



**CITY OF GROSSE POINTE WOODS**  
**20025 Mack Plaza Drive**  
**Grosse Pointe Woods, Michigan 48236-2397**

(313) 343-2440  
Fax (313) 343-2785

**NOTICE OF MEETING  
AND  
AGENDA**

**COMMITTEE-OF-THE-WHOLE**

Mayor Robert E. Novitke has called a meeting of the City Council, meeting as a Committee-of-the-Whole, for **Monday, May 7, 2018, at 7:30 p.m.** The meeting will be held in the Court/Council Chambers in the Municipal Building, 20025 Mack Plaza, Grosse Pointe Woods, MI 48236 and is accessible through the Municipal Court doors. In accordance with Public Act 267, the meeting is open to the public and the agenda items are as follows:

1. Call to Order
2. Roll Call
3. Acceptance of Agenda
4. Water/Sewer Study
  - A. Email 04/09/18 – K. Seidel, AEW
  - B. Option 1: No Change to Rates
  - C. Option 2: 10% Reduction in Fixed – 0% Net Increase
  - D. Option 3: No Change to Rates, Ultimate Meter Ratios
  - E. Summary of Proposed Rate Options 05/02/18
  - F. Customer Classes and Equivalent Meter Ratios 05/02/18
  - G. Proposed Options 1-4 05/02/18
5. New Business/Public Comment
6. Adjournment

Bruce Smith  
City Administrator

IN ACCORDANCE WITH PUBLIC ACT 267 (OPEN MEETINGS ACT)  
POSTED AND COPIES GIVEN TO NEWSPAPERS

The City of Grosse Pointe Woods will provide necessary, reasonable auxiliary aids and services, such as signers for the hearing impaired, or audio tapes of printed materials being considered at the meeting to individuals with disabilities. All such requests must be made at least five days prior to a meeting. Individuals with disabilities requiring auxiliary aids or services should contact the City of Grosse Pointe Woods by writing or call the City Clerk's office, 20025 Mack Plaza, Grosse Pointe Woods, MI 48236 (313) 343-2440, Telecommunications Device for the Deaf (TDD) 313 343-9249, or e-mail the City Clerk at [cityclk@gpwmi.us](mailto:cityclk@gpwmi.us).

cc:  
Council – 7  
Berschback  
Smith

Hathaway  
Rec. Secretary  
Email Group

Media - Email  
Post -8  
File

4

**Lisa Hathaway**

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**From:** Cathy Behrens  
**Sent:** Monday, April 09, 2018 6:04 PM  
**To:** Lisa Hathaway  
**Cc:** Bruce Smith  
**Subject:** FW: Grosse Pointe Woods Water and Sewer Rate Options  
**Attachments:** Option 1 Council Packet.pdf; Option 2 Council Packet.pdf

For the council packet

Cathrene Behrens  
Treasurer/Comptroller  
City of Grosse Pointe Woods  
20025 Mack Avenue  
Grosse Pointe Woods, MI 48236  
Phone (313) 343-2604  
Fax (313) 343-2785  
Email: [cbehrens@gpwmi.us](mailto:cbehrens@gpwmi.us)  
Website: [www.gpwmi.us](http://www.gpwmi.us)

**From:** Kyle Seidel <kseidel@aewinc.com>  
**Sent:** Monday, April 9, 2018 4:01 PM  
**To:** Bruce Smith <bsmith@gpwmi.us>; Cathy Behrens <cbehrens@gpwmi.us>  
**Cc:** Scott Lockwood <slockwood@aewinc.com>  
**Subject:** Grosse Pointe Woods Water and Sewer Rate Options

Bruce and Cathy-

Attached are two proposed water and sewer rate options for FY19.

1. Option 1: No Rate Change
2. Option 2: 10% Reduction in Fixed Fee for a Zero percent increase

Scott and I were hoping to sit down with you to go over these options, see if other options should be explored and plan for the COW meeting on April 30<sup>th</sup>. Would you be available to meet Wednesday April 18<sup>th</sup> to go over this? I believe Scott is in the city on this day. Let us know. Thanks.

*Kyle M. Seidel, PE, CFM*  
*Senior Project Engineer*

**Anderson, Eckstein and Westrick, Inc.**  
51301 Schoenherr Road, Shelby Twp., MI 48315  
Cell: 586-914-4354 Office: 586-726-1234  
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**Engineering Strong Communities**  
[www.aewinc.com](http://www.aewinc.com)

(1)

Option 1: No Change to Rates

TABLE 2a  
CITY OF GROSSE POINTE WOODS  
RATE CALCULATIONS  
FY 2018-19

	Typical Res. Increase %	Meter Charge		Billing Charge		CIP Charge		Commodity Charge		% Fixed GPW		% Fixed GLWA	
		Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer
Existing Fixed Fees	n/a	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	41.6%	61.9%	60%	100%
Option 1: No Change to Rates	0.0%	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	41.6%	61.9%	60%	100%
Option 2: 10% Reduction in Fixed - 0% Net Increase	-0.3%	\$ 13.08	\$ 28.03	\$ 1.04	\$ 1.04	\$ 9.80	\$ 9.80	\$ 4.22	\$ - 2.56	35.3%	59.8%	60%	100%
Option 3: No Change to Rates, Ultimate Meter Ratios	0.0%	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	44.5%	64.2%		

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<b>Option 1: No Change to Rates</b>			
<b>TABLE 1</b>			
<b>CITY OF GROSSE POINTE WOODS</b>			
<b>EXISTING AND PROPOSED WATER &amp; SEWER RATE COMPARISON</b>			
<b>FY 2018-19</b>			
<b>RATE CATEGORY</b>	<b>EXISTING RATE</b>	<b>PROPOSED RATE</b>	<b>PERCENT CHANGE</b>
<b>Meter Charge (2 Months) -Per Equivalent Meter Table 3</b>			
<b>Total Meter Charge</b>	<b>\$45.67</b>	<b>\$45.67</b>	<b>0.0%</b>
<b>Billing Charge (2 Months) -Per Account</b>			
<b>Total Billing Charge</b>	<b>\$2.08</b>	<b>\$2.08</b>	<b>0.0%</b>
<b>Capital Improvement Charge (2 Months) - Per Equiv Meter Table 2</b>			
<b>Total CIP Charge</b>	<b>\$21.78</b>	<b>\$21.78</b>	<b>0.0%</b>
<b>Commodity Charge - Water (Per CCF)</b>			
<b>Total Commodity Water</b>	<b>\$3.57</b>	<b>\$3.57</b>	<b>0.0%</b>
<b>Commodity Charge - Sewer (Per CCF)</b>			
<b>Total Commodity Sewer</b>	<b>\$2.60</b>	<b>\$2.60</b>	<b>0.0%</b>
<b>Total Costs With 10.4 CCF Use (2 Months)</b>	<b>\$133.70</b>	<b>\$133.70</b>	<b>0.0%</b>
<b>Industrial Waste Control Charges</b>	<b>Per GLWA Adopted Rates</b>		

Option 1: No Change to Rates

TABLE 8  
CITY OF GROSSE POINTE WOODS  
UTILITY RATE PROJECTIONS  
FY 2018-19

FEE NAME	Proposed Rates				Projected Rates									
	FY 2018-19		FY 2019-20		FY 2020-21		FY 2022-22		FY 2022-23		FY 2023-24		FY 2024-25	
	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER
<b>Meter Charge (2 Month) - Per Equivalent Meter Table 3</b>														
Assumed Number of Accounts	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894
Assumed Number of Equivalent Meters Table 2	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857
Assumed Number of Equivalent Meters Table 3	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677
Total Calculated Fee	\$21.04	\$37.39	\$21.88	\$38.89	\$22.76	\$40.44	\$23.67	\$42.06	\$24.62	\$43.74	\$25.60	\$45.49	\$26.63	\$47.31
Miscellaneous Adjustment	-\$6.51	-\$6.25	-\$7.06	-\$7.12	-\$7.64	-\$8.04	-\$8.25	-\$9.01	-\$8.89	-\$10.03	-\$9.56	-\$11.11	-\$10.26	-\$12.24
<b>Meter Charge Recommended Fee</b>	<b>\$14.53</b>	<b>\$31.14</b>	<b>\$14.82</b>	<b>\$31.76</b>	<b>\$15.12</b>	<b>\$32.40</b>	<b>\$15.42</b>	<b>\$33.05</b>	<b>\$16.73</b>	<b>\$33.71</b>	<b>\$16.04</b>	<b>\$34.38</b>	<b>\$16.36</b>	<b>\$35.07</b>
<b>Billing Charge (2 Month) - Per Account Meter</b>														
Total Calculated Value	\$1.64	\$1.64	\$1.70	\$1.70	\$1.77	\$1.77	\$1.84	\$1.84	\$1.91	\$1.91	\$1.99	\$1.99	\$2.07	\$2.07
Miscellaneous Adjustment	-\$0.60	-\$0.60	-\$0.64	-\$0.64	-\$0.69	-\$0.69	-\$0.74	-\$0.74	-\$0.79	-\$0.79	-\$0.84	-\$0.84	-\$0.90	-\$0.90
<b>Billing Charge Recommended Fee</b>	<b>\$1.04</b>	<b>\$1.04</b>	<b>\$1.06</b>	<b>\$1.06</b>	<b>\$1.08</b>	<b>\$1.08</b>	<b>\$1.10</b>	<b>\$1.10</b>	<b>\$1.13</b>	<b>\$1.13</b>	<b>\$1.15</b>	<b>\$1.15</b>	<b>\$1.17</b>	<b>\$1.17</b>
<b>Capital Improvements Charge (2 Mo.) - Per Equivalent Meter Table 2</b>														
Cash Financed Capital Improvements	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53
Debt Service	\$14.60	\$3.45	\$14.64	\$3.39	\$14.70	\$3.42	\$14.91	\$3.45	\$6.74	\$3.38	\$6.79	\$3.41	\$6.83	\$3.44
Total Calculated Fee	\$22.13	\$10.97	\$22.17	\$10.91	\$22.23	\$10.95	\$22.43	\$10.98	\$14.27	\$10.91	\$14.32	\$10.94	\$14.36	\$10.96
Miscellaneous Adjustment	-\$11.24	-\$0.08	-\$11.06	\$0.00	-\$10.90	\$0.00	-\$10.88	\$0.00	-\$2.48	\$0.00	-\$2.29	\$0.00	-\$2.10	\$0.00
<b>CIP Charge Recommended Fee</b>	<b>\$10.89</b>	<b>\$10.89</b>	<b>\$11.11</b>	<b>\$10.91</b>	<b>\$11.33</b>	<b>\$10.95</b>	<b>\$11.56</b>	<b>\$10.98</b>	<b>\$11.79</b>	<b>\$10.91</b>	<b>\$12.02</b>	<b>\$10.94</b>	<b>\$12.26</b>	<b>\$10.96</b>
<b>Commodity Charge Per CCF</b>														
Assumed Retail Sales in CCF Per Year	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100
Calculated Fee per CCF	\$3.97	\$2.15	\$4.08	\$2.11	\$4.19	\$2.24	\$4.33	\$2.38	\$3.70	\$2.53	\$3.83	\$2.68	\$3.97	\$2.83
<b>Recommended Commodity Fee</b>	<b>\$3.57</b>	<b>\$2.60</b>	<b>\$4.08</b>	<b>\$2.11</b>	<b>\$4.19</b>	<b>\$2.24</b>	<b>\$4.33</b>	<b>\$2.38</b>	<b>\$3.70</b>	<b>\$2.53</b>	<b>\$3.83</b>	<b>\$2.68</b>	<b>\$3.97</b>	<b>\$2.83</b>
	FY 2018-19	FY 2019-20	FY 2020-21	FY 2022-22	FY 2022-23	FY 2023-24	FY 2024-25							
Typ. Res. Payment (Using 10.4 CCF/2 Months)	\$133.70	\$135.12	\$138.92	\$143.02	\$139.13	\$143.39	\$147.81							
Typical Change on 2 Month Payment	0.0%	1.1%	2.8%	3.0%	-2.7%	3.1%	3.1%							
Expenditures	\$8,507,447	\$7,788,052	\$8,000,030	\$8,228,132	\$8,014,790	\$8,251,823	\$8,497,802							
Revenues	\$8,540,545	\$7,788,052	\$8,000,030	\$8,228,132	\$8,014,790	\$8,251,823	\$8,497,802							
Revenue/Deficit	\$33,098	\$0	\$0	\$0	\$0	\$0	\$0							
Estimated Utilities Fund Balance - Previous Year End	\$7,442,000	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098							
Estimated Utilities Fund Balance - Current Year End	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098	\$7,475,098							
Water and Sewer Rates Revenue % Fixed	50.6%	51.0%	50.4%	49.8%	52.2%	51.5%	50.8%							
Percentage of Total Expense Budget	88%	96%	93%	91%	93%	91%	88%							

Utilities Fund Ending Working Capital

FY 2015 Ending Working Capital - June 30, 2015	\$5,344,217
FY 2016 Ending Working Capital - June 30, 2016	\$6,479,741
FY 2017 Ending Working Capital - June 30, 2017	\$7,442,000
FY 2018 Ending Working Capital - June 30, 2018	\$7,442,000 Estimated
FY 2019 Ending Working Capital - June 30, 2019	\$7,475,098 Projected

FY 2018-19 Available Capital for Repairs and Improvements

	Capital Improvements	Depreciation	Total
Water System	\$400,000	\$375,000	\$775,000
Sanitary/Stm System	\$400,000	\$376,200	\$776,200

Projected Future Year Increases

GPWO/M Projected Budget Increase	4.0%
GLWA Projected Increase	4.0%
NESDS Projected Increase	4.0%



**Table 4c**  
**CITY OF GROSSE POINTE WOODS**  
**Equivalent Meter Ratio Tables**  
**FY 2018-19**

Meter Size	Accounts	Table 1	Table 2 Capital Impr. Fixed	Table 3 Meter Fixed	Table 4
5/8	4,277	1.0	1.0	1.0	1.0
3/4	1,367	1.0	1.0	1.0	1.0
1.0	961	1.4	1.8	2.2	2.5
1.5	213	1.8	2.9	4.0	5.0
2.0	33	2.9	4.6	6.3	8.0
3.0	25	11.0	12.7	14.4	16.0
4.0	12	14.0	17.7	21.4	25.0
6.0	6	21.0	30.7	40.4	50.0
8.0	0	29.0	46.0	63.0	80.0
10.0	0	58.3	77.2	96.1	115.0
<b>Total Equivalent Meters</b>	<b>6,894</b>	<b>8,451</b>	<b>8,857</b>	<b>9,677</b>	<b>10,376</b>

FY18 Rates Changed Meter Charge from Table 2 to Table 3  
FY18 Rates Changed Capital Impr. Charge From Table 1 to Table 2  
FY17 Rates Changed Meter Charge from Table 1 to Table 2

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Option 1: No Change to Rates

**TABLE 9**  
**CITY OF GROSSE POINTE WOODS**  
**WATER / SEWER METER CHARGES**  
**FY 2018-19**

**Meter Charge - Per Equivalent Meter**

Meter Size (Inch)	Existing			Proposed			Proposed Change Per Year	% Change
	GPW Equiv. Meter Ratio Table 3	Per 2 Months	Per Year	GPW Equiv. Meter Ratio Table 3	Per 2 Months	Per Year		
5/8	1.0	\$45.67	\$274.02	1.0	\$45.67	\$274.02	\$0.00	0.0%
3/4	1.0	\$45.67	\$274.02	1.0	\$45.67	\$274.02	\$0.00	0.0%
1	2.2	\$100.47	\$602.84	2.2	\$100.47	\$602.84	\$0.00	0.0%
1.5	4.0	\$182.68	\$1,096.08	4.0	\$182.68	\$1,096.08	\$0.00	0.0%
2	6.3	\$287.72	\$1,726.33	6.3	\$287.72	\$1,726.33	\$0.00	0.0%
3	14.4	\$657.65	\$3,945.89	14.4	\$657.65	\$3,945.89	\$0.00	0.0%
4	21.4	\$977.34	\$5,864.03	21.4	\$977.34	\$5,864.03	\$0.00	0.0%
6	40.4	\$1,845.07	\$11,070.41	40.4	\$1,845.07	\$11,070.41	\$0.00	0.0%

**Billing Charge (2 Month) - Per Account Meter**

All		\$2.08	\$24.96		\$2.08	\$24.96	\$0.00	0.0%
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**Capital Improvements Charge (2 Mo.)**

Meter Size (Inch)	GPW Equiv. Meter Ratio Table 2	Existing		Proposed		Proposed Change Per Year	% Change	
		Per 2 Months	Per Year	Per 2 Months	Per Year			
5/8	1.0	\$21.78	\$130.68	1.0	\$21.78	\$130.68	\$0.00	0.0%
3/4	1.0	\$21.78	\$130.68	1.0	\$21.78	\$130.68	\$0.00	0.0%
1	1.8	\$39.20	\$235.22	1.8	\$39.20	\$235.22	\$0.00	0.0%
1.5	2.9	\$63.16	\$378.97	2.9	\$63.16	\$378.97	\$0.00	0.0%
2	4.6	\$100.19	\$601.13	4.6	\$100.19	\$601.13	\$0.00	0.0%
3	12.7	\$276.61	\$1,659.64	12.7	\$276.61	\$1,659.64	\$0.00	0.0%
4	17.7	\$385.51	\$2,313.04	17.7	\$385.51	\$2,313.04	\$0.00	0.0%
6	30.7	\$668.65	\$4,011.88	30.7	\$668.65	\$4,011.88	\$0.00	0.0%
Total Residential Fixed Charged per 2 Months (5/8" or 3/4" Meter)		\$69.53	\$429.66		\$69.53	\$429.66	\$0.00	0.0%

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**Option 2: 10% Reduction in Fixed - 0% Net Increase**

**TABLE 2a  
CITY OF GROSSE POINTE WOODS  
RATE CALCULATIONS  
FY 2018-19**

	Typical Res. Increase %	Meter Charge		Billing Charge		CIP Charge		Commodity Charge		% Fixed GPW		% Fixed GLWA	
		Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer
Existing Fixed Fees	n/a	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	41.6%	61.9%	60%	100%
Option 1: No Change to Rates	0.0%	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	41.6%	61.9%	60%	100%
Option 2: 10% Reduction in Fixed - 0% Net Increase	-0.3%	\$ 13.08	\$ 28.03	\$ 1.04	\$ 1.04	\$ 9.80	\$ 9.80	\$ 4.22	\$ 2.56	35.3%	59.8%	60%	100%
Option 3: No Change to Rates, Ultimate Meter Ratios	0.0%	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	44.5%	64.2%		

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**Option 2: 10% Reduction in Fixed - 0% Net Increase**

**TABLE 1  
CITY OF GROSSE POINTE WOODS  
EXISTING AND PROPOSED WATER & SEWER RATE COMPARISON  
FY 2018-19**

<b>RATE CATEGORY</b>	<b>EXISTING RATE</b>	<b>PROPOSED RATE</b>	<b>PERCENT CHANGE</b>
<b>Meter Charge (2 Months) -Per Equivalent Meter Table 3</b>			
<b>Total Meter Charge</b>	<b>\$45.67</b>	<b>\$41.11</b>	<b>-10.0%</b>
<b>Billing Charge (2 Months) -Per Account</b>			
<b>Total Billing Charge</b>	<b>\$2.08</b>	<b>\$2.08</b>	<b>0.0%</b>
<b>Capital Improvement Charge (2 Months) - Per Equiv Meter Table 2</b>			
<b>Total CIP Charge</b>	<b>\$21.78</b>	<b>\$19.60</b>	<b>-10.0%</b>
<b>Commodity Charge - Water (Per CCF)</b>			
<b>Total Commodity Water</b>	<b>\$3.57</b>	<b>\$4.22</b>	<b>18.2%</b>
<b>Commodity Charge - Sewer (Per CCF)</b>			
<b>Total Commodity Sewer</b>	<b>\$2.60</b>	<b>\$2.56</b>	<b>-1.5%</b>
<b>Total Costs With 10.4 CCF Use (2 Months)</b>	<b>\$133.70</b>	<b>\$133.30</b>	<b>-0.3%</b>
<b>Industrial Waste Control Charges</b>	<b>Per GLWA Adopted Rates</b>		

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Option 2: 10% Reduction in Fixed - 0% Net Increase

TABLE 8  
CITY OF GROSSE POINTE WOODS  
UTILITY RATE PROJECTIONS  
FY 2018-19

FEE NAME	Proposed Rates		Projected Rates											
	FY 2018-19		FY 2019-20		FY 2020-21		FY 2022-22		FY 2022-23		FY 2023-24		FY 2024-25	
	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER	WATER	SEWER
<b>Meter Charge (2 Month) - Per Equivalent Meter Table 3</b>														
Assumed Number of Accounts	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894	6,894
Assumed Number of Equivalent Meters Table 2	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857	8,857
Assumed Number of Equivalent Meters Table 3	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677	9,677
Total Calculated Fee	\$21.04	\$37.39	\$21.88	\$38.89	\$22.76	\$40.44	\$23.67	\$42.06	\$24.62	\$43.74	\$25.60	\$45.49	\$26.63	\$47.31
Miscellaneous Adjustment	-\$7.96	-\$9.36	-\$8.54	-\$10.30	-\$9.15	-\$11.28	-\$9.79	-\$12.31	-\$10.46	-\$13.40	-\$11.16	-\$14.54	-\$11.89	-\$15.74
<b>Meter Charge Recommended Fee</b>	<b>\$13.08</b>	<b>\$28.03</b>	<b>\$13.34</b>	<b>\$28.59</b>	<b>\$13.61</b>	<b>\$29.16</b>	<b>\$13.88</b>	<b>\$29.75</b>	<b>\$14.16</b>	<b>\$30.34</b>	<b>\$14.44</b>	<b>\$30.95</b>	<b>\$14.73</b>	<b>\$31.57</b>
<b>Billing Charge (2 Month) - Per Account Meter</b>														
Total Calculated Value	\$1.64	\$1.64	\$1.70	\$1.70	\$1.77	\$1.77	\$1.84	\$1.84	\$1.91	\$1.91	\$1.99	\$1.99	\$2.07	\$2.07
Miscellaneous Adjustment	-\$0.60	-\$0.60	-\$0.64	-\$0.64	-\$0.69	-\$0.69	-\$0.74	-\$0.74	-\$0.79	-\$0.79	-\$0.84	-\$0.84	-\$0.90	-\$0.90
<b>Billing Charge Recommended Fee</b>	<b>\$1.04</b>	<b>\$1.04</b>	<b>\$1.06</b>	<b>\$1.06</b>	<b>\$1.08</b>	<b>\$1.08</b>	<b>\$1.10</b>	<b>\$1.10</b>	<b>\$1.13</b>	<b>\$1.13</b>	<b>\$1.15</b>	<b>\$1.15</b>	<b>\$1.17</b>	<b>\$1.17</b>
<b>Capital Improvements Charge (2 Mo.) - Per Equivalent Meter Table 2</b>														
Cash Financed Capital Improvements	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53	\$7.53
Debt Service	\$14.60	\$3.45	\$14.64	\$3.39	\$14.70	\$3.42	\$14.91	\$3.45	\$6.74	\$3.38	\$6.79	\$3.41	\$6.83	\$3.44
Total Calculated Fee	\$22.13	\$10.97	\$22.17	\$10.91	\$22.23	\$10.95	\$22.43	\$10.98	\$14.27	\$10.91	\$14.32	\$10.94	\$14.36	\$10.96
Miscellaneous Adjustment	-\$12.33	-\$1.17	-\$12.17	-\$0.92	-\$12.03	-\$0.75	-\$12.03	-\$0.58	-\$3.66	-\$0.30	-\$3.50	-\$0.12	-\$3.32	\$0.00
<b>CIP Charge Recommended Fee</b>	<b>\$9.80</b>	<b>\$9.80</b>	<b>\$10.00</b>	<b>\$10.00</b>	<b>\$10.20</b>	<b>\$10.20</b>	<b>\$10.40</b>	<b>\$10.40</b>	<b>\$10.61</b>	<b>\$10.61</b>	<b>\$10.82</b>	<b>\$10.82</b>	<b>\$11.04</b>	<b>\$10.96</b>
<b>Commodity Charge Per CCF</b>														
Assumed Retail Sales in CCF Per Year	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100	\$75,100
Calculated Fee per CCF	\$4.21	\$2.56	\$4.33	\$2.52	\$4.45	\$2.64	\$4.59	\$2.77	\$3.97	\$2.89	\$4.11	\$3.03	\$4.25	\$3.19
<b>Recommended Commodity Fee</b>	<b>\$4.22</b>	<b>\$2.56</b>	<b>\$4.33</b>	<b>\$2.52</b>	<b>\$4.45</b>	<b>\$2.64</b>	<b>\$4.59</b>	<b>\$2.77</b>	<b>\$3.97</b>	<b>\$2.89</b>	<b>\$4.11</b>	<b>\$3.03</b>	<b>\$4.25</b>	<b>\$3.19</b>
	FY 2018-19	FY 2019-20	FY 2020-21	FY 2022-22	FY 2022-23	FY 2023-24	FY 2024-25							
Typ. Res. Payment (Using 10.4 CCF/2 Months)	\$133.30	\$135.27	\$139.09	\$143.20	\$139.32	\$143.59	\$148.02							
Typical Change on 2 Month Payment	-0.3%	1.5%	2.6%	3.0%	-2.7%	3.1%								
Expenditures	\$8,507,447	\$7,788,052	\$8,000,030	\$8,228,132	\$8,014,790	\$8,251,823	\$8,497,802							
Revenues	\$8,510,730	\$7,788,052	\$8,000,030	\$8,228,132	\$8,014,790	\$8,251,823	\$8,497,802							
Revenue/Deficit	\$3,283	\$0	\$0	\$0	\$0	\$0	\$0							
Estimated Utilities Fund Balance - Previous Year End	\$7,442,000	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283							
Estimated Utilities Fund Balance - Current Year End	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283	\$7,445,283							
Water and Sewer Rates Revenue % Fixed	45.7%	46.0%	45.6%	45.1%	47.4%	46.3%	46.3%							
Percentage of Total Expense Budget	88%	96%	93%	90%	93%	90%	88%							

Utilities Fund Ending Working Capital	
FY 2015 Ending Working Capital - June 30, 2015	\$5,344,217
FY 2016 Ending Working Capital - June 30, 2016	\$6,479,741
FY 2017 Ending Working Capital - June 30, 2017	\$7,442,000
FY 2018 Ending Working Capital - June 30, 2018	\$7,442,000 Estimated
FY 2019 Ending Working Capital - June 30, 2019	\$7,445,283 Projected

FY 2018-19 Available Capital for Repairs and Improvements			
	Capital Improvements	Depreciation	Total
Water System	\$400,000	\$375,000	\$775,000
Sanitary/Sirn System	\$400,000	\$376,200	\$776,200

Projected Future Year Increases	
GPWO/M Projected Budget Increase	4.0%
GLWA Projected Increase	4.0%
NESDS Projected Increase	4.0%

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**Table 4c**  
**CITY OF GROSSE POINTE WOODS**  
**Equivalent Meter Ratio Tables**  
**FY 2018-19**

	Accounts	Table 1	Table 2	Table 3	Table 4
Meter Size			Capital Impr. Fixed	Meter Fixed	
5/8	4,277	1.0	1.0	1.0	1.0
3/4	1,367	1.0	1.0	1.0	1.0
1.0	961	1.4	1.8	2.2	2.5
1.5	213	1.8	2.9	4.0	5.0
2.0	33	2.9	4.6	6.3	8.0
3.0	25	11.0	12.7	14.4	16.0
4.0	12	14.0	17.7	21.4	25.0
6.0	6	21.0	30.7	40.4	50.0
8.0	0	29.0	46.0	63.0	80.0
10.0	0	58.3	77.2	96.1	115.0
<b>Total Equivalent Meters</b>	<b>6,894</b>	<b>8,451</b>	<b>8,857</b>	<b>9,677</b>	<b>10,376</b>

FY18 Rates Changed Meter Charge from Table 2 to Table 3  
FY18 Rates Changed Capital Impr. Charge From Table 1 to Table 2  
FY17 Rates Changed Meter Charge from Table 1 to Table 2

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Option 2: 10% Reduction in Fixed - 0% Net Increase

**TABLE 9**  
**CITY OF GROSSE POINTE WOODS**  
**WATER / SEWER METER CHARGES**  
**FY 2018-19**

**Meter Charge - Per Equivalent Meter**

Meter Size (Inch)	Existing			Proposed			Proposed Change Per Year	% Change
	GPW Equiv. Meter Ratio Table 3	Per 2 Months	Per Year	GPW Equiv. Meter Ratio Table 3	Per 2 Months	Per Year		
5/8	1.0	\$45.67	\$274.02	1.0	\$41.11	\$246.66	-\$27.36	-10.0%
3/4	1.0	\$45.67	\$274.02	1.0	\$41.11	\$246.66	-\$27.36	-10.0%
1	2.2	\$100.47	\$602.84	2.2	\$90.44	\$542.65	-\$60.19	-10.0%
1.5	4.0	\$182.68	\$1,096.08	4.0	\$164.44	\$986.64	-\$109.44	-10.0%
2	6.3	\$287.72	\$1,726.33	6.3	\$258.99	\$1,553.96	-\$172.37	-10.0%
3	14.4	\$657.65	\$3,945.89	14.4	\$591.98	\$3,551.90	-\$393.98	-10.0%
4	21.4	\$977.34	\$5,864.03	21.4	\$879.75	\$5,278.52	-\$585.50	-10.0%
6	40.4	\$1,845.07	\$11,070.41	40.4	\$1,660.84	\$9,965.06	-\$1,105.34	-10.0%

**Billing Charge (2 Month) - Per Account Meter**

All		\$2.08	\$24.96		\$2.08	\$24.96	\$0.00	0.0%
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**Capital Improvements Charge (2 Mo.)**

Meter Size (Inch)	GPW Equiv. Meter Ratio Table 2	Per 2 Months	Per Year	GPW Equiv. Meter Ratio Table 2	Per 2 Months	Per Year	Proposed Change Per Year	% Change
5/8	1.0	\$21.78	\$130.68	1.0	\$19.60	\$117.60	-\$13.08	-10.0%
3/4	1.0	\$21.78	\$130.68	1.0	\$19.60	\$117.60	-\$13.08	-10.0%
1	1.8	\$39.20	\$235.22	1.8	\$35.28	\$211.68	-\$23.54	-10.0%
1.5	2.9	\$63.16	\$378.97	2.9	\$56.84	\$341.04	-\$37.93	-10.0%
2	4.6	\$100.19	\$601.13	4.6	\$90.16	\$540.96	-\$60.17	-10.0%
3	12.7	\$276.61	\$1,659.64	12.7	\$248.92	\$1,493.52	-\$166.12	-10.0%
4	17.7	\$385.51	\$2,313.04	17.7	\$346.92	\$2,081.52	-\$231.52	-10.0%
6	30.7	\$668.65	\$4,011.88	30.7	\$601.72	\$3,610.32	-\$401.56	-10.0%

<b>Total Residential Fixed Charged per 2 Months (5/8" or 3/4" Meter)</b>		<b>\$69.53</b>	<b>\$429.66</b>		<b>\$62.79</b>	<b>\$389.22</b>	<b>-\$40.44</b>	<b>-9.7%</b>
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**Option 3: No Change to Rates, Ultimate Meter Ratios**

**TABLE 2a  
CITY OF GROSSE POINTE WOODS  
RATE CALCULATIONS  
FY 2018-19**

	Typical Res. Increase %	Meter Charge		Billing Charge		CIP Charge		Commodity Charge		% Fixed GPW		% Fixed GLWA	
		Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer	Water	Sewer
Existing Fixed Fees	n/a	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	41.6%	61.9%	60%	100%
Option 1: No Change to Rates	0.0%	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	41.6%	61.9%	60%	100%
Option 2: 10% Reduction in Fixed - 0% Net Increase	-0.3%	\$ 13.08	\$ 28.03	\$ 1.04	\$ 1.04	\$ 9.80	\$ 9.80	\$ 4.22	\$ 2.56	35.3%	59.8%	60%	100%
Option 3: No Change to Rates, Ultimate Meter Ratios	0.0%	\$ 14.53	\$ 31.14	\$ 1.04	\$ 1.04	\$ 10.89	\$ 10.89	\$ 3.57	\$ 2.60	44.5%	64.2%	60%	100%

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<b>Option 3: No Change to Rates, Ultimate Meter Ratios</b>			
<b>TABLE 1</b>			
<b>CITY OF GROSSE POINTE WOODS</b>			
<b>EXISTING AND PROPOSED WATER &amp; SEWER RATE COMPARISON</b>			
<b>FY 2018-19</b>			
<b>RATE CATEGORY</b>	<b>EXISTING RATE</b>	<b>PROPOSED RATE</b>	<b>PERCENT CHANGE</b>
<b>Meter Charge (2 Months) -Per Equivalent Meter Table 4</b>			
<b>Total Meter Charge</b>	<b>\$45.67</b>	<b>\$45.67</b>	<b>0.0%</b>
<b>Billing Charge (2 Months) -Per Account</b>			
<b>Total Billing Charge</b>	<b>\$2.08</b>	<b>\$2.08</b>	<b>0.0%</b>
<b>Capital Improvement Charge (2 Months) - Per Equiv Meter Table 4</b>			
<b>Total CIP Charge</b>	<b>\$21.78</b>	<b>\$21.78</b>	<b>0.0%</b>
<b>Commodity Charge - Water (Per CCF)</b>			
<b>Total Commodity Water</b>	<b>\$3.57</b>	<b>\$3.57</b>	<b>0.0%</b>
<b>Commodity Charge - Sewer (Per CCF)</b>			
<b>Total Commodity Sewer</b>	<b>\$2.60</b>	<b>\$2.60</b>	<b>0.0%</b>
<b>Total Costs With 10.4 CCF Use (2 Months)</b>	<b>\$133.70</b>	<b>\$133.70</b>	<b>0.0%</b>
<b>Industrial Waste Control Charges</b>	<b>Per GLWA Adopted Rates</b>		

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**Table 4c**  
**CITY OF GROSSE POINTE WOODS**  
**Equivalent Meter Ratio Tables**  
**FY 2018-19**

	Accounts	Table 1	Table 2	Table 3	Table 4
Meter Size			Capital Impr. Fixed	Meter Fixed	
5/8	4,277	1.0	1.0	1.0	1.0
3/4	1,367	1.0	1.0	1.0	1.0
1.0	961	1.4	1.8	2.2	2.5
1.5	213	1.8	2.9	4.0	5.0
2.0	33	2.9	4.6	6.3	8.0
3.0	25	11.0	12.7	14.4	16.0
4.0	12	14.0	17.7	21.4	25.0
6.0	6	21.0	30.7	40.4	50.0
8.0	0	29.0	46.0	63.0	80.0
10.0	0	58.3	77.2	96.1	115.0
Total Equivalent Meters	6,894	8,451	8,857	9,677	10,376

FY19 Rates Proposed to Change Meter Charge and CIP Charge to Table 4 (Ultimate Equivalent Ratios)

FY18 Rates Changed Meter Charge from Table 2 to Table 3

FY18 Rates Changed Capital Impr. Charge From Table 1 to Table 2

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Option 3: No Change to Rates, Ultimate Meter Ratios

**TABLE 9**  
**CITY OF GROSSE POINTE WOODS**  
**WATER / SEWER METER CHARGES**  
**FY 2018-19**

<b>Meter Charge - Per Equivalent Meter</b>								
<b>Meter Size (Inch)</b>	<b>Existing</b>			<b>Proposed</b>			<b>Proposed Change Per Year</b>	<b>% Change</b>
	<b>GPW Equiv. Meter Ratio Table 3</b>	<b>Per 2 Months</b>	<b>Per Year</b>	<b>GPW Equiv. Meter Ratio Table 4</b>	<b>Per 2 Months</b>	<b>Per Year</b>		
5/8	1.0	\$45.67	\$274.02	1.0	\$45.67	\$274.02	\$0.00	0.0%
3/4	1.0	\$45.67	\$274.02	1.0	\$45.67	\$274.02	\$0.00	0.0%
1	2.2	\$100.47	\$602.84	2.5	\$114.18	\$685.05	\$82.21	13.6%
1.5	4.0	\$182.68	\$1,096.08	5.0	\$228.35	\$1,370.10	\$274.02	25.0%
2	6.3	\$287.72	\$1,726.33	8.0	\$365.36	\$2,192.16	\$465.83	27.0%
3	14.4	\$657.65	\$3,945.89	16.0	\$730.72	\$4,384.32	\$438.43	11.1%
4	21.4	\$977.34	\$5,864.03	25.0	\$1,141.75	\$6,850.50	\$986.47	16.8%
6	40.4	\$1,845.07	\$11,070.41	50.0	\$2,283.50	\$13,701.00	\$2,630.59	23.8%
<b>Billing Charge (2 Month) - Per Account Meter</b>								
All		\$2.08	\$24.96		\$2.08	\$24.96	\$0.00	0.0%
<b>Capital Improvements Charge (2 Mo.)</b>								
<b>Meter Size (Inch)</b>	<b>GPW Equiv. Meter Ratio Table 2</b>	<b>Per 2 Months</b>	<b>Per Year</b>	<b>GPW Equiv. Meter Ratio Table 4</b>	<b>Per 2 Months</b>	<b>Per Year</b>	<b>Proposed Change Per Year</b>	<b>%Change</b>
5/8	1.0	\$21.78	\$130.68	1.0	\$21.78	\$130.68	\$0.00	0.0%
3/4	1.0	\$21.78	\$130.68	1.0	\$21.78	\$130.68	\$0.00	0.0%
1	1.8	\$39.20	\$235.22	2.5	\$54.45	\$326.70	\$91.48	38.9%
1.5	2.9	\$63.16	\$378.97	5.0	\$108.90	\$653.40	\$274.43	72.4%
2	4.6	\$100.19	\$601.13	8.0	\$174.24	\$1,045.44	\$444.31	73.9%
3	12.7	\$276.61	\$1,659.64	16.0	\$348.48	\$2,090.88	\$431.24	26.0%
4	17.7	\$385.51	\$2,313.04	25.0	\$544.50	\$3,267.00	\$953.96	41.2%
6	30.7	\$668.65	\$4,011.88	50.0	\$1,089.00	\$6,534.00	\$2,522.12	62.9%
<b>Total Residential Fixed Charged per 2 Months (5/8" or 3/4" Meter)</b>		<b>\$69.53</b>	<b>\$429.66</b>		<b>\$69.53</b>	<b>\$429.66</b>	<b>\$0.00</b>	<b>0.0%</b>

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# Summary of Proposed Rate Options

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CITY OF GROSSE PTE. WOODS

CITY OF GROSSE POINTE WOODS EXISTING AND PROPOSED WATER & SEWER RATE COMPARISON Typical Residential 2 Month Total Costs with 10.4 CCF Water Usage and a 5/8" or 3/4" Meter FY 2018-19									
	Existing Rates	Prop. Option 1		Prop. Option 2		Prop. Option 3		Prop. Option 4	
		Fee	Change	Fee	Change	Fee	Change	Fee	Change
<b>Meter Charge</b> Per Equivalent Meter (2 months)	\$ 45.67	\$ 45.67	\$ -	\$ 41.11	\$ (4.56)	\$ 45.67	\$ -	\$ 45.67	\$ -
<b>Billing Charge</b> Per Account (2 Months)	\$ 2.08	\$ 2.08	\$ -	\$ 2.08	\$ -	\$ 2.08	\$ -	\$ 2.08	\$ -
<b>Capital Improvement Charge</b> Per Equivalent Meter (2 months)	\$ 21.78	\$ 21.78	\$ -	\$ 19.60	\$ (2.18)	\$ 21.78	\$ -	\$ 21.78	\$ -
<b>Commodity Charge - Water</b> (Per CCF)	\$ 3.57	\$ 3.57	\$ -	\$ 4.22	\$ 6.76	\$ 3.57	\$ -	\$ 4.35	\$ 8.11
<b>Commodity Charge - Sewer</b> (Per CCF)	\$ 2.60	\$ 2.60	\$ -	\$ 2.56	\$ (0.42)	\$ 2.60	\$ -	\$ 2.82	\$ 2.29
<b>Typical Residential 2 Month Total Costs</b>	<b>\$ 133.70</b>	<b>\$ 133.70</b>	<b>\$ -</b>	<b>\$ 133.30</b>	<b>\$ (0.40)</b>	<b>\$ 133.70</b>	<b>\$ -</b>	<b>\$ 144.10</b>	<b>\$ 10.40</b>
Option 1:	0.0% Change	No Change to Rates, No Change to Equivalent Meter Ratios, (Table 2 for CIP Charge, Table 3 for Meter Charge)							
Option 2:	-0.3% Change	10% Reduction in Fixed Meter and CIP Charge, No Change to Equivalent Meters, (Table 2 for CIP Charge, Table 3 for Meter Charge), Pickup Shortfall in Revenue with Commodity							
Option 3:	0.0% Change	No Change to Rates, Ultimate Equivalent Meter Charges (Table 4 for CIP and Meter Charge)							
Option 4:	7.8% Change	No Equivalent Meter Charged to Residential, Non-Residential Charged at Current Equivalent Meter Ratios (Table 2 for CIP Charge, Table 3 for Meter Charge), Pickup Shortfall in Revenue with Commodity							

# Customer Classes and Equivalent Meter Ratios

<b>WATER SERVICES BY CUSTOMER CLASS (APRIL 2018)</b>									
<b>CITY OF GROSSE POINTE WOODS</b>									
<b>FY 2018-19</b>									
<b>Customer Class</b>	<b>5/8</b>	<b>3/4</b>	<b>1</b>	<b>1.5</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>Total</b>
Residential	4,181	1,288	892	187	12	0	0	0	<b>6,560</b>
Commercial	96	78	69	23	12	11	7	2	<b>298</b>
Industrial	0	0	0	0	0	0	0	0	<b>0</b>
Municipal	0	1	0	4	1	0	0	0	<b>6</b>
Inst./Recreational	0	1	0	3	8	14	5	4	<b>35</b>
<b>TOTAL</b>	<b>4,277</b>	<b>1,368</b>	<b>961</b>	<b>217</b>	<b>33</b>	<b>25</b>	<b>12</b>	<b>6</b>	<b>6,899</b>

<b>EQUIVALENT METER RATIO TABLES 1 THROUGH 4</b>					
<b>CITY OF GROSSE POINTE WOODS</b>					
<b>FY 2018-19</b>					
<b>Meter Size</b>	<b>Accounts</b>	<b>Table 1</b>	<b>Table 2</b>	<b>Table 3</b>	<b>Table 4</b>
		<b>Ratios</b>	<b>Ratios</b>	<b>Ratios</b>	<b>Ratios</b>
5/8	4,277	1.0	1.0	1.0	1.0
3/4	1,368	1.0	1.0	1.0	1.0
1.0	961	1.4	1.8	2.2	2.5
1.5	217	1.8	2.9	4.0	5.0
2.0	33	2.9	4.6	6.3	8.0
3.0	25	11.0	12.7	14.4	16.0
4.0	12	14.0	17.7	21.4	25.0
6.0	6	21.0	30.7	40.4	50.0
<b>Total Meters</b>	<b>6,899</b>				

FY18 Rates Changed Meter Charge from Table 2 to Table 3

FY18 Rates Changed Capital Impr. Charge From Table 1 to Table 2

FY17 Rates Changed Meter Charge from Table 1 to Table 2

# Proposed Option 1 - Two Month Average Charges Page 3

<b>Option 1: No Change to Rates</b>									
<b>AVERAGE CUSTOMER CHARGES PER METER SIZE</b>									
<b>CITY OF GROSSE POINTE WOODS</b>									
<b>FY 2018-19</b>									
<b>Meter Size (Inch)</b>	<b>Avg. Usage (ccf)</b>	<b>Existing 2 Month Charge</b>			<b>Proposed 2 Month Charge</b>			<b>Change</b>	<b>% Change</b>
		<b>Usage Charge</b>	<b>Fixed Charge</b>	<b>Total Charge</b>	<b>Usage Charge</b>	<b>Fixed Charge</b>	<b>Total Charge</b>		
5/8 or 3/4	10.4	\$64.17	\$69.53	\$133.70	\$64.17	\$69.53	\$133.70	\$0.00	0.0%
1	21.9	\$135.12	\$141.76	\$276.88	\$135.12	\$141.76	\$276.88	\$0.00	0.0%
1.5	33.5	\$206.70	\$247.92	\$454.62	\$206.70	\$247.92	\$454.62	\$0.00	0.0%
2	109.8	\$677.47	\$389.99	\$1,067.46	\$677.47	\$389.99	\$1,067.46	\$0.00	0.0%

Fixed CIP Ratios from Table 2  
 Fixed Meter Ratios from Table 3

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# Proposed Option 2 - Two Month Average Charges Page 4

Option 2: 10% Reduction in Fixed - 0% Net Increase									
AVERAGE CUSTOMER CHARGES PER METER SIZE									
CITY OF GROSSE POINTE WOODS									
FY 2018-19									
<i>Meter Size (Inch)</i>	<i>Avg. Usage (ccf)</i>	<i>Existing 2 Month Charge</i>			<i>Proposed 2 Month Charge</i>			<i>Change</i>	<i>% Change</i>
		<i>Usage Charge</i>	<i>Fixed Charge</i>	<i>Total Charge</i>	<i>Usage Charge</i>	<i>Fixed Charge</i>	<i>Total Charge</i>		
5/8 or 3/4	10.4	\$64.17	\$69.53	\$133.70	\$70.51	\$62.79	\$133.30	-\$0.40	-0.3%
1	21.9	\$135.12	\$141.76	\$276.88	\$148.48	\$127.80	\$276.28	-\$0.60	-0.2%
1.5	33.5	\$206.70	\$247.92	\$454.62	\$227.13	\$223.36	\$450.49	-\$4.13	-0.9%
2	109.8	\$677.47	\$389.99	\$1,067.46	\$744.44	\$351.23	\$1,095.68	\$28.22	2.6%

Fixed CIP Ratios from Table 2  
 Fixed Meter Ratios from Table 3



# Proposed Option 3 - Two Month Average Charges Page 5

<b>Option 3: No Change to Rates, Ultimate Meter Ratios</b>									
<b>AVERAGE CUSTOMER CHARGES PER METER SIZE</b>									
<b>CITY OF GROSSE POINTE WOODS</b>									
<b>FY 2018-19</b>									
<b>Meter Size (Inch)</b>	<b>Avg. Usage (ccf)</b>	<b>Existing 2 Month Charge</b>			<b>Proposed 2 Month Charge</b>			<b>Change</b>	<b>% Change</b>
		<b>Usage Charge</b>	<b>Fixed Charge</b>	<b>Total Charge</b>	<b>Usage Charge</b>	<b>Fixed Charge</b>	<b>Total Charge</b>		
5/8 or 3/4	10.4	\$64.17	\$69.53	\$133.70	\$64.17	\$69.53	\$133.70	\$0.00	0.0%
1	21.9	\$135.12	\$141.76	\$276.88	\$135.12	\$170.71	\$305.83	\$28.95	10.5%
1.5	33.5	\$206.70	\$247.92	\$454.62	\$206.70	\$339.33	\$546.03	\$91.41	20.1%
2	109.8	\$677.47	\$389.99	\$1,067.46	\$677.47	\$541.68	\$1,219.15	\$151.69	14.2%

Fixed CIP Ratios from Table 4  
 Fixed Meter Ratios from Table 4

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# Proposed Option 4 - Two Month Average Charges Page 6

<b>Option 4: No Equivalent Meter for Residential (Commodity Increase)</b>									
<b>AVERAGE CUSTOMER CHARGES PER METER SIZE (RESIDENTIAL)</b>									
<b>CITY OF GROSSE POINTE WOODS</b>									
<b>FY 2018-19</b>									
<b>Meter Size (Inch)</b>	<b>Avg. Usage (ccf)</b>	<b>Existing 2 Month Charge</b>			<b>Proposed 2 Month Charge</b>			<b>Change</b>	<b>% Change</b>
		<b>Usage Charge</b>	<b>Fixed Charge</b>	<b>Total Charge</b>	<b>Usage Charge</b>	<b>Fixed Charge</b>	<b>Total Charge</b>		
5/8 or 3/4	10.4	\$64.17	\$69.53	\$133.70	\$74.57	\$69.53	\$144.10	\$10.40	7.8%
1	21.9	\$135.12	\$141.76	\$276.88	\$157.02	\$69.53	\$226.55	-\$50.33	-18.2%
1.5	33.5	\$206.70	\$247.92	\$454.62	\$240.20	\$69.53	\$309.73	-\$144.89	-31.9%
2	109.8	\$677.47	\$389.99	\$1,067.46	\$787.27	\$69.53	\$856.80	-\$210.66	-19.7%

Fixed CIP Per Account for Residential  
 Fixed Meter Per Account for Residential