES	10,948,179	3,077,605	259,063
PROCESS EQUIPMENT	16,842,826	6,594,636	524,687
AUXILIARY EQUIPMENT	3,898,571	2,786,589	206,494
MACHINERY & EQUIPMENT	1,645,774	1,418,539	139,863
OFFICE EQUIPMENT & FURNITURE	68,632	68,632	-
SERVICEMAINS - GRAND RAPIDS	352,217,978	102,440,665	6,678,797
SERVICEMAINS - WALKER	39,208,775	15,272,497	775,264
SERVICEMAINS - KENTWOOD	40,769,278	14,862,526	821,710
SERVICEMAINS - CASCADE TWP	20,940,613	8,009,406	412,794
SERVICEMAINS - GRAND RAPIDS TWP	18,157,770	6,966,310	358,448
SERVICEMAINS - TALLMADGE TWP	5,661,019	1,356,605	113,220
SERVICEMAINS - WRIGHT TWP	125,288	23,806	2,506
	<u>\$ 517,103,348</u>	<u>\$ 164,225,347</u>	<u>\$ 10,467,351</u>
TOTAL	<u><u>\$ 690,644,719</u></u>	<u><u>\$ 272,792,090</u></u>	<u><u>\$ 13,430,252</u></u>

SOURCE: GENERAL LEDGER, AS ADJUSTED, FOR JUNE 30, 2015.

**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, 2015: \$ 1,011,996

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 = \$ 26,057,856 @ 90/365 = \$ 6,425,225

TOTAL WORKING CAPITAL NEEDS CONSIST OF THE FOLLOWING:

	12A INVESTMENT IN INVENTORY	\$ 1,011,996
	12B PREPAYMENT OF OPERATING EXPENSES	-
	12C 90 DAY OPERATING EXPENSES	6,425,225
		\$ 7,437,221
		\$ 7,437,221

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 28, 2015

TO: Eric R. DeLong  
Deputy City Manager

FROM: Molly J. Eastman *MJE*  
Utility Financial Officer

**SUBJECT: 2015 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

	MILLION GALLONS
1.) ANNUAL WASTEWATER TREATMENT PLANT FLOW	14,752.54
LESS: WHOLESALE BILLED FLOW	(774.95)
LESS: RETAIL BILLED FLOW	(7,065.97)
TOTAL RETAIL I/I & OTHER FLOW	6,911.62
2.) RETAIL INFLOW FROM SEPARATED AREAS (A)	448.56
RETAIL INFLOW FROM COMBINED AREAS - AMOUNT ESTIMATED (A)	597.79
LESS: ANNUAL BYPASS FROM (3) PUMPING STATIONS	-
LESS: IN-SYSTEM BYPASS & RETENTION BASIN OVERFLOW	-
TOTAL RETAIL INFLOW	1,046.35
3.) RETAIL INFILTRATION:	
TOTAL RETAIL I/I & OTHER FLOW	6,911.62
LESS: TOTAL RETAIL INFLOW (#2)	(1,046.35)
LESS: MARKET AVE RETENTION BASIN (MARB) CAPTURE	5,865.27
TOTAL RETAIL INFILTRATION & OTHER FLOW	(66.45)
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
100.0000%	5,798.82
100.0000%	5,798.82
GOVERNMENTAL UNIT(S)	
UTILITY PARTNERS	
TOTAL	

(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)	BILLED FLOW (TASK #6)	INFLOW (#2 ABOVE)	INFILTRATION & OTHER FLOW (#4 ABOVE)	MARB (A) (#3 ABOVE)	TOTAL PLANT FLOW	PERCENT OF TOTAL	TOTAL PLANT FLOW (MGD)
GOVERNMENTAL UNIT(S)	7,703.18	1,046.35	5,798.82	65.29	14,613.64	99.0584%	40.0375
UTILITY PARTNERS	111.50	-	-	0.94	112.44	0.7622%	0.3081
GAINES TWP	7,840.92	1,046.35	5,798.82	66.45	14,752.54	100.0000%	40.4181
TOTAL							

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

# MEMORANDUM

CITY OF GRAND RAPIDS

**Date:** July 7, 2015

**To:** Molly Eastman, Acting Utility Financial Officer

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

**Subject:** 2015 Sewer Rate Study - Wastewater Plant Flow Data

Listed below is the flow data measured in million gallons (MG) for the last three completed fiscal years. Plant flow decreased by 2.10% from 15,062.42 MG treated in FY2014 to 14,752.54 MG treated in FY2015.

Month	FY 2013	FY 2014	FY 2015	% incr (decr)
July	1,056.41	1,189.94	1,390.36	16.80%
August	1,088.57	1,093.67	1,153.82	5.50%
September	947.33	1,026.49	1,112.73	8.40%
October	1,133.31	1,094.13	1,241.17	13.40%
November	970.74	1,225.71	1,240.26	1.20%
December	1,073.32	1,160.14	1,222.14	5.30%
January	1,202.64	1,258.85	1,165.57	-7.40%
February	1,246.63	1,057.55	963.35	-8.90%
March	1,345.58	1,488.11	1,243.17	-16.50%
April	2,014.65	1,513.54	1,429.57	-5.50%
May	1,578.28	1,554.35	1,259.18	-19.00%
June	1,442.94	1,399.94	1,331.22	-4.90%
<b>Total</b>	<b>15,100.40</b>	<b>15,062.42</b>	<b>14,752.54</b>	<b>-2.10%</b>
<b>Data measured</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>% incr (decr)</b>
Wastewater Treatment Plan (WWTP) avg. daily flow (MG)	41.371	41.380	40.529	-2.10%
Rainfall recorded at WWTP (inches)	43.880	33.460	27.300	-18.40%
In-system overflows (MG) (report attached)	-	-	-	0.00%
Market Avenue Retention Basin (MARB) inflow (MG)	501.420	35.320	66.450	88.10%
Market Avenue Retention Basin (MARB) over flow (MG)	435.870	-	-	0.00%

cc: Mark DeClercq, City Engineer



# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: October 30, 2015

TO: Molly J. Eastman  
Utility Financial Officer

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

**SUBJECT: 2015 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

**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).

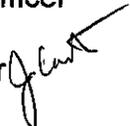
ORIGINAL CONSTRUCTION COST	- TASK #10	\$ 14,821,030	
	- TASK #11	689,839,719	
	- TASK #16/21	<u>(187,348,706)</u>	\$ 517,312,043
LESS: ACCUMULATED DEPRECIATION	- TASK #10	\$ -	
	TASK #11	272,687,309	
	TASK #16/21	<u>(54,625,280)</u>	<u>(218,062,029)</u>
			299,250,014
WORKING CAPITAL REQUIREMENT	- TASK #12	\$ 7,437,221	
		<u>7,437,221</u>	<u>7,437,221</u>
			306,687,236
CONTRIBUTIONS BY OTHERS	- TASK #21	\$ 188,406,631	
LESS: AMORTIZATION		(128,157,834)	
		<u>(60,248,797)</u>	<u>(60,248,797)</u>
CONSTRUCTION COST RATE BASE			<u>\$ 246,438,439</u>

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: September 29, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Jenessa B. Carter   
Financial Analyst

SUBJECT: **2015 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, 2016. 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, 2016 is as follows:

August, 2014 Index	237.852
August, 2015 Index	238.316
Increase (decrease)	0.464
Percentage increase (decrease)	0.20%

JBC\jbc

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>1/01/15</u>	<u>1/01/16</u>
3/4 or less	\$ 2,922	\$ 2,928
1	4,880	4,890
1 ½	9,730	9,750
2	15,574	15,606
3	34,100	34,170
4	61,362	61,488
6 and over	136,370	136,650

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 2016 - ACCRUAL BASIS**

DATE	SRF/REVENUE REFERENCE	5073- SERIES	REVENUE BONDS			STATE REVOLVING FUNDS			TOTAL		TOTAL PRINCIPAL & INTEREST
			PRINCIPAL	INTEREST	EST. FEES	PRINCIPAL	INTEREST	PRINCIPAL	INTEREST		
07/01/16	N/A	1998	(1)	\$ 372,072.73	\$ 375.00				\$ -	\$ 372,447.73	\$ 372,447.73
01/01/17	N/A	1998	(1)	1,971,634.50	375.00				1,971,634.50	372,447.73	2,344,082.23
07/01/16	N/A	2008	(2)	525,525.00	625.00				0.00	526,150.00	526,150.00
01/01/17	N/A	2008	(2)	525,525.00	625.00				565,000.00	526,150.00	1,091,150.00
07/01/16	N/A	2010A	(3)	318,087.50	800.00				0.00	318,887.50	318,887.50
01/01/17	N/A	2010A	(3)	318,087.50	800.00				0.00	318,887.50	318,887.50
07/01/16	N/A	2013	(4)	632,494.25	600.00				0.00	633,094.25	633,094.25
01/01/17	N/A	2013	(4)	632,494.25	600.00				348,700.00	633,094.25	981,794.25
07/01/16	N/A	2014	(5)	669,936.00	625.00				0.00	670,561.00	670,561.00
01/01/17	N/A	2014	(5)	669,936.00	625.00				411,400.00	670,561.00	1,081,961.00
04/01/16	11	1995A					84,104.68	946.18	84,104.68	946.18	85,050.86
10/01/16		SRF						0.00	0.00	0.00	0.00
04/01/17								0.00	0.00	0.00	0.00
04/01/16	12	1995B						1,181.25	0.00	1,181.25	1,181.25
10/01/16		SRF					210,000.00	2,362.50	210,000.00	2,362.50	212,362.50
04/01/17								0.00	0.00	0.00	0.00
									<u>\$3,590,839.18</u>	<u>\$5,046,770.90</u>	<u>\$8,637,610.08</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 2016.

**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	LIVINGSTON PUMP STATION-2ND DISCHARGE LINE FROM CN #1	\$2,250,000	2016
2	ESCSO #27	\$7,400,000	2016
3	ESCSO #28	\$3,400,000	2016
4	LIVINGSTON PUMP STATION-2ND DISCHARGE LINE FROM CN #2	\$1,985,874	2016
5	LIVINGSTON PUMP STATION-2ND DISCHARGE LINE FROM CN #3	\$1,420,582	2017
6	GODFREY AVE - LIBERTY ST TO OXFORD ST	\$3,290,000	2018
7	GODFREY AVE - OXFORD ST TO MARKET AVE	\$7,900,000	2018
8	BROADWAY SANITARY TRUNK SEWER	\$2,500,000	2019
9	BRANDYWINE SANITARY TRUNK SEWER	\$1,600,000	2020
		<u>\$ 31,746,456</u>	

NOTE: NONE OF THE PROJECTS ABOVE ARE INCLUDED IN RECOMMENDED REVENUE REQUIREMENTS FOR CALENDAR YEAR 2016. COSTS SHOWN ARE IN 2015 DOLLARS.

SOURCE: CHUCK SCHROEDER, ASSISTANT ENVIRONMENTAL SERVICES MANAGER, OCTOBER 2015.

**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
2016	\$6,765,000	\$12,415,039	\$19,180,039
2017	7,080,000	12,098,058	19,178,058
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>\$ 258,440,000</b>	<b>\$ 169,435,649</b>	<b>\$ 427,875,649</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	\$ 246,438,439
LESS: BONDED INDEBTEDNESS (CASH BASIS) - TASK NO. 20	(142,586,451)
NET SEWER SYSTEM EQUITY	<u><u>\$ 103,851,988</u></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>
11-Sep-14	4.140%	12-Mar-15	3.620%
18-Sep-14	4.170%	19-Mar-15	3.520%
25-Sep-14	4.110%	26-Mar-15	3.520%
02-Oct-14	4.110%	02-Apr-15	3.490%
09-Oct-14	4.010%	09-Apr-15	3.490%
16-Oct-14	3.870%	16-Apr-15	3.450%
23-Oct-14	3.900%	23-Apr-15	3.520%
30-Oct-14	3.900%	30-Apr-15	3.620%
06-Nov-14	3.980%	07-May-15	3.740%
13-Nov-14	3.980%	14-May-15	3.740%
20-Nov-14	3.930%	21-May-15	3.810%
27-Nov-14	3.940%	28-May-15	3.730%
04-Dec-14	3.830%	04-Jun-15	3.810%
11-Dec-14	3.650%	11-Jun-15	3.870%
18-Dec-14	3.650%	18-Jun-15	3.790%
25-Dec-14	3.650%	25-Jun-15	3.800%
01-Jan-15	3.560%	02-Jul-15	3.850%
08-Jan-15	3.420%	09-Jul-15	3.760%
15-Jan-15	3.290%	16-Jul-15	3.820%
22-Jan-15	3.360%	23-Jul-15	3.750%
29-Jan-15	3.360%	30-Jul-15	3.750%
05-Feb-15	3.490%	06-Aug-15	3.750%
12-Feb-15	3.600%	13-Aug-15	3.690%
19-Feb-15	3.620%	20-Aug-15	3.730%
26-Feb-15	3.620%	27-Aug-15	3.790%
05-Mar-15	3.680%	03-Sep-15	3.820%
		<u>52 WEEKS</u>	<u>3.732%</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)	\$ 103,851,988		4.732%		\$ 4,914,276
SEWER SYSTEM INDEBTEDNESS IN THE CCRB					
1998 BONDS (refunded 1990 Bonds)	9,557,184		5.06%		483,594
2005 BONDS (refunded by 2014 Bonds)	-		4.90%		-
2008 BONDS	37,535,000		4.92%		1,846,722
2010 BONDS	29,625,000		5.00%		1,481,250
2010A&B BONDS	9,935,000		4.37%		434,160
2011 SRF BONDS (amount in CCRB)	4,889,559		2.50%		122,239
2012 BONDS (amount in CCRB)	30,515,395		4.48%		1,367,090
2013 BONDS (refunded 2004 Bonds)	7,655,713		4.43%		339,148
2014 BONDS (refunded 2005 Bonds)	12,873,600		4.99%		642,393
LESS INTEREST ON BOND RESERVE ACCOUNTS					(3,209)
	<u>\$ 246,438,439</u>				<u>\$ 11,627,663</u>
COMPOSITE RATE OF RETURN ON INVESTMENT			<u>\$ 11,627,663</u>	=	<u>\$246,438,439</u>
					4.718%

**Noted Disclosure:**

TOTAL BONDED INDEBTEDNESS (from above)	<u>\$ 142,586,451</u>	TASK NO. 18
--	-----------------------	-------------

*This page intentionally left blank.*

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, 2015

PHYSICAL LOCATION

DESCRIPTION	RETAIL										WHOLESALE					TOTAL
	INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENIWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP				
COST	\$ 1,759,666.371	\$ 195,827,548	\$ 40,803,967	\$ 30,496,928	\$ 19,749,860	\$ 20,911,022	\$ 5,027,769	\$ 118,230	\$ -	\$ -	\$ -	\$ -	\$ 488,901,695			
LESS: ACCUMULATED DEPRECIATION	1,085,666.743	55,884,137	15,941,410	12,708,378	8,001,918	7,442,445	1,310,467	59,159	-	-	-	-	209,914,657			
NET BOOK VALUE	\$ 673,999.628	\$ 139,943,411	\$ 24,862,557	\$ 17,788,550	\$ 11,747,942	\$ 13,468,577	\$ 3,717,302	\$ 59,071	\$ -	\$ -	\$ -	\$ -	\$ 278,987,038			
WORKING CAPITAL REQUIREMENT	4,508,592	1,823,384	367,547	256,287	178,419	231,372	27,295	26,253	3,570	669	11,230	2,603	7,437,221			
	\$ 71,908,220	\$ 141,766,795	\$ 25,230,104	\$ 18,044,837	\$ 11,926,361	\$ 13,699,949	\$ 3,744,597	\$ 85,324	\$ 3,570	\$ 669	\$ 11,230	\$ 2,603	\$ 286,424,260			
CONTRIBUTIONS	47,745,498	54,280,174	23,219,947	23,380,794	17,633,305	14,722,073	4,560,073	-	-	-	-	-	185,541,864			
LESS AMORTIZATION	(43,862,569)	(45,123,325)	(10,869,985)	(11,737,085)	(7,600,026)	(6,156,326)	(1,161,995)	-	-	-	-	-	(126,511,311)			
CONSTRUCTION COST RATE BASE	\$ (3,882,929)	\$ (9,156,449)	\$ (12,349,962)	\$ (11,643,709)	\$ (10,033,279)	\$ (8,566,747)	\$ (3,398,478)	\$ 85,324	\$ 3,570	\$ 669	\$ 11,230	\$ 2,603	\$ (69,030,553)			
	\$ 68,025,291	\$ 132,610,346	\$ 12,880,142	\$ 6,401,128	\$ 1,893,082	\$ 5,134,202	\$ 346,119	\$ 85,324	\$ 3,570	\$ 669	\$ 11,230	\$ 2,603	\$ 227,393,707			
RETURN ON INVESTMENT- TASK 20	\$ 3,209,433	\$ 6,256,556	\$ 607,685	\$ 302,005	\$ 89,316	\$ 242,232	\$ 16,330	\$ 4,026	\$ 168	\$ 32	\$ 530	\$ 123	\$ 10,728,436			
	4.718%															

ZONEGATED

COST	\$ -	\$ (1,996,648)	\$ 8,433,037	\$ 2,966,468	\$ 5,111,465	\$ 5,026,818	\$ 919,093	\$ 1,338,366	\$ 229,056	\$ 182,005	\$ 5,422,412	\$ 778,286	\$ 28,410,348
LESS: ACCUMULATED DEPRECIATION	-	(1,173,717)	2,587,450	1,541,409	1,400,288	1,556,905	158,569	370,367	221,094	97,941	967,161	419,905	8,147,372
NET BOOK VALUE	\$ -	\$ (822,931)	\$ 5,845,587	\$ 1,425,059	\$ 3,711,167	\$ 3,469,913	\$ 760,524	\$ 967,999	\$ 7,962	\$ 84,064	\$ 4,455,251	\$ 358,381	\$ 20,262,976
WORKING CAPITAL REQUIREMENT	-	-	-	-	-	-	-	-	-	-	-	-	-
CONTRIBUTIONS	-	-	\$ 5,845,587	\$ 1,425,059	\$ 3,711,167	\$ 3,469,913	\$ 760,524	\$ 967,999	\$ 7,962	\$ 84,064	\$ 4,455,251	\$ 358,381	\$ 20,262,976
LESS AMORTIZATION	-	-	(10,750)	(809,788)	(206,864)	(67,300)	(200)	(197)	-	(82,087)	(120,523)	(348,814)	(1,646,523)
CONSTRUCTION COST RATE BASE	\$ -	\$ -	\$ (12,349,962)	\$ (539,858)	\$ (137,910)	\$ (43,465)	\$ -	\$ -	\$ -	\$ (79,375)	\$ (80,348)	\$ (337,288)	\$ (1,218,244)
	\$ -	\$ (822,931)	\$ 5,845,587	\$ 885,201	\$ 3,573,257	\$ 3,426,448	\$ 760,524	\$ 967,999	\$ 7,962	\$ 4,689	\$ 4,374,903	\$ 21,093	\$ 19,044,732
RETURN ON INVESTMENT- TASK 19/21	\$ -	\$ (67,744)	\$ 481,209	\$ 72,870	\$ 294,151	\$ 282,065	\$ 62,606	\$ 79,686	\$ 655	\$ 386	\$ 360,142	\$ 995	\$ 1,567,021
	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	8.232%	4.718%	
RETURN ON INVESTMENT- TASK 19/21	\$ 3,209,433	\$ 6,188,812	\$ 1,088,994	\$ 374,875	\$ 383,467	\$ 524,297	\$ 78,936	\$ 83,712	\$ 823	\$ 418	\$ 360,672	\$ 1,118	\$ 12,295,457
TOTAL RETURN ON INVESTMENT													

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
CONSTRUCTION COST & ACCUMULATED DEPRECIATION- TASK NO. 21- PART2  
FISCAL YEAR ENDED JUNE 30, 2015

CONSTRUCTION COST

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL						WHOLESALE							
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAMES TOWNSHIP			
BY PHYSICAL LOCATION-TASK 11		\$ 173,541,371	\$ 384,968,302	\$ 42,597,871	\$ 40,769,278	\$ 21,639,270	\$ 20,974,376	\$ 6,017,965	\$ 196,346	-	-	-	-	-	-	\$ 690,644,719
ADD-IN SERVICE-TASK 10		2,425,000	11,978,400	-	-	-	137,000	115,780	-	-	-	-	-	-	-	14,821,030
MARINE CONNECTOR AGREEMENT			(211,573)					(515,311)	(78,116)							(805,000)
SADDLEBACK SEWER			(1,187,160)													-
TASK 11/16/21- CSO FA AMT			(187,348,706)													(187,348,706)
LIFT STATIONS / CHAMBERS:																
FULLER-BROOKVIEW	\$ 1,252,893		(526,265)													
FULTON-MIDDLEBORROW	37,983		(37,407)				526,265									
WEALTHY ST EXT. CHAMBER	458,953		(97,776)	91,185			37,407	6,591								
WEALTHY	20,444		(12,618)	12,276			59	283								
MARKET	12,965,095		(2,428,104)	1,969,917			385,323	36,691	283							
VANPORTLIET / LEONARD HTS	1,239,326		232,336	(232,336)			-	-	36,173							
REMEMBRANCE / 3 MILE	1,213,244		-	(148,780)			-	25,866	122,914							
16th AVENUE	71,058		-	-			-	(141,105)	141,105							
HAYES- WEST	141,105		-	-			-	-	-							
HAYES- EAST	215,841		-	-			-	-	-							
O'BRIEN	546,532		20,036	(55,910)			-	35,874	-							
SERVICEMANS			(11,518,565)	5,002,781	(8,421,589)	2,985,742	3,937,529	364,452	1,037,891	182,005	5,422,412	778,286				

COST CENTER	AMOUNT	INTEGRATED SYSTEM	RETAIL						WHOLESALE							
			CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAMES TOWNSHIP			
ADJUSTED BY ZONEGATING		\$ 175,966,371	\$ 193,830,900	\$ 49,237,004	\$ 33,463,396	\$ 24,661,315	\$ 25,937,840	\$ 5,946,862	\$ 1,456,596	\$ 182,005	\$ 5,422,412	\$ 778,286				\$ 517,312,043
ZONEGATING ADJUSTMENT		-	(1,996,648)	\$ 8,433,037	\$ 2,966,468	\$ 5,111,455	\$ 5,026,818	\$ 919,093	\$ 1,338,366	\$ 182,005	\$ 5,422,412	\$ 778,286				\$ 28,410,348
PHYSICAL LOCATION		\$ 175,966,371	\$ 195,827,548	\$ 40,803,967	\$ 30,496,928	\$ 19,749,860	\$ 20,911,022	\$ 5,027,769	\$ 118,230	\$ -	\$ -	\$ -				\$ 488,901,695
BY PHYSICAL LOCATION-TASK 11		\$ 108,566,743	\$ 115,629,608	\$ 16,330,660	\$ 14,862,526	\$ 8,231,632	\$ 7,565,904	\$ 1,532,424	\$ 72,593	\$ -	\$ -	\$ -				\$ 272,792,090
ADD-IN SERVICE-TASK 10		-	(140,095)	-	-	-	-	(80,197)	(13,434)	-	-	-				(233,726)
MARINE CONNECTOR AGREEMENT			(54,625,280)													128,945
SADDLEBACK SEWER			121,800													(54,625,280)
TASK 11/16/21- CSO ACC DEP																
LIFT STATIONS / CHAMBERS:																
FULLER-BROOKVIEW	\$ 699,733		(293,916)				293,916									
FULTON-MIDDLEBORROW	37,618		(37,047)				37,047									
WEALTHY ST EXT. CHAMBER	147,171		(31,353)	29,240			-	2,113								
WEALTHY	20,444		(12,618)	12,276			59	283								
MARKET	5,725,369		(1,072,248)	869,913			170,158	16,203	15,974							
VANPORTLIET / LEONARD HTS	201,172		37,714	(37,714)			-	10,684	50,770							
REMEMBRANCE / 3 MILE	501,132		-	(61,454)			-	(76,897)	76,897							
16th AVENUE	48,787		-	-			-	-	-							
HAYES- WEST	76,897		-	-			-	-	-							
HAYES- EAST	98,922		-	-			-	-	-							
O'BRIEN	259,056		9,497	(26,501)			-	17,004	-							
SERVICEMANS			(4,753,842)	1,412,440	(734,539)	1,163,429	932,325	47,643	226,443	97,941	967,161	419,905				
ADJUSTED BY ZONEGATING		\$ 108,566,743	\$ 54,710,420	\$ 18,528,860	\$ 14,249,787	\$ 9,402,206	\$ 8,999,350	\$ 1,469,036	\$ 429,526	\$ 97,941	\$ 967,161	\$ 419,905				\$ 218,002,029
ZONEGATING ADJUSTMENT		-	(1,173,717)	\$ 2,587,450	\$ 1,541,409	\$ 1,400,288	\$ 1,556,905	\$ 158,569	\$ 370,367	\$ 97,941	\$ 967,161	\$ 419,905				\$ 8,147,372
PHYSICAL LOCATION		\$ 108,566,743	\$ 55,884,137	\$ 15,941,410	\$ 12,708,378	\$ 8,001,918	\$ 7,442,445	\$ 1,310,467	\$ 59,159	\$ -	\$ -	\$ -				\$ 209,914,657



CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
FISCAL YEAR ENDED JUNE 30, 2015

COST CENTER	AMOUNT	RETAIL					WHOLESALE						
		CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	TOTAL
<b>CONSTRUCTION COST- BY PHYSICAL LOCATION:</b>													
BY PHYSICAL LOCATION- TASK 11		\$ 173,541,371	\$ 39,208,775	\$ 40,769,278	\$ 20,940,613	\$ 18,157,770	\$ 5,661,019	\$ 125,288	\$ -	\$ -	\$ -	\$ -	\$ 690,644,719
IN SERVICE- TASK 10		2,425,000	11,978,400	-	164,850	137,000	115,780	-	-	-	-	-	14,821,030
MARINE CONNECTOR AGREEMENT		-	(211,573)	-	-	-	(515,311)	-	-	-	-	-	(805,000)
SADDLEBACK SEWER		-	(1,187,160)	1,115,707	71,453	-	-	(78,116)	-	-	-	-	-
TASK 11/16/21- CSO COST		(187,348,706)	-	-	-	-	-	-	-	-	-	-	(187,348,706)
O'BRIEN		-	546,532	-	-	-	-	71,058	-	-	-	-	-
VANPORTFLEET / LEONARD HTS		-	1,239,326	-	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE		-	1,213,244	-	-	-	-	-	-	-	-	-	-
16th AVENUE		-	(71,058)	-	-	-	-	-	-	-	-	-	-
HAYES- WEST		-	(141,105)	-	-	-	141,105	-	-	-	-	-	-
HAYES- EAST		-	(215,841)	-	-	-	215,841	-	-	-	-	-	-
KINGSBURY	\$	323,154	323,154	-	-	-	-	-	-	-	-	-	-
MEADOWWOOD TRAILS		66,840	66,840	-	66,841	66,840	-	-	-	-	-	-	-
OAK HOLLOW		66,840	66,840	-	-	-	-	-	-	-	-	-	-
COLLINDALE		66,840	66,840	-	-	-	-	-	-	-	-	-	-
THORNAPPLE		224,216	224,216	-	224,216	224,216	-	-	-	-	-	-	-
6000 28TH ST		111,401	111,401	-	111,401	111,401	-	-	-	-	-	-	-
THORNHILLS		118,407	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	-	-	-	-	-	-	-
GREENRIER		48,486	48,486	-	-	48,486	-	-	-	-	-	-	-
LINGOLN SCHOOL		153,651	153,651	-	-	153,651	-	-	-	-	-	-	-
REEDS LAKE		962,898	962,898	-	-	962,898	-	-	-	-	-	-	-
KRAFT		72,602	72,602	-	72,602	72,602	-	-	-	-	-	-	-
ORCHARD VISTA		39,712	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.		10,540,983	12,046,424	8,319,812	186,688	163	-	-	-	-	-	-	31,094,070
TOTAL- PHYSICAL LOCATION COST		\$ 175,966,371	\$ 40,803,967	\$ 30,496,928	\$ 19,749,860	\$ 20,911,022	\$ 5,027,769	\$ 118,230	\$ -	\$ -	\$ -	\$ -	\$ 488,901,696
<b>CONSTRUCTION COST- ZONEGATING:</b>													
LIFT STATIONS / CHAMBERS:													
FULLER-BROOKVIEW	\$	1,252,893	(526,265)	-	-	-	-	-	526,265	-	-	-	-
FULTON- MIDDLEBORROW		37,983	(37,407)	-	-	-	-	-	37,407	-	-	-	-
WEALTHY ST EXT- CHAMBER		468,953	(97,776)	-	91,185	-	6,591	-	-	-	-	-	-
WEALTHY		20,444	(12,618)	-	12,276	-	59	283	-	-	-	-	-
MARKET		12,965,095	(2,428,104)	-	1,969,917	-	36,691	36,173	-	-	-	-	-
VANPORTFLEET / LEONARD HTS		1,239,326	232,336	-	(232,336)	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE		1,213,244	(148,780)	-	-	-	25,866	122,914	-	-	-	-	-
16th AVENUE		71,058	-	-	-	-	-	-	-	-	-	-	-
HAYES- WEST		141,105	-	-	-	-	(141,105)	141,105	-	-	-	-	-
HAYES- EAST		215,841	-	-	-	-	-	-	-	-	-	-	-
O'BRIEN		546,532	20,036	-	(55,910)	-	35,874	-	-	-	-	-	-
SERVICE MAINS- ZONEGATED COST		853,150	6,796,685	2,966,468	5,111,455	4,077,823	955,117	1,037,891	182,005	5,422,412	778,286	28,410,348	
TOTAL- ZONEGATED COST		\$ (1,996,648)	\$ 8,433,037	\$ 2,966,468	\$ 5,111,455	\$ 5,026,818	\$ 919,093	\$ 1,338,366	\$ 229,056	\$ 5,422,412	\$ 778,286	\$ 28,410,348	
GRAND TOTAL- COST		\$ 175,966,371	\$ 49,237,004	\$ 33,463,396	\$ 24,861,315	\$ 25,937,840	\$ 5,946,862	\$ 1,456,596	\$ 229,056	\$ 5,422,412	\$ 778,286	\$ 517,312,044	

ACCUMULATED DEPRECIATION- BY PHYSICAL LOCATION:

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
RECONCILIATION OF CONSTRUCTION COST & ACCUMULATED DEPRECIATION- PHYSICAL LOCATION & ZONEGATING  
FISCAL YEAR ENDED JUNE 30, 2015

COST CENTER	AMOUNT	RETAIL										WHOLESALE				
		INTEGRATED SYSTEM	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CITY OF CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	TOTAL		
BY PHYSICAL LOCATION- TASK 11		\$ 108,566,743	\$ 117,734,197	\$ 15,272,497	\$ 14,862,526	\$ 8,009,406	\$ 6,966,310	\$ 1,356,605	\$ 23,806	\$ -	\$ -	\$ -	\$ -	\$ 272,792,090		
IN SERVICE- TASK 10		-	-	-	-	-	-	-	-	-	-	-	-	-		
MARINE CONNECTOR AGREEMENT		-	(140,095)	-	-	7,145	-	-	(13,434)	-	-	-	-	(233,726)		
SADDLEBACK SEWER		-	(54,625,280)	-	-	-	-	-	-	-	-	-	-	128,945		
TASK 11/16/21- CSO ACC. DEPRECIATION		-	(259,056)	259,056	-	-	-	-	-	-	-	-	-	-		
O'BRIEN		-	(201,172)	201,172	-	-	-	-	-	-	-	-	-	-		
VANPORTFLET		-	(501,132)	501,132	-	-	-	-	-	-	-	-	-	-		
REMEMBRANCE / 3 MILE		-	(48,787)	-	-	-	-	-	48,787	-	-	-	-	-		
16th AVENUE		-	(76,897)	-	-	-	-	76,897	-	-	-	-	-	-		
HAYES- WEST		-	(98,922)	-	-	-	-	98,922	-	-	-	-	-	-		
HAYES- EAST		-	(85,663)	85,663	-	-	-	-	-	-	-	-	-	-		
KINGSBURY	\$	-	(11,140)	-	-	11,140	-	-	-	-	-	-	-	-		
MEADOWOOD TRAILS		-	(11,140)	-	-	11,140	-	-	-	-	-	-	-	-		
OAK HOLLOW		-	(11,140)	-	-	-	-	-	-	-	-	-	-	-		
COLLINDALE		-	(11,140)	11,140	-	-	-	-	-	-	-	-	-	-		
THORNAPPLE		-	(91,262)	-	-	91,262	-	-	-	-	-	-	-	-		
6000 28TH ST		-	(22,280)	-	-	22,280	-	-	-	-	-	-	-	-		
THORNHILLS		-	(31,575)	-	-	31,575	-	-	-	-	-	-	-	-		
ROBINHOOD		-	(53,520)	-	-	53,520	-	-	-	-	-	-	-	-		
CASCADE SPRINGS		-	(34,922)	-	-	34,922	-	-	-	-	-	-	-	-		
SHOREHAVEN		-	(21,781)	-	-	21,781	-	-	-	-	-	-	-	-		
EAGLECREST		-	(40,622)	-	-	40,622	-	-	-	-	-	-	-	-		
GREENBRIER		-	(11,313)	-	-	11,313	-	-	-	-	-	-	-	-		
LINCOLN SCHOOL		-	(32,138)	-	-	32,138	-	-	-	-	-	-	-	-		
REEDS LAKE		-	(174,851)	-	-	174,851	-	-	-	-	-	-	-	-		
KRAFT		-	(21,781)	-	-	21,781	-	-	-	-	-	-	-	-		
ORCHARD VISTA		-	(9,266)	-	-	9,266	-	-	-	-	-	-	-	-		
BIRD AVE-ALPINE ESTATES		-	(135,620)	-	-	135,620	-	-	-	-	-	-	-	-		
EAST PARIS		-	(118,609)	-	-	118,609	-	-	-	-	-	-	-	-		
SERVICE MAINS		-	-	-	-	-	-	-	-	-	-	-	-	-		
LESS: SERVICE MAINS- TOTAL SUBS- PHY. LOC.		-	(10,242,502)	(2,999,145)	(3,969,200)	(326,771)	(123,602)	(141,760)	-	-	-	-	(17,802,980)			
ADD: SERVICE MAINS- TOTAL ADDS- PHY. LOC.		-	5,262,405	2,609,896	1,693,252	89,913	143	-	59,159	-	-	-	9,655,609			
		\$ 108,566,743	\$ 55,884,136	\$ 15,941,411	\$ 12,708,378	\$ 8,001,919	\$ 7,442,445	\$ 1,310,467	\$ 59,159	\$ -	\$ -	\$ -	\$ 209,914,658			
<b>ACCUMULATED DEPRECIATION- ZONEGATED</b>																
LIFT STATIONS / CHAMBERS:																
FULLER-BROOKVIEW	\$	699,733	(293,916)	-	-	-	293,916	-	-	-	-	-	-	-		
FULTON- MIDDLEBORROW		37,618	(37,047)	-	-	37,047	-	-	-	-	-	-	-	-		
WEALTHY ST EXT. CHAMBER		147,171	(31,353)	29,240	-	-	-	2,113	-	-	-	-	-	-		
WEALTHY		20,444	(12,618)	12,276	-	-	-	59	283	-	-	-	-	-		
MARKET		5,725,369	(1,072,248)	869,913	-	-	170,158	16,203	15,974	-	-	-	-	-		
VANPORTFLET		201,172	37,714	(37,714)	-	-	-	-	-	-	-	-	-	-		
REMEMBRANCE / 3 MILE		501,132	-	(61,454)	-	-	-	10,684	50,770	-	-	-	-	-		
16th AVENUE		48,787	-	-	-	-	-	(76,897)	76,897	-	-	-	-	-		
HAYES- WEST		76,897	-	-	-	-	-	-	-	-	-	-	-	-		
HAYES- EAST		98,922	-	-	-	-	-	-	-	-	-	-	-	-		
O'BRIEN		259,056	9,497	(26,501)	-	-	-	17,004	-	-	-	-	-	-		
SERVICE MAINS- ZONEGATED ACC. DEPRECIATION		-	226,254	1,801,690	1,541,409	1,400,288	1,055,784	189,403	226,443	97,941	967,161	419,905	8,147,372			
TOTAL- ZONEGATED ACC. DEPRECIATION		-	(1,173,717)	2,587,450	1,541,409	1,400,288	1,556,905	158,569	370,367	97,941	967,161	419,905	8,147,372			
GRAND TOTAL- ACC. DEPRECIATION		\$ 108,566,743	\$ 54,710,419	\$ 18,528,861	\$ 14,249,787	\$ 9,402,207	\$ 8,999,350	\$ 1,469,036	\$ 429,526	\$ 97,941	\$ 967,161	\$ 419,905	\$ 218,062,030			



**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	\$ 32,947,598	70.9490%	\$ 487,444
CITY OF WALKER	4,698,223	10.1171%	69,508
CITY OF KENTWOOD	3,676,084	7.9160%	54,386
CASCADE TOWNSHIP	2,185,643	4.7065%	32,335
GRAND RAPIDS TOWNSHIP	2,359,374	5.0806%	34,905
TALLMADGE TOWNSHIP	321,912	0.6932%	4,763
WRIGHT TOWNSHIP	249,640	0.5376%	3,693
	<u>\$ 46,438,474</u>	<u>100.0000%</u>	<u>\$ 687,034</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, 2015

COST CENTER BY PHYSICAL LOCATION- TASK 11	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	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP			
ADD-IN SERVICE- TASK 10		\$ 2,962,901	\$ 7,190,074	\$ 897,920	\$ 821,710	\$ 436,083	\$ 408,837	\$ 113,220	\$ 2,506							\$ 13,430,252
MARINE CONNECTOR AGREEMENT		48,500	239,568	-	-	-	3,297	2,740	2,316	-	-	-	-	-	-	296,421
SADDLEBACK SEWER			(4,785)						(10,307)							(16,655)
LESS: TASK 11/16/21-C50.DEP. EXP.			(3,781,513)		22,313		1,429		(1,563)							23,742
LIFT STATIONS / CHAMBERS:																(3,781,513)
FULLER-BROOKVIEW (GR)	\$ 46,649		(19,594)	-	-	-	-	19,594	-	-	-	-	-	-	-	-
FULTON- MIDDLEBORO (GR)	183		(180)	-	-	-	-	180	-	-	-	-	-	-	-	-
WEALTHY ST EXT. CHAMBER	11,321		(2,412)	2,249	-	-	-	163	-	-	-	-	-	-	-	-
MARKET	500,258		(93,689)	76,009	-	-	-	14,868	1,416	1,396	-	-	-	-	-	-
VANPORTFLIET	34,991		6,560	(6,560)	-	-	-	-	-	-	-	-	-	-	-	-
REMEMBRANCE / 3 MILE	62,642		-	(7,682)	-	-	-	-	1,336	6,346	-	-	-	-	-	-
O'BRIEN	12,023		441	(1,230)	-	-	-	-	789	-	-	-	-	-	-	-
KINGSBURY	10,772															
MEADOWOOD 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	-	-	-	-	-	-	-	-
SERVICEMANS			(207,629)	89,868	(173,462)	670,561	58,427	75,864	7,235	20,585	2,474	3,589	107,698	15,351	-	-
ADJUSTED BY ZONEGATING		3,011,401	3,878,147	1,050,574	670,561	499,236	553,124	126,061	340,300	3,589	2,474	3,589	107,698	15,351	9,952,247	-
LESS CONTRIBUTIONS AMORTIZED		(815,016)	(1,075,625)	(449,088)	(344,860)	(289,589)	(91,247)									(3,507,991)
TASK NO. 21		\$ 2,196,385	\$ 2,802,522	\$ 620,578	\$ 221,473	\$ 154,376	\$ 263,535	\$ 34,814	\$ 340,300	\$ 3,589	\$ 2,474	\$ 3,589	\$ 107,698	\$ 2,781	\$ 6,444,256	
TOTAL																

CITY OF GRAND RAPIDS, MICHIGAN  
SEWAGE DISPOSAL SYSTEM FUND  
ACCUMULATE REVENUE REQUIREMENTS BY CUSTOMER COMMUNITIES - TASK NO. 25  
FISCAL YEAR ENDED JUNE 30, 2015

	RETAIL										WHOLESALE				TOTAL
	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	
<b>INTEGRATED SYSTEM</b>															
OPERATION & MAINTENANCE EXPENSE- TASK NO. 22	\$ 15,761,735	\$ 1,284,909	\$ 895,911	\$ 623,765	\$ 808,793	\$ 95,398	\$ 91,832	\$ 12,445	\$ 2,257	\$ 39,194	\$ 9,214	\$ 2,257	\$ 39,194	\$ 9,214	\$ 26,057,856
DEPRECIATION EXPENSE	2,196,385	620,578	221,473	154,376	263,535	34,814	34,030	2,474	3,589	107,698	2,781	3,589	107,698	2,781	6,444,256
TASK NO. 24	3,209,433	1,088,894	374,875	383,467	524,297	78,936	83,712	823	418	360,672	1,118	418	360,672	1,118	12,295,457
RETURN ON SYSTEM INVESTMENT TASK NO. 21		(487,444)	(54,386)	(32,335)	(34,905)	(4,763)	(3,693)								(687,034)
REVENUE CREDITS- TASK NO. 23	8,637,610														8,637,610
CSO DEBT SERVICE REQUIREMENTS															
ALLOCATE:															
INTEGRATED SYSTEM CREDITS	(1,557,671)	(260,665)	(351,204)	(158,126)	(116,448)	(14,818)	(6,753)	(81,481)	(13,460)	(96,978)	-	(13,460)	(96,978)	-	(2,657,604)
INTEGRATED SYSTEM (A)	12,312,121	2,060,339	2,775,979	1,249,861	920,434	117,130	53,381	644,042	106,393	766,534	161,339	106,393	766,534	161,339	-
LESS: CIRCUIT BREAKER (B)	(281,933)	-	(23,666)	(25,099)	-	-	-	-	-	-	-	-	-	-	(330,718)
CAPITAL INVESTMENT REIMBURSEMENT (C)			108,205												108,205
	\$ -	\$ 4,724,547	\$ 3,947,167	\$ 2,195,909	\$ 2,365,706	\$ 306,697	\$ 252,509	\$ 578,303	\$ 99,197	\$ 1,177,120	\$ 174,452	\$ 99,197	\$ 1,177,120	\$ 174,452	\$ 49,868,027

(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  
 (C) PER COMMISSION APPROVED PAYBACK AGREEMENT, THE CITY OF KENTWOOD IS FINANCING THE PAYBACK OF A LOAN THROUGH THE SEWER SYSTEM ENTERPRISE FUND OVER FOUR YEARS BEGINNING WITH THE 2015 RATE STUDY

	RETAIL										WHOLESALE				TOTAL
	CITY OF GR	CITY OF WALKER	CITY OF KENTWOOD	CASCADE TOWNSHIP	GR TOWNSHIP	TALLMADGE TOWNSHIP	WRIGHT TOWNSHIP	CITY OF EAST GR	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	CALEDONIA TOWNSHIP	ADA TOWNSHIP	GAINES TOWNSHIP	
<b>INTEGRATED SYSTEM</b>															
OLD METHOD- PLANT FLOW	\$ 12,312,121	\$ 2,060,339	\$ 2,775,979	\$ 1,249,861	\$ 920,434	\$ 117,130	\$ 53,381	\$ 644,042	\$ 106,393	\$ 766,534	\$ 161,339	\$ 106,393	\$ 766,534	\$ 161,339	\$ 21,006,214
NEW METHOD- PLANT FLOW / LAND															
	\$ 12,312,121	\$ 2,060,339	\$ 2,775,979	\$ 1,249,861	\$ 920,434	\$ 117,130	\$ 53,381	\$ 644,042	\$ 106,393	\$ 766,534	\$ 161,339	\$ 106,393	\$ 766,534	\$ 161,339	\$ 21,167,553

**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>6/30/15</u>	<u>PRO FORMA *</u>
<b>REVENUES:</b>		
RETAIL/WHOLESALE SEWAGE SERVICE	\$ 48,368,938	\$ 50,129,367
CONNECTION FEES/FRONT FOOT FEES	1,049,540	940,000
SEWAGE SURCHARGES	1,728,329	2,370,900
OTHER OPERATING REVENUES	844,701	935,600
INTEREST ON INVESTMENTS	314,716	196,255
MISCELLANEOUS	1,136	20,000
TOTAL REVENUES	<u>\$ 52,307,361</u>	<u>\$ 54,592,122</u>
<b>OPERATING EXPENSES:</b>		
OPERATIONS & MAINTENANCE	\$ 25,530,028	\$ 27,575,993
DEPRECIATION	<u>14,060,726</u>	<u>14,060,726</u>
TOTAL EXPENSES	<u>\$ 39,590,754</u>	<u>\$ 41,636,719</u>
ADDITIONS: DEPRECIATION	<u>14,060,726</u>	<u>14,060,726</u>
NET EARNINGS OF THE SYSTEM	<u>\$ 26,777,333</u>	<u>\$ 27,016,129</u>
<b>DEBT SERVICE (CASH BASIS)</b>		
SERIES 2014 BONDS	\$ 631,469	\$ 3,458,900
SERIES 2013 BONDS	2,032,100	2,028,800
SERIES 2012 BONDS	2,161,250	2,160,300
SERIES 2010A&B BONDS (after BAB subsidy)	1,254,270	1,252,670
SERIES 2010 BONDS	1,481,250	1,481,250
SERIES 2008 BONDS	4,395,913	4,394,113
SERIES 2005 BONDS	1,836,472	-
SERIES 1998 BONDS	<u>4,403,806</u>	<u>4,404,006</u>
SENIOR LIEN	18,196,530	19,180,039
JUNIOR LIEN **	2,345,969	1,075,476
TOTAL	<u>\$ 20,542,499</u>	<u>\$ 20,255,515</u>
COVERAGE RATIO - SENIOR DEBT	<u>1.47</u>	<u>1.41</u>
COVERAGE RATIO - ALL DEBT	<u>1.30</u>	<u>1.33</u>

\* SEWAGE SERVICE ADJUSTED FOR RATE REVISIONS OF 2.81% AND 0.30% EFFECTIVE 1/1/15 AND 1/1/16, 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		\$ 50,090,541
REVENUES FROM CURRENT RATES		
REU CHARGE	\$ 310,663	
MONTHLY METER CHARGE	15,281,981	
MONTHLY BILLING CHARGE	3,634,148	
COMMODITY CHARGE	<u>30,491,896</u>	<u>(49,718,688)</u>
INITIAL REQUIRED REVENUE INCREASE (DECREASE)		<u>\$ 371,853</u>
INITIAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>0.75%</u>
INITIAL SYSTEM REVENUE REQUIREMENTS FROM ABOVE		\$ 50,090,541
LESS: AMOUNT OF CIRCUIT BREAKER RELIEF TO REDUCE RR's TO RETAIL		(330,719)
PLUS: CAPITAL INVESTMENT REIMBURSEMENT (KENTWOOD)		108,205
SYSTEM REVENUE REQUIREMENTS		<u>\$ 49,868,027</u>
ACTUAL REQUIRED AMOUNT OF REVENUE INCREASE (DECREASE)		<u>\$ 149,339</u>
ACTUAL PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u>0.30%</u>

SEWER RATE STUDY  
SEWAGE DISPOSAL SYSTEM FUND  
TASK NO. 26

METER SIZE	EQUIV. FACTOR	CITY OF GR METERS* EQUIV.	CITY OF WALKER METERS* EQUIV.	CITY OF KENTWOOD METERS* EQUIV.	CASCADE TWP METERS* EQUIV.	GR TWP METERS* EQUIV.	TALLMADGE TWP METERS* EQUIV.	WRIGHT TWP USERS** REU
A 3/4" or less	1.0000	54,340	5,019	3,550	1,411	3,353	133	-
B 1"	1.7778	2,222	346	469	231	238	14	-
C 1 1/4"	2.7778	-	-	-	-	-	-	-
D 1 1/2"	4.0000	874	144	312	146	75	5	-
E 2"	7.1111	671	77	1,344	62	32	3	-
F 3"	16.0000	92	8	288	6	7	2	-
G 4"	28.4444	85	9	455	3	3	1	-
H 6" and over	64.0000	14	2	128	-	1	-	-
Other- Wright Twp		N/A	N/A	N/A	N/A	N/A	N/A	230
<b>TOTAL</b>		<b>58,298</b>	<b>7,270</b>	<b>7,847</b>	<b>3,028</b>	<b>4,565</b>	<b>158</b>	<b>423,500</b>
								<b>74,415</b>

\* Source: City of Grand Rapids, Michigan, Water/Sewer Customer Accounts/Meters Report, dated July 28, 2015.

\*\* Source: City of Grand Rapids, Michigan, Water/Sewer Customer Accounts/Meters Report, dated November 23, 2015.

**CITY OF GRAND RAPIDS, MICHIGAN**

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

SYSTEM REVENUE REQUIREMENTS \* \$ 34,046,420

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

71,344 meter equivalents x \$ 11.85 x 12 = \$ 10,145,117

MONTHLY BILLING CHARGE

58,298 meters x \$ 3.36 x 12 = 2,350,575

COMMODITY CHARGE

6,512,930 units (100 CF) x \$ 3.27 = 21,297,281 (33,792,973)

REQUIRED REVENUE INCREASE (DECREASE) \$ 253,447

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 0.75%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 281,933

**CITY OF GRAND RAPIDS, MICHIGAN**

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

COMMODITY CHARGE:

$$\frac{\text{INTEGRATED SYSTEM COST}}{\text{BILLED UNITS}} = \frac{\$20,949,731}{6,512,930} = \underline{\underline{\$ 3.22 /100 CF *}}$$

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **			\$ 34,046,420
NEW COMMODITY CHARGE			
6,512,930 x \$ 3.22		\$ 20,971,635	
NEW MONTHLY BILLING CHARGE			
58,298 x \$ 3.62 x 12		<u>2,532,465</u>	<u>(23,504,100)</u>
			<u><u>\$ 10,542,320</u></u>

$$\text{MONTHLY METER CHARGE} = \frac{\$10,542,320}{71,344 \times 12} = \underline{\underline{\$ 12.31 \text{ MONTHLY}}}$$

<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	\$ 12.31	\$ 3.62	\$ 15.93	\$ 15.21
1"	1.7778	21.88	3.62	25.50	24.43
1 1/4"	2.7778	34.19	3.62	37.81	36.28
1 1/2"	4.0000	49.24	3.62	52.86	50.76
2"	7.1111	87.54	3.62	91.16	87.63
3"	16.0000	196.96	3.62	200.58	192.96
4"	28.4444	350.15	3.62	353.77	340.43
6" and over	64.0000	787.84	3.62	791.46	761.76

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016

\*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 281,933

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

SYSTEM REVENUE REQUIREMENTS	\$ 4,724,547
REVENUES FROM CURRENT RATES	
MONTHLY METER CHARGE	
7,270 meter equivalents x \$ 26.95 x 12 = \$	2,351,118
MONTHLY BILLING CHARGE	
5,605 meters x \$ 3.36 x 12 =	225,994
COMMODITY CHARGE	
821,693 units (100 CF) x \$ 2.72 =	<u>2,235,005</u>
	<u>(4,812,117)</u>
REQUIRED REVENUE INCREASE (DECREASE)	<u>\$ (87,570)</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES	<u><u>-1.82%</u></u>



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

SYSTEM REVENUE REQUIREMENTS \* \$ 3,947,167

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

7,847 meter equivalents x \$ 3.73 x 12 = \$ 351,232

MONTHLY BILLING CHARGE

4,556 meters x \$ 3.36 x 12 = 183,698

COMMODITY CHARGE

1,382,048 units (100 CF) x \$ 2.37 = 3,275,454 (3,810,384)

REQUIRED REVENUE INCREASE (DECREASE) \$ 136,783

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 3.59%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 23,686  
 AND CAPITAL INVESTMENT REIMBURSEMENT, IN THE AMOUNT OF \$ 108,205



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

SYSTEM REVENUE REQUIREMENTS \* \$ 2,195,909

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

3,028 meter equivalents x \$ 28.27 x 12 = \$ 1,027,219

MONTHLY BILLING CHARGE

1,859 meters x \$ 3.36 x 12 = 74,955

COMMODITY CHARGE

414,380 units (100 CF) x \$ 2.60 = 1,077,388 (2,179,562)

REQUIRED REVENUE INCREASE (DECREASE) \$ 16,347

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES 0.75%

\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 25,099

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

COMMODITY CHARGE:

PRESENT CHARGE x RATE ADJUSTMENT \$ 2.62 /100 CF \*  
 \$ 2.60 x 100.75%

MONTHLY SERVICE CHARGE:

SYSTEM REVENUE REQUIREMENTS **		\$ 2,195,909
NEW COMMODITY CHARGE		
414,380 x \$ 2.62		\$ 1,085,676
NEW MONTHLY BILLING CHARGE		
1,859 x \$ 3.62 x 12	80,755	(1,166,431)
		<u>\$ 1,029,478</u>

MONTHLY METER CHARGE =  $\frac{\$1,029,478}{3,028 \times 12} = \underline{\underline{\$ 28.33}}$  MONTHLY

METER SIZE	EQUIVALENT	MONTHLY SERVICE CHARGE			PRESENT
		METER	BILLING	TOTAL	
3/4" or less	1.0000	\$ 28.33	\$ 3.62	\$ 31.95	\$ 31.63
1"	1.7778	50.37	3.62	53.99	53.62
1 1/4"	2.7778	78.70	3.62	82.32	81.89
1 1/2"	4.0000	113.32	3.62	116.94	116.44
2"	7.1111	201.46	3.62	205.08	204.39
3"	16.0000	453.28	3.62	456.90	455.68
4"	28.4444	805.83	3.62	809.45	807.48
6" and over	64.0000	1,813.12	3.62	1,816.74	1,812.64

\* NEW RATES EFFECTIVE, ON A PRO-RATA BASIS, JANUARY 1, 2016

\*\* REFLECTS RELIEF FROM CIRCUIT BREAKER, IN THE AMOUNT OF \$ 25,099

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

SYSTEM REVENUE REQUIREMENTS \$ 2,365,706

REVENUES FROM CURRENT RATES

MONTHLY METER CHARGE

4,565 meter equivalents x \$ 23.93 x 12 = \$ 1,310,885

MONTHLY BILLING CHARGE

3,709 meters x \$ 3.36 x 12 = 149,547

COMMODITY CHARGE

389,277 units (100 CF) x \$ 2.34 = 910,908 (2,371,340)

REQUIRED REVENUE INCREASE (DECREASE) \$ (5,634)

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES -0.24%



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

SYSTEM REVENUE REQUIREMENTS		\$	306,697
REVENUES FROM CURRENT RATES			
MONTHLY METER CHARGE			
259 meter equivalents	x	\$ 31.02	x 12 = \$ 96,410
MONTHLY BILLING CHARGE			
158 meters	x	\$ 3.36	x 12 = 6,371
COMMODITY CHARGE			
19,142 units (100 CF)	x	\$ 10.85	= <u>207,691</u>
			<u>(310,472)</u>
REQUIRED REVENUE INCREASE (DECREASE)		\$	<u><u>(3,775)</u></u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u><u>-1.22%</u></u>



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

SYSTEM REVENUE REQUIREMENTS	\$	252,509
LESS: CASH CONTRIBUTION		(5,000)
SYSTEM REVENUE REQUIREMENTS	\$	<u>247,509</u>

REVENUES FROM CURRENT RATES

REU CHARGE

423.500 meter equivalents x \$ 61.13 x 12 = \$ 310,663

MONTHLY METER CHARGE

423.500 meter equivalents x \$ - x 12 = -

MONTHLY BILLING CHARGE

230 meters x \$ - x 12 = -

COMMODITY CHARGE

13,465 units (100 CF) x \$ - = - (310,663)

REQUIRED REVENUE INCREASE (DECREASE) \$ (63,154)

PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES -20.33%

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

**MONTHLY REU CHARGE:**

$$\frac{\text{SYSTEM REVENUE REQUIREMENTS}}{\text{TOTAL REU'S * 12 MONTHS}} = \frac{\$247,509}{423.500 \times 12} = \$ \underline{\underline{48.70}} \quad \text{MONTHLY REU CHARGE *}$$

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	\$ 48.70	7.5000	\$ 365.25	19.0000	\$ 925.30
1.5000	73.05	8.0000	389.60	20.0000	974.00
2.0000	97.40	8.5000	413.95	25.0000	1,217.50
2.5000	121.75	9.0000	438.30	30.0000	1,461.00
3.0000	146.10	9.5000	462.65	35.0000	1,704.50
3.5000	170.45	10.0000	487.00	40.0000	1,948.00
4.0000	194.80	11.0000	535.70	50.0000	2,435.00
4.4000	214.28	12.0000	584.40	60.0000	2,922.00
4.5000	219.15	13.0000	633.10	70.0000	3,409.00
5.0000	243.50	14.0000	681.80	80.0000	3,896.00
5.5000	267.85	15.0000	730.50	90.0000	4,383.00
6.0000	292.20	16.0000	779.20	100.0000	4,870.00
6.5000	316.55	17.0000	827.90	150.0000	7,305.00
7.0000	340.90	18.0000	876.60	200.0000	9,740.00

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	562,561
COMMODITY CHARGE			
	341.195 units	x	\$ 1,627.00
			555,124
			<hr/>
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$	<u>7,437</u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$	15,742
MONTHLY SERVICE CHARGE			
	\$1,427	x	12 MONTHS
			17,124
			<hr/>
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$	<u>(1,382)</u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES			<u>1.06%</u>

**CITY OF EAST GRAND RAPIDS, MICHIGAN**

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

SYSTEM REVENUE REQUIREMENTS	\$ 578,303
NEW COMMODITY CHARGE *	
341.195 x \$ 1,649.00 =	(562,631)
	<hr/>
	<u>\$ 15,672</u>

MONTHLY SERVICE CHARGE \* = \$ 15,672 / 12 = \$1,306

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 92,933
COMMODITY CHARGE		
26.242 units    x    \$ 4,068.00		106,752
		106,752
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		<u><u>\$ (13,819)</u></u>
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 6,264
MONTHLY SERVICE CHARGE		
\$712            x    12 MONTHS		8,544
		8,544
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		<u><u>\$ (2,280)</u></u>
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		<u><u>-13.96%</u></u>

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

SYSTEM REVENUE REQUIREMENTS	\$ 99,197
NEW COMMODITY CHARGE *	
26.242 x \$ 3,541.00 =	(92,923)
	<hr/>
	<u>\$ 6,274</u>

MONTHLY SERVICE CHARGE \* = \$ 6,274 / 12 = \$523

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 669,556
COMMODITY CHARGE		
333.926 units     x     \$ 2,001.00		668,186
		668,186
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$ 1,370
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 507,564
MONTHLY SERVICE CHARGE		
\$50,189             x     12 MONTHS		602,268
		602,268
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$ (94,704)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		-7.35%

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

SYSTEM REVENUE REQUIREMENTS	\$ 1,177,120
NEW COMMODITY CHARGE *	
333.926 x \$ 2,005.00 =	(669,522)
	<hr/>
	<u>\$ 507,598</u>

MONTHLY SERVICE CHARGE \* = \$507,598 / 12 = \$42,300

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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

INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 161,339
COMMODITY CHARGE		
111.500 units    x    \$ 1,418.00		158,107
		158,107
REQUIRED COMMODITY REVENUE INCREASE (DECREASE)		\$ 3,232
NON-INTEGRATED SYSTEM REVENUE REQUIREMENTS		\$ 13,113
MONTHLY SERVICE CHARGE		
\$1,256            x    12 MONTHS		15,072
		15,072
REQUIRED SERVICE REVENUE INCREASE (DECREASE)		\$ (1,959)
PERCENTAGE INCREASE (DECREASE) OVER EXISTING RATES		0.74%

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

SYSTEM REVENUE REQUIREMENTS	\$ 174,452
NEW COMMODITY CHARGE *	
111.500 x \$ 1,447.00 =	(161,341)
	<hr/>
	<u>\$ 13,111</u>

MONTHLY SERVICE CHARGE \* = \$ 13,111 / 12 = \$1,093

\* NEW RATES EFFECTIVE ON JANUARY 1, 2016

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>2015</u>	<u>2016</u>	<u>% Increase</u>
Domestic Sewer User	\$ 85.00	\$ 94.00	10.59%
Commercial - Industrial User (Sewer over 8 in. diameter)	\$ 107.00	\$ 130.00	21.50%

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, 2014 through June, 2015. 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>2015</u>	<u>2016</u>	<u>% Increase</u>
50 ft.	\$2,300	\$2,350	2.17%
60 ft.	\$2,750	\$2,750	0.00%
66 ft.	\$3,000	\$3,000	0.00%
80 ft.	\$3,600	\$3,600	0.00%
100 ft.	\$4,400	\$4,400	0.00%

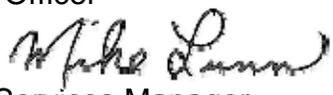
*This page intentionally left blank.*

# MEMORANDUM

CITY OF GRAND RAPIDS

**Date:** October 30, 2015

**To:** Molly J. Eastman  
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						
	2015	2016	Volume	BOD	TSS	Phos	NH3	Industrial	Other
Operation & Maintenance (See Part 2)	\$ 26,057,856	\$ 26,057,856	\$ 3,689,855	\$ 3,918,570	\$ 4,830,261	\$ 841,479	\$ 415,205	\$ 696,341	\$ 11,666,145
Depreciation (See Part 3)	6,444,256	6,444,256	591,772	628,430	774,643	134,946	66,594	-	4,247,871
Return on System Investment (See Part 3)	12,295,457	12,295,457	864,717	918,283	1,131,935	197,188	97,310	-	9,086,024
<b>Total</b>	<b>\$ 44,797,569</b>	<b>\$ 44,797,569</b>	<b>\$ 5,146,344</b>	<b>\$ 5,465,283</b>	<b>\$ 6,736,839</b>	<b>\$ 1,173,613</b>	<b>\$ 579,109</b>	<b>\$ 696,341</b>	<b>\$ 25,000,040</b>

**Recommended Surcharge Rate - 2016**      **\$ 0.236**      **\$ 0.408**      **\$ 2.301**      **\$ 0.263**

**Actual Surcharge Rate - 2015**

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

**Change in Surcharge Rate - Amount- 2015 to 2016**

**\$ 0.016**      **\$ 0.026**      **\$ (0.151)**      **\$ (0.023)**

**Change in Surcharge Rate - Percent- 2015 to 2016**

**7.27%**      **6.81%**      **-6.16%**      **-8.04%**

Loadings - lb/day (Per Linn) \*

63,438	45,242	1,397	6,030
23,154,811	16,513,335	510,052	2,201,091

\* 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		Allocation Basis	Line No. Ref.	Component Allocation (3)						
	Base Year- 2015	Calendar Year- 2016			BOD	TSS	Phos	NH3	Industrial	Other	
Wastewater Treatment Plant											
Pre-Treatment	\$ 841,520	\$ 915,377	WWTP	(1)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Primary Treatment	1,344,630	1,462,642	WWTP	(2)	438,793	877,585	-	146,264	-	-	-
Secondary Treatment	2,374,138	2,582,505	WWTP	(3)	1,033,002	387,376	387,376	129,125	-	-	-
Disinfection/Dechlorination	1,025,485	1,115,487	WWTP	(4)	-	-	-	-	-	-	-
Phosphorus Removal	577,858	628,574	WWTP	(5)	-	-	314,287	-	-	-	-
Residue Handling/Disposal	6,426,740	6,990,785	WWTP	(6)	2,446,775	3,565,300	139,816	139,816	-	-	-
	<u>\$ 12,590,371</u>	<u>\$ 13,695,370</u>			<u>\$ 3,918,570</u>	<u>\$ 4,830,261</u>	<u>\$ 841,479</u>	<u>\$ 415,205</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Lift Stations											
Interceptor		231,091	Collection	(11)	-	-	-	-	-	-	231,091
Trunk		130,074	Collection	(11)	-	-	-	-	-	-	130,074
Local Collector		458,437	Collection	(11)	-	-	-	-	-	-	458,437
Sewer Lines											
Interceptor		282,063	Collection	(11)	-	-	-	-	-	-	282,063
Trunk		609,956	Collection	(11)	-	-	-	-	-	-	609,956
Local Collector		4,394,018	Collection	(11)	-	-	-	-	-	-	4,394,018
Bulk Meter Stations		6,800	Collection	(7)	-	-	-	-	-	-	6,800
Customer Accounting		3,235,618	Admin	(8)	-	-	-	-	-	-	3,235,618
Industrial Pretreatment		696,341	Industry	(9)	-	-	-	-	696,341	-	-
Subtotal		<u>\$ 23,739,768</u>			<u>\$ 3,918,570</u>	<u>\$ 4,830,261</u>	<u>\$ 841,479</u>	<u>\$ 415,205</u>	<u>\$ 696,341</u>	<u>\$ 9,348,057</u>	<u>\$ -</u>
Admin		2,318,088	Admin	(10)	-	-	-	-	-	-	2,318,088
Total		<u>\$ 26,057,856</u>			<u>\$ 3,918,570</u>	<u>\$ 4,830,261</u>	<u>\$ 841,479</u>	<u>\$ 415,205</u>	<u>\$ 696,341</u>	<u>\$ 11,666,145</u>	<u>\$ -</u>
<b>WWTP Allocation Factors</b>		<b>100.000%</b>			<b>28.612%</b>	<b>35.269%</b>	<b>6.144%</b>	<b>3.032%</b>	<b>0.000%</b>	<b>0.000%</b>	<b>0.000%</b>
					<b>26.943%</b>				<b>0.000%</b>		

(1) Per Lunn 082415.

(2) Primary Allocation of Current Year for Calendar 2016, based on 2015 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

Description	Amount	Volume	Wastewater Surcharges					Industrial	Other
			BOD	TSS	Phos	NH3			
Integrated System (1)	\$ 2,196,385	\$ 591,772	\$ 628,430	\$ 774,643	\$ 134,946	\$ 66,594	\$ -	\$ -	
Other	4,247,871	-	-	-	-	-	-	4,247,871	
<b>Total</b>	<b>\$ 6,444,256</b>	<b>\$ 591,772</b>	<b>\$ 628,430</b>	<b>\$ 774,643</b>	<b>\$ 134,946</b>	<b>\$ 66,594</b>	<b>\$ -</b>	<b>\$ 4,247,871</b>	

Return on System Investment- Task 21

Description	Amount	Volume	Wastewater Surcharges					Industrial	Other
			BOD	TSS	Phos	NH3			
Integrated System (1)	\$ 3,209,433	\$ 864,717	\$ 918,283	\$ 1,131,935	\$ 197,188	\$ 97,310	\$ -	\$ -	
Other	9,086,024	-	-	-	-	-	-	9,086,024	
<b>Total</b>	<b>\$ 12,295,457</b>	<b>\$ 864,717</b>	<b>\$ 918,283</b>	<b>\$ 1,131,935</b>	<b>\$ 197,188</b>	<b>\$ 97,310</b>	<b>\$ -</b>	<b>\$ 9,086,024</b>	

(1) Allocated on WWTP Allocation Factors \*

26.9430%      28.6120%      35.2690%      6.1440%      3.0320%

\* 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					Other %
					BOD %	TSS %	Phos %	NH3 %	Industrial %	
(1)	Pre-Treatment	100.000%	WWTP	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
(2)	Primary Treatment	100.000%	WWTP	0.000%	30.000%	60.000%	0.000%	10.000%	0.000%	0.000%
(3)	Secondary Treatment	100.000%	WWTP	25.000%	40.000%	15.000%	15.000%	5.000%	0.000%	0.000%
(4)	Disinfection/Dechlorination	100.000%	WWTP	100.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%
(5)	Phosphorus Removal	100.000%	WWTP	50.000%	0.000%	0.000%	50.000%	0.000%	0.000%	0.000%
(6)	Residue Handling/Disposal	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%	100.000%	0.000%	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%

(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: 9/1/2015

Permit Fee: \$ 400.00

**IPP Costs:**

Labor:	\$	60.48	per hour
Vehicle:	\$	3.44	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 \$30.2413 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: \$ 799.54  
Amount Due: \$ 1,199.54

Composite Samples: 4

**IPP Requirements:**  
man hours = 6.0 x \$ 60.48 = \$ 362.90  
sampler days = 4.0 x \$ 35.00 = \$ 140.00  
vehicle hours = 6.0 x \$ 3.44 = \$ 20.64

**Total IPP Composite Costs: \$ 523.54**

**Laboratory Analysis:**  
(each composite)  
metals 7 x \$ 7.00 = \$ 49.00  
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: \$ 49.00**

**Total Laboratory Composite Costs: \$ 196.00**

**Total Composite Sample Costs: \$ 719.54**

Grab Samples: 4

**IPP Requirements:**  
man hours = 0.0 x \$ 60.48 = \$ -  
vehicle hours = 0.0 x \$ 3.44 = \$ -

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

**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 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: \$ 799.54**

Permit No: Example 2

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

Permit Fee: \$ 400.00  
Analytical Fee: \$ 68.92  
Amount Due: \$ 468.92

**Composite Samples:**

**IPP Requirements:** man hours = 0.0 x \$ 60.48 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 3.44 = \$ -

**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 \$ 60.48 = \$ 60.48  
vehicle hours = 1.0 x \$ 3.44 = \$ 3.44

**Total IPP Grab Costs: \$ 63.92**

**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: \$ 68.92**

**Total Analytical Permit Costs: \$ 68.92**

Permit No: Example 3

Company: Stripping Process

Facility Address:  
City, State, Zip

Permit Fee: \$ 400.00  
Analytical Fee: \$ 103.92  
Amount Due: \$ 503.92

**Composite Samples:**

**IPP Requirements:** man hours = 0.0 x \$ 60.48 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 3.44 = \$ -

**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 \$ 60.48 = \$ 60.48  
vehicle hours = 1.0 x \$ 3.44 = \$ 3.44

**Total IPP Grab Costs:** \$ 63.92

**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:** \$ 103.92

**Total Analytical Permit Costs:** \$ 103.92

Permit No: Example 4

Company: Silver User - photoprocessor

Facility Address:  
City, State, Zip

Permit Fee: \$ 400.00  
Analytical Fee: \$ 212.77  
Amount Due: \$ 612.77

**Composite Samples:**

*IPP Requirements:* man hours = 0.0 x \$ 60.48 = \$ -  
sampler days = 0.0 x \$ 35.00 = \$ -  
vehicle hours = 0.0 x \$ 3.44 = \$ -

**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 \$ 60.48 = \$ 181.45  
vehicle hours = 3.0 x \$ 3.44 = \$ 10.32

**Total IPP Grab Costs: \$ 191.77**

*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: \$ 212.77**

**Total Analytical Permit Costs: \$ 212.77**

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** October 2, 2015

**TO:** Molly J. Eastman  
Utility Financial Officer

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

**SUBJECT:** **2015 SEWER RATE STUDY- TASK #32 - SANITARY SEWER  
OVERSIZING RATES**

Sanitary Sewer 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"-10"	\$6.99/ft	\$6.98/ft	-0.14%
8"-12"	\$12.70/ft	\$12.69/ft	-0.08%
8"-15"	\$22.87/ft	\$22.86/ft	-0.04%
10"-12"	\$5.71/ft	\$5.71/ft	0.00%
10"-15"	\$15.88/ft	\$15.88/ft	0.00%
12"-15"	\$10.17/ft	\$10.17/ft	0.00%

These rates have been determined in accordance with the Sewer Disposal System Rules and Regulations, and are approved for use from January 1, 2016 through December 31, 2016. Background information and calculations to establish these rates are on file in the Utility Engineering, Distribution and Collection Office located at 1900 Oak Industrial Drive NE. If you have any questions regarding this matter, please call me at 456-4201.

AP  
Cc: Charles Schroeder

**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 October 6, 2015:

UAB Partners	Sq. Miles of USD by CC	Percent
Grand Rapids	45.36	37.889%
Walker	20.17	16.848%
Kentwood	14.28	11.928%
Cascade	16.21	13.540%
Grand Rapids Township	7.97	6.657%
Tallmadge Township	2.44	2.038%
Wright Township	0.89	0.743%
East Grand Rapids	3.37	2.815%
Ada	7.15	5.972%
Caledonia Township	1.88	1.570%
Total	119.72	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)	\$ 91,058	12.50%
City & Customer Community Circuit Breaker (CCCCB)	637,403	87.50%
Total	<u>\$ 728,461</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	\$ 637,403	100.00%
Less: Amount Applied in Current Rate Study	(330,718)	-51.89%
Total CCCCCB Revenue Credit- Next Year's Rate Study	<u>\$ 306,685</u>	<u>48.11%</u>

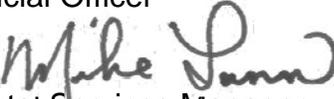
*This page intentionally left blank.*

# MEMORANDUM

CITY OF GRAND RAPIDS

DATE: November 5, 2015

TO: Molly J. Eastman  
Utility Financial Officer

FROM: Mike Lunn   
Environmental Services Manager

**SUBJECT: 2015 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 \$73.08 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 /yr/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	\$414 /MG	Unit conveyance cost <sup>3</sup>
Treatment	<u>\$853</u> /MG	Unit treatment cost <sup>3</sup>
Conveyance & Treatment	\$1,267 /MG	
Annual Cost	<b>\$83.11 /yr/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	<u>0</u> \$/year	
	<b>\$0.00 /yr/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	<u>1.5</u>	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 \$/yr/cust.</b>	

**Annual Cost Summary**

1. Avoided Claims	\$2.02	
2. Avoided Treatment	\$83.11	
3. Actual MDNRE Penalties for SSOs	\$0.00	
4. Avoided Future Projects	\$784.92	
5. Administration	<u>\$6.86</u>	
<b>TOTAL</b>	<b>\$876.91 \$/yr/cust.</b>	
	<b>\$73.08 /month/cust.</b>	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

*This page intentionally left blank.*

JS

CW04



# CITY OF GRAND RAPIDS AGENDA ACTION REQUEST

**DATE:** November 17, 2015

**TO:** Greg Sundstrom  
City Manager

**FROM:** Molly J. Eastman   
Utility Financial Officer

**SUBJECT:** **2015 WATER/SEWER RATES STUDY – INTRODUCTION AND INITIATION OF 20 DAY COMMENT PERIOD**

A comprehensive review of operating and capital costs by community, in conjunction with customer base variation and usage, is performed annually for the purpose of recommending water and sewer rate adjustments for Grand Rapids and its partner communities. The City of Grand Rapids continues to adhere to its water and sewer rate-setting methodology first established in 1976-77. The methodology yields consistent performance in providing for the long-term financing needs of the Water Supply and Sewage Disposal Systems and assuring adequate debt service coverage pursuant to the systems' master bond ordinance covenants. This year's review marks the 39<sup>th</sup> annual water/sewer rate study report.

The City's review of the Water Supply and Sewage Disposal Systems' performance has identified the revenue requirements for water and sewer and this year results in modest rate increases of 1% and 0.55% respectively. The 2015 rate study is performed to determine the 2016 rates and 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. Continued infrastructure investment in capital improvements largely explains the rate increases in both utility systems, however these increases are again nearly offset by both water and sewer's ability to effectively in optimize business processes to limit operations and maintenance expenses.

A summary of the proposed revisions to set the 2016 rates for the systems are as follows:

1. Water Supply System revenue requirements increased by \$399,363 or 1% more than revenues generated by existing rates and charges. This rate adjustment includes known cost adjustments for several total compensation items including wages, health insurance, retiree health care, pension costs, and includes for the second consecutive year a supplemental revenue requirement amount to help preserve the system's AA investment grade bond rating and assist with capital investment.

2. Sewage Disposal System revenue requirements increased by \$273,492 or 0.55% more than revenues generated by existing rates and charges. This rate adjustment 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 0.20%.
4. Water and sewer front foot rates and charges for water service lines and sewer laterals are being adjusted based on the average bid prices quoted in bid proposals received by the City Engineer's Office during the period from July, 2014, through June, 2015.
5. The Utility Advisory Board (UAB) will receive a presentation on November 19, 2015 of fee and charge recommendations, including increases in inspection permits and meter testing scheduled in the Water System Rules and Regulations.
6. The cost of services provided by the Industrial Pretreatment Program will remain the same with the exception of the hourly labor rate which will increase 2.25% and the hourly vehicle rate will increase \$0.49 per hour.
7. Water and sewer oversizing rates will increase due to the cost of materials.
8. The charge for non-compliance with the footing drain disconnection ordinance (FDD Opt Out Charge) will decrease to \$73.08 from \$72.74 based on current information related to the actual cost to the system for the additional flow.

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 \$156,969 to support the ICB, the program aimed to assist retail customers requiring assistance in payment of their water/sewer bills, and represents a \$10,148 or 6% decrease from the 2014 rate study. This amount will be supplemented with an additional appropriation of non-operating revenue. The third amendment also provides for a City and Customer Community Circuit Breaker, if sufficient funding is available, to limit each retail service area 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. Total City and Customer Community Circuit Breaker funds used in the 2015 rate study was \$734,589 in relief.

Herewith please find detailed schedules by customer community of revenue requirement changes and rate adjustment impacts to a typical domestic and commercial customer with the system average quarterly consumption.

The preliminary 2016 water and sewer rates have made available to the Utility Advisory Board partners and other customer communities on November 13, 2015. All partner and customer communities have a thirty-day comment period following notification of the rates

as provided in the water/sewer service agreements. Approval of the rates by the City Commission is scheduled for Tuesday, December 15, 2015.

The annual rate study conducted by the city and proposed changes in rates and charges and related fees, penalties and other miscellaneous charges along with explanatory materials will be filed with the City Clerk's Office no later than close of business on November 13, 2015 and are available for public review and comment. This is at least twenty (20) days prior to the City Commission's consideration of an approval resolution. Public notice will also be published in the newspaper, and the rate study and supplemental materials have been posted on the City's website at [www.grcity.us/watersewerratstudy](http://www.grcity.us/watersewerratstudy) under the "Water Sewer Rate Study" directory.

Attachments as named

MJE:mje

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2015 PRELIMINARY WATER/SEWER RATE STUDY**  
**SUMMARY OF REVENUE REQUIREMENT CHANGES**  
**FOR RATES EFFECTIVE JANUARY 1, 2016**  
**November 9, 2015**

	<u>WATER (1)</u>		<u>SEWER (1)</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
GRAND RAPIDS	\$ 384,843	1.64%	\$ 297,378	0.88%
WALKER	93,957	2.99%	(90,762)	-1.89%
KENTWOOD	(13,375)	-0.31%	141,764	3.72%
CASCADE TWP	134,971	4.36%	19,180	0.88%
GRAND RAPIDS TWP	10,322	0.49%	(6,883)	-0.29%
TALLMADGE TWP	13,843	9.24%	(4,142)	-1.33%
WRIGHT TWP	N/A	N/A	2,148	0.88%
EAST GRAND RAPIDS	(56,578)	-6.45%	5,504	0.96%
ADA TWP	(67,197)	-5.78%	(94,473)	-7.44%
OTTAWA COUNTY	(101,423)	-6.79%	NA	NA
GAINES TWP	N/A	N/A	1,273	0.74%
CALEDONIA TWP	N/A	N/A	2,506	2.17%
SYSTEM	\$ 399,363	1.00%	\$ 273,492	0.55%

(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 (CCCCB)**

	<u>WATER</u>		<u>SEWER</u>	
	<u>AMOUNT</u>	<u>PERCENT</u>	<u>AMOUNT</u>	<u>PERCENT</u>
SYSTEM CHANGE- ABOVE	\$ 40,178,439	1.00%	\$ 49,925,563	0.55%
ADD: CCCCB RELIEF	461,379	1.16%	273,210	0.55%
ADD: CAPITAL INVESTMENT REIMBURSEMENT			(108,232)	-0.23%
SYSTEM CHANGE- WITHOUT RELIEF	<u>\$ 40,639,818</u>	<u>2.16%</u>	<u>\$ 50,090,541</u>	<u>0.88%</u>

**CITY OF GRAND RAPIDS, MICHIGAN  
2015 PRELIMINARY WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON DOMESTIC USERS  
BY CUSTOMER COMMUNITY \*  
November 9, 2015**

	APPROXIMATE QUARTERLY BILL		CHANGE	
	2015	2016	DOLLARS	PERCENT
<b>GRAND RAPIDS</b>				
WATER	\$ 71.55	\$ 72.96	\$ 1.41	1.97%
SEWER	104.49	105.93	1.44	1.38%
	<u>\$ 176.04</u>	<u>\$ 178.89</u>	<u>\$ 2.85</u>	1.62%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 74.16	\$ 77.13	\$ 2.97	4.00%
SEWER	139.89	137.46	(2.43)	-1.74%
	<u>\$ 214.05</u>	<u>\$ 214.59</u>	<u>\$ 0.54</u>	0.25%
RATIO TO GR	1.22	1.20		
<b>KENTWOOD</b>				
WATER	\$ 81.39	\$ 81.33	\$ (0.06)	-0.07%
SEWER	63.93	66.42	2.49	3.89%
	<u>\$ 145.32</u>	<u>\$ 147.75</u>	<u>\$ 2.43</u>	1.67%
RATIO TO GR	0.83	0.83		
<b>CASCADE TWP</b>				
WATER	\$ 111.78	\$ 118.59	\$ 6.81	6.09%
SEWER	141.69	143.25	1.56	1.10%
	<u>\$ 253.47</u>	<u>\$ 261.84</u>	<u>\$ 8.37</u>	3.30%
RATIO TO GR	1.44	1.46		
<b>GRAND RAPIDS TWP</b>				
WATER	\$ 84.51	\$ 85.23	\$ 0.72	0.85%
SEWER	123.99	123.78	(0.21)	-0.17%
	<u>\$ 208.50</u>	<u>\$ 209.01</u>	<u>\$ 0.51</u>	0.24%
RATIO TO GR	1.18	1.17		
<b>TALLMADGE TWP</b>				
WATER	\$ 102.75	\$ 115.47	\$ 12.72	12.38%
SEWER	298.44	294.81	(3.63)	-1.22%
	<u>\$ 401.19</u>	<u>\$ 410.28</u>	<u>\$ 9.09</u>	2.27%
RATIO TO GR	2.28	2.29		

\* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE DOMESTIC CUSTOMER QUARTERLY CONSUMPTION OF: WATER- 24.00 UNITS OR 17,952 GALLONS  
SEWER - 18.00 UNITS OR 13,464 GALLONS  
NO. OF MONTHS: 3

Note: The average water consumption depicted above reflects an increase of one (1) units from last year's rate study. Sewer also reflects an increase of two (2) units from last year's rate study. The average quarterly consumption for water and sewer last year was 23 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>\$ 183.39</u>	<u>\$ 185.01</u>	<u>\$ 1.62</u>	0.88%
-------------------------	------------------	------------------	----------------	-------

**CITY OF GRAND RAPIDS, MICHIGAN  
2015 PRELIMINARY WATER/SEWER RATE STUDY  
IMPACT OF RATE ADJUSTMENTS ON COMMERCIAL USERS  
BY CUSTOMER COMMUNITY  
November 9, 2015**

	<u>APPROXIMATE QUARTERLY BILL</u>		<u>CHANGE</u>	
	<u>2015</u>	<u>2016</u>	<u>DOLLARS</u>	<u>PERCENT</u>
<b>GRAND RAPIDS</b>				
WATER	\$ 414.15	\$ 416.04	\$ 1.89	0.46%
SEWER	750.18	743.37	(6.81)	-0.91%
	<u>\$ 1,164.33</u>	<u>\$ 1,159.41</u>	<u>\$ (4.92)</u>	-0.42%
BASE RATIO	1.00	1.00		
<b>WALKER</b>				
WATER	\$ 388.68	\$ 393.33	\$ 4.65	1.20%
SEWER	716.85	703.17	(13.68)	-1.91%
	<u>\$ 1,105.53</u>	<u>\$ 1,096.50</u>	<u>\$ (9.03)</u>	-0.82%
RATIO TO GR	0.95	0.95		
<b>KENTWOOD</b>				
WATER	\$ 398.16	\$ 397.47	\$ (0.69)	-0.17%
SEWER	520.56	540.12	19.56	3.76%
	<u>\$ 918.72</u>	<u>\$ 937.59</u>	<u>\$ 18.87</u>	2.05%
RATIO TO GR	0.79	0.81		
<b>CASCADE TWP</b>				
WATER	\$ 549.24	\$ 560.76	\$ 11.52	2.10%
SEWER	699.06	704.73	5.67	0.81%
	<u>\$ 1,248.30</u>	<u>\$ 1,265.49</u>	<u>\$ 17.19</u>	1.38%
RATIO TO GR	1.07	1.09		
<b>GRAND RAPIDS TWP</b>				
WATER	\$ 425.46	\$ 424.47	\$ (0.99)	-0.23%
SEWER	622.08	619.35	(2.73)	-0.44%
	<u>\$ 1,047.54</u>	<u>\$ 1,043.82</u>	<u>\$ (3.72)</u>	-0.36%
RATIO TO GR	0.90	0.90		
<b>TALLMADGE TWP</b>				
WATER	\$ 754.08	\$ 774.42	\$ 20.34	2.70%
SEWER	2,421.48	2,389.92	(31.56)	-1.30%
	<u>\$ 3,175.56</u>	<u>\$ 3,164.34</u>	<u>\$ (11.22)</u>	-0.35%
RATIO TO GR	2.73	2.73		

\* THE COMPARISONS ABOVE ARE BASED ON SYSTEM AVERAGE COMMERCIAL CUSTOMER  
 QUARTERLY CONSUMPTION OF : WATER- 210.00 UNITS OR 157,080 GALLONS  
 SEWER - 207.00 UNITS OR 154,836 GALLONS  
 NO. OF MONTHS: 3

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

<b>WRIGHT TWP</b>				
SEWER (No. of REU 1.00)	<u>\$ 183.39</u>	<u>\$ 185.01</u>	<u>\$ 1.62</u>	0.88%

**CITY OF GRAND RAPIDS, MICHIGAN**  
**2015 PRELIMINARY WATER/SEWER RATE STUDY**  
**IMPACT OF RATE ADJUSTMENTS ON WHOLESALE CUSTOMER COMMUNITIES**  
**EFFECTIVE JANUARY 1, 2016**  
**November 9, 2015**

	<u>2015</u>	<u>2016</u>	<u>PERCENTAGE CHANGE</u>
<b>EAST GRAND RAPIDS</b>			
WATER - SERVICE (MONTHLY)	\$ 16,064.00	\$15,936.00	-0.80%
- COMMODITY (100 CF)	1.12	\$1.03	-8.04%
SEWER - SERVICE (MONTHLY)	1,427.00	\$1,317.00	-7.71%
- COMMODITY (MG)	1,627.00	1,647.00	1.23%
<b>ADA TWP</b>			
WATER - SERVICE	\$ 31,538.00	\$31,083.00	-1.44%
- COMMODITY	1.27	\$1.17	-7.87%
SEWER - SERVICE	50,189.00	\$42,288.00	-15.74%
- COMMODITY	2,001.00	2,002.00	0.05%
<b>OTTAWA COUNTY</b>			
WATER - SERVICE	\$ -	\$ -	N/A
- COMMODITY	1.24	\$1.16	-6.45%
<b>GAINES TWP</b>			
SEWER - SERVICE	\$ 1,256.00	\$ 935.00	-25.56%
- COMMODITY	1,418.00	1,464.00	3.24%
<b>CALEDONIA TWP</b>			
SEWER - SERVICE	\$ -	\$ 630.00	N/A
- COMMODITY	-	4,201.00	N/A

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

**CITY OF GRAND RAPIDS, MICHIGAN  
2015 PRELIMINARY WATER/SEWER RATE STUDY  
WATER & SEWER RATES FOR GRAND RAPIDS & RETAIL CUSTOMER COMMUNITIES  
EFFECTIVE JANUARY 1, 2016  
November 9, 2015**

**WATER RATES**

	<u>METER CODE</u>	<u>GRAND RAPIDS</u>	<u>WALKER</u>	<u>KENTWOOD</u>	<u>CASCADE</u>	<u>GR. RAPIDS TOWNSHIP</u>	<u>TALLMADGE TOWNSHIP</u>	<u>WRIGHT TOWNSHIP</u>
COMMODITY CHARGE (HCF)		\$ 1.76	\$ 1.58	\$ 1.56	\$ 2.14	\$ 1.68	\$ 3.45	NA
<b>MONTHLY SERVICE CHARGE BY METER SIZE</b>								
3/4" & Less	A	\$ 10.24	\$ 13.07	\$ 14.63	\$ 22.41	\$ 14.97	\$ 10.89	NA
1"	B	\$ 15.48	\$ 20.51	\$ 23.29	\$ 37.12	\$ 23.89	\$ 16.64	NA
1-1/4"	C	\$ 22.22	\$ 30.08	\$ 34.42	\$ 56.03	\$ 35.36	\$ 24.03	NA
1-1/2"	D	\$ 30.46	\$ 41.78	\$ 48.02	\$ 79.14	\$ 49.38	\$ 33.06	NA
2"	E	\$ 51.43	\$ 71.55	\$ 82.65	\$ 137.97	\$ 85.06	\$ 56.05	NA
3"	F	\$ 111.34	\$ 156.62	\$ 181.58	\$ 306.06	\$ 187.02	\$ 121.74	NA
4"	G	\$ 195.22	\$ 275.71	\$ 320.09	\$ 541.38	\$ 329.76	\$ 213.70	NA
6" & Over	H	\$ 434.86	\$ 615.98	\$ 715.82	\$ 1,213.74	\$ 737.58	\$ 476.46	NA

**SEWER RATES**

	<u>METER CODE</u>	<u>GRAND RAPIDS</u>	<u>WALKER</u>	<u>KENTWOOD</u>	<u>CASCADE</u>	<u>GR. RAPIDS TOWNSHIP</u>	<u>TALLMADGE TOWNSHIP</u>	<u>WRIGHT TOWNSHIP</u>
COMMODITY CHARGE (HCF)		\$ 3.22	\$ 2.67	\$ 2.46	\$ 2.62	\$ 2.33	\$ 10.71	NA
REU Charge (Monthly) *		NA	NA	NA	NA	NA	NA	\$ 61.67
<b>MONTHLY SERVICE CHARGE BY METER SIZE</b>								
3/4" & Less	A	\$ 15.99	\$ 29.80	\$ 7.38	\$ 32.03	\$ 27.28	\$ 34.01	NA
1"	B	\$ 25.61	\$ 50.16	\$ 10.30	\$ 54.13	\$ 45.68	\$ 57.65	NA
1-1/4"	C	\$ 37.98	\$ 76.34	\$ 14.06	\$ 82.54	\$ 69.34	\$ 88.04	NA
1-1/2"	D	\$ 53.10	\$ 108.34	\$ 18.66	\$ 117.26	\$ 98.26	\$ 125.18	NA
2"	E	\$ 91.58	\$ 189.79	\$ 30.36	\$ 205.65	\$ 171.87	\$ 219.73	NA
3"	F	\$ 201.54	\$ 422.50	\$ 63.78	\$ 458.18	\$ 382.18	\$ 489.86	NA
4"	G	\$ 355.48	\$ 748.29	\$ 110.57	\$ 811.73	\$ 676.61	\$ 868.05	NA
6" & Over	H	\$ 795.30	\$ 1,679.14	\$ 244.26	\$ 1,821.86	\$ 1,517.86	\$ 1,948.58	NA

\* REU - Residential Equivalent Unit (Wright Township Only)

**FIRE PROTECTION RATES- ALL GOVERNMENTAL UNITS**

6"	H	\$ 16.40	10"	J	\$ 45.59
8"	I	\$ 29.11	12"	K	\$ 65.60

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

CW09



# CITY OF GRAND RAPIDS AGENDA ACTION REQUEST

**DATE:** December 15, 2015

**TO:** Gregory A. Sundstrom, City Manager

**COMMITTEE:** Committee of the Whole  
**LIAISON:** Greg Sundstrom, City Manager

**FROM:** Molly J. Eastman, Utility Financial Officer 

**SUBJECT:** **2016 GRAND RAPIDS WATER/SEWER RATES  
FINAL APPROVAL OF RESOLUTION**

The 2015 Preliminary Water/Sewer Rate Study recommended water and sewer utility rate adjustments as of January 1, 2016, for Grand Rapids and each partner community serviced by the water supply and sewage disposal systems. City Commission approval of rate adjustments is required through resolution.

Utility Advisory Board (UAB) partners and other customer communities were notified of the recommended rate adjustments on November 13, 2015, followed by a thirty-day comment period expiring on December 14, 2015, as provided in the water and sanitary sewer service agreements. Rate review meetings with the customer communities were held on December 1, 2015, and the UAB recommended approval of the proposed water and sewer rates on November 19, 2015.

The partner community comment period has resulted in very minor adjustments in the 2015 Rate Study. In summary, Water Supply System revenue requirements continue reflect a 1.0% increase, or an additional \$399,363 more than revenues generated by the existing rates and charges, and the Sewage Disposal System revenue requirements reflect a 0.30% increase (down from the previously projected 0.55% increase), or an additional \$149,339 more than revenues generated by the existing rates and charges. When introduced, the expected quarterly increase for a typical Grand Rapids residential customer was projected at \$2.85 per quarter. As a result of the minor adjustments mentioned above, the expected quarterly increase for a typical Grand Rapids residential customer has declined some and is now projected at \$2.82 per quarter.

Pursuant to Section 2.33 and 2.94 of the City Code, the preliminary rate study with explanatory materials were filed with the City Clerk, made available online at [www.grcity.us/watersewerratestudy](http://www.grcity.us/watersewerratestudy), and notice of availability of such information was published in the newspaper at least twenty (20) days prior to adoption of this resolution to provide for opportunities for public comment. A summary of comments received is attached to this memo.

Adoption of the proposed resolution will result in the following changes becoming effective on January 1, 2016:

1. The water commodity rate and monthly service charge will be amended to reflect an increase in the City of Grand Rapids revenue requirement of \$486,107 or 2.07% more than revenues generated by existing rates and charges.
2. The sewer commodity rate and monthly service charge will be amended to reflect an increase in the City of Grand Rapids revenue requirement of \$253,447 or 0.75% more than revenues generated by existing rates and charges.
3. Water and Sewer integrated connection fees will be adjusted upward by a CPI increase factor of 0.2%.
4. Water and sewer front foot rates and charges for water service lines and sewer laterals are being adjusted based on the average bid prices quoted in bid proposals received by the City Engineer's Office during the period from July, 2014, through June, 2015.
5. The fees, charges, and penalties within the Water System Rules and Regulations will be the same except for fire protection, tapping permits, meter installation and meter replacement, all of which increased. The Utility Advisory Board (UAB) reviewed and approved all proposed changes to these fees, charges, and penalties at its meeting on October 15, 2015.
6. Surcharge rates will be adjusted 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 will remain the same with the exception of the hourly labor rate which will increase 2.25% and the hourly vehicle rate will increase \$0.49 per hour.
8. Water and sewer oversizing rates will increase due to the cost of materials.
9. The charge for non-compliance with the footing drain disconnection ordinance (FDD Opt Out Charge) will increase to \$73.08 from \$72.74 based on current information related to the actual cost to the system for the additional flow.

The attached resolution, requiring immediate effect, is submitted for adoption.

Attachments as named

MJE:mje

cc: Eric DeLong, Deputy City Manager  
Pamela Ritsema, Managing Director Enterprise Services  
Joellen Thompson, Water System Manager  
Michael Lunn, Environmental Services Manager  
Charles Schroeder, Environmental Services Assistant Manager

Scott Buhner, Chief Financial Officer  
Jeff Dood, Deputy Chief Financial Officer  
Wayne Jernberg, Water System Assistant Manager  
Nicole Pasch, Administrative Services Officer I

YOUR COMMITTEE OF THE WHOLE recommends adoption of the following resolution approving the attached adjusted City water and sewer rates in accordance with the 2015 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:

1. The Water/Sewer rate studies have been undertaken and completed for the years 1976 through 2014,
2. The 2015 Water/Sewer Rate Review has been completed using the same general methodology as the 1976 through 2014 Water/Sewer Rate Studies, as adjusted where appropriate for the uniform water and sanitary sewer service agreements.

RESOLVED:

1. Pursuant to Section 2.33 of Chapter 26 of the City Code, the following City water rates, charges and fees will be as follows:
  - a. Front foot rate

Domestic Water User	\$ 82.00
Commercial –Industrial User (watermain over 8 in. diameter)	122.00

- b. Integrated Water Connection Fees

CD09 Attach

**EXHIBIT A**

**SUMMARY OF COMMENTS RECEIVED FOR  
20 DAY COMMENT PERIOD FOR 2015 RATE STUDY**

The 2015 Rate Study has been the first year of the new public comment period. The public comment period was opened on November 13, 2015 and closed on December 8, 2015. Comments that are received have been transmitted to Enterprise Systems staff and will be considered in the formulation of the FY2017 budget.

The following is a summary of the comments received during the public comment period:

Email received on Tuesday, November 17, 2015 at 12:25PM:

“I am contacting you as a resident of Grand Rapids. I do not want an increase in my water or sewer rates. Please do not increase the costs for the residents of Grand Rapids. Thanks you!”

Email received Tuesday, November 17, 2015 at 3:46PM:

“Compared to many other cities in the US, GR rates are great. Keep them low.”

\*85277 Com. Lumpkins, supported by Com. Shaffer, 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 2014,

2. The 2015 Water/Sewer Rate Review has been completed using the same general methodology as the 1976 through 2014 Water/Sewer Rate Studies, as adjusted where appropriate for the uniform water and sanitary sewer service agreements.

**RESOLVED:**

1. Pursuant to Section 2.33 of Chapter 26 of the City Code, the following City water rates, charges and fees will be as follows:

a. Front foot rate

Domestic Water User	\$82.00
Commercial-Industrial User (watermain over 8 in. diameter)	122.00

b. Integrated Water Connection Fees

Water Meter (or equivalent) Size (inches)	Base Fee
¾ or less	\$2,928
1	4,890
1½	9,750
2	15,606
3	34,170
4	61,488
6 and over	136,650

c. Commodity rates within the City of Grand Rapids

Domestic	\$1.81 per 100 cubic feet
Commercial	\$1.81 per 100 cubic feet
Industrial	\$1.81 per 100 cubic feet

d. Monthly service charge within the City of Grand Rapids

Size of Meter	Charge
¾ inch or less	\$9.89
1 inch	14.86
1¼ inch	21.25
1½ inch	29.06
2 inches	48.94
3 inches	105.74
4 inches	185.26
6 inches or larger	412.46

e. Fire protection charge

Fire Connection		
Pipe Size (inches)	Monthly	Quarterly
6	\$16.40	\$49.20
8	29.11	87.33
10	45.59	136.77
12	65.60	196.80

## f. Water service pipe costs

		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	2016	\$2,250	\$2,550	\$2,750	\$3,200	\$3,800
Cost for 1½" Water Service	2016	\$3,300	\$3,700	\$4,000	\$4,500	\$5,300
Cost for 2" Water Service	2016	\$4,300	\$4,800	\$5,000	\$5,600	\$6,600

- g. Weekly pool filling (each connection rental) - \$25/week +\$300 refundable deposit  
h. Hydrant use permit (each connection rental) - \$300.00  
i. Metered hydrant connection use fee (per rental up to one season) - \$25/week + metered volume (based on average retail commodity rates)  
j. Non-metered hydrant connection use fee (per rental up to one season under special conditions only) - \$75/week  
k. Hydrant flow test - \$200.00  
l. Tapping permits (all sizes) - \$300.00  
m. Meter installation and seasonal turn off/on

Meter Size	Fee
¾" or smaller	\$45.00
1"	50.00
1½"	60.00
2"	65.00
3"	110.00
4" and larger	220.00

## n. Meter Replacement (Non-System Planned/Scheduled Replacement)

Meter Size	Fee
¾" or smaller	\$175.00
1"	250.00
1½"	800.00
2"	900.00
3"	1,100.00
4" or larger	Cost

- o. Final or actual meter reading - \$35.00  
p. Meter testing fee – paid by customer if meter is accurate, no charge if meter is faulty

5/8 & ¾" Meter	\$100.00
1" Meter	200.00
1½" Meter	200.00

2" Meter	300.00
3" Meter	400.00
4-6" Meter	At Cost

- q. Meter interface unit replacement - \$150.00
- r. Security deposit - \$500.00
- s. Street opening permit - \$30.00
- t. Water inspection permit (within City) - \$50.00
- u. Water inspection permit (outside City) - \$65.00
- v. Sanitary Service line inspection permit (within City) - \$50.00
- w. Sanitary Service line inspection permit (outside City) - \$65.00
- x. Storm Service line inspection permit (within City) - \$50.00
- y. Storm Service line inspection permit (outside City) - \$65.00
- z. Footing drain lateral inspection permit (within City) - \$50.00
- aa. Footing drain lateral inspection permit (outside City) - \$65.00
- bb. Sewer lateral service demolition/cap off inspection fee (within City) - \$50.00
- cc. Sewer lateral service demolition/cap off inspection fee (outside City) - \$65.00
- dd. Plumbing service re-inspection fee - \$50.00
- ee. Cross connection re-inspection fee - \$75.00
- ff. Irrigation Service Cut/Cap Administration Fee - \$50.00
- gg. Customer requested onsite service (non-scheduled) - \$100.00
- hh. Turn-on/turn-off water for real estate inspections - \$110.00
- ii. Statement research fee – document creation for detailed history of usage, bills and/or payments made beyond 13 months from date of request - \$55.00
- jj. Late payment penalty – 10% of net
- kk. Processing/review for shut-off, non-payment, returned payment and/or cross connection non-compliance (administration and/or past fee) - \$55.00
- ll. Penalty for failure to keep appointment - \$35.00
- mm. Penalty for each missed appointment thereafter (related to same service) - \$50.00
- nn. Unauthorized use, operation, tampering, or removal of any Water or Sanitary Sewer System owned or maintained valve, asset, infrastructure, or equipment (for example, but not limited to, bypass valves, meters, meter reading equipment, hydrants, and curb stops - \$500.00 plus double commodity rate for estimated volume and doubling of penalties for each subsequent infraction
- oo. Unauthorized use or illegal connection to any Water or Sanitary Sewer System owned pipe, property and/or private plumbing system served by the Water and/or Sanitary Sewer System - \$500.00 plus double commodity rate for estimated volume and doubling of penalties for each subsequent infraction
- pp. Failure to return or return of damaged beyond repair of non-metered hydrant connection equipment - \$550.00
- qq. Failure to return or return of damaged beyond repair of metered hydrant connection equipment - \$2,000.00
- rr. Return of repairable metered hydrant connection equipment - \$1,000.00
- ss. Unauthorized opening of bypass valve/tampering of meter removal - \$500.00 plus double commodity rate for estimated volume and doubling of penalties for each subsequent infraction
- tt. Failure to return hydrant connection equipment and/or return of damaged hydrant connection equipment - \$500.00 plus double the commodity rate for estimated volume and doubling of penalties for each subsequent violation
- uu. Lost/non-returned hydrant wrench - \$50.00
- vv. Permit infractions/violations – \$100.00 plus double the commodity rate for estimated volume and doubling of penalties for each subsequent violation
- ww. Returned check charge - \$30.00
- xx. Unauthorized service tap of watermain - \$500.00
- yy. Watermain oversizing rates

8 inch to 12 inch	\$21.45 per lineal foot
12 inch to 16 inch	\$24.85 per lineal foot
8 inch to 16 inch	\$46.30 per lineal foot

zz. Circuit breaker allocation

Individual Circuit Breaker	\$156,969
City and Customer Community Circuit Breaker	461,379

2. Pursuant to Section 2.94 of Chapter 27 of the City Code, the following City sewer rates, charges and fees will be as follows:

a. Front foot rate

Domestic Water User	\$94.00
Commercial-Industrial User (watermain over 8 in. diameter)	130.00

b. Integrated Sewer Connection Fees

Water Meter (or equivalent) Size (inches)	Base Fee
$\frac{3}{4}$ or less	\$2,928
1	4,890
1½	9,750
2	15,606
3	34,170
4	61,488
6 and over	136,650

c. Commodity rates within the City of Grand Rapids

Domestic	\$3.22 per 100 cubic feet
Commercial	\$3.22 per 100 cubic feet
Industrial	\$3.22 per 100 cubic feet

d. Monthly service charge within the City of Grand Rapids

Size of Meter	Charge
$\frac{3}{4}$ inch or less	\$15.93
1 inch	25.50
1¼ inches	37.81
1½ inches	52.86
2 inches	91.16
3 inches	200.58
4 inches	353.77
6 inches or larger	791.46

e. Wastewater Surcharges for Industrial Customers

BOD	\$0.236
TSS	0.408
Phos	2.301
NH3	0.263

- f. Significant Industrial User Discharge Permit Fee - \$400.00 plus the surcharge analytical fees
- g. Surcharge Analytical Fees

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	\$60.48 hour
Sampler	\$35.00 day
Vehicle	\$3.44 hour

h. Sewer Lateral Charges

R.O.W. WIDTH	COST FOR 6-INCH LATERAL 2015
50 ft.	\$2,350
60 ft.	2,750
66 ft.	3,000
80 ft.	3,600
100 ft.	4,400

i. Sewer Oversizing Rates

Description	Amount (per lineal foot)
8" to 10"	\$6.98
8" to 12"	12.69
8" to 15"	22.86
10" to 12"	5.71
10" to 15"	15.88
12" to 15"	10.17

j. Footing Drain Disconnect Opt Out Charge - \$73.08 per customer per month

3. The above Water and Sewer rates, charges and fees are approved and shall be effective January 1, 2016.

\* 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 15, 2015.

A handwritten signature in cursive script that reads "Darlene O'Neal".

---

Darlene O'Neal, City Clerk

STATE OF MICHIGAN )  
County of Kent  
and County of Ottawa

ss. *Sharon Sutton*

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 29 A.D. 20 15

Sworn to and subscribed before me this 30th day of November 20 15

**MARIETTA FOLEY**  
Notary Public, State of Michigan  
County of Kent  
My Commission Expires: December 23, 2016



**CITY OF GRAND RAPIDS**

**WATER/SEWER RATES AND CHARGES FOR 2015 NOW AVAILABLE FOR PUBLIC COMMENT**

The City of Grand Rapids has completed the "Preliminary Water/Sewer 2015 Rate Study" report, which is the basis for recommending rates to become effective January 1, 2016, 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, 300 Monroe NW, Grand Rapids, MI 49503 between 8:00 a.m. and 5:00 p.m. weekdays and can also be reviewed at [www.grcity.us/watersewerstudy](http://www.grcity.us/watersewerstudy). Opportunity for public commentary runs through December 8th. You may submit comments to the City Clerk's Office or by sending an email to [info@grcity.us](mailto:info@grcity.us).

The Grand Rapids City Commission is scheduled to consider approval on the rates on Tuesday, December 15, 2015.

7486619-01

CW08



# CITY OF GRAND RAPIDS AGENDA ACTION REQUEST

**DATE:** December 15, 2015<sup>4</sup>

**TO:** Gregory A. Sundstrom, City Manager

**COMMITTEE:** Committee of the Whole

**LIAISON:** Greg Sundstrom, City Manager

**FROM:** Molly J. Eastman, Utility Financial Officer 

**SUBJECT:** **2016 PARTNER COMMUNITY WATER/SEWER RATES FINAL APPROVAL OF RESOLUTION**

The 2015 Preliminary Water/Sewer Rate Study recommended water and sewer utility rate adjustments as of January 1, 2016, for Grand Rapids and each partner community serviced by the water supply and sewage disposal systems. City Commission approval of rate adjustments for partner communities is required through resolution.

Utility Advisory Board (UAB) partners and other partner communities were notified of the recommended rate adjustments on November 13, 2015, followed by a thirty-day comment period expiring on December 14, 2015, as provided in the water and sanitary sewer service agreements. The UAB recommended approval of the proposed water and sewer rates on November 19, 2015 and rate review meetings with the partner communities were held on December 4, 2015. To date, all rate questions from partner communities have been satisfactorily answered, no other comments have been received from the partner communities, and Wright Township has elected to contribute \$5,000, to their reduce sewer rates effective January 1, 2016.

The comment period has resulted in very minor adjustments in the 2015 Rate Study. In summary, Water Supply System revenue requirements continue reflect a 1.0% increase, or an additional \$399,363 more than revenues generated by the existing rates and charges, and the Sewage Disposal System revenue requirements reflect a 0.30% increase (down from the previously presented 0.55% increase), or an additional \$149,339 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 partner communities for calendar year 2016. 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

MJE:mje

cc: Eric DeLong, Deputy City Manager  
 Jeff Dood, Deputy Chief Financial Officer  
 Michael Lunn, Environmental Services Manager  
 Charles Schroeder, Environmental Services Assistant Manager  
 Nicole Pasch, Administrative Services Officer I

Scott Buhner, Chief Financial Officer  
 Pam Ritsema, Managing Director Enterprise Services  
 Joellen Thompson, Water System Manager  
 Wayne Jernberg, Water System Assistant Manager

YOUR COMMITTEE OF THE WHOLE recommends adoption of the following resolution approving the attached adjusted water and sewer rates in accordance with the 2015 water/sewer rate review for the retail and wholesale Partner Communities of the City's Water Supply System and Sanitary Sewer System.

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 2014,

WHEREAS, the 2015 Water/Sewer Rate Review has been completed using the same general methodology as the 1976 through 2014 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 for retail and wholesale partner communities of the City's Water Supply System and Sanitary Sewer System and shall be effective January 1, 2016.

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.

**\*85276** Com. Lumpkins, supported by Com. Shaffer, moved adoption of the following resolution under the Consent Agenda:

WHEREAS, the Water/Sewer rate studies have been undertaken and completed for the years 1976 through 2014,

WHEREAS, the 2015 Water/Sewer Rate Review has been completed using the same general methodology as the 1976 through 2014 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 for retail and wholesale partner communities of the City's Water Supply System and Sanitary Sewer System and shall be effective January 1, 2016.

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.

**\* 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 15, 2015.



Darlene O'Neal, City Clerk

# MEMORANDUM

CITY OF GRAND RAPIDS

**DATE:** January 4, 2016

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

**FROM:** Molly J. Eastman, Utility Financial Officer *MJE*

**SUBJECT:** 2015 WATER/SEWER RATE STUDY PARTNER COMMUNITY CONTRIBUTIONS

The following communities have elected to make a contribution to reduce their water or sewer 2016 revenue requirement. The below amounts are applied in Task 27.

<u>Community</u>	<u>Utility</u>	<u>Check Number</u>	<u>Amount</u>
Wright Township	Sewer	1001	\$5,000

Attachments as named

MJE:mje

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Ms. Jacqueline Smith, Clerk  
Ada Township  
7330 Thornapple River Drive  
P.O. Box 370  
Ada, MI 49301

Dear Jacqueline:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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 blue ink that reads "D. O'Neal".

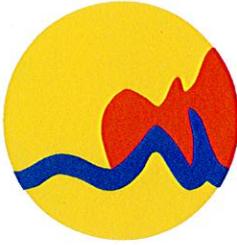
Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Mr. Ronald Goodyke, Clerk  
Cascade Charter Township  
2865 Thornhills SE  
Grand Rapids, MI 49546-7192

Dear Mr. Goodyke:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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 blue ink that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Ms. Karen Brower, Clerk  
City of East Grand Rapids  
750 Lakeside Drive SE  
East Grand Rapids, MI 49506

Dear Karen:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. A certified copy of the resolution and the approved rate schedules for 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 blue ink that reads "D. O'Neal". The signature is fluid and cursive.

Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Ms. Crystal Osterink, Clerk  
Gaines Charter Township  
8555 Kalamazoo Ave., S.E.  
Caledonia, MI 49316-8270

Dear Crystal:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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,

  
Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Mr. Edward J. Robinette, Clerk  
Grand Rapids Charter Township  
1836 East Beltline NE  
Grand Rapids, MI 49525

Dear Edward:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. A certified copy of the resolution and the approved rate schedules for Grand Rapids Township are attached for your information.

If you need any further information, please call me at 456-3014.

Sincerely,

A handwritten signature in blue ink that reads "D. O'Neal".

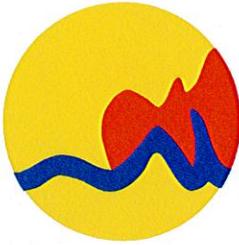
Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Mr. Dan Kasunic, Clerk  
City of Kentwood  
4900 Breton Avenue SE  
Kentwood, MI 49518-8848

Dear Dan:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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,

A handwritten signature in blue ink that reads "D. O'Neal". The signature is fluid and cursive.

Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

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 "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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,

A handwritten signature in blue ink that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Ms. Lenore Cook, Clerk  
Tallmadge Township Offices  
0-1451 Leonard Street NW  
Grand Rapids, MI 49504

Dear Ms. Cook:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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 blue ink that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Ms. Sarah Bydalek, City Clerk  
City of Walker  
4243 Remembrance Road NW  
Grand Rapids, MI 49504

Dear Sarah:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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,

A handwritten signature in blue ink, appearing to read "D. O'Neal". The signature is fluid and cursive.

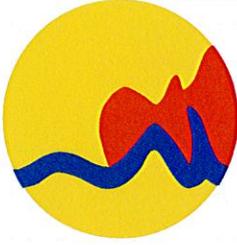
Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Mr. Richard Robertson, Treasurer  
Caledonia Township  
8196 Broadmoore Ave  
Caledonia, MI 49316

Dear Mr. Robertson:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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,

A handwritten signature in blue ink that reads "D. O'Neal". The signature is written in a cursive, flowing style.

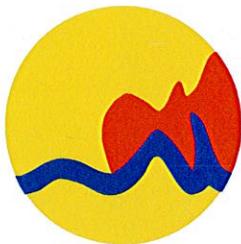
Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer

CITY CLERK



# CITY OF GRAND RAPIDS

December 23, 2015

Ms. Theresa Frank, Township Clerk  
Wright Township  
1565 Jackson  
P.O. Box 255  
Marne, MI 49435

Dear Ms. Frank:

The "2015 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 13<sup>th</sup>, 2015, followed by a thirty-day comment period. Additionally, rate review meetings were held on December 4, 2015, with customer communities.

On December 15, 2015, the Grand Rapids City Commission adopted a resolution to approve the new rates with an effective date of January 1, 2016. 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,

A handwritten signature in blue ink that reads "D. O'Neal".

Darlene O'Neal  
City Clerk

DO/eac

Enclosures

cc: Tom Almonte, Assistant to the City Manager  
Molly Eastman, Utility Financial Officer