

Town of Shrewsbury: Water Rate Study



Final Water Rates - July 1, 2018

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Prepared for: Board of Selectmen

UPDATED JUNE 1, 2018

Summary

In order to raise sufficient revenues to enable the Water Department to continue to effectively operate without impacting the general tax rate of the Town, water rates must be increased effective July 1, 2018. This document outlines the cost drivers that require this change and proposes to raise \$5,370,765 in annual revenues which is a 39.53% or roughly \$1,520,000 increase over the water revenue generated in Fiscal Year 2017. Changes are proposed to both the water rates and the rate structure.

As with the development of any comprehensive plan, it would not be possible without the dedicated efforts of many talented people. Water Superintendent Robert Tozeski, Town Engineer Jeff Howland, Town Accountant Mary Thompson, Assistant Town Manager Kristen Las and Doug Gardner of Pioneer Consulting Group, Inc. have all made substantial contributions. A very special thank you to David C. Snowdon, III. Administrative Assistant to the Town Manager, for his many hours of effort in developing rate models and crunching all the numbers.

Background

The Town of Shrewsbury last adjusted water rates on January 1, 2016. In months leading up to this rate adjustment, justification was provided to the Board of Selectmen, who are the Town's Water Commissioners. In summary the rate change was required because rates were not generating sufficient revenue to handle the capital improvement program, the increase in regulatory compliance costs and the costs of additional upgrades and improvements to the system.

The approved rate increase was projected to provide \$364,195 in additional revenues. It was anticipated that the new rate revenue would be supplemented by additional revenues to be realized from increased accuracy of new water meters. The new rates were not set at such a level to fund an annual capital improvement program at its desired level of \$2.0M nor would it fund the debt service costs for a new water treatment plant. In the fall of 2016, the Board of Selectmen were updated on the revenue collected during first six months under the new rates. However, it was noted that as of that time the full impact of the new meters and rates could not be gauged. The Board was reminded the additional rate changes would be required for Fiscal Year 2019.

Water rate revenue for calendar years 2015 through 2017 is illustrated on the following page in Table 1.

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Table 1: Water Rate Revenue 2015 – 2017

	Calendar Year		
	2015	2016	2017
Total Revenue	\$3,373,331.69	\$3,583,301.35	\$3,540,663.38

Water consumption levels (billed water) for calendar years 2015 through 2017 is illustrated below in Table 2.

Table 2: Water Consumption 2015 – 2017

	Calendar Year		
	2015	2016	2017
Total Billed Consumption in gallons	853,109,418	835,386,186	824,565,516

The above two tables show that a combination of the water rate and meter changes provided \$208,970 and \$167,332 in additional revenue when comparing 2015 to 2016 and 2017 respectively. Water consumption has declined by 8,835,031 gallons over the three-year period. It was assumed that additional billed water would be realized with new meters installed. However, weather conditions and consumption habits of residents and businesses complicate this analysis. More detailed review of the impact of the water meters is currently being undertaken and a full report will be provided to the Board of Selectmen at a later date.

Revenue Analysis

The following table illustrates the revenue required for the Water Department using Fiscal Year 2019 proposed expenditures as a baseline, adding in known future costs like debt service requirements, accounting for the capital needs of the Department and adjusting for inflation based upon recent cost trends.

Table 3: Town of Shrewsbury Water Revenue Analysis FY2019 – FY2022

	2019	2020	2021	2022
OPERATIONS				
1 Salaries & Wages	\$550,991	\$563,389	\$576,065	\$589,026
2 Sep Appr Salaries & Wages	\$154,660	\$158,140	\$161,698	\$165,336
3 Expenses	\$847,500	\$872,925	\$899,113	\$926,086
4 Sep Appr Expenses	\$741,000	\$763,230	\$786,127	\$809,711
5 Debt Service	\$87,150	\$873,224	\$816,363	\$815,179
6 Indirect Costs	\$640,500	\$669,323	\$699,442	\$734,414
7 OPEB	\$69,238	\$72,353	\$75,609	\$79,012
8 Total Water Operations	\$3,091,039	\$3,972,583	\$4,014,417	\$4,118,764
CAPITAL IMPROVEMENT PLAN				
9 Water Mains	\$1,885,000	\$1,800,000	\$2,100,000	\$2,150,000
10 Other Water System Infrastructure	\$755,000	\$500,000	\$155,000	\$60,000
11 Equipment	\$192,000	\$116,000	\$118,000	\$120,000
12 Total Capital Improvement Plan	\$2,832,000	\$2,416,000	\$2,373,000	\$2,330,000
13 Total Water Expenses (Operations + Capital)	\$5,923,039	\$6,388,583	\$6,387,417	\$6,448,764
REVENUE SOURCES				
14 Water Conservation Fund	\$50,000	\$50,000	\$39,590	\$0
15 Water - Article Closeouts	\$752,207	\$18,380	\$56,640	\$48,320
16 Water System Improv./Retained Earnings	\$1,007,507	\$700,000	\$600,000	\$577,000
17 Non-Water Revenue	\$315,125	\$318,276	\$321,459	\$324,674
18 Water Rates	\$4,850,500	\$5,450,000	\$5,450,000	\$5,450,000
19 Total Revenue	\$6,975,339	\$6,536,656	\$6,467,689	\$6,399,994
Projected Fund Balances - Reserve Accounts				
20 Water Conservation Fund	\$89,590	\$39,590	\$0	\$0
21 Water System Improv./Retained Earnings - 6/30	\$2,050,580	\$1,498,653	\$978,925	\$353,155
Reserve Accounts as a % of Expenses	34.6%	23.5%	15.3%	5.5%

NOTES:

\$5,450,000 to be collected annually through Water Rate

Water Rates: Minimum Charge by Meter, Usage, Fire Service Fees, Cross Connections

Water - Article Closeout Estimate is 2.0% of capital investment of two years prior

Reserve Accounts include Water Conservation Fund and Water System Improv./Retained Earnings

FY19 Water Rate Collection is estimated @ 89% to account for less usage due to rate change

Water Structure & Rates

We return to the Board of Selectmen to address the projected revenue deficiencies for the Water Department and propose a rate increase. This rate increase has been formulated to achieve the following goals: 1. Provide sufficient revenue to fund an annual capital improvement program that replaces two percent (2%) of the water mains annually; 2. Provide sufficient revenue to fund the annual debt service and operating cost requirements for the new water treatment plant that is under construction; and 3. Provide sufficient revenue to cover the general administrative and operating costs of the Water Department.

We utilized the services of Pioneer Consulting Group, Inc. to provide a rate analysis and help inform Town staff on industry best practices on rate structures and proposed rates. This work was completed in the early fall of 2017, and their report is attached in the supplemental materials and referenced throughout this document. In the late winter and early spring of 2018, after work was completed to ensure the Town’s utility billing system had sufficient data to implement the proposed rate structure, Town staff members refined the revenue requirements based on the Town Manager’s Fiscal Year 2019 budget recommendation for the Water Department.

The proposal includes a change in the rate structure and the rates effective July 1, 2018. At the recommendation of Pioneer Consulting Group Inc., it is proposed that the current water rate structure be revised slightly. It’s recommended that all consumers be charged a minimum charge and a separate charge for all water consumption. The minimum charge will be based on the meter size as recommended by the American Water Works Association (AWWA) and that no water be allowed in the minimum charge. The minimum charge is designed to recover the costs associated with the daily operation of the water department, regardless of a customer's water usage, and includes meter reading, billing, meter service and administrative expenses. The minimum charge is billed in advance. The following minimum charges are recommended:

Minimum Charge Rate Schedule

	Current Rates	July 1, 2018 Rates	Meters in Service
Proposed Minium Charge by Meter Size			
<1"	\$0.00	\$20	11,020
1"	\$0.00	\$50	195
1.5"	\$0.00	\$100	113
2"	\$0.00	\$160	138
3"	\$0.00	\$320	18
4"	\$0.00	\$500	18
6"	\$0.00	\$1,000	9

*Meter in service reflect totals as of September 1, 2017

The current conservation based-rate structure that encourages the efficient use of water by charging customers a higher rate as their water consumption increases will be maintained. We have also set an equitable rate that derives revenue from customer classifications (Resident, Commercial, Lawn, etc.) that is equivalent to the water consumed by each classification. With this in mind, and in order to produce the required revenue for the full operation of the Water Department, the following rates are recommended:

Proposed Water Rates

	Current Rates	July 1, 2018 Rates
Residential & Condominium		
Minimum 0 - 5,000 gals	\$24.00	-
1st Step: 5,001-25,000 gals	\$3.70	-
2nd Step: 25,001-60,000 gals	\$6.90	-
4th Step: Over 60,000 gals	\$14.00	-
1st Step: 0 - 5,000 gals	-	\$2.10
2nd Step: 5,001-25,000 gals	-	\$5.65
3rd Step: 25,001-60,000 gals	-	\$8.66
4th Step: Over 60,000 gals	-	\$16.00
Commercial		
Minimum 0 - 5,000 gals	\$40.00	
1st Step: 5,001-25,000 gals	\$3.30	
2nd Step: Over 25,000 gals	\$4.30	
1st Step: 0 - 5,000 gals	-	\$4.75
2nd Step: 5,001-25,000 gals	-	\$5.25
3rd Step: 25,001-50,000 gals	-	\$5.85
4th Step: Over 50,000 gals	-	\$5.86

	Current Rates	July 1, 2018 Rates
Apartments		
All Consumption	\$4.50	\$5.40
Summer Services & Lawn Sprinklers		
1st Step: 1-60,000 gals	\$6.90	\$9.10
2nd Step: Over 60,000 gals	\$14.00	\$14.00
Schools & Municipal		
Minimum 0 - 5,000 gals 1st	\$40.00	-
Step: 5,001-50,000 gals 2nd	\$25.00	-
Step: Over 50,000 gals	\$3.80	-
1st Step: 1-50,000 gals 2nd	-	\$2.85
Step: Over 50,000 gals	-	\$4.33
Schools & Municipal Lawn		
All Consumption	\$3.80	\$4.33

NOTE: Except for the current rate structure’s minimum charge water rates prices reflect the price per 1,000 gallons of usage

Cross Connection & Fire Protection Rates

The water system has been designed to provide water at peak hourly flows and to provide sufficient fire protection to extinguish a fire over a three-hour period. The costs associated with fire protection should be charged to the customers who will benefit from the protection. There is a clear distinction between fire protection customers as a class of customer and the other classes. Fire protection customers require water utilities to have facilities available to meet high potential demands for water at any given time, but actually use relatively little water. The fire protection costs represent a “readiness to serve charge”.

Under the current rate structure, the public fire protection charges are built in to the water rates based on sprinkler head count and do not reflect the “readiness to serve”. We recommend the annual private fire protection charges be revised. The AWWA recommends each fire service be charged based on connection size. In line with the other changes to the rate structure, the annual cross connection testing charges should be adjusted proportionally to the water department’s cost in order to ensure the safety and quality of the Town’s water. Therefore, we recommend the following cross connection testing charges and annual private fire connections charges.

Cross Connection & Fire Protection Rates

	Current Rates	July 1, 2018 Rates
Cross Connection Testing	\$50.00	\$75.00

Private Fire Protection - Annual Charge		
Per Sprinkler Head	\$0.85	
1 1/2"	-	\$112.50
2"	-	\$150.00
3"	-	\$225.00
4"	-	\$300.00
6"	-	\$450.00
8"	-	\$600.00
10"	-	\$750.00

Impact Analysis

Table 4: Summary of Water Rate Revenue

Customer Classification	FY 17 Sum of Rev.	July 1, 2018 Rate Sum of Rev.	% Difference from FY 17	% Total Rev.
RESIDENTIAL	\$2,464,103	\$3,408,707	38.33%	63.47%
COMMERCIAL	\$620,547	\$928,818	49.68%	17.29%
MUNICIPAL	\$4,701	\$10,133	115.53%	0.19%
COMM. LAWN	\$11,874	\$13,119	10.48%	0.24%
APARTMENT	\$498,906	\$672,993	34.89%	12.53%
RES. LAWN	\$12,827	\$15,405	20.10%	0.29%
CONDO	\$132,213	\$176,388	33.41%	3.28%
CONDO LAWN	\$18,009	\$25,916	43.90%	0.48%
SUMMER SERVICE	\$5,150	\$7,331	42.33%	0.14%
MUNI/SCH LAWN	\$17,000	\$24,891	46.42%	0.46%
SCHOOL	\$19,378	\$38,611	99.25%	0.72%
APART. LAWN	\$44,607	\$48,455	8.63%	0.90%
Grand Total	\$3,849,317	\$5,370,765	39.53%	100.00%

NOTES:

Water rate revenue reflects the sum of both the minimum charge and usage

The \$5,370,765 generated reflects the water revenue less fire service and cross connection fees

Total projected water revenue is estimated at \$5,450,000 (base charge, rates, fire service, and cross connection)

It is estimated that the new rate structure will generate \$5,370,765 in revenue which is a 39.53% or roughly \$1,520,000 increase over the water revenue generated in Fiscal Year 2017. Table 4 above, details the total revenue generated by customer classification under the current rate structure ("FY17 Sum of Rev."), and the proposed rate structure. Additionally, the table details the percentage of total revenue generated and the percentage of total water consumed by each customer classification. In the development of the proposed rate structure, a series of rate scenarios were analyzed in consideration of their equity in the generation of revenue from each class of customer. Under a rate structure that was completely based on customer meter size and having usage rates indiscriminate of customer classification, a disproportionate amount of revenue would be generated from a limited amount of charge codes. Therefore, we believe the proposed rate structure ensures that rates continue to proportionally generate revenue from each customer classification. Further by changing the rate structure and minimum charge the Town is appropriately charging customers based on the demand they place on the system infrastructure.

Tables 5 and 6 reflect the revenue generated by Residential and Commercial users by meter size at the designated consumption steps within the rate structure.

Table 5: Residential Water Rate Revenue by Meter Size & Usage (July 1, 2018 Rates)

Step by Meter Size	Total Revenue	% of Total Revenue	Total # Bills	gals used	% of Total gals used
0					
<1	\$9,660	0.18%	483	0	0.00%
1	\$0	0.00%	0	0	0.00%
1.5	\$100	0.00%	1	0	0.00%
2	\$0	0.00%	0	0	0.00%
Step Total	\$9,760	0.18%	484	0	0.00%
1-5,000 gals					
<1	\$126,925	2.36%	4763	14,974,000	1.78%
1	\$1,317	0.02%	23	79,669	0.01%
1.5	\$1,149	0.02%	11	23,268	0.00%
2	\$166	0.00%	1	2,899	0.00%
Step Total	\$129,558	2.41%	4798	15,079,836	1.79%
5,001-25,000 gals					
<1	\$2,331,093	43.41%	30640	400,382,747	47.56%
1	\$21,821	0.41%	200	2,720,578	0.32%
1.5	\$1,853	0.03%	13	138,684	0.02%
2	\$0	0.00%	0	0	0.00%
Step Total	\$2,354,767	43.85%	30853	403,242,009	47.90%
25,001-60,000 gals					
<1	\$707,846	13.18%	3311	109,588,780	13.02%
1	\$6,224	0.12%	24	837,890	0.10%
1.5	\$2,462	0.05%	7	278,543	0.03%
2	\$0	0.00%	0	0	0.00%
Step Total	\$716,532	13.34%	3342	110,705,213	13.15%
60,001+ gals					
<1	\$190,327	3.54%	220	18,954,671	2.25%
1	\$5,958	0.11%	6	553,640	0.07%
1.5	\$1,805	0.03%	2	167,000	0.02%
2	\$0	0.00%	0	0	0.00%
Step Total	\$198,090	3.69%	228	19,675,311	2.34%
total	\$3,408,707	63.47%	39,705	548,702,369	65.18%

Table 6: Commercial Water Rate Revenue by Meter Size & Usage (July 1, 2018 Rates)

Step by Meter Size	Total Revenue	% of total Revenue	Total # Bills	gals used	% of Total water used
0					
<1	\$1,660	0.03%	83	0	0.00%
1	\$750	0.01%	15	0	0.00%
1.5	\$700	0.01%	7	0	0.00%
2	\$2,720	0.05%	17	0	0.00%
3	\$4,800	0.09%	15	0	0.00%
4	\$4,000	0.07%	8	0	0.00%
6	\$2,000	0.04%	2	0	0.00%
Step Total	\$16,630	0.31%	147	0	0.00%
1-5,000 gals					
<1	\$12,223	0.23%	378	981,670	0.12%
1	\$2,773	0.05%	42	141,730	0.02%
1.5	\$1,828	0.03%	16	47,899	0.01%
2	\$3,610	0.07%	21	52,701	0.01%
3	\$0	0.00%	0	0	0.00%
4	\$0	0.00%	0	0	0.00%
6	\$0	0.00%	0	0	0.00%
Step Total	\$20,434	0.38%	457	1,224,000	0.15%
5,001-25,000 gals					
<1	\$38,872	0.72%	455	5,891,365	0.70%
1	\$12,195	0.23%	105	1,372,880	0.16%
1.5	\$6,729	0.13%	42	501,638	0.06%
2	\$13,090	0.24%	57	783,271	0.09%
3	\$5,791	0.11%	15	195,952	0.02%
4	\$0	0.00%	0	0	0.00%
6	\$3,223	0.06%	3	43,920	0.01%
Step Total	\$79,900	1.49%	677	8,789,026	1.04%
25,001-50,000 gals					
<1	\$28,268	0.53%	145	4,772,365	0.57%
1	\$12,804	0.24%	52	1,857,397	0.22%
1.5	\$7,602	0.14%	21	932,776	0.11%
2	\$10,572	0.20%	29	1,100,800	0.13%
3	\$2,997	0.06%	6	202,000	0.02%
4	\$1,427	0.03%	2	79,027	0.01%
6	\$2,503	0.05%	2	92,039	0.01%
Step Total	\$66,174	1.23%	257	9,036,404	1.07%
50,000+ gals					
<1	\$65,269	1.22%	103	11,102,978	1.32%
1	\$70,674	1.32%	80	11,665,814	1.39%
1.5	\$74,312	1.38%	77	11,603,721	1.38%
2	\$225,149	4.19%	134	35,174,336	4.18%
3	\$63,519	1.18%	19	9,860,200	1.17%
4	\$99,204	1.85%	26	14,790,422	1.76%
6	\$147,553	2.75%	21	21,660,578	2.57%
Step Total	\$745,679	13.88%	460	115,858,049	13.76%
Total	\$928,818	17.29%	1,998	134,907,479	16.02%

Bill Calculations:

To assess the impact of the rate structure on individual bills, calculations have been provided for Residential/Condominium and Commercial users. As water consumption is not evenly distributed throughout the step structure, mean, median, and mode bill calculations are provided to develop a full scope of the impact when analyzing an individual bill calculation as it relates to the population. For complete tables of the proposed water rate impact on bills designated by 1,000 gallon usage please see the supplementary materials.

Residential & Condominium Bill Calculations

Residential & Condominium <1"

Address	Usage, gals	2017	July 1, 2018 Rate	\$ Difference	Bill Counts w/in 1000 gal band	Measure of Central Tendency
Stoney Hill Rd	9,900	\$42.12	\$58.19	\$16.07	2,541	Mode
Rosedale Ave	11,739	\$48.93	\$68.58	\$19.65	2,485	Median
Wachusett Cir	13,396	\$55.07	\$77.94	\$22.87	2,227	Mean

NOTES:

99.32% of Residential/Condominium usage fall under the <1" meter size

Total Residential/Condominium, <1" bill counts 42,677

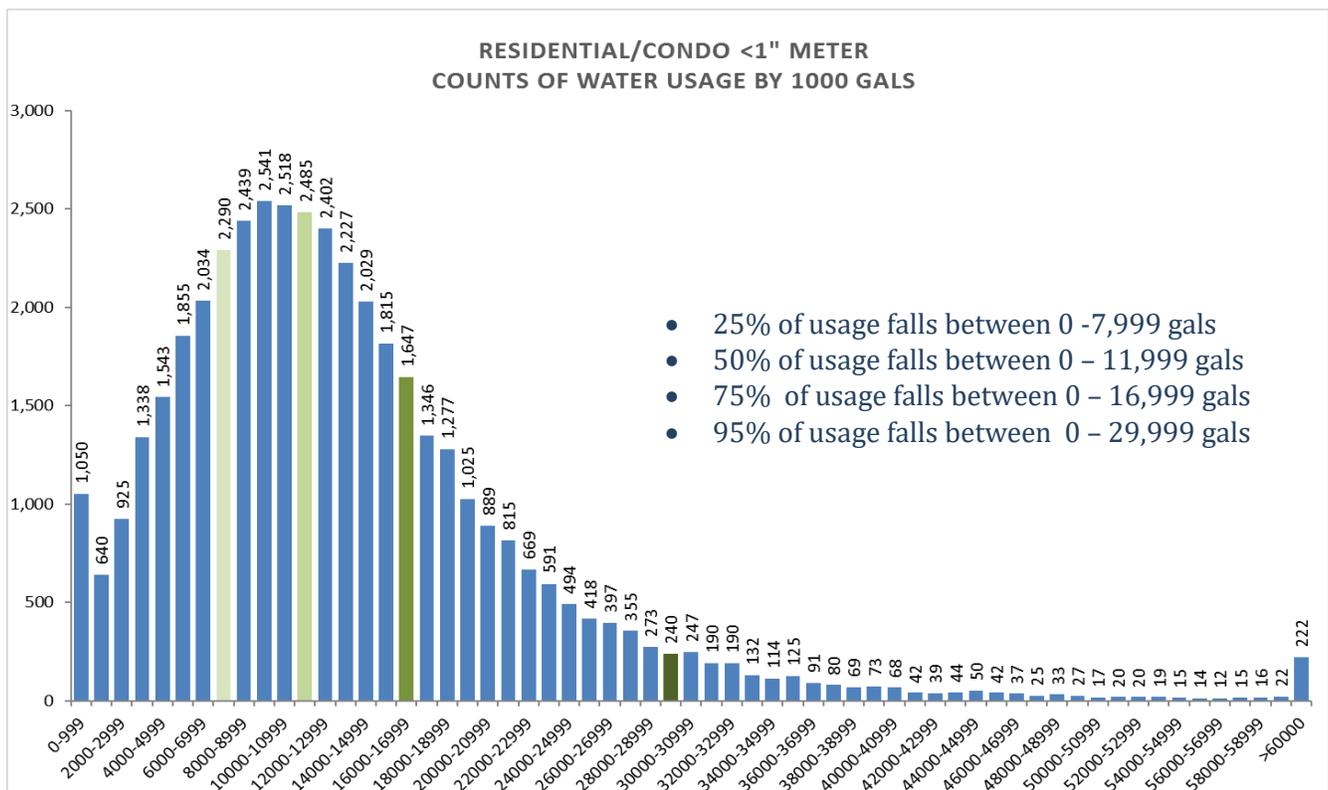
The MODE value represents the 1000 gal. usage band with the most bill counts within the charge code

The MEDIAN value represents the water usage value in the middle of the data set when arranged in ascending order

The MEAN value is the average water usage value within the charge code

For a visual representation of Residential/Condo distribution of water usage see Figure 1 below.

Figure 1: Residential/Condo <1" Counts of Water usage by 1,000 gals



Commercial Bill Calculations

The commercial usage is more complex than the Residential/Condominium usage and to fully understand the impact a range of bills by meter size have been below. As a reference, a full breakdown of commercial usage has been made available in the supplementary material.

Commercial all meters

Address	Meter Size	Usage, gals	2017	July 1, 2018 Rate	\$ Difference	Bill Counts w/in 1,000 gal band	Measure of Central Tendency
MAPLE AVE	<1"	1,000	\$40.00	\$24.75	(\$15.25)	107	Mode
MAIN ST FUNRH	<1"	9,000	\$53.20	\$64.75	\$11.55	27	Median
LAKE ST	<1"	19,687	\$89.50	\$120.86	\$31.36	17	Mean
REAR BOSTON TPKE	1"	3,000	\$40.00	\$64.25	\$24.25	13	Mode
BOSTON TPKE	1"	22,000	\$96.10	\$163.00	\$66.90	4	Median
HARTFORD PK	1"	53,010	\$226.44	\$342.64	\$116.20	3	Mean
HARTFORD PK	1.5"	9,000	\$53.20	\$144.75	\$91.55	6	Mode
HARTFORD PK	1.5"	37,900	\$167.47	\$304.22	\$136.75	1	Median
BOSTON TPKE	1.5"	77,900	\$333.47	\$538.49	\$205.02	1	Mean
BOSTON TPKE	2"	3,600	\$40.00	\$177.10	\$137.10	6	Mode
BOSTON TPKE	2"	60,000	\$256.50	\$493.60	\$237.10	3	Median
BOSTON TPKE	2"	149,300	\$640.49	\$1,016.90	\$376.41	2	Mean
BOSTON TPKE	3"	0	\$40.00	\$320.00	\$280.00	15	Mode
SOUTH ST	3"	15,500	\$74.65	\$398.88	\$324.23	2	Median
MAPLE AVE	3"	50,000	\$213.50	\$595.00	\$381.50	1	Mean
HARTFORD PIKE	4"	150,400	\$643.50	\$1,363.34	\$719.84	1	Median
HARTFORD PIKE TRL	4"	460,000	\$1,976.50	\$3,177.60	\$1,201.10	1	Mean
HARTFORD PK	4"	1,080,000	\$4,642.50	\$6,810.80	\$2,168.30	2	Mode
SOUTH ST	6"	0	\$40.00	\$1,000.00	\$960.00	2	Mode
JULIO DR	6"	503,410	\$2,163.16	\$3,931.98	\$1,768.82	1	Median
SOUTH ST	6"	760,000	\$3,266.50	\$5,435.60	\$2,169.10	1	Mean

NOTES:

58% of Commercial usage fall under the <1" meter size

Total Commercial Bill counts 1,998

The MODE value represents the 1,000 gal. usage band with the most bill counts within the charge code

The MEDIAN value represents the water usage value in the middle of the data set when arranged in ascending order

The MEAN value is the average water usage value within the charge code

Supplementary Material

1. FY 19 Water Rate Schedule
2. Figure 2: Commercial Water Usage Explained
3. Water Rate Bill Tables
 - a. Residential/Condominium <1”
 - b. Commercial <1”
 - c. Commercial 1”
 - d. Commercial 1.5”
 - e. Commercial 2”
 - f. Commercial 3”
 - g. Commercial 4”
 - h. Commercial 6”
4. Pioneer Consulting Group, Inc. –November 2017 Report



TOWN OF SHREWSBURY

Richard D. Carney Municipal Office Building
100 Maple Avenue
Shrewsbury, Massachusetts 01545-5338

Quarterly Water Rate Schedule Effective July 1, 2018

Charge by Meter Size	Quarterly - Charge
<1"	\$20
1"	\$50
1.5"	\$100
2"	\$160
3"	\$320
4"	\$500
6"	\$1,000
Residential & Condominium	Per 1,000 gals
1st Step: 0 - 5,000 gals	\$2.10
2nd Step: 5,001-25,000 gals	\$5.65
3rd Step: 25,001-60,000 gals	\$8.66
4th Step: Over 60,000 gals	\$16.00
Commercial	Per 1,000 gals
1st Step: 0 - 5,000 gals	\$4.75
2nd Step: 5,001-25,000 gals	\$5.25
3rd Step: 25,001-50,000 gals	\$5.85
4th Step: Over 50,000 gals	\$5.86
Apartments	Per 1,000 gals
All Consumption	\$5.40
Summer Services & Lawn Sprinklers	Per 1,000 gals
1st Step: 1-60,000 gals	\$9.10
2nd Step: Over 60,000 gals	\$14.00
Schools & Municipal	Per 1,000 gals
1st Step: 1-50,000 gals	\$2.85
2nd Step: Over 50,000 gals	\$4.33
Schools & Municipal Lawn	Per 1,000 gals
All Consumption	\$4.33

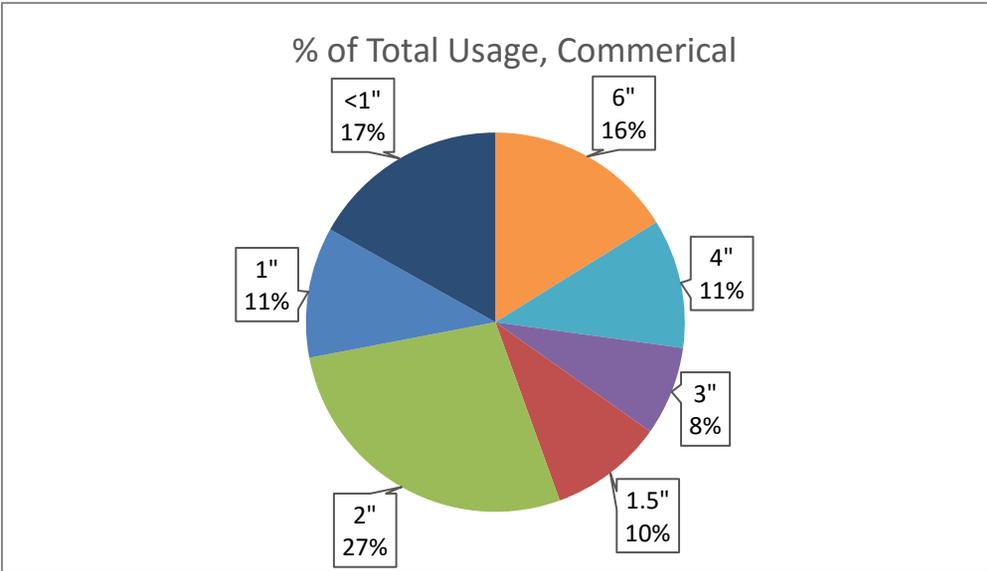
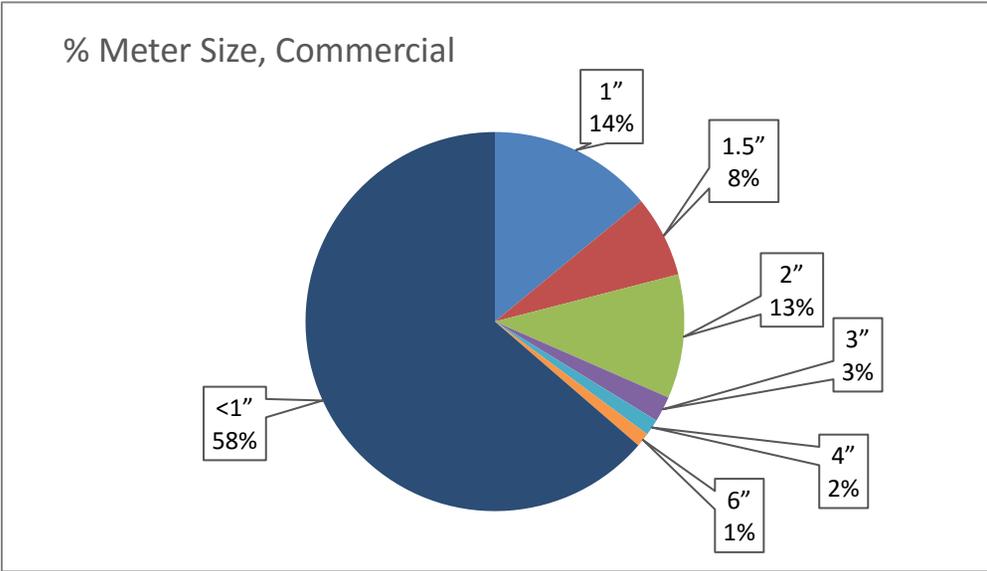
Cross Connection Testing - Per Test	\$75.00
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Private Fire Protection Based on Service Line Size	Annual Charge
1 1/2"	\$112.50
2"	\$150.00
3"	\$225.00
4"	\$300.00
6"	\$450.00
8"	\$600.00
10"	\$750.00

Figure 2: Commercial Water Usage Explained

Commercial

Meter Size	% of Meter Count	Bill Counts	Usage gals	% of Total Usage
<1"	58.01%	1159	22,748,378	16.86%
1"	14.71%	294	15,037,821	11.15%
1.5"	8.41%	168	13,086,034	9.70%
2"	12.91%	258	37,111,108	27.51%
3"	2.75%	55	10,258,152	7.60%
4"	1.80%	36	14,869,537	11.02%
6"	1.40%	28	21,796,537	16.16%
Totals	100.00%	1998	134,907,567	100.00%



Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Res. & Condo <1"	0	\$24.00	\$20.00	-\$4.00	-17%	533
Res. & Condo <1"	1,000	\$24.00	\$22.10	-\$1.90	-8%	759
Res. & Condo <1"	2,000	\$24.00	\$24.20	\$0.20	1%	690
Res. & Condo <1"	3,000	\$24.00	\$26.30	\$2.30	10%	1,107
Res. & Condo <1"	4,000	\$24.00	\$28.40	\$4.40	18%	1,438
Res. & Condo <1"	5,000	\$24.00	\$30.50	\$6.50	27%	1,747
Res. & Condo <1"	6,000	\$27.70	\$36.15	\$8.45	31%	1,873
Res. & Condo <1"	7,000	\$31.40	\$41.80	\$10.40	33%	2,193
Res. & Condo <1"	8,000	\$35.10	\$47.45	\$12.35	35%	2,376
Res. & Condo <1"	9,000	\$38.80	\$53.10	\$14.30	37%	2,470
Res. & Condo <1"	10,000	\$42.50	\$58.75	\$16.25	38%	2,623
Res. & Condo <1"	11,000	\$46.20	\$64.40	\$18.20	39%	2,518
Res. & Condo <1"	12,000	\$49.90	\$70.05	\$20.15	40%	2,464
Res. & Condo <1"	13,000	\$53.60	\$75.70	\$22.10	41%	2,303
Res. & Condo <1"	14,000	\$57.30	\$81.35	\$24.05	42%	2,173
Res. & Condo <1"	15,000	\$61.00	\$87.00	\$26.00	43%	1,897
Res. & Condo <1"	16,000	\$64.70	\$92.65	\$27.95	43%	1,743
Res. & Condo <1"	17,000	\$68.40	\$98.30	\$29.90	44%	1,549
Res. & Condo <1"	18,000	\$72.10	\$103.95	\$31.85	44%	1,274
Res. & Condo <1"	19,000	\$75.80	\$109.60	\$33.80	45%	1,180
Res. & Condo <1"	20,000	\$79.50	\$115.25	\$35.75	45%	929
Res. & Condo <1"	21,000	\$83.20	\$120.90	\$37.70	45%	864
Res. & Condo <1"	22,000	\$86.90	\$126.55	\$39.65	46%	760
Res. & Condo <1"	23,000	\$90.60	\$132.20	\$41.60	46%	628
Res. & Condo <1"	24,000	\$94.30	\$137.85	\$43.55	46%	554
Res. & Condo <1"	25,000	\$98.00	\$143.50	\$45.50	46%	460
Res. & Condo <1"	26,000	\$104.90	\$152.16	\$47.26	45%	372
Res. & Condo <1"	27,000	\$111.80	\$160.82	\$49.02	44%	399
Res. & Condo <1"	28,000	\$118.70	\$169.48	\$50.78	43%	314
Res. & Condo <1"	29,000	\$125.60	\$178.14	\$52.54	42%	269
Res. & Condo <1"	30,000	\$132.50	\$186.80	\$54.30	41%	243
Res. & Condo <1"	31,000	\$139.40	\$195.46	\$56.06	40%	217
Res. & Condo <1"	32,000	\$146.30	\$204.12	\$57.82	40%	190
Res. & Condo <1"	33,000	\$153.20	\$212.78	\$59.58	39%	155
Res. & Condo <1"	34,000	\$160.10	\$221.44	\$61.34	38%	114
Res. & Condo <1"	35,000	\$167.00	\$230.10	\$63.10	38%	118
Res. & Condo <1"	36,000	\$173.90	\$238.76	\$64.86	37%	128
Res. & Condo <1"	37,000	\$180.80	\$247.42	\$66.62	37%	76
Res. & Condo <1"	38,000	\$187.70	\$256.08	\$68.38	36%	75
Res. & Condo <1"	39,000	\$194.60	\$264.74	\$70.14	36%	68
Res. & Condo <1"	40,000	\$201.50	\$273.40	\$71.90	36%	72
Res. & Condo <1"	41,000	\$208.40	\$282.06	\$73.66	35%	51
Res. & Condo <1"	42,000	\$215.30	\$290.72	\$75.42	35%	44
Res. & Condo <1"	43,000	\$222.20	\$299.38	\$77.18	35%	42
Res. & Condo <1"	44,000	\$229.10	\$308.04	\$78.94	34%	46
Res. & Condo <1"	45,000	\$236.00	\$316.70	\$80.70	34%	47
Res. & Condo <1"	46,000	\$242.90	\$325.36	\$82.46	34%	42
Res. & Condo <1"	47,000	\$249.80	\$334.02	\$84.22	34%	30
Res. & Condo <1"	48,000	\$256.70	\$342.68	\$85.98	33%	26

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Res. & Condo <1"	49,000	\$263.60	\$351.34	\$87.74	33%	29
Res. & Condo <1"	50,000	\$270.50	\$360.00	\$89.50	33%	22
Res. & Condo <1"	51,000	\$277.40	\$368.66	\$91.26	33%	23
Res. & Condo <1"	52,000	\$284.30	\$377.32	\$93.02	33%	12
Res. & Condo <1"	53,000	\$291.20	\$385.98	\$94.78	33%	22
Res. & Condo <1"	54,000	\$298.10	\$394.64	\$96.54	32%	23
Res. & Condo <1"	55,000	\$305.00	\$403.30	\$98.30	32%	12
Res. & Condo <1"	56,000	\$311.90	\$411.96	\$100.06	32%	10
Res. & Condo <1"	57,000	\$318.80	\$420.62	\$101.82	32%	17
Res. & Condo <1"	58,000	\$325.70	\$429.28	\$103.58	32%	12
Res. & Condo <1"	59,000	\$332.60	\$437.94	\$105.34	32%	12
Res. & Condo <1"	60,000	\$339.50	\$446.60	\$107.10	32%	18
Res. & Condo <1"	61,000	\$353.50	\$462.60	\$109.10	31%	14
Res. & Condo <1"	62,000	\$367.50	\$478.60	\$111.10	30%	6
Res. & Condo <1"	63,000	\$381.50	\$494.60	\$113.10	30%	8
Res. & Condo <1"	64,000	\$395.50	\$510.60	\$115.10	29%	9
Res. & Condo <1"	65,000	\$409.50	\$526.60	\$117.10	29%	11
Res. & Condo <1"	66,000	\$423.50	\$542.60	\$119.10	28%	4
Res. & Condo <1"	67,000	\$437.50	\$558.60	\$121.10	28%	6
Res. & Condo <1"	68,000	\$451.50	\$574.60	\$123.10	27%	5
Res. & Condo <1"	69,000	\$465.50	\$590.60	\$125.10	27%	7
Res. & Condo <1"	70,000	\$479.50	\$606.60	\$127.10	27%	2
Res. & Condo <1"	71,000	\$493.50	\$622.60	\$129.10	26%	6
Res. & Condo <1"	72,000	\$507.50	\$638.60	\$131.10	26%	8
Res. & Condo <1"	73,000	\$521.50	\$654.60	\$133.10	26%	6
Res. & Condo <1"	74,000	\$535.50	\$670.60	\$135.10	25%	6
Res. & Condo <1"	75,000	\$549.50	\$686.60	\$137.10	25%	3
Res. & Condo <1"	76,000	\$563.50	\$702.60	\$139.10	25%	4
Res. & Condo <1"	77,000	\$577.50	\$718.60	\$141.10	24%	3
Res. & Condo <1"	78,000	\$591.50	\$734.60	\$143.10	24%	4
Res. & Condo <1"	79,000	\$605.50	\$750.60	\$145.10	24%	5
Res. & Condo <1"	80,000	\$619.50	\$766.60	\$147.10	24%	4
Res. & Condo <1"	81,000	\$633.50	\$782.60	\$149.10	24%	1
Res. & Condo <1"	82,000	\$647.50	\$798.60	\$151.10	23%	3
Res. & Condo <1"	83,000	\$661.50	\$814.60	\$153.10	23%	6
Res. & Condo <1"	84,000	\$675.50	\$830.60	\$155.10	23%	1
Res. & Condo <1"	85,000	\$689.50	\$846.60	\$157.10	23%	0
Res. & Condo <1"	86,000	\$703.50	\$862.60	\$159.10	23%	5
Res. & Condo <1"	87,000	\$717.50	\$878.60	\$161.10	22%	2
Res. & Condo <1"	88,000	\$731.50	\$894.60	\$163.10	22%	2
Res. & Condo <1"	89,000	\$745.50	\$910.60	\$165.10	22%	2
Res. & Condo <1"	90,000	\$759.50	\$926.60	\$167.10	22%	2
Res. & Condo <1"	91,000	\$773.50	\$942.60	\$169.10	22%	1
Res. & Condo <1"	92,000	\$787.50	\$958.60	\$171.10	22%	3
Res. & Condo <1"	93,000	\$801.50	\$974.60	\$173.10	22%	4
Res. & Condo <1"	94,000	\$815.50	\$990.60	\$175.10	21%	4
Res. & Condo <1"	95,000	\$829.50	\$1,006.60	\$177.10	21%	1
Res. & Condo <1"	96,000	\$843.50	\$1,022.60	\$179.10	21%	2

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Res. & Condo <1"	97,000	\$857.50	\$1,038.60	\$181.10	21%	3
Res. & Condo <1"	98,000	\$871.50	\$1,054.60	\$183.10	21%	1
Res. & Condo <1"	99,000	\$885.50	\$1,070.60	\$185.10	21%	2
Res. & Condo <1"	100,000	\$899.50	\$1,086.60	\$187.10	21%	2
Res. & Condo <1"	110,000	\$1,039.50	\$1,246.60	\$207.10	20%	23
Res. & Condo <1"	120,000	\$1,179.50	\$1,406.60	\$227.10	19%	17
Res. & Condo <1"	130,000	\$1,319.50	\$1,566.60	\$247.10	19%	0
Res. & Condo <1"	140,000	\$1,459.50	\$1,726.60	\$267.10	18%	2
Res. & Condo <1"	150,000	\$1,599.50	\$1,886.60	\$287.10	18%	2
Res. & Condo <1"	160,000	\$1,739.50	\$2,046.60	\$307.10	18%	2
Res. & Condo <1"	170,000	\$1,879.50	\$2,206.60	\$327.10	17%	0
Res. & Condo <1"	180,000	\$2,019.50	\$2,366.60	\$347.10	17%	1
Res. & Condo <1"	190,000	\$2,159.50	\$2,526.60	\$367.10	17%	0
Res. & Condo <1"	200,000	\$2,299.50	\$2,686.60	\$387.10	17%	0
Res. & Condo <1"	210,000	\$2,439.50	\$2,846.60	\$407.10	17%	1
Res. & Condo <1"	220,000	\$2,579.50	\$3,006.60	\$427.10	17%	0
Res. & Condo <1"	230,000	\$2,719.50	\$3,166.60	\$447.10	16%	0
Res. & Condo <1"	240,000	\$2,859.50	\$3,326.60	\$467.10	16%	0
Res. & Condo <1"	250,000	\$2,999.50	\$3,486.60	\$487.10	16%	0
Res. & Condo <1"	260,000	\$3,139.50	\$3,646.60	\$507.10	16%	0
Res. & Condo <1"	270,000	\$3,279.50	\$3,806.60	\$527.10	16%	0
Res. & Condo <1"	280,000	\$3,419.50	\$3,966.60	\$547.10	16%	0
Res. & Condo <1"	290,000	\$3,559.50	\$4,126.60	\$567.10	16%	0
Res. & Condo <1"	300,000	\$3,699.50	\$4,286.60	\$587.10	16%	0
Res. & Condo <1"	310,000	\$3,839.50	\$4,446.60	\$607.10	16%	0
Res. & Condo <1"	320,000	\$3,979.50	\$4,606.60	\$627.10	16%	0
Res. & Condo <1"	330,000	\$4,119.50	\$4,766.60	\$647.10	16%	1
Res. & Condo <1"	340,000	\$4,259.50	\$4,926.60	\$667.10	16%	0
Commercial <1"	0	\$40.00	\$20.00	-\$20.00	-50%	83
Commercial <1"	1,000	\$40.00	\$24.75	-\$15.25	-38%	107
Commercial <1"	2,000	\$40.00	\$29.50	-\$10.50	-26%	78
Commercial <1"	3,000	\$40.00	\$34.25	-\$5.75	-14%	69
Commercial <1"	4,000	\$40.00	\$39.00	-\$1.00	-3%	61
Commercial <1"	5,000	\$40.00	\$43.75	\$3.75	9%	63
Commercial <1"	6,000	\$43.30	\$49.00	\$5.70	13%	50
Commercial <1"	7,000	\$46.60	\$54.25	\$7.65	16%	48
Commercial <1"	8,000	\$49.90	\$59.50	\$9.60	19%	39
Commercial <1"	9,000	\$53.20	\$64.75	\$11.55	22%	33
Commercial <1"	10,000	\$56.50	\$70.00	\$13.50	24%	25
Commercial <1"	11,000	\$59.80	\$75.25	\$15.45	26%	15
Commercial <1"	12,000	\$63.10	\$80.50	\$17.40	28%	20
Commercial <1"	13,000	\$66.40	\$85.75	\$19.35	29%	31
Commercial <1"	14,000	\$69.70	\$91.00	\$21.30	31%	22
Commercial <1"	15,000	\$73.00	\$96.25	\$23.25	32%	20
Commercial <1"	16,000	\$76.30	\$101.50	\$25.20	33%	19
Commercial <1"	17,000	\$79.60	\$106.75	\$27.15	34%	19
Commercial <1"	18,000	\$82.90	\$112.00	\$29.10	35%	18
Commercial <1"	19,000	\$86.20	\$117.25	\$31.05	36%	16

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial <1"	20,000	\$89.50	\$122.50	\$33.00	37%	17
Commercial <1"	21,000	\$92.80	\$127.75	\$34.95	38%	10
Commercial <1"	22,000	\$96.10	\$133.00	\$36.90	38%	16
Commercial <1"	23,000	\$99.40	\$138.25	\$38.85	39%	14
Commercial <1"	24,000	\$102.70	\$143.50	\$40.80	40%	13
Commercial <1"	25,000	\$106.00	\$148.75	\$42.75	40%	10
Commercial <1"	26,000	\$110.30	\$154.60	\$44.30	40%	10
Commercial <1"	27,000	\$114.60	\$160.45	\$45.85	40%	15
Commercial <1"	28,000	\$118.90	\$166.30	\$47.40	40%	10
Commercial <1"	29,000	\$123.20	\$172.15	\$48.95	40%	9
Commercial <1"	30,000	\$127.50	\$178.00	\$50.50	40%	4
Commercial <1"	31,000	\$131.80	\$183.85	\$52.05	39%	11
Commercial <1"	32,000	\$136.10	\$189.70	\$53.60	39%	7
Commercial <1"	33,000	\$140.40	\$195.55	\$55.15	39%	9
Commercial <1"	34,000	\$144.70	\$201.40	\$56.70	39%	8
Commercial <1"	35,000	\$149.00	\$207.25	\$58.25	39%	4
Commercial <1"	36,000	\$153.30	\$213.10	\$59.80	39%	3
Commercial <1"	37,000	\$157.60	\$218.95	\$61.35	39%	8
Commercial <1"	38,000	\$161.90	\$224.80	\$62.90	39%	7
Commercial <1"	39,000	\$166.20	\$230.65	\$64.45	39%	5
Commercial <1"	40,000	\$170.50	\$236.50	\$66.00	39%	5
Commercial <1"	41,000	\$174.80	\$242.35	\$67.55	39%	4
Commercial <1"	42,000	\$179.10	\$248.20	\$69.10	39%	1
Commercial <1"	43,000	\$183.40	\$254.05	\$70.65	39%	2
Commercial <1"	44,000	\$187.70	\$259.90	\$72.20	38%	3
Commercial <1"	45,000	\$192.00	\$265.75	\$73.75	38%	5
Commercial <1"	46,000	\$196.30	\$271.60	\$75.30	38%	1
Commercial <1"	47,000	\$200.60	\$277.45	\$76.85	38%	3
Commercial <1"	48,000	\$204.90	\$283.30	\$78.40	38%	2
Commercial <1"	49,000	\$209.20	\$289.15	\$79.95	38%	2
Commercial <1"	50,000	\$213.50	\$295.00	\$81.50	38%	2
Commercial <1"	51,000	\$217.80	\$300.86	\$83.06	38%	1
Commercial <1"	52,000	\$222.10	\$306.72	\$84.62	38%	1
Commercial <1"	53,000	\$226.40	\$312.58	\$86.18	38%	1
Commercial <1"	54,000	\$230.70	\$318.44	\$87.74	38%	3
Commercial <1"	55,000	\$235.00	\$324.30	\$89.30	38%	2
Commercial <1"	56,000	\$239.30	\$330.16	\$90.86	38%	2
Commercial <1"	57,000	\$243.60	\$336.02	\$92.42	38%	3
Commercial <1"	58,000	\$247.90	\$341.88	\$93.98	38%	3
Commercial <1"	59,000	\$252.20	\$347.74	\$95.54	38%	3
Commercial <1"	60,000	\$256.50	\$353.60	\$97.10	38%	1
Commercial <1"	61,000	\$260.80	\$359.46	\$98.66	38%	3
Commercial <1"	62,000	\$265.10	\$365.32	\$100.22	38%	1
Commercial <1"	63,000	\$269.40	\$371.18	\$101.78	38%	2
Commercial <1"	64,000	\$273.70	\$377.04	\$103.34	38%	1
Commercial <1"	65,000	\$278.00	\$382.90	\$104.90	38%	2
Commercial <1"	66,000	\$282.30	\$388.76	\$106.46	38%	2
Commercial <1"	67,000	\$286.60	\$394.62	\$108.02	38%	1

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial <1"	68,000	\$290.90	\$400.48	\$109.58	38%	3
Commercial <1"	69,000	\$295.20	\$406.34	\$111.14	38%	0
Commercial <1"	70,000	\$299.50	\$412.20	\$112.70	38%	1
Commercial <1"	71,000	\$303.80	\$418.06	\$114.26	38%	1
Commercial <1"	72,000	\$308.10	\$423.92	\$115.82	38%	1
Commercial <1"	73,000	\$312.40	\$429.78	\$117.38	38%	3
Commercial <1"	74,000	\$316.70	\$435.64	\$118.94	38%	0
Commercial <1"	75,000	\$321.00	\$441.50	\$120.50	38%	1
Commercial <1"	76,000	\$325.30	\$447.36	\$122.06	38%	0
Commercial <1"	77,000	\$329.60	\$453.22	\$123.62	38%	0
Commercial <1"	78,000	\$333.90	\$459.08	\$125.18	37%	2
Commercial <1"	79,000	\$338.20	\$464.94	\$126.74	37%	2
Commercial <1"	80,000	\$342.50	\$470.80	\$128.30	37%	1
Commercial <1"	81,000	\$346.80	\$476.66	\$129.86	37%	4
Commercial <1"	82,000	\$351.10	\$482.52	\$131.42	37%	1
Commercial <1"	83,000	\$355.40	\$488.38	\$132.98	37%	1
Commercial <1"	84,000	\$359.70	\$494.24	\$134.54	37%	1
Commercial <1"	85,000	\$364.00	\$500.10	\$136.10	37%	1
Commercial <1"	86,000	\$368.30	\$505.96	\$137.66	37%	0
Commercial <1"	87,000	\$372.60	\$511.82	\$139.22	37%	2
Commercial <1"	88,000	\$376.90	\$517.68	\$140.78	37%	1
Commercial <1"	89,000	\$381.20	\$523.54	\$142.34	37%	1
Commercial <1"	90,000	\$385.50	\$529.40	\$143.90	37%	1
Commercial <1"	91,000	\$389.80	\$535.26	\$145.46	37%	3
Commercial <1"	92,000	\$394.10	\$541.12	\$147.02	37%	0
Commercial <1"	93,000	\$398.40	\$546.98	\$148.58	37%	2
Commercial <1"	94,000	\$402.70	\$552.84	\$150.14	37%	0
Commercial <1"	95,000	\$407.00	\$558.70	\$151.70	37%	0
Commercial <1"	96,000	\$411.30	\$564.56	\$153.26	37%	2
Commercial <1"	97,000	\$415.60	\$570.42	\$154.82	37%	1
Commercial <1"	98,000	\$419.90	\$576.28	\$156.38	37%	0
Commercial <1"	99,000	\$424.20	\$582.14	\$157.94	37%	0
Commercial <1"	100,000	\$428.50	\$588.00	\$159.50	37%	1
Commercial <1"	150,000	\$643.50	\$881.00	\$237.50	37%	9
Commercial <1"	200,000	\$858.50	\$1,174.00	\$315.50	37%	2
Commercial <1"	250,000	\$1,073.50	\$1,467.00	\$393.50	37%	2
Commercial 1"	0	\$40.00	\$50.00	\$10.00	25%	15
Commercial 1"	1,000	\$40.00	\$54.75	\$14.75	37%	4
Commercial 1"	2,000	\$40.00	\$59.50	\$19.50	49%	2
Commercial 1"	3,000	\$40.00	\$64.25	\$24.25	61%	13
Commercial 1"	4,000	\$40.00	\$69.00	\$29.00	73%	11
Commercial 1"	5,000	\$40.00	\$73.75	\$33.75	84%	12
Commercial 1"	6,000	\$43.30	\$79.00	\$35.70	82%	9
Commercial 1"	7,000	\$46.60	\$84.25	\$37.65	81%	10
Commercial 1"	8,000	\$49.90	\$89.50	\$39.60	79%	11
Commercial 1"	9,000	\$53.20	\$94.75	\$41.55	78%	9
Commercial 1"	10,000	\$56.50	\$100.00	\$43.50	77%	4
Commercial 1"	11,000	\$59.80	\$105.25	\$45.45	76%	9

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 1"	12,000	\$63.10	\$110.50	\$47.40	75%	5
Commercial 1"	13,000	\$66.40	\$115.75	\$49.35	74%	3
Commercial 1"	14,000	\$69.70	\$121.00	\$51.30	74%	3
Commercial 1"	15,000	\$73.00	\$126.25	\$53.25	73%	3
Commercial 1"	16,000	\$76.30	\$131.50	\$55.20	72%	6
Commercial 1"	17,000	\$79.60	\$136.75	\$57.15	72%	5
Commercial 1"	18,000	\$82.90	\$142.00	\$59.10	71%	4
Commercial 1"	19,000	\$86.20	\$147.25	\$61.05	71%	5
Commercial 1"	20,000	\$89.50	\$152.50	\$63.00	70%	1
Commercial 1"	21,000	\$92.80	\$157.75	\$64.95	70%	4
Commercial 1"	22,000	\$96.10	\$163.00	\$66.90	70%	4
Commercial 1"	23,000	\$99.40	\$168.25	\$68.85	69%	2
Commercial 1"	24,000	\$102.70	\$173.50	\$70.80	69%	4
Commercial 1"	25,000	\$106.00	\$178.75	\$72.75	69%	4
Commercial 1"	26,000	\$110.30	\$184.60	\$74.30	67%	3
Commercial 1"	27,000	\$114.60	\$190.45	\$75.85	66%	5
Commercial 1"	28,000	\$118.90	\$196.30	\$77.40	65%	2
Commercial 1"	29,000	\$123.20	\$202.15	\$78.95	64%	2
Commercial 1"	30,000	\$127.50	\$208.00	\$80.50	63%	0
Commercial 1"	31,000	\$131.80	\$213.85	\$82.05	62%	5
Commercial 1"	32,000	\$136.10	\$219.70	\$83.60	61%	2
Commercial 1"	33,000	\$140.40	\$225.55	\$85.15	61%	4
Commercial 1"	34,000	\$144.70	\$231.40	\$86.70	60%	2
Commercial 1"	35,000	\$149.00	\$237.25	\$88.25	59%	1
Commercial 1"	36,000	\$153.30	\$243.10	\$89.80	59%	2
Commercial 1"	37,000	\$157.60	\$248.95	\$91.35	58%	4
Commercial 1"	38,000	\$161.90	\$254.80	\$92.90	57%	4
Commercial 1"	39,000	\$166.20	\$260.65	\$94.45	57%	2
Commercial 1"	40,000	\$170.50	\$266.50	\$96.00	56%	1
Commercial 1"	41,000	\$174.80	\$272.35	\$97.55	56%	1
Commercial 1"	42,000	\$179.10	\$278.20	\$99.10	55%	2
Commercial 1"	43,000	\$183.40	\$284.05	\$100.65	55%	2
Commercial 1"	44,000	\$187.70	\$289.90	\$102.20	54%	0
Commercial 1"	45,000	\$192.00	\$295.75	\$103.75	54%	1
Commercial 1"	46,000	\$196.30	\$301.60	\$105.30	54%	1
Commercial 1"	47,000	\$200.60	\$307.45	\$106.85	53%	4
Commercial 1"	48,000	\$204.90	\$313.30	\$108.40	53%	0
Commercial 1"	49,000	\$209.20	\$319.15	\$109.95	53%	2
Commercial 1"	50,000	\$213.50	\$325.00	\$111.50	52%	1
Commercial 1"	51,000	\$217.80	\$330.86	\$113.06	52%	1
Commercial 1"	52,000	\$222.10	\$336.72	\$114.62	52%	0
Commercial 1"	53,000	\$226.40	\$342.58	\$116.18	51%	1
Commercial 1"	54,000	\$230.70	\$348.44	\$117.74	51%	3
Commercial 1"	55,000	\$235.00	\$354.30	\$119.30	51%	2
Commercial 1"	56,000	\$239.30	\$360.16	\$120.86	51%	3
Commercial 1"	57,000	\$243.60	\$366.02	\$122.42	50%	0
Commercial 1"	58,000	\$247.90	\$371.88	\$123.98	50%	2
Commercial 1"	59,000	\$252.20	\$377.74	\$125.54	50%	2

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 1"	60,000	\$256.50	\$383.60	\$127.10	50%	1
Commercial 1"	61,000	\$260.80	\$389.46	\$128.66	49%	0
Commercial 1"	62,000	\$265.10	\$395.32	\$130.22	49%	1
Commercial 1"	63,000	\$269.40	\$401.18	\$131.78	49%	3
Commercial 1"	64,000	\$273.70	\$407.04	\$133.34	49%	1
Commercial 1"	65,000	\$278.00	\$412.90	\$134.90	49%	1
Commercial 1"	66,000	\$282.30	\$418.76	\$136.46	48%	1
Commercial 1"	67,000	\$286.60	\$424.62	\$138.02	48%	0
Commercial 1"	68,000	\$290.90	\$430.48	\$139.58	48%	0
Commercial 1"	69,000	\$295.20	\$436.34	\$141.14	48%	0
Commercial 1"	70,000	\$299.50	\$442.20	\$142.70	48%	2
Commercial 1"	71,000	\$303.80	\$448.06	\$144.26	47%	1
Commercial 1"	72,000	\$308.10	\$453.92	\$145.82	47%	0
Commercial 1"	73,000	\$312.40	\$459.78	\$147.38	47%	0
Commercial 1"	74,000	\$316.70	\$465.64	\$148.94	47%	0
Commercial 1"	75,000	\$321.00	\$471.50	\$150.50	47%	0
Commercial 1"	76,000	\$325.30	\$477.36	\$152.06	47%	0
Commercial 1"	77,000	\$329.60	\$483.22	\$153.62	47%	1
Commercial 1"	78,000	\$333.90	\$489.08	\$155.18	46%	1
Commercial 1"	79,000	\$338.20	\$494.94	\$156.74	46%	1
Commercial 1"	80,000	\$342.50	\$500.80	\$158.30	46%	1
Commercial 1"	81,000	\$346.80	\$506.66	\$159.86	46%	0
Commercial 1"	82,000	\$351.10	\$512.52	\$161.42	46%	0
Commercial 1"	83,000	\$355.40	\$518.38	\$162.98	46%	1
Commercial 1"	84,000	\$359.70	\$524.24	\$164.54	46%	0
Commercial 1"	85,000	\$364.00	\$530.10	\$166.10	46%	1
Commercial 1"	86,000	\$368.30	\$535.96	\$167.66	46%	0
Commercial 1"	87,000	\$372.60	\$541.82	\$169.22	45%	1
Commercial 1"	88,000	\$376.90	\$547.68	\$170.78	45%	0
Commercial 1"	89,000	\$381.20	\$553.54	\$172.34	45%	0
Commercial 1"	90,000	\$385.50	\$559.40	\$173.90	45%	0
Commercial 1"	91,000	\$389.80	\$565.26	\$175.46	45%	2
Commercial 1"	92,000	\$394.10	\$571.12	\$177.02	45%	0
Commercial 1"	93,000	\$398.40	\$576.98	\$178.58	45%	1
Commercial 1"	94,000	\$402.70	\$582.84	\$180.14	45%	0
Commercial 1"	95,000	\$407.00	\$588.70	\$181.70	45%	0
Commercial 1"	96,000	\$411.30	\$594.56	\$183.26	45%	0
Commercial 1"	97,000	\$415.60	\$600.42	\$184.82	44%	0
Commercial 1"	98,000	\$419.90	\$606.28	\$186.38	44%	1
Commercial 1"	99,000	\$424.20	\$612.14	\$187.94	44%	0
Commercial 1"	100,000	\$428.50	\$618.00	\$189.50	44%	1
Commercial 1"	150,000	\$643.50	\$911.00	\$267.50	42%	19
Commercial 1"	200,000	\$858.50	\$1,204.00	\$345.50	40%	6
Commercial 1"	250,000	\$1,073.50	\$1,497.00	\$423.50	39%	3
Commercial 1"	300,000	\$1,288.50	\$1,790.00	\$501.50	39%	3
Commercial 1"	350,000	\$1,503.50	\$2,083.00	\$579.50	39%	4
Commercial 1"	400,000	\$1,718.50	\$2,376.00	\$657.50	38%	4
Commercial 1.5"	0	\$40.00	\$100.00	\$60.00	150%	7

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 1.5"	1,000	\$40.00	\$104.75	\$64.75	162%	3
Commercial 1.5"	2,000	\$40.00	\$109.50	\$69.50	174%	0
Commercial 1.5"	3,000	\$40.00	\$114.25	\$74.25	186%	5
Commercial 1.5"	4,000	\$40.00	\$119.00	\$79.00	198%	3
Commercial 1.5"	5,000	\$40.00	\$123.75	\$83.75	209%	5
Commercial 1.5"	6,000	\$43.30	\$129.00	\$85.70	198%	3
Commercial 1.5"	7,000	\$46.60	\$134.25	\$87.65	188%	5
Commercial 1.5"	8,000	\$49.90	\$139.50	\$89.60	180%	2
Commercial 1.5"	9,000	\$53.20	\$144.75	\$91.55	172%	5
Commercial 1.5"	10,000	\$56.50	\$150.00	\$93.50	165%	6
Commercial 1.5"	11,000	\$59.80	\$155.25	\$95.45	160%	3
Commercial 1.5"	12,000	\$63.10	\$160.50	\$97.40	154%	4
Commercial 1.5"	13,000	\$66.40	\$165.75	\$99.35	150%	1
Commercial 1.5"	14,000	\$69.70	\$171.00	\$101.30	145%	1
Commercial 1.5"	15,000	\$73.00	\$176.25	\$103.25	141%	3
Commercial 1.5"	16,000	\$76.30	\$181.50	\$105.20	138%	0
Commercial 1.5"	17,000	\$79.60	\$186.75	\$107.15	135%	2
Commercial 1.5"	18,000	\$82.90	\$192.00	\$109.10	132%	0
Commercial 1.5"	19,000	\$86.20	\$197.25	\$111.05	129%	1
Commercial 1.5"	20,000	\$89.50	\$202.50	\$113.00	126%	1
Commercial 1.5"	21,000	\$92.80	\$207.75	\$114.95	124%	0
Commercial 1.5"	22,000	\$96.10	\$213.00	\$116.90	122%	1
Commercial 1.5"	23,000	\$99.40	\$218.25	\$118.85	120%	2
Commercial 1.5"	24,000	\$102.70	\$223.50	\$120.80	118%	1
Commercial 1.5"	25,000	\$106.00	\$228.75	\$122.75	116%	1
Commercial 1.5"	26,000	\$110.30	\$234.60	\$124.30	113%	0
Commercial 1.5"	27,000	\$114.60	\$240.45	\$125.85	110%	1
Commercial 1.5"	28,000	\$118.90	\$246.30	\$127.40	107%	2
Commercial 1.5"	29,000	\$123.20	\$252.15	\$128.95	105%	2
Commercial 1.5"	30,000	\$127.50	\$258.00	\$130.50	102%	2
Commercial 1.5"	31,000	\$131.80	\$263.85	\$132.05	100%	1
Commercial 1.5"	32,000	\$136.10	\$269.70	\$133.60	98%	2
Commercial 1.5"	33,000	\$140.40	\$275.55	\$135.15	96%	0
Commercial 1.5"	34,000	\$144.70	\$281.40	\$136.70	94%	2
Commercial 1.5"	35,000	\$149.00	\$287.25	\$138.25	93%	1
Commercial 1.5"	36,000	\$153.30	\$293.10	\$139.80	91%	1
Commercial 1.5"	37,000	\$157.60	\$298.95	\$141.35	90%	0
Commercial 1.5"	38,000	\$161.90	\$304.80	\$142.90	88%	4
Commercial 1.5"	39,000	\$166.20	\$310.65	\$144.45	87%	1
Commercial 1.5"	40,000	\$170.50	\$316.50	\$146.00	86%	1
Commercial 1.5"	41,000	\$174.80	\$322.35	\$147.55	84%	0
Commercial 1.5"	42,000	\$179.10	\$328.20	\$149.10	83%	0
Commercial 1.5"	43,000	\$183.40	\$334.05	\$150.65	82%	1
Commercial 1.5"	44,000	\$187.70	\$339.90	\$152.20	81%	1
Commercial 1.5"	45,000	\$192.00	\$345.75	\$153.75	80%	2
Commercial 1.5"	46,000	\$196.30	\$351.60	\$155.30	79%	0
Commercial 1.5"	47,000	\$200.60	\$357.45	\$156.85	78%	0
Commercial 1.5"	48,000	\$204.90	\$363.30	\$158.40	77%	1

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 1.5"	49,000	\$209.20	\$369.15	\$159.95	76%	0
Commercial 1.5"	50,000	\$213.50	\$375.00	\$161.50	76%	1
Commercial 1.5"	51,000	\$217.80	\$380.86	\$163.06	75%	0
Commercial 1.5"	52,000	\$222.10	\$386.72	\$164.62	74%	2
Commercial 1.5"	53,000	\$226.40	\$392.58	\$166.18	73%	1
Commercial 1.5"	54,000	\$230.70	\$398.44	\$167.74	73%	3
Commercial 1.5"	55,000	\$235.00	\$404.30	\$169.30	72%	0
Commercial 1.5"	56,000	\$239.30	\$410.16	\$170.86	71%	2
Commercial 1.5"	57,000	\$243.60	\$416.02	\$172.42	71%	1
Commercial 1.5"	58,000	\$247.90	\$421.88	\$173.98	70%	1
Commercial 1.5"	59,000	\$252.20	\$427.74	\$175.54	70%	0
Commercial 1.5"	60,000	\$256.50	\$433.60	\$177.10	69%	1
Commercial 1.5"	61,000	\$260.80	\$439.46	\$178.66	69%	0
Commercial 1.5"	62,000	\$265.10	\$445.32	\$180.22	68%	1
Commercial 1.5"	63,000	\$269.40	\$451.18	\$181.78	67%	2
Commercial 1.5"	64,000	\$273.70	\$457.04	\$183.34	67%	0
Commercial 1.5"	65,000	\$278.00	\$462.90	\$184.90	67%	1
Commercial 1.5"	66,000	\$282.30	\$468.76	\$186.46	66%	0
Commercial 1.5"	67,000	\$286.60	\$474.62	\$188.02	66%	0
Commercial 1.5"	68,000	\$290.90	\$480.48	\$189.58	65%	1
Commercial 1.5"	69,000	\$295.20	\$486.34	\$191.14	65%	0
Commercial 1.5"	70,000	\$299.50	\$492.20	\$192.70	64%	0
Commercial 1.5"	71,000	\$303.80	\$498.06	\$194.26	64%	0
Commercial 1.5"	72,000	\$308.10	\$503.92	\$195.82	64%	0
Commercial 1.5"	73,000	\$312.40	\$509.78	\$197.38	63%	1
Commercial 1.5"	74,000	\$316.70	\$515.64	\$198.94	63%	0
Commercial 1.5"	75,000	\$321.00	\$521.50	\$200.50	62%	0
Commercial 1.5"	76,000	\$325.30	\$527.36	\$202.06	62%	0
Commercial 1.5"	77,000	\$329.60	\$533.22	\$203.62	62%	1
Commercial 1.5"	78,000	\$333.90	\$539.08	\$205.18	61%	1
Commercial 1.5"	79,000	\$338.20	\$544.94	\$206.74	61%	0
Commercial 1.5"	80,000	\$342.50	\$550.80	\$208.30	61%	0
Commercial 1.5"	81,000	\$346.80	\$556.66	\$209.86	61%	0
Commercial 1.5"	82,000	\$351.10	\$562.52	\$211.42	60%	1
Commercial 1.5"	83,000	\$355.40	\$568.38	\$212.98	60%	1
Commercial 1.5"	84,000	\$359.70	\$574.24	\$214.54	60%	1
Commercial 1.5"	85,000	\$364.00	\$580.10	\$216.10	59%	0
Commercial 1.5"	86,000	\$368.30	\$585.96	\$217.66	59%	2
Commercial 1.5"	87,000	\$372.60	\$591.82	\$219.22	59%	1
Commercial 1.5"	88,000	\$376.90	\$597.68	\$220.78	59%	0
Commercial 1.5"	89,000	\$381.20	\$603.54	\$222.34	58%	1
Commercial 1.5"	90,000	\$385.50	\$609.40	\$223.90	58%	0
Commercial 1.5"	91,000	\$389.80	\$615.26	\$225.46	58%	0
Commercial 1.5"	92,000	\$394.10	\$621.12	\$227.02	58%	0
Commercial 1.5"	93,000	\$398.40	\$626.98	\$228.58	57%	0
Commercial 1.5"	94,000	\$402.70	\$632.84	\$230.14	57%	0
Commercial 1.5"	95,000	\$407.00	\$638.70	\$231.70	57%	0
Commercial 1.5"	96,000	\$411.30	\$644.56	\$233.26	57%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 1.5"	97,000	\$415.60	\$650.42	\$234.82	57%	0
Commercial 1.5"	98,000	\$419.90	\$656.28	\$236.38	56%	1
Commercial 1.5"	99,000	\$424.20	\$662.14	\$237.94	56%	0
Commercial 1.5"	100,000	\$428.50	\$668.00	\$239.50	56%	1
Commercial 1.5"	150,000	\$643.50	\$961.00	\$317.50	49%	21
Commercial 1.5"	200,000	\$858.50	\$1,254.00	\$395.50	46%	12
Commercial 1.5"	250,000	\$1,073.50	\$1,547.00	\$473.50	44%	9
Commercial 1.5"	300,000	\$1,288.50	\$1,840.00	\$551.50	43%	7
Commercial 2"	0	\$40.00	\$160.00	\$120.00	300%	17
Commercial 2"	1,000	\$40.00	\$164.75	\$124.75	312%	4
Commercial 2"	2,000	\$40.00	\$169.50	\$129.50	324%	4
Commercial 2"	3,000	\$40.00	\$174.25	\$134.25	336%	5
Commercial 2"	4,000	\$40.00	\$179.00	\$139.00	348%	6
Commercial 2"	5,000	\$40.00	\$183.75	\$143.75	359%	2
Commercial 2"	6,000	\$43.30	\$189.00	\$145.70	336%	6
Commercial 2"	7,000	\$46.60	\$194.25	\$147.65	317%	3
Commercial 2"	8,000	\$49.90	\$199.50	\$149.60	300%	1
Commercial 2"	9,000	\$53.20	\$204.75	\$151.55	285%	4
Commercial 2"	10,000	\$56.50	\$210.00	\$153.50	272%	6
Commercial 2"	11,000	\$59.80	\$215.25	\$155.45	260%	1
Commercial 2"	12,000	\$63.10	\$220.50	\$157.40	249%	4
Commercial 2"	13,000	\$66.40	\$225.75	\$159.35	240%	0
Commercial 2"	14,000	\$69.70	\$231.00	\$161.30	231%	2
Commercial 2"	15,000	\$73.00	\$236.25	\$163.25	224%	5
Commercial 2"	16,000	\$76.30	\$241.50	\$165.20	217%	3
Commercial 2"	17,000	\$79.60	\$246.75	\$167.15	210%	4
Commercial 2"	18,000	\$82.90	\$252.00	\$169.10	204%	3
Commercial 2"	19,000	\$86.20	\$257.25	\$171.05	198%	3
Commercial 2"	20,000	\$89.50	\$262.50	\$173.00	193%	4
Commercial 2"	21,000	\$92.80	\$267.75	\$174.95	189%	4
Commercial 2"	22,000	\$96.10	\$273.00	\$176.90	184%	3
Commercial 2"	23,000	\$99.40	\$278.25	\$178.85	180%	1
Commercial 2"	24,000	\$102.70	\$283.50	\$180.80	176%	0
Commercial 2"	25,000	\$106.00	\$288.75	\$182.75	172%	0
Commercial 2"	26,000	\$110.30	\$294.60	\$184.30	167%	0
Commercial 2"	27,000	\$114.60	\$300.45	\$185.85	162%	1
Commercial 2"	28,000	\$118.90	\$306.30	\$187.40	158%	2
Commercial 2"	29,000	\$123.20	\$312.15	\$188.95	153%	0
Commercial 2"	30,000	\$127.50	\$318.00	\$190.50	149%	2
Commercial 2"	31,000	\$131.80	\$323.85	\$192.05	146%	0
Commercial 2"	32,000	\$136.10	\$329.70	\$193.60	142%	2
Commercial 2"	33,000	\$140.40	\$335.55	\$195.15	139%	4
Commercial 2"	34,000	\$144.70	\$341.40	\$196.70	136%	0
Commercial 2"	35,000	\$149.00	\$347.25	\$198.25	133%	2
Commercial 2"	36,000	\$153.30	\$353.10	\$199.80	130%	0
Commercial 2"	37,000	\$157.60	\$358.95	\$201.35	128%	0
Commercial 2"	38,000	\$161.90	\$364.80	\$202.90	125%	1
Commercial 2"	39,000	\$166.20	\$370.65	\$204.45	123%	2

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 2"	40,000	\$170.50	\$376.50	\$206.00	121%	2
Commercial 2"	41,000	\$174.80	\$382.35	\$207.55	119%	0
Commercial 2"	42,000	\$179.10	\$388.20	\$209.10	117%	1
Commercial 2"	43,000	\$183.40	\$394.05	\$210.65	115%	2
Commercial 2"	44,000	\$187.70	\$399.90	\$212.20	113%	0
Commercial 2"	45,000	\$192.00	\$405.75	\$213.75	111%	1
Commercial 2"	46,000	\$196.30	\$411.60	\$215.30	110%	2
Commercial 2"	47,000	\$200.60	\$417.45	\$216.85	108%	1
Commercial 2"	48,000	\$204.90	\$423.30	\$218.40	107%	1
Commercial 2"	49,000	\$209.20	\$429.15	\$219.95	105%	2
Commercial 2"	50,000	\$213.50	\$435.00	\$221.50	104%	1
Commercial 2"	51,000	\$217.80	\$440.86	\$223.06	102%	2
Commercial 2"	52,000	\$222.10	\$446.72	\$224.62	101%	0
Commercial 2"	53,000	\$226.40	\$452.58	\$226.18	100%	0
Commercial 2"	54,000	\$230.70	\$458.44	\$227.74	99%	0
Commercial 2"	55,000	\$235.00	\$464.30	\$229.30	98%	1
Commercial 2"	56,000	\$239.30	\$470.16	\$230.86	96%	0
Commercial 2"	57,000	\$243.60	\$476.02	\$232.42	95%	0
Commercial 2"	58,000	\$247.90	\$481.88	\$233.98	94%	2
Commercial 2"	59,000	\$252.20	\$487.74	\$235.54	93%	0
Commercial 2"	60,000	\$256.50	\$493.60	\$237.10	92%	3
Commercial 2"	61,000	\$260.80	\$499.46	\$238.66	92%	0
Commercial 2"	62,000	\$265.10	\$505.32	\$240.22	91%	0
Commercial 2"	63,000	\$269.40	\$511.18	\$241.78	90%	0
Commercial 2"	64,000	\$273.70	\$517.04	\$243.34	89%	0
Commercial 2"	65,000	\$278.00	\$522.90	\$244.90	88%	2
Commercial 2"	66,000	\$282.30	\$528.76	\$246.46	87%	0
Commercial 2"	67,000	\$286.60	\$534.62	\$248.02	87%	1
Commercial 2"	68,000	\$290.90	\$540.48	\$249.58	86%	3
Commercial 2"	69,000	\$295.20	\$546.34	\$251.14	85%	0
Commercial 2"	70,000	\$299.50	\$552.20	\$252.70	84%	0
Commercial 2"	71,000	\$303.80	\$558.06	\$254.26	84%	1
Commercial 2"	72,000	\$308.10	\$563.92	\$255.82	83%	0
Commercial 2"	73,000	\$312.40	\$569.78	\$257.38	82%	0
Commercial 2"	74,000	\$316.70	\$575.64	\$258.94	82%	0
Commercial 2"	75,000	\$321.00	\$581.50	\$260.50	81%	0
Commercial 2"	76,000	\$325.30	\$587.36	\$262.06	81%	2
Commercial 2"	77,000	\$329.60	\$593.22	\$263.62	80%	0
Commercial 2"	78,000	\$333.90	\$599.08	\$265.18	79%	1
Commercial 2"	79,000	\$338.20	\$604.94	\$266.74	79%	0
Commercial 2"	80,000	\$342.50	\$610.80	\$268.30	78%	3
Commercial 2"	81,000	\$346.80	\$616.66	\$269.86	78%	0
Commercial 2"	82,000	\$351.10	\$622.52	\$271.42	77%	0
Commercial 2"	83,000	\$355.40	\$628.38	\$272.98	77%	0
Commercial 2"	84,000	\$359.70	\$634.24	\$274.54	76%	0
Commercial 2"	85,000	\$364.00	\$640.10	\$276.10	76%	1
Commercial 2"	86,000	\$368.30	\$645.96	\$277.66	75%	3
Commercial 2"	87,000	\$372.60	\$651.82	\$279.22	75%	1

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 2"	88,000	\$376.90	\$657.68	\$280.78	74%	2
Commercial 2"	89,000	\$381.20	\$663.54	\$282.34	74%	0
Commercial 2"	90,000	\$385.50	\$669.40	\$283.90	74%	0
Commercial 2"	91,000	\$389.80	\$675.26	\$285.46	73%	0
Commercial 2"	92,000	\$394.10	\$681.12	\$287.02	73%	0
Commercial 2"	93,000	\$398.40	\$686.98	\$288.58	72%	1
Commercial 2"	94,000	\$402.70	\$692.84	\$290.14	72%	0
Commercial 2"	95,000	\$407.00	\$698.70	\$291.70	72%	1
Commercial 2"	96,000	\$411.30	\$704.56	\$293.26	71%	0
Commercial 2"	97,000	\$415.60	\$710.42	\$294.82	71%	0
Commercial 2"	98,000	\$419.90	\$716.28	\$296.38	71%	1
Commercial 2"	99,000	\$424.20	\$722.14	\$297.94	70%	1
Commercial 2"	100,000	\$428.50	\$728.00	\$299.50	70%	1
Commercial 2"	150,000	\$643.50	\$1,021.00	\$377.50	59%	29
Commercial 2"	200,000	\$858.50	\$1,314.00	\$455.50	53%	19
Commercial 2"	250,000	\$1,073.50	\$1,607.00	\$533.50	50%	6
Commercial 2"	300,000	\$1,288.50	\$1,900.00	\$611.50	47%	7
Commercial 2"	350,000	\$1,503.50	\$2,193.00	\$689.50	46%	7
Commercial 2"	400,000	\$1,718.50	\$2,486.00	\$767.50	45%	4
Commercial 2"	450,000	\$1,933.50	\$2,779.00	\$845.50	44%	5
Commercial 2"	500,000	\$2,148.50	\$3,072.00	\$923.50	43%	3
Commercial 2"	550,000	\$2,363.50	\$3,365.00	\$1,001.50	42%	1
Commercial 2"	600,000	\$2,578.50	\$3,658.00	\$1,079.50	42%	0
Commercial 2"	650,000	\$2,793.50	\$3,951.00	\$1,157.50	41%	3
Commercial 2"	700,000	\$3,008.50	\$4,244.00	\$1,235.50	41%	0
Commercial 2"	750,000	\$3,223.50	\$4,537.00	\$1,313.50	41%	1
Commercial 2"	800,000	\$3,438.50	\$4,830.00	\$1,391.50	40%	3
Commercial 2"	850,000	\$3,653.50	\$5,123.00	\$1,469.50	40%	1
Commercial 2"	900,000	\$3,868.50	\$5,416.00	\$1,547.50	40%	4
Commercial 2"	950,000	\$4,083.50	\$5,709.00	\$1,625.50	40%	0
Commercial 2"	1,000,000	\$4,298.50	\$6,002.00	\$1,703.50	40%	0
Commercial 2"	1,050,000	\$4,513.50	\$6,295.00	\$1,781.50	39%	2
Commercial 2"	1,100,000	\$4,728.50	\$6,588.00	\$1,859.50	39%	0
Commercial 2"	1,150,000	\$4,943.50	\$6,881.00	\$1,937.50	39%	0
Commercial 2"	1,200,000	\$5,158.50	\$7,174.00	\$2,015.50	39%	0
Commercial 2"	1,250,000	\$5,373.50	\$7,467.00	\$2,093.50	39%	0
Commercial 2"	1,300,000	\$5,588.50	\$7,760.00	\$2,171.50	39%	0
Commercial 2"	1,350,000	\$5,803.50	\$8,053.00	\$2,249.50	39%	0
Commercial 2"	1,400,000	\$6,018.50	\$8,346.00	\$2,327.50	39%	0
Commercial 2"	1,450,000	\$6,233.50	\$8,639.00	\$2,405.50	39%	0
Commercial 2"	1,500,000	\$6,448.50	\$8,932.00	\$2,483.50	39%	1
Commercial 2"	1,550,000	\$6,663.50	\$9,225.00	\$2,561.50	38%	0
Commercial 2"	1,600,000	\$6,878.50	\$9,518.00	\$2,639.50	38%	0
Commercial 2"	1,650,000	\$7,093.50	\$9,811.00	\$2,717.50	38%	0
Commercial 2"	1,700,000	\$7,308.50	\$10,104.00	\$2,795.50	38%	0
Commercial 2"	1,750,000	\$7,523.50	\$10,397.00	\$2,873.50	38%	0
Commercial 2"	1,800,000	\$7,738.50	\$10,690.00	\$2,951.50	38%	0
Commercial 2"	1,850,000	\$7,953.50	\$10,983.00	\$3,029.50	38%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 2"	1,900,000	\$8,168.50	\$11,276.00	\$3,107.50	38%	1
Commercial 3"	0	\$40.00	\$320.00	\$280.00	700%	15
Commercial 3"	1,000	\$40.00	\$324.75	\$284.75	712%	0
Commercial 3"	2,000	\$40.00	\$329.50	\$289.50	724%	0
Commercial 3"	3,000	\$40.00	\$334.25	\$294.25	736%	0
Commercial 3"	4,000	\$40.00	\$339.00	\$299.00	748%	0
Commercial 3"	5,000	\$40.00	\$343.75	\$303.75	759%	0
Commercial 3"	6,000	\$43.30	\$349.00	\$305.70	706%	0
Commercial 3"	7,000	\$46.60	\$354.25	\$307.65	660%	0
Commercial 3"	8,000	\$49.90	\$359.50	\$309.60	620%	0
Commercial 3"	9,000	\$53.20	\$364.75	\$311.55	586%	2
Commercial 3"	10,000	\$56.50	\$370.00	\$313.50	555%	3
Commercial 3"	11,000	\$59.80	\$375.25	\$315.45	528%	2
Commercial 3"	12,000	\$63.10	\$380.50	\$317.40	503%	1
Commercial 3"	13,000	\$66.40	\$385.75	\$319.35	481%	1
Commercial 3"	14,000	\$69.70	\$391.00	\$321.30	461%	1
Commercial 3"	15,000	\$73.00	\$396.25	\$323.25	443%	1
Commercial 3"	16,000	\$76.30	\$401.50	\$325.20	426%	1
Commercial 3"	17,000	\$79.60	\$406.75	\$327.15	411%	0
Commercial 3"	18,000	\$82.90	\$412.00	\$329.10	397%	1
Commercial 3"	19,000	\$86.20	\$417.25	\$331.05	384%	0
Commercial 3"	20,000	\$89.50	\$422.50	\$333.00	372%	1
Commercial 3"	21,000	\$92.80	\$427.75	\$334.95	361%	1
Commercial 3"	22,000	\$96.10	\$433.00	\$336.90	351%	0
Commercial 3"	23,000	\$99.40	\$438.25	\$338.85	341%	0
Commercial 3"	24,000	\$102.70	\$443.50	\$340.80	332%	0
Commercial 3"	25,000	\$106.00	\$448.75	\$342.75	323%	0
Commercial 3"	26,000	\$110.30	\$454.60	\$344.30	312%	0
Commercial 3"	27,000	\$114.60	\$460.45	\$345.85	302%	1
Commercial 3"	28,000	\$118.90	\$466.30	\$347.40	292%	1
Commercial 3"	29,000	\$123.20	\$472.15	\$348.95	283%	0
Commercial 3"	30,000	\$127.50	\$478.00	\$350.50	275%	1
Commercial 3"	31,000	\$131.80	\$483.85	\$352.05	267%	1
Commercial 3"	32,000	\$136.10	\$489.70	\$353.60	260%	0
Commercial 3"	33,000	\$140.40	\$495.55	\$355.15	253%	0
Commercial 3"	34,000	\$144.70	\$501.40	\$356.70	247%	0
Commercial 3"	35,000	\$149.00	\$507.25	\$358.25	240%	0
Commercial 3"	36,000	\$153.30	\$513.10	\$359.80	235%	1
Commercial 3"	37,000	\$157.60	\$518.95	\$361.35	229%	0
Commercial 3"	38,000	\$161.90	\$524.80	\$362.90	224%	0
Commercial 3"	39,000	\$166.20	\$530.65	\$364.45	219%	0
Commercial 3"	40,000	\$170.50	\$536.50	\$366.00	215%	0
Commercial 3"	41,000	\$174.80	\$542.35	\$367.55	210%	0
Commercial 3"	42,000	\$179.10	\$548.20	\$369.10	206%	0
Commercial 3"	43,000	\$183.40	\$554.05	\$370.65	202%	0
Commercial 3"	44,000	\$187.70	\$559.90	\$372.20	198%	0
Commercial 3"	45,000	\$192.00	\$565.75	\$373.75	195%	0
Commercial 3"	46,000	\$196.30	\$571.60	\$375.30	191%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 3"	47,000	\$200.60	\$577.45	\$376.85	188%	0
Commercial 3"	48,000	\$204.90	\$583.30	\$378.40	185%	0
Commercial 3"	49,000	\$209.20	\$589.15	\$379.95	182%	0
Commercial 3"	50,000	\$213.50	\$595.00	\$381.50	179%	1
Commercial 3"	51,000	\$217.80	\$600.86	\$383.06	176%	0
Commercial 3"	52,000	\$222.10	\$606.72	\$384.62	173%	0
Commercial 3"	53,000	\$226.40	\$612.58	\$386.18	171%	0
Commercial 3"	54,000	\$230.70	\$618.44	\$387.74	168%	0
Commercial 3"	55,000	\$235.00	\$624.30	\$389.30	166%	0
Commercial 3"	56,000	\$239.30	\$630.16	\$390.86	163%	0
Commercial 3"	57,000	\$243.60	\$636.02	\$392.42	161%	0
Commercial 3"	58,000	\$247.90	\$641.88	\$393.98	159%	0
Commercial 3"	59,000	\$252.20	\$647.74	\$395.54	157%	0
Commercial 3"	60,000	\$256.50	\$653.60	\$397.10	155%	0
Commercial 3"	61,000	\$260.80	\$659.46	\$398.66	153%	0
Commercial 3"	62,000	\$265.10	\$665.32	\$400.22	151%	0
Commercial 3"	63,000	\$269.40	\$671.18	\$401.78	149%	0
Commercial 3"	64,000	\$273.70	\$677.04	\$403.34	147%	0
Commercial 3"	65,000	\$278.00	\$682.90	\$404.90	146%	0
Commercial 3"	66,000	\$282.30	\$688.76	\$406.46	144%	0
Commercial 3"	67,000	\$286.60	\$694.62	\$408.02	142%	0
Commercial 3"	68,000	\$290.90	\$700.48	\$409.58	141%	0
Commercial 3"	69,000	\$295.20	\$706.34	\$411.14	139%	0
Commercial 3"	70,000	\$299.50	\$712.20	\$412.70	138%	0
Commercial 3"	71,000	\$303.80	\$718.06	\$414.26	136%	0
Commercial 3"	72,000	\$308.10	\$723.92	\$415.82	135%	0
Commercial 3"	73,000	\$312.40	\$729.78	\$417.38	134%	0
Commercial 3"	74,000	\$316.70	\$735.64	\$418.94	132%	0
Commercial 3"	75,000	\$321.00	\$741.50	\$420.50	131%	0
Commercial 3"	76,000	\$325.30	\$747.36	\$422.06	130%	0
Commercial 3"	77,000	\$329.60	\$753.22	\$423.62	129%	0
Commercial 3"	78,000	\$333.90	\$759.08	\$425.18	127%	0
Commercial 3"	79,000	\$338.20	\$764.94	\$426.74	126%	0
Commercial 3"	80,000	\$342.50	\$770.80	\$428.30	125%	0
Commercial 3"	81,000	\$346.80	\$776.66	\$429.86	124%	0
Commercial 3"	82,000	\$351.10	\$782.52	\$431.42	123%	0
Commercial 3"	83,000	\$355.40	\$788.38	\$432.98	122%	0
Commercial 3"	84,000	\$359.70	\$794.24	\$434.54	121%	0
Commercial 3"	85,000	\$364.00	\$800.10	\$436.10	120%	0
Commercial 3"	86,000	\$368.30	\$805.96	\$437.66	119%	0
Commercial 3"	87,000	\$372.60	\$811.82	\$439.22	118%	0
Commercial 3"	88,000	\$376.90	\$817.68	\$440.78	117%	0
Commercial 3"	89,000	\$381.20	\$823.54	\$442.34	116%	0
Commercial 3"	90,000	\$385.50	\$829.40	\$443.90	115%	0
Commercial 3"	91,000	\$389.80	\$835.26	\$445.46	114%	0
Commercial 3"	92,000	\$394.10	\$841.12	\$447.02	113%	0
Commercial 3"	93,000	\$398.40	\$846.98	\$448.58	113%	0
Commercial 3"	94,000	\$402.70	\$852.84	\$450.14	112%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 3"	95,000	\$407.00	\$858.70	\$451.70	111%	0
Commercial 3"	96,000	\$411.30	\$864.56	\$453.26	110%	0
Commercial 3"	97,000	\$415.60	\$870.42	\$454.82	109%	0
Commercial 3"	98,000	\$419.90	\$876.28	\$456.38	109%	0
Commercial 3"	99,000	\$424.20	\$882.14	\$457.94	108%	0
Commercial 3"	100,000	\$428.50	\$888.00	\$459.50	107%	2
Commercial 3"	150,000	\$643.50	\$1,181.00	\$537.50	84%	3
Commercial 3"	200,000	\$858.50	\$1,474.00	\$615.50	72%	3
Commercial 3"	250,000	\$1,073.50	\$1,767.00	\$693.50	65%	0
Commercial 3"	300,000	\$1,288.50	\$2,060.00	\$771.50	60%	0
Commercial 3"	350,000	\$1,503.50	\$2,353.00	\$849.50	57%	2
Commercial 3"	400,000	\$1,718.50	\$2,646.00	\$927.50	54%	1
Commercial 4"	0	\$40.00	\$500.00	\$460.00	1150%	8
Commercial 4"	1,000	\$40.00	\$504.75	\$464.75	1162%	0
Commercial 4"	2,000	\$40.00	\$509.50	\$469.50	1174%	0
Commercial 4"	3,000	\$40.00	\$514.25	\$474.25	1186%	0
Commercial 4"	4,000	\$40.00	\$519.00	\$479.00	1198%	0
Commercial 4"	5,000	\$40.00	\$523.75	\$483.75	1209%	0
Commercial 4"	6,000	\$43.30	\$529.00	\$485.70	1122%	0
Commercial 4"	7,000	\$46.60	\$534.25	\$487.65	1046%	0
Commercial 4"	8,000	\$49.90	\$539.50	\$489.60	981%	0
Commercial 4"	9,000	\$53.20	\$544.75	\$491.55	924%	0
Commercial 4"	10,000	\$56.50	\$550.00	\$493.50	873%	0
Commercial 4"	11,000	\$59.80	\$555.25	\$495.45	829%	0
Commercial 4"	12,000	\$63.10	\$560.50	\$497.40	788%	0
Commercial 4"	13,000	\$66.40	\$565.75	\$499.35	752%	0
Commercial 4"	14,000	\$69.70	\$571.00	\$501.30	719%	0
Commercial 4"	15,000	\$73.00	\$576.25	\$503.25	689%	0
Commercial 4"	16,000	\$76.30	\$581.50	\$505.20	662%	0
Commercial 4"	17,000	\$79.60	\$586.75	\$507.15	637%	0
Commercial 4"	18,000	\$82.90	\$592.00	\$509.10	614%	0
Commercial 4"	19,000	\$86.20	\$597.25	\$511.05	593%	0
Commercial 4"	20,000	\$89.50	\$602.50	\$513.00	573%	0
Commercial 4"	21,000	\$92.80	\$607.75	\$514.95	555%	0
Commercial 4"	22,000	\$96.10	\$613.00	\$516.90	538%	0
Commercial 4"	23,000	\$99.40	\$618.25	\$518.85	522%	0
Commercial 4"	24,000	\$102.70	\$623.50	\$520.80	507%	0
Commercial 4"	25,000	\$106.00	\$628.75	\$522.75	493%	0
Commercial 4"	26,000	\$110.30	\$634.60	\$524.30	475%	0
Commercial 4"	27,000	\$114.60	\$640.45	\$525.85	459%	0
Commercial 4"	28,000	\$118.90	\$646.30	\$527.40	444%	0
Commercial 4"	29,000	\$123.20	\$652.15	\$528.95	429%	0
Commercial 4"	30,000	\$127.50	\$658.00	\$530.50	416%	0
Commercial 4"	31,000	\$131.80	\$663.85	\$532.05	404%	0
Commercial 4"	32,000	\$136.10	\$669.70	\$533.60	392%	0
Commercial 4"	33,000	\$140.40	\$675.55	\$535.15	381%	0
Commercial 4"	34,000	\$144.70	\$681.40	\$536.70	371%	0
Commercial 4"	35,000	\$149.00	\$687.25	\$538.25	361%	1

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 4"	36,000	\$153.30	\$693.10	\$539.80	352%	0
Commercial 4"	37,000	\$157.60	\$698.95	\$541.35	343%	0
Commercial 4"	38,000	\$161.90	\$704.80	\$542.90	335%	0
Commercial 4"	39,000	\$166.20	\$710.65	\$544.45	328%	0
Commercial 4"	40,000	\$170.50	\$716.50	\$546.00	320%	0
Commercial 4"	41,000	\$174.80	\$722.35	\$547.55	313%	0
Commercial 4"	42,000	\$179.10	\$728.20	\$549.10	307%	0
Commercial 4"	43,000	\$183.40	\$734.05	\$550.65	300%	0
Commercial 4"	44,000	\$187.70	\$739.90	\$552.20	294%	0
Commercial 4"	45,000	\$192.00	\$745.75	\$553.75	288%	1
Commercial 4"	46,000	\$196.30	\$751.60	\$555.30	283%	0
Commercial 4"	47,000	\$200.60	\$757.45	\$556.85	278%	0
Commercial 4"	48,000	\$204.90	\$763.30	\$558.40	273%	0
Commercial 4"	49,000	\$209.20	\$769.15	\$559.95	268%	0
Commercial 4"	50,000	\$213.50	\$775.00	\$561.50	263%	0
Commercial 4"	51,000	\$217.80	\$780.86	\$563.06	259%	0
Commercial 4"	52,000	\$222.10	\$786.72	\$564.62	254%	0
Commercial 4"	53,000	\$226.40	\$792.58	\$566.18	250%	0
Commercial 4"	54,000	\$230.70	\$798.44	\$567.74	246%	0
Commercial 4"	55,000	\$235.00	\$804.30	\$569.30	242%	0
Commercial 4"	56,000	\$239.30	\$810.16	\$570.86	239%	0
Commercial 4"	57,000	\$243.60	\$816.02	\$572.42	235%	0
Commercial 4"	58,000	\$247.90	\$821.88	\$573.98	232%	0
Commercial 4"	59,000	\$252.20	\$827.74	\$575.54	228%	0
Commercial 4"	60,000	\$256.50	\$833.60	\$577.10	225%	0
Commercial 4"	61,000	\$260.80	\$839.46	\$578.66	222%	0
Commercial 4"	62,000	\$265.10	\$845.32	\$580.22	219%	0
Commercial 4"	63,000	\$269.40	\$851.18	\$581.78	216%	0
Commercial 4"	64,000	\$273.70	\$857.04	\$583.34	213%	0
Commercial 4"	65,000	\$278.00	\$862.90	\$584.90	210%	0
Commercial 4"	66,000	\$282.30	\$868.76	\$586.46	208%	0
Commercial 4"	67,000	\$286.60	\$874.62	\$588.02	205%	0
Commercial 4"	68,000	\$290.90	\$880.48	\$589.58	203%	0
Commercial 4"	69,000	\$295.20	\$886.34	\$591.14	200%	0
Commercial 4"	70,000	\$299.50	\$892.20	\$592.70	198%	0
Commercial 4"	71,000	\$303.80	\$898.06	\$594.26	196%	0
Commercial 4"	72,000	\$308.10	\$903.92	\$595.82	193%	0
Commercial 4"	73,000	\$312.40	\$909.78	\$597.38	191%	0
Commercial 4"	74,000	\$316.70	\$915.64	\$598.94	189%	0
Commercial 4"	75,000	\$321.00	\$921.50	\$600.50	187%	0
Commercial 4"	76,000	\$325.30	\$927.36	\$602.06	185%	0
Commercial 4"	77,000	\$329.60	\$933.22	\$603.62	183%	0
Commercial 4"	78,000	\$333.90	\$939.08	\$605.18	181%	0
Commercial 4"	79,000	\$338.20	\$944.94	\$606.74	179%	0
Commercial 4"	80,000	\$342.50	\$950.80	\$608.30	178%	0
Commercial 4"	81,000	\$346.80	\$956.66	\$609.86	176%	1
Commercial 4"	82,000	\$351.10	\$962.52	\$611.42	174%	0
Commercial 4"	83,000	\$355.40	\$968.38	\$612.98	172%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 4"	84,000	\$359.70	\$974.24	\$614.54	171%	0
Commercial 4"	85,000	\$364.00	\$980.10	\$616.10	169%	0
Commercial 4"	86,000	\$368.30	\$985.96	\$617.66	168%	0
Commercial 4"	87,000	\$372.60	\$991.82	\$619.22	166%	0
Commercial 4"	88,000	\$376.90	\$997.68	\$620.78	165%	0
Commercial 4"	89,000	\$381.20	\$1,003.54	\$622.34	163%	0
Commercial 4"	90,000	\$385.50	\$1,009.40	\$623.90	162%	1
Commercial 4"	91,000	\$389.80	\$1,015.26	\$625.46	160%	0
Commercial 4"	92,000	\$394.10	\$1,021.12	\$627.02	159%	0
Commercial 4"	93,000	\$398.40	\$1,026.98	\$628.58	158%	0
Commercial 4"	94,000	\$402.70	\$1,032.84	\$630.14	156%	0
Commercial 4"	95,000	\$407.00	\$1,038.70	\$631.70	155%	0
Commercial 4"	96,000	\$411.30	\$1,044.56	\$633.26	154%	0
Commercial 4"	97,000	\$415.60	\$1,050.42	\$634.82	153%	0
Commercial 4"	98,000	\$419.90	\$1,056.28	\$636.38	152%	0
Commercial 4"	99,000	\$424.20	\$1,062.14	\$637.94	150%	1
Commercial 4"	100,000	\$428.50	\$1,068.00	\$639.50	149%	0
Commercial 4"	150,000	\$643.50	\$1,361.00	\$717.50	111%	1
Commercial 4"	200,000	\$858.50	\$1,654.00	\$795.50	93%	1
Commercial 4"	250,000	\$1,073.50	\$1,947.00	\$873.50	81%	0
Commercial 4"	300,000	\$1,288.50	\$2,240.00	\$951.50	74%	3
Commercial 4"	400,000	\$1,718.50	\$2,826.00	\$1,107.50	64%	0
Commercial 4"	450,000	\$1,933.50	\$3,119.00	\$1,185.50	61%	0
Commercial 4"	500,000	\$2,148.50	\$3,412.00	\$1,263.50	59%	1
Commercial 4"	550,000	\$2,363.50	\$3,705.00	\$1,341.50	57%	2
Commercial 4"	600,000	\$2,578.50	\$3,998.00	\$1,419.50	55%	1
Commercial 4"	650,000	\$2,793.50	\$4,291.00	\$1,497.50	54%	1
Commercial 4"	700,000	\$3,008.50	\$4,584.00	\$1,575.50	52%	1
Commercial 4"	750,000	\$3,223.50	\$4,877.00	\$1,653.50	51%	0
Commercial 4"	800,000	\$3,438.50	\$5,170.00	\$1,731.50	50%	1
Commercial 4"	850,000	\$3,653.50	\$5,463.00	\$1,809.50	50%	0
Commercial 4"	900,000	\$3,868.50	\$5,756.00	\$1,887.50	49%	1
Commercial 4"	950,000	\$4,083.50	\$6,049.00	\$1,965.50	48%	1
Commercial 4"	1,000,000	\$4,298.50	\$6,342.00	\$2,043.50	48%	0
Commercial 4"	1,050,000	\$4,513.50	\$6,635.00	\$2,121.50	47%	3
Commercial 4"	1,100,000	\$4,728.50	\$6,928.00	\$2,199.50	47%	2
Commercial 4"	1,150,000	\$4,943.50	\$7,221.00	\$2,277.50	46%	0
Commercial 4"	1,200,000	\$5,158.50	\$7,514.00	\$2,355.50	46%	0
Commercial 4"	1,250,000	\$5,373.50	\$7,807.00	\$2,433.50	45%	0
Commercial 4"	1,300,000	\$5,588.50	\$8,100.00	\$2,511.50	45%	0
Commercial 4"	1,350,000	\$5,803.50	\$8,393.00	\$2,589.50	45%	0
Commercial 4"	1,400,000	\$6,018.50	\$8,686.00	\$2,667.50	44%	0
Commercial 4"	1,450,000	\$6,233.50	\$8,979.00	\$2,745.50	44%	0
Commercial 4"	1,500,000	\$6,448.50	\$9,272.00	\$2,823.50	44%	0
Commercial 4"	1,550,000	\$6,663.50	\$9,565.00	\$2,901.50	44%	0
Commercial 4"	1,600,000	\$6,878.50	\$9,858.00	\$2,979.50	43%	1
Commercial 4"	1,650,000	\$7,093.50	\$10,151.00	\$3,057.50	43%	0
Commercial 4"	1,700,000	\$7,308.50	\$10,444.00	\$3,135.50	43%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 6"	0	\$40.00	\$1,000.00	\$960.00	2400%	2
Commercial 6"	1,000	\$40.00	\$1,004.75	\$964.75	2412%	0
Commercial 6"	2,000	\$40.00	\$1,009.50	\$969.50	2424%	0
Commercial 6"	3,000	\$40.00	\$1,014.25	\$974.25	2436%	0
Commercial 6"	4,000	\$40.00	\$1,019.00	\$979.00	2448%	0
Commercial 6"	5,000	\$40.00	\$1,023.75	\$983.75	2459%	0
Commercial 6"	6,000	\$43.30	\$1,029.00	\$985.70	2276%	1
Commercial 6"	7,000	\$46.60	\$1,034.25	\$987.65	2119%	0
Commercial 6"	8,000	\$49.90	\$1,039.50	\$989.60	1983%	0
Commercial 6"	9,000	\$53.20	\$1,044.75	\$991.55	1864%	0
Commercial 6"	10,000	\$56.50	\$1,050.00	\$993.50	1758%	0
Commercial 6"	11,000	\$59.80	\$1,055.25	\$995.45	1665%	0
Commercial 6"	12,000	\$63.10	\$1,060.50	\$997.40	1581%	0
Commercial 6"	13,000	\$66.40	\$1,065.75	\$999.35	1505%	0
Commercial 6"	14,000	\$69.70	\$1,071.00	\$1,001.30	1437%	0
Commercial 6"	15,000	\$73.00	\$1,076.25	\$1,003.25	1374%	0
Commercial 6"	16,000	\$76.30	\$1,081.50	\$1,005.20	1317%	0
Commercial 6"	17,000	\$79.60	\$1,086.75	\$1,007.15	1265%	0
Commercial 6"	18,000	\$82.90	\$1,092.00	\$1,009.10	1217%	0
Commercial 6"	19,000	\$86.20	\$1,097.25	\$1,011.05	1173%	1
Commercial 6"	20,000	\$89.50	\$1,102.50	\$1,013.00	1132%	1
Commercial 6"	21,000	\$92.80	\$1,107.75	\$1,014.95	1094%	0
Commercial 6"	22,000	\$96.10	\$1,113.00	\$1,016.90	1058%	0
Commercial 6"	23,000	\$99.40	\$1,118.25	\$1,018.85	1025%	0
Commercial 6"	24,000	\$102.70	\$1,123.50	\$1,020.80	994%	0
Commercial 6"	25,000	\$106.00	\$1,128.75	\$1,022.75	965%	0
Commercial 6"	26,000	\$110.30	\$1,134.60	\$1,024.30	929%	0
Commercial 6"	27,000	\$114.60	\$1,140.45	\$1,025.85	895%	0
Commercial 6"	28,000	\$118.90	\$1,146.30	\$1,027.40	864%	0
Commercial 6"	29,000	\$123.20	\$1,152.15	\$1,028.95	835%	0
Commercial 6"	30,000	\$127.50	\$1,158.00	\$1,030.50	808%	0
Commercial 6"	31,000	\$131.80	\$1,163.85	\$1,032.05	783%	0
Commercial 6"	32,000	\$136.10	\$1,169.70	\$1,033.60	759%	0
Commercial 6"	33,000	\$140.40	\$1,175.55	\$1,035.15	737%	0
Commercial 6"	34,000	\$144.70	\$1,181.40	\$1,036.70	716%	0
Commercial 6"	35,000	\$149.00	\$1,187.25	\$1,038.25	697%	0
Commercial 6"	36,000	\$153.30	\$1,193.10	\$1,039.80	678%	0
Commercial 6"	37,000	\$157.60	\$1,198.95	\$1,041.35	661%	0
Commercial 6"	38,000	\$161.90	\$1,204.80	\$1,042.90	644%	0
Commercial 6"	39,000	\$166.20	\$1,210.65	\$1,044.45	628%	0
Commercial 6"	40,000	\$170.50	\$1,216.50	\$1,046.00	613%	0
Commercial 6"	41,000	\$174.80	\$1,222.35	\$1,047.55	599%	0
Commercial 6"	42,000	\$179.10	\$1,228.20	\$1,049.10	586%	0
Commercial 6"	43,000	\$183.40	\$1,234.05	\$1,050.65	573%	1
Commercial 6"	44,000	\$187.70	\$1,239.90	\$1,052.20	561%	0
Commercial 6"	45,000	\$192.00	\$1,245.75	\$1,053.75	549%	0
Commercial 6"	46,000	\$196.30	\$1,251.60	\$1,055.30	538%	0
Commercial 6"	47,000	\$200.60	\$1,257.45	\$1,056.85	527%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 6"	48,000	\$204.90	\$1,263.30	\$1,058.40	517%	0
Commercial 6"	49,000	\$209.20	\$1,269.15	\$1,059.95	507%	0
Commercial 6"	50,000	\$213.50	\$1,275.00	\$1,061.50	497%	1
Commercial 6"	51,000	\$217.80	\$1,280.86	\$1,063.06	488%	0
Commercial 6"	52,000	\$222.10	\$1,286.72	\$1,064.62	479%	0
Commercial 6"	53,000	\$226.40	\$1,292.58	\$1,066.18	471%	0
Commercial 6"	54,000	\$230.70	\$1,298.44	\$1,067.74	463%	0
Commercial 6"	55,000	\$235.00	\$1,304.30	\$1,069.30	455%	0
Commercial 6"	56,000	\$239.30	\$1,310.16	\$1,070.86	447%	0
Commercial 6"	57,000	\$243.60	\$1,316.02	\$1,072.42	440%	0
Commercial 6"	58,000	\$247.90	\$1,321.88	\$1,073.98	433%	0
Commercial 6"	59,000	\$252.20	\$1,327.74	\$1,075.54	426%	0
Commercial 6"	60,000	\$256.50	\$1,333.60	\$1,077.10	420%	0
Commercial 6"	61,000	\$260.80	\$1,339.46	\$1,078.66	414%	0
Commercial 6"	62,000	\$265.10	\$1,345.32	\$1,080.22	407%	0
Commercial 6"	63,000	\$269.40	\$1,351.18	\$1,081.78	402%	0
Commercial 6"	64,000	\$273.70	\$1,357.04	\$1,083.34	396%	0
Commercial 6"	65,000	\$278.00	\$1,362.90	\$1,084.90	390%	0
Commercial 6"	66,000	\$282.30	\$1,368.76	\$1,086.46	385%	0
Commercial 6"	67,000	\$286.60	\$1,374.62	\$1,088.02	380%	0
Commercial 6"	68,000	\$290.90	\$1,380.48	\$1,089.58	375%	0
Commercial 6"	69,000	\$295.20	\$1,386.34	\$1,091.14	370%	0
Commercial 6"	70,000	\$299.50	\$1,392.20	\$1,092.70	365%	0
Commercial 6"	71,000	\$303.80	\$1,398.06	\$1,094.26	360%	0
Commercial 6"	72,000	\$308.10	\$1,403.92	\$1,095.82	356%	0
Commercial 6"	73,000	\$312.40	\$1,409.78	\$1,097.38	351%	0
Commercial 6"	74,000	\$316.70	\$1,415.64	\$1,098.94	347%	0
Commercial 6"	75,000	\$321.00	\$1,421.50	\$1,100.50	343%	0
Commercial 6"	76,000	\$325.30	\$1,427.36	\$1,102.06	339%	0
Commercial 6"	77,000	\$329.60	\$1,433.22	\$1,103.62	335%	0
Commercial 6"	78,000	\$333.90	\$1,439.08	\$1,105.18	331%	0
Commercial 6"	79,000	\$338.20	\$1,444.94	\$1,106.74	327%	0
Commercial 6"	80,000	\$342.50	\$1,450.80	\$1,108.30	324%	0
Commercial 6"	81,000	\$346.80	\$1,456.66	\$1,109.86	320%	0
Commercial 6"	82,000	\$351.10	\$1,462.52	\$1,111.42	317%	0
Commercial 6"	83,000	\$355.40	\$1,468.38	\$1,112.98	313%	0
Commercial 6"	84,000	\$359.70	\$1,474.24	\$1,114.54	310%	0
Commercial 6"	85,000	\$364.00	\$1,480.10	\$1,116.10	307%	0
Commercial 6"	86,000	\$368.30	\$1,485.96	\$1,117.66	303%	0
Commercial 6"	87,000	\$372.60	\$1,491.82	\$1,119.22	300%	0
Commercial 6"	88,000	\$376.90	\$1,497.68	\$1,120.78	297%	0
Commercial 6"	89,000	\$381.20	\$1,503.54	\$1,122.34	294%	0
Commercial 6"	90,000	\$385.50	\$1,509.40	\$1,123.90	292%	0
Commercial 6"	91,000	\$389.80	\$1,515.26	\$1,125.46	289%	0
Commercial 6"	92,000	\$394.10	\$1,521.12	\$1,127.02	286%	0
Commercial 6"	93,000	\$398.40	\$1,526.98	\$1,128.58	283%	0
Commercial 6"	94,000	\$402.70	\$1,532.84	\$1,130.14	281%	0
Commercial 6"	95,000	\$407.00	\$1,538.70	\$1,131.70	278%	0

Bill Impact Analysis

Meter Size & Charge Code	Quarterly Usage gals.	Current Rates (qtr)	July 1, 2018 Rate (qtr)	\$ Difference from FY17 Rate	% Difference from FY17 Rate	Bill Counts w/in 1000 gal band
Commercial 6"	96,000	\$411.30	\$1,544.56	\$1,133.26	276%	0
Commercial 6"	97,000	\$415.60	\$1,550.42	\$1,134.82	273%	0
Commercial 6"	98,000	\$419.90	\$1,556.28	\$1,136.38	271%	0
Commercial 6"	99,000	\$424.20	\$1,562.14	\$1,137.94	268%	0
Commercial 6"	100,000	\$428.50	\$1,568.00	\$1,139.50	266%	0
Commercial 6"	150,000	\$643.50	\$1,861.00	\$1,217.50	189%	0
Commercial 6"	200,000	\$858.50	\$2,154.00	\$1,295.50	151%	1
Commercial 6"	250,000	\$1,073.50	\$2,447.00	\$1,373.50	128%	1
Commercial 6"	300,000	\$1,288.50	\$2,740.00	\$1,451.50	113%	0
Commercial 6"	350,000	\$1,503.50	\$3,033.00	\$1,529.50	102%	1
Commercial 6"	400,000	\$1,718.50	\$3,326.00	\$1,607.50	94%	0
Commercial 6"	450,000	\$1,933.50	\$3,619.00	\$1,685.50	87%	0
Commercial 6"	500,000	\$2,148.50	\$3,912.00	\$1,763.50	82%	1
Commercial 6"	550,000	\$2,363.50	\$4,205.00	\$1,841.50	78%	1
Commercial 6"	600,000	\$2,578.50	\$4,498.00	\$1,919.50	74%	0
Commercial 6"	650,000	\$2,793.50	\$4,791.00	\$1,997.50	72%	2
Commercial 6"	700,000	\$3,008.50	\$5,084.00	\$2,075.50	69%	0
Commercial 6"	750,000	\$3,223.50	\$5,377.00	\$2,153.50	67%	1
Commercial 6"	800,000	\$3,438.50	\$5,670.00	\$2,231.50	65%	1
Commercial 6"	850,000	\$3,653.50	\$5,963.00	\$2,309.50	63%	0
Commercial 6"	900,000	\$3,868.50	\$6,256.00	\$2,387.50	62%	2
Commercial 6"	950,000	\$4,083.50	\$6,549.00	\$2,465.50	60%	0
Commercial 6"	1,000,000	\$4,298.50	\$6,842.00	\$2,543.50	59%	1
Commercial 6"	1,050,000	\$4,513.50	\$7,135.00	\$2,621.50	58%	0
Commercial 6"	1,100,000	\$4,728.50	\$7,428.00	\$2,699.50	57%	1
Commercial 6"	1,150,000	\$4,943.50	\$7,721.00	\$2,777.50	56%	0
Commercial 6"	1,200,000	\$5,158.50	\$8,014.00	\$2,855.50	55%	0
Commercial 6"	1,250,000	\$5,373.50	\$8,307.00	\$2,933.50	55%	2
Commercial 6"	1,300,000	\$5,588.50	\$8,600.00	\$3,011.50	54%	1
Commercial 6"	1,350,000	\$5,803.50	\$8,893.00	\$3,089.50	53%	0
Commercial 6"	1,400,000	\$6,018.50	\$9,186.00	\$3,167.50	53%	0
Commercial 6"	1,450,000	\$6,233.50	\$9,479.00	\$3,245.50	52%	0
Commercial 6"	1,500,000	\$6,448.50	\$9,772.00	\$3,323.50	52%	1
Commercial 6"	1,550,000	\$6,663.50	\$10,065.00	\$3,401.50	51%	0
Commercial 6"	1,600,000	\$6,878.50	\$10,358.00	\$3,479.50	51%	0
Commercial 6"	1,650,000	\$7,093.50	\$10,651.00	\$3,557.50	50%	1
Commercial 6"	1,700,000	\$7,308.50	\$10,944.00	\$3,635.50	50%	0
Commercial 6"	1,750,000	\$7,523.50	\$11,237.00	\$3,713.50	49%	0
Commercial 6"	1,800,000	\$7,738.50	\$11,530.00	\$3,791.50	49%	1
Commercial 6"	1,850,000	\$7,953.50	\$11,823.00	\$3,869.50	49%	1
Commercial 6"	1,900,000	\$8,168.50	\$12,116.00	\$3,947.50	48%	0
Commercial 6"	1,950,000	\$8,383.50	\$12,409.00	\$4,025.50	48%	0
Commercial 6"	2,000,000	\$8,598.50	\$12,702.00	\$4,103.50	48%	0
Commercial 6"	3,000,000	\$12,898.50	\$18,562.00	\$5,663.50	44%	1



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Mr. Kevin Mizikar
Town Manager
Town of Shrewsbury
100 Maple Avenue
Shrewsbury, MA 01545

November 14, 2017

Dear Mr. Mizikar:

This report and the accompanying forecasts of revenue requirements were prepared for the Town of Shrewsbury to calculate a water rate for the period of Fiscal Year 2018/2019 to Fiscal Year 2021.

The financial forecast of revenue requirements were based on the department's assumptions concerning future events and circumstances. The assumptions disclosed herein are those which the department believes are significant to the forecasts or are key factors upon which the financial results of the water department depend based on present circumstances and assumptions as of the date of this report.

We have compiled the forecasts and water rates in accordance with applicable guidelines established by the American Water Works Association. This report completes our requirements to review the water rate structure and recommends a method that will recover the costs equitably by class of customer.

We wish to thank everyone who assisted us during this project.

Very truly yours,

PIONEER CONSULTING GROUP, INC.

A handwritten signature in blue ink, appearing to read "Douglas W. Gardner", is written over a large, light gray watermark that says "Reference Document".

Douglas W. Gardner
President

SUMMARY

The purpose of this study was to prepare a comprehensive water rate study. The intent of the study was to independently evaluate and assess the Town of Shrewsbury Water Department current schedule of rates and fees and to develop and recommend revisions. The objective of the study was to propose a rate structure to adequately fund water utility operation and maintenance expenses, debt service, specified reserves, capital expenditures and other cash requirements.

We completed an analysis of the water rate methodology and recommend changes, which will equitably charge each class of customer, encourage conservation (discourage water waste), and provide capital improvement funds. Pioneer Consulting Group, Inc. stressed to the Town of Shrewsbury that the water rate projections are estimates, and future rate increases voted by the Board should be based on then-current information. The proposed rate structure will fund 100% of all water expenses.

FINDINGS AND RECOMMENDATIONS

1. The current Town of Shrewsbury Water Rates will not generate sufficient revenue to fund salaries, expenses, debt service and capital improvements beyond FY 2018.
2. The recommended water rates will generate sufficient revenues to fund the revenue requirements detailed in Schedule 1 for the period of FY 2018/19-FY 2021 and possibly beyond.
3. We recommend that the minimum water flow in the minimum charge be eliminated. The allowance of flow in the minimum ultimately results in some customers being charged for water they do not use.
4. We recommend that the current water rate structure be revised slightly. We recommend that all consumers be charged a minimum charge and a separate charge for all water consumption. The minimum charge should be based on the meter size as recommended by the American Water Works Association and that no water be allowed in the minimum charge. The minimum charge is designed to recover the costs associated with the daily operation of the water department, regardless of a customer's water usage, and includes meter reading, billing, meter service and administrative expenses. The minimum charge is billed in advance.
5. We recommend the quarterly minimum charge be based on the customer's meter size and contains 0 consumption. The recommended charge by meter is as follows:

Up to 1" Meter	\$20.00
1" Meter	\$50.00
1 1/2" Meter	\$100.00
2" Meter	\$160.00
3" Meter	\$320.00
4" Meter	\$500.00
6" Meter	\$1,000.00

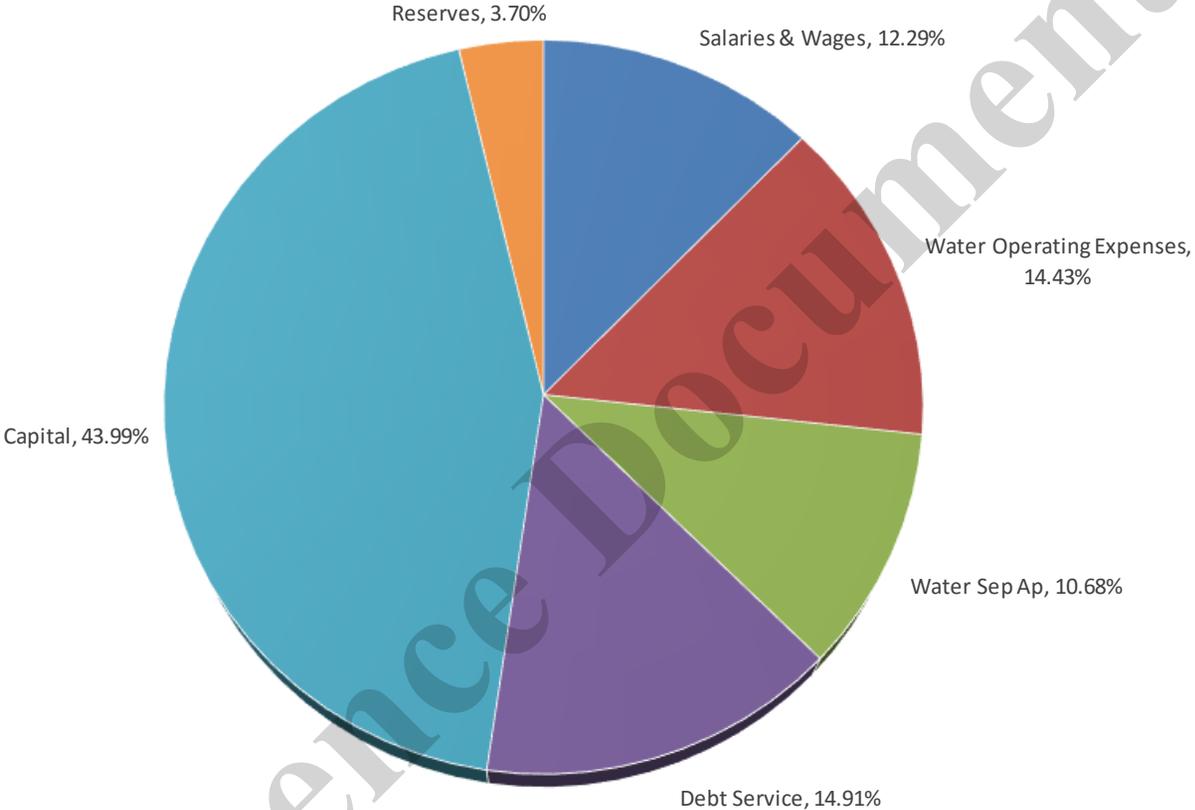
6. We recommend that the water department maintain a conservation based water rate. A conservation-based rate structure encourages the efficient use of water by charging customers a higher rate as their water consumption increases. The conservation based rate structure will discourage the wasteful use of water and reduce the excessive discretionary summer use.

7. Conservation-oriented water pricing is an effective way of encouraging water conservation and balancing water supply with water demand. When water rates do not reflect the full cost of providing water services, the price of water is lower than it should be in order to send the correct signal to customers about its actual value. The lower price encourages more water consumption, and utilities have to increase water supply to meet the demand. This creates an unbalance: consumers are using more water than they need, and utilities are supplying more water than they should have to without recovering the actual costs created in doing so. Conservation pricing allows utilities to recover the full cost of supplying water while encouraging more efficient water use on the part of consumers so that the water supply and demand cycle can be more financially and environmentally sustainable.
8. As described in items 6 & 7, a conservation based water rate structure encourages water conservation and places higher demand costs on the highest users. The metered water consumption is billed in arrears.
9. The quarterly water rates and the consumption ranges by customer type are detailed on Exhibit 1, page 6 of this report.
10. The proposed water rates include new debt service funding for the construction of a new water treatment facility.
11. The proposed water rates will generate approximately \$5,481,248 annually.
12. The proposed FY 2018/2019 - FY 2021 water rates include an average of \$2,411,000 annually for capital projects. The capital projects are funded by a combination of water rates and reserve fund transfers. The reserve fund transfer will require a vote at Town Meeting.
13. The water system has been designed to provide water at peak hourly flows and to provide sufficient fire protection to extinguish a fire over a three-hour period. The costs associated with fire protection should be charged to the customers who will benefit from the protection. There is a clear distinction between fire protection customers as a class of customer and the other classes. Fire protection customers require water utilities to have facilities available to meet high potential demands for water at any given time, but actually use relatively little water. The fire protection costs represent a “readiness to serve charge”. The public fire protection charges are built in to the water rates and are shared all customers. We recommend the annual private fire protection charges be revised. The current method of charging private fire connection is by sprinkler head is inaccurate and cumbersome. The AWWA recommends each fire service be charged based on connection size. We recommend the following annual charges for all private fire connections.

2” Connection	\$150.00
3” Connection	\$225.00
4” Connection	\$300.00
6” Connection	\$450.00
8” Connection	\$600.00
10” Connection	\$750.00

14. Reserve funds (Undesignated Fund Balance) are a key component of the water fund. Maintaining adequate reserves is a fundamental principal of sound financial management. It is essential that a government maintain adequate levels of working capital in its enterprise funds to mitigate current and future risks (e.g., revenue shortfalls and unanticipated expenses) and to ensure stable services and fees. Working capital is a crucial consideration in long-term financial planning. Credit rating agencies consider the availability of working capital in their evaluations of continued creditworthiness. Undesignated fund balance can serve several roles within the overall financial matrix for a municipal enterprise fund or funds operated similar to enterprise funds. For example, as a risk management tool, undesignated fund balance can be used to support unexpected and uninsured losses. Reserves can be used for any lawful purpose, but should be used primarily for financial security in case of catastrophic events, unforeseen occurrences, and the funding of capital projects. **Reserves should not be used to fund operating budgets or reducing water and sewer rates.**
15. Exhibit 1, “Comparison of Current vs. Proposed Rates”, presents the current and the proposed rates for all water consumption and other related charges for Fiscal Year 2018/19 - 2021.
16. Exhibit 2, Impact Analysis, presents the effects of the proposed and current rates for water consumption for actual Town of Shrewsbury customers. We have presented comparisons for a number of consumptions and varying residential, business, apartment, municipal and lawn irrigation customers.

Shrewsbury Water Department - Revenue Requirements



Reference Document

**TOWN OF SHREWSBURY, MA
Current vs Proposed Rates & Charges
Water Division**

Exhibit 1

Proposed Minimum Charge by Size

Up to 1" Meter

1" Meter

1 1/2" Meter

2" Meter

3" Meter

4" Meter

6" Meter

\$20.00

\$50.00

\$100.00

\$160.00

\$320.00

\$500.00

\$1,000.00

Residential & Condominium

Minimum 0 - 5,000 gallons

1st Step: 5,001-25,000 Gallons

2nd Step: 25,001-60,000 Gallons

3rd Step: Over 60,000 Gallons

\$24.00

\$3.70

\$6.90

\$14.00

1st Step: 1-5,000 Gallons

2nd Step: 5,001-25,000 Gallons

3rd Step: 25,001- 60,000 Gallons

4th Step: Over 60,000 Gallons

\$3.00

\$4.22

\$7.87

\$14.00

Commercial

Minimum 0 - 5,000 gallons

1st Step: 5,001-25,000 Gallons

2nd Step: Over 25,000 Gallons

\$40.00

\$3.30

\$4.30

1st Step: 1-5,000 Gallons

2nd Step: 5,001-25,000 Gallons

3rd Step: 25,001 - 50,000 Gallons

4th Step: Over 50,000 Gallons

\$3.50

\$3.76

\$4.90

\$4.90

Apartments

All Consumption

\$4.50

\$5.25

Summer Service & Lawn Sprinklers

1-60,000 Gallons

Over 60,000 Gallons

\$6.90

\$14.00

\$7.90

\$14.00

Schools & Municipal

Minimum 0 - 5,000 gallons

1st Step: 5,001-50,000 Gallons

2nd Step: Over 50,000 Gallons

\$40.00

\$2.50

\$3.80

1st Step: 1-50,000 Gallons

2nd Step: Over 50,000 Gallons

\$2.85

\$4.33

Schools & Municipal Lawn

All Consumption

\$3.80

\$4.33

Cross Connection Testing

\$50.00

\$75.00

Private Fire Protection - Annual Charge

Per Sprinkler Head

1 1/2"

2"

3"

4"

6"

8"

10"

\$0.85

\$112.50

\$150.00

\$225.00

\$300.00

\$450.00

\$600.00

\$750.00

**Town of Shrewsbury
Water Department
IMPACT ANALYSIS - FY 2018/2019 - 2021**

Exhibit 2a

Meter Size	Quarterly Quantity Gallons	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
Residential					
5/8"	0	\$24.00	\$20.00	(\$4.00)	-16.67%
5/8"	1,000	\$24.00	\$23.00	(\$1.00)	-4.17%
5/8"	2,000	\$24.00	\$26.00	\$2.00	8.33%
5/8"	3,000	\$24.00	\$29.00	\$5.00	20.83%
5/8"	4,000	\$24.00	\$32.00	\$8.00	33.33%
5/8"	5,000	\$24.00	\$35.00	\$11.00	45.83%
5/8"	10,000	\$42.50	\$56.10	\$13.60	32.00%
5/8"	15,000	\$61.00	\$77.20	\$16.20	26.56%
5/8"	20,000	\$79.50	\$98.30	\$18.80	23.65%
5/8"	25,000	\$98.00	\$119.40	\$21.40	21.84%
5/8"	30,000	\$132.50	\$158.75	\$26.25	19.81%
5/8"	35,000	\$167.00	\$198.10	\$31.10	18.62%
5/8"	40,000	\$201.50	\$237.45	\$35.95	17.84%
5/8"	45,000	\$236.00	\$276.80	\$40.80	17.29%
5/8"	50,000	\$270.50	\$316.15	\$45.65	16.88%
5/8"	60,000	\$339.50	\$394.85	\$55.35	16.30%
5/8"	70,000	\$479.50	\$534.85	\$55.35	11.54%
5/8"	80,000	\$619.50	\$674.85	\$55.35	8.93%
5/8"	90,000	\$759.50	\$814.85	\$55.35	7.29%
5/8"	100,000	\$899.50	\$954.85	\$55.35	6.15%
5/8"	125,000	\$1,249.50	\$1,304.85	\$55.35	4.43%
5/8"	150,000	\$1,599.50	\$1,654.85	\$55.35	3.46%
5/8"	400,000	\$5,099.50	\$5,154.85	\$55.35	1.09%

**Town of Shrewsbury
Water Department
IMPACT ANALYSIS - FY 2018/2019 - 2021**

Exhibit 2a

Meter Size	Quarterly Quantity Gallons	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
Commercial					
5/8"	0	\$40.00	\$20.00	(\$20.00)	-50.00%
	1,000	\$40.00	\$23.50	(\$16.50)	-41.25%
	2,000	\$40.00	\$27.00	(\$13.00)	-32.50%
	3,000	\$40.00	\$30.50	(\$9.50)	-23.75%
	4,000	\$40.00	\$34.00	(\$6.00)	-15.00%
5/8"	5,000	\$40.00	\$37.50	(\$2.50)	-6.25%
5/8"	25,000	\$106.00	\$112.70	\$6.70	6.32%
5/8"	50,000	\$213.50	\$235.20	\$21.70	10.16%
5/8"	100,000	\$428.50	\$480.20	\$51.70	12.07%
5/8"	125,000	\$536.00	\$602.70	\$66.70	12.44%
5/8"	250,000	\$1,073.50	\$1,215.20	\$141.70	13.20%
1"	5,000	\$40.00	\$67.50	\$27.50	68.75%
1"	25,000	\$106.00	\$142.70	\$36.70	34.62%
1"	70,000	\$299.50	\$363.20	\$63.70	21.27%
1"	90,000	\$385.50	\$461.20	\$75.70	19.64%
1"	125,000	\$536.00	\$632.70	\$96.70	18.04%
1"	200,000	\$858.50	\$1,000.20	\$141.70	16.51%
1"	402,000	\$1,727.10	\$1,990.00	\$262.90	15.22%
1 1/2"	5,000	\$40.00	\$117.50	\$77.50	193.75%
1 1/2"	25,000	\$106.00	\$192.70	\$86.70	81.79%
1 1/2"	125,000	\$536.00	\$682.70	\$146.70	27.37%
1 1/2"	150,000	\$643.50	\$805.20	\$161.70	25.13%
1 1/2"	274,000	\$1,176.70	\$1,412.80	\$236.10	20.06%
2"	60,000	\$256.50	\$424.20	\$167.70	65.38%
2"	102,600	\$439.68	\$632.94	\$193.26	43.95%
2"	1,821,000	\$7,828.80	\$9,053.10	\$1,224.30	15.64%
3"	100,000	\$428.50	\$780.20	\$351.70	82.08%
3"	367,000	\$1,576.60	\$2,088.50	\$511.90	32.47%
4"	80,000	\$342.50	\$862.20	\$519.70	151.74%
4"	285,000	\$1,224.00	\$1,866.70	\$642.70	52.51%
6"	220,000	\$944.50	\$2,048.20	\$1,103.70	116.86%
6"	623,000	\$2,677.40	\$4,022.90	\$1,345.50	50.25%
6"	1,774,000	\$7,626.70	\$9,662.80	\$2,036.10	26.70%

Town of Shrewsbury
Water Department
IMPACT ANALYSIS - FY 2018/2019 - 2021

Exhibit 2a

Meter Size	Quarterly Quantity Gallons	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
Apartments					
1"	0	\$0.00	\$50.00	\$50.00	0.00%
1"	33,000	\$148.50	\$223.25	\$74.75	50.34%
1"	55,600	\$250.20	\$341.90	\$91.70	36.65%
2"	65,000	\$292.50	\$501.25	\$208.75	71.37%
2"	88,000	\$396.00	\$622.00	\$226.00	57.07%
2"	774,000	\$3,483.00	\$4,223.50	\$740.50	21.26%
2"	982,000	\$4,419.00	\$5,315.50	\$896.50	20.29%
3"	611,000	\$2,749.50	\$3,527.75	\$778.25	28.31%
6"	302,000	\$1,359.00	\$2,585.50	\$1,226.50	90.25%
6"	414,000	\$1,863.00	\$3,173.50	\$1,310.50	70.34%
6"	999,000	\$4,495.50	\$6,244.75	\$1,749.25	38.91%
6"	2,992,000	\$13,464.00	\$16,708.00	\$3,244.00	24.09%

Town of Shrewsbury
Water Department
IMPACT ANALYSIS - FY 2018/2019 - 2021

Exhibit 2a

Meter Size	Quarterly Quantity Gallons	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
Summer & Lawns					
5/8"	0	\$0.00	\$20.00	\$20.00	0.00%
5/8"	22,000	\$151.80	\$193.80	\$42.00	27.67%
5/8"	60,000	\$414.00	\$494.00	\$80.00	19.32%
5/8"	75,000	\$624.00	\$704.00	\$80.00	12.82%
5/8"	113,000	\$1,156.00	\$1,236.00	\$80.00	6.92%
1"	60,000	\$414.00	\$524.00	\$110.00	26.57%
1"	102,000	\$1,002.00	\$1,112.00	\$110.00	10.98%
1 1/2"	5,000	\$34.50	\$139.50	\$105.00	304.35%
1 1/2"	26,000	\$179.40	\$305.40	\$126.00	70.23%
2"	150,000	\$1,674.00	\$1,894.00	\$220.00	13.14%
2"	211,000	\$2,528.00	\$2,748.00	\$220.00	8.70%
2"	866,000	\$11,698.00	\$11,918.00	\$220.00	1.88%

Town of Shrewsbury
Water Department
IMPACT ANALYSIS - FY 2018/2019 - 2021

Exhibit 2a

Meter Size	Quarterly Quantity Gallons	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
Schools & Municipal					
5/8"	0	\$40.00	\$20.00	(\$20.00)	-50.00%
5/8"	5,000	\$52.50	\$34.25	(\$18.25)	-34.76%
5/8"	25,000	\$102.50	\$91.25	(\$11.25)	-10.98%
5/8"	50,000	\$165.00	\$162.50	(\$2.50)	-1.52%
5/8"	75,000	\$260.00	\$270.75	\$10.75	4.13%
5/8"	125,000	\$450.00	\$487.25	\$37.25	8.28%
1"	125,000	\$450.00	\$517.25	\$67.25	14.94%
1"	150,000	\$545.00	\$625.50	\$80.50	14.77%
1"	211,000	\$776.80	\$889.63	\$112.83	14.52%
4"	450,000	\$1,685.00	\$2,374.50	\$689.50	40.92%

Town of Shrewsbury
Water Department
IMPACT ANALYSIS - FY 2018/2019 - 2021

Exhibit 2a

Meter Size	Quarterly Quantity Gallons	Current Rates Quarterly	Proposed Rates Quarterly	Difference	Percentage Difference
Municipal Lawn					
All sizes	0	\$0.00	\$0.00	\$0.00	0.00%
	1,405	\$5.34	\$6.08	\$0.74	13.95%
	13,320	\$50.62	\$57.68	\$7.06	13.95%
	80,200	\$304.76	\$347.27	\$42.51	13.95%
	86,860	\$330.07	\$376.10	\$46.04	13.95%
	156,800	\$595.84	\$678.94	\$83.10	13.95%
	172,000	\$653.60	\$744.76	\$91.16	13.95%
	548,580	\$2,084.60	\$2,375.35	\$290.75	13.95%
	769,700	\$2,924.86	\$3,332.80	\$407.94	13.95%
	2,644,700	\$10,049.86	\$11,451.55	\$1,401.69	13.95%

TOWN OF SHREWSBURY
REVENUE REQUIREMENTS

The water revenue requirements (Schedule 1) detail the Fiscal Year 2018/2019 – FY 2021 Revenue Budget for the Town of Shrewsbury.

Our analysis indicates the Town of Shrewsbury must generate an average revenue total of \$5,481,248 for FY 2018/2019 – FY 2021.

Direct Costs

Direct costs consist of all salaries and operational expenses for the water department. Salaries include salaries and wages for department employees and overtime. Maintenance & operations, water purchased, office expenses, treasurer expenses and professional services are funds used to operate the department.

The FY 2018/2019 – FY 2021 direct costs are approximately \$2,049,891.

Debt Service

The debt service represents the principal and interest on current debt service, projected debt service and future capital debt.

The debt service for the water department totals \$817,368.

Capital

The capital costs consist of improvements to the water system. The capital costs are approximately \$2,411,000.

Reserves

The FY 2018/2019 – FY 2021 capital reserves costs are approximately \$202,989 and will be added to the certified free cash at the end of the fiscal year.

TOWN OF SHREWSBURY
BILLING ANALYSIS

The purpose of the Billing Analysis (Schedule 2) is to develop water usage patterns in thousand-gallon (000) increments to aid in understanding the customer base. The data is analyzed to determine equitable minimum usage and break points for the rates.

For our analysis we used the FY 2017 total billed consumption supplied by the Town of Shrewsbury for the calculation of the FY 2018/2019 – FY 2021 water rates. The billing analysis is detailed by customer type.

Residential Customers

The four-step increasing block rate, Schedule 2 is designed to encourage conservation and charge each class of customer on an equitable basis. The four-step usage is as follows:

Water Allowed in the Minimum Charge

The minimum charge contains 0 gallons of water annually, 541 quarterly customers used 0 gallons. The total consumption allowed in the minimum charge totaled 0ccf.

First Step

The first step allows from 1–5,000 gallons quarterly, which provides sufficient water for sanitation.

The residential customers first step consumption totaled 201,665,000 gallons. There were 5,765 quarterly customers within this range.

Second Step

The second step allows from 5,001 to 25,000 gallons quarterly. Most single-family homes will generally use water within this step.

The residential customers second step water consumption totaled 333,367,000 gallons. There were 33,049 quarterly customers within this range.

Third Step

The third step allows from 25,001 to 60,000 gallons quarterly. Larger homes and those that irrigate will generally use water within this step.

The residential customers third step water consumption totaled 35,759,000 gallons. There were 3,389 quarterly customers within this range.

Fourth Step

The fourth step allows for all consumption in excess of 60,000 quarterly.

The residential customers fourth step water consumption totaled 6,254,000 gallons. There were 231 quarterly customers in this step.

Commercial Customers

The four-step increasing block rate is designed to encourage conservation and charge each class of customer on an equitable basis. The four-step usage is as follows:

Water Allowed in the Minimum Charge

The minimum charge contains 0 gallons of water annually, 147 quarterly customers used 0 gallons. The total consumption allowed in the minimum charge totaled 0ccf.

First Step

The first step allows from 1–5,000 gallons quarterly, which provides sufficient water for sanitation.

The commercial customers first step consumption totaled 8,196,000 gallons. There were 457 quarterly customers within this range.

Second Step

The second step allows from 5,001 to 25,000 gallons quarterly. Most small business will generally use water within this step.

The commercial customers second step water consumption totaled 19,750,000 gallons. There were 677 quarterly customers within this range.

Third Step

The third step allows from 25,001 to 50,000 gallons quarterly. Larger business will generally use water within this step.

The commercial customers third step water consumption totaled 14,106,000 gallons. There were 257 quarterly customers within this range.

Fourth Step

The fourth step allows for all consumption in excess of 50,000 gallons quarterly.

The commercial customers fourth step water consumption totaled 92,656,000 gallons. There were 460 quarterly customers in this step.

Apartments

The single-step rate is not designed to encourage conservation. The single-step usage is as follows:

Water Allowed in the Minimum Charge

The minimum charge contains 0 gallons of water annually, 0 quarterly customers used 0 gallons. The total consumption allowed in the minimum charge totaled 0ccf.

Single Step

The first step allows for all quarterly consumption.

The single step consumption totaled 110,868,000 gallons. There were 663 quarterly customers.

Lawn Customers

The two-step increasing block rate is designed to encourage conservation for all customers with irrigation meters. The two-step usage is as follows:

Water Allowed in the Minimum Charge

The minimum charge contains 0 gallons of water annually, 119 quarterly customers used 0 gallons. The total consumption allowed in the minimum charge totaled 0ccf.

First Step

The first step allows from 1–60,000 gallons quarterly.

The lawn customers first step consumption totaled 3,775,000 gallons. There were 97 quarterly customers within this range.

Second Step

The second step is for all consumption in excess of 60,000 gallons quarterly.

The lawn customers second step water consumption totaled 4,556,000 gallons. There were 38 quarterly customers within this range.

School & Municipal Customers

The two-step increasing block rate is designed to encourage conservation for all municipal and school customers. The two-step usage is as follows:

Water Allowed in the Minimum Charge

The minimum charge contains 0 gallons of water annually, 9 quarterly customers used 0 gallons. The total consumption allowed in the minimum charge totaled 0ccf.

First Step

The first step allows from 1–50,000 gallons quarterly.

The municipal and school customers first step consumption totaled 3,775,000 gallons. There were 90 quarterly customers within this range.

Second Step

The second step is for all consumption in excess of 50,000 gallons quarterly.

The school & municipal customers second step water consumption totaled 2,823,000 gallons.

There were 38 quarterly customers within this range.

School & Municipal Lawn

The single-step rate is not designed to encourage conservation. The single-step usage is as follows:

Water Allowed in the Minimum Charge

The minimum charge contains 0 gallons of water annually, 0 quarterly customers used 0 gallons. The total consumption allowed in the minimum charge totaled 0ccf.

Single Step

The first step allows for all quarterly consumption.

The single step consumption totaled 4,474,000 gallons. There were 15 quarterly customers.

TOWN OF SHREWSBURY
REVENUE TO BE GENERATED AT PROPOSED RATES

The calculation of water rates and charges for FY 2018/2019 – FY 2021 (Schedule 3) will result in water department revenue of \$5,481,248.

Public Fire Protection – The Town of Shrewsbury does not charge for public hydrants. The public hydrant costs are built into the water rates.

Private Fire Protection - The annual charge is billed in advance to all customers with a private fire connection and is based on connection size. It is unknown exactly how many private connections exist. We have not anticipated any revenue for private connections until a survey has been completed.

The annual charge will generate approximately \$0.

Minimum Charge – The charge is billed in advance to all Shrewsbury water customers on a quarterly basis and will generate approximately \$1,129,280 annually.

Non-Water Consumption Revenue – The revenues earned from service calls, repairs, interest & demands and retained earnings funding, etc. The non-consumption revenue will generate approximately \$545,403 annually.

Cross Connection Revenue - The cross connection testing charges will generate approximately \$81,675 annually.

Metered Water – The metered water rate will generate approximately \$3,724,890. Each customer type will generate the following revenue:

Residential:	\$2,380,791
Commercial:	\$ 626,061
Apartments:	\$ 582,057
Lawns:	\$ 93,607
School & Municipal:	\$ 22,983
School & Municipal Lawns:	\$ 19,371
Total Metered Water	<u>\$3,724,890</u>

Schedules

Reference Document

TOWN OF SHREWSBURY, MA
WATER FUND
Revenue Requirements

Schedule 1

Account Description	Fiscal Year 2018/2019	Fiscal Year 2020	Fiscal Year 2021	3 Year Total	3 Year Average
DIRECT COSTS					
Personal Services					
Superintendent	51,825	53,121	54,449	\$159,395	\$53,132
Office Staff	65,217	66,848	68,519	\$200,584	\$66,861
Field Employees	391,539	401,327	411,361	\$1,204,227	\$401,409
Sep Ap Salaries & Wages	120,682	\$123,096	\$125,558	\$369,335	\$123,112
Sep Ap Overtime	28,000	\$30,000	\$30,000	\$88,000	\$29,333
Total Personal Services	\$657,264	\$644,392	\$659,886	\$2,021,542	\$673,847
Operating Expenses					
Water Operating Expenses	769,750	794,000	808,438	\$2,372,188	\$790,729
Water Sep Ap	557,000	584,850	614,093	\$1,755,943	\$585,314
Total Operational Expenses	\$1,326,750	\$1,378,850	\$1,422,530	\$4,128,130	\$1,376,043
TOTAL DIRECT COSTS	\$1,984,014	\$2,023,242	\$2,082,416	\$6,149,672	\$2,049,891
DEBT SERVICE					
Existing Principal	\$195,090	\$70,000	\$70,000	\$335,090	\$111,697
Existing Interest	\$11,675	\$5,900	\$4,550	\$22,125	\$7,375
Projected Principal	\$0	\$488,407	\$499,022	\$987,429	\$329,143
Projected Interest	\$0	\$230,748	\$231,712	\$462,461	\$154,154
Short term Interest	\$18,000	\$18,000	\$9,000	\$45,000	\$15,000
Future Capital/Debt	\$200,000	\$200,000	\$200,000	\$600,000	\$200,000
TOTAL DEBT SERVICE	\$424,765	\$1,013,055	\$1,014,284	\$2,452,105	\$817,368
CAPITAL IMPROVEMENTS	\$2,314,000	\$2,414,000	\$2,505,000	\$7,233,000	\$2,411,000
CAPITAL RESERVES	\$198,401	\$202,324	\$208,242	\$608,967	\$202,989
TOTAL REVENUE REQUIREMENTS	\$4,921,180	\$5,652,621	\$5,809,942	\$16,443,744	\$5,481,248

TOWN OF SHREWSBURY, MA
Water Division
Quarterly Billing
RESIDENTIAL

Schedule 2

Step	Gallons	Total Gallons	Total (000) Gallons	Number Readings
Zero Consumption	0	0	0	541
1st Step	1 - 5,000	201,664,684	201,665	5,765
2nd Step	5,001 - 25,000	333,367,316	333,367	33,049
3rd Step	25,001 - 60,000	35,759,456	35,759	3,389
4th Step	Over 60,000	6,254,311	6,254	231
Total		577,045,767	577,046	42,975

Step	Gallons	Total Gallons	Total (000) Gallons	Number Readings
Zero Consumption	0	0	0	147
1st Step	1 - 5,000	8,195,680	8,196	457
2nd Step	5,001 - 25,000	19,750,466	19,750	677
3rd Step	25,001 - 50,000	14,106,404	14,106	257
4th Step	Over 50,000	92,655,739	92,656	460
Total		134,708,289	134,708	1,998

Step	Gallons	Total Gallons	Total (000) Gallons	Number Readings
Zero Consumption	0	0	0	0
1st Step	All	110,867,995	110,868	663
Total		110,867,995	110,868	663

Step	Gallons	Total Gallons	Total (000) Gallons	Number Readings
Zero Consumption	0	0	0	119
1st Step	1 - 60,000	3,775,479	3,775	97
2nd Step	Over 60,000	4,555,774	4,556	38
Total		8,331,253	8,331	254

Step	Gallons	Total Gallons	Total (000) Gallons	Number Readings
Zero Consumption	0	0	0	9
Included in Minimum	1 - 5,000	578,479	578	14
1st Step	5,001 - 50,000	3,196,921	3,197	76
2nd Step	Over 50,000	2,822,940	2,823	35
Total		6,598,340	6,598	134

Step	Gallons	Total Gallons	Total (000) Gallons	Number Readings
Zero Consumption	0	0	0	0
1st Step	All	4,473,565	4,474	15
Total		4,473,565	4,474	15

**TOWN OF SHREWSBURY, MA
REVENUE TO BE GENERATED AT PROPOSED RATES**

Schedule 3

Water Division

Fire Protection Charges

			Annual Revenue
Public Hydrants	1,616		\$0
Private Connections			
1 1/2" Connection @	10	\$112.50	\$0
2" Connections @	107	\$150.00	\$0
3" Connections @	1	\$225.00	\$0
4" Connections @	98	\$300.00	\$0
Sprinkler Heads	0	\$0.00	\$0
8" Connections @	8	\$600.00	\$0
10" Connections @	1	\$750.00	\$0
Total Private Connections	<u>215</u>		<u>\$0</u>

Metered Revenue

Minimum Charge

Meter Size	No. of Meters	Quarterly Charge	Quarterly Revenue	Annual Revenue
5/8" & 5/8"x3/4"	10,872	\$20.00	\$217,440	\$869,760
3/4"	106	\$20.00	\$2,120	\$8,480
1"	204	\$50.00	\$10,200	\$40,800
1 1/2"	105	\$100.00	\$10,500	\$42,000
2"	134	\$160.00	\$21,440	\$85,760
3"	16	\$320.00	\$5,120	\$20,480
4"	15	\$500.00	\$7,500	\$30,000
6"	8	\$1,000.00	\$8,000	\$32,000
8"	0	\$1,600.00	\$0	\$0
Total	<u>11,460</u>			<u>\$1,129,280</u>

Cross Connection

Number of Tests	1089	Charge per Test	\$75.00	\$81,675
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Non Water Consumption Income

Retained Earnings	\$450,000
Penalty & Interest- Rates	\$10,000
Miscellaneous	\$85,403
Total Non Consumption Revenue	<u>\$545,403</u>

Metered Water

Residential	(000) Gallons	Rate per 000 gallons		
1st step 1-5,000 gallons	201,665	\$3.00	\$604,994	
2nd Step: 5,001-25,000 gallons	333,367	\$4.22	\$1,406,810	
3rd Step: 25,000 - 60,000 gallons	35,759	\$7.87	\$281,427	
4th Step: Over 60,000 gallons	6,254	\$14.00	<u>\$87,560</u>	\$2,380,791

Commercial

1st step 1-5,000 gallons	8,196	\$3.50	\$28,685	
2nd Step: 5,001-25,000 gallons	19,750	\$3.76	\$74,262	
3rd Step: 25,000 - 50,000 gallons	14,106	\$4.90	\$69,121	
4th Step: Over 50,000 gallons	92,656	\$4.90	<u>\$454,013</u>	\$626,081

Apartments

All Consumption	110,868	\$5.25	\$582,057	\$582,057
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Lawns

1st Step 1-60,000 gallons	3,775	\$7.90	\$29,826	
2nd Step: Over-60,000 gallons	4,556	\$14.00	<u>\$63,781</u>	\$93,607

School & Municipal

1st step 1-5,000 gallons	578	\$2.85	\$1,649	
2nd Step: 5,001-50,000 gallons	3,197	\$2.85	\$9,111	
3rd Step: Over 50,000 gallons	2,823	\$4.33	<u>\$12,223</u>	\$22,983

School & Municipal Lawn

All Consumption	4,474	\$4.33	\$19,371	<u>\$19,371</u>
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Total Metered Water

\$3,724,890

Summary

Total Revenue	\$5,481,248
Revenue Requirements	<u>\$5,481,248</u>
Surplus / (Deficit)	<u>\$0</u>