

**To the Mayor and Members of the City Council****July 28, 2015**

Page 1 of 3

**SUBJECT: WATER DEPARTMENT FY2016 PROJECTED REVENUE REQUIREMENTS**

Each year the Water Department completes cost of service studies for Retail and Wholesale customer classes for both water and sewer services. Those studies are used to determine the rates that will be recommended to the City Council. The purpose of this Informal Report is to outline the process and topics addressed in the FY2016 rate setting process and to provide the projected change in water and sewer revenue requirements.

**Retail Water and Sewer Rate Process**

Retail rates paid by Fort Worth residents and businesses are based on the Department's cost of service, which is established as part of the annual budget process using industry standards. Once the cost of service is determined, the preliminary rates and specific topics that might affect the rate structure are presented to the Department's informal Water and Sewer Retail Rate Structure Stakeholder Group for input and feedback. This group is comprised of customers representing the various retail customer classes, which include residential, commercial, industrial, irrigation and super users. The group is charged with ensuring equity among customer classes and providing input into how costs are allocated within rate structures.

Water Department staff met with the Stakeholder Group on May 28, June 4, June 11, and June 18 to present budget drivers and costs, trends in water and wastewater usage over the last decade, and preliminary FY2016 rates for both water and sewer service. Staff requested feedback on specific issues impacting revenue recovery and rate structure. These topics included continued reductions in projected water consumption in FY2016, continuation of the fixed vs. variable cost recovery plan for retail water and sewer service, and adjustment of water volume tiers for residential service.

***Budget Drivers***

The cost of the raw water purchased from the Tarrant Regional Water District (TRWD) continues to be the major cost driver in the Water budget. The raw water rate for FY2016 is projected to increase by 9.98%, resulting in a cost increase of \$7,860,648 over FY2015. At a total cost of \$83,853,380, the raw water purchase represents 33% of the FY2016 Water budget and 20% of the total FY2016 Water and Sewer Fund budget. The primary driver of the rate increase from TRWD is the cost of the 150-mile Integrated Pipeline project, which will transport additional water from Cedar Creek and Richland Chambers Reservoirs to Tarrant County by 2020 to improve reliability and support growth. Large increases in raw water costs are expected to continue for the next several years as this project moves forward.

The primary drivers in the Sewer budget are increased costs for bio-solids processing and odor control, equipment purchases for a new Sanitary Sewer Asset Management program, and wastewater treatment services provided by the Trinity River Authority (TRA). The TRA treats a small portion of wastewater flows from the northern and eastern sections of the service area and is engaged in a significant capital program to improve and expand its wastewater treatment facilities. These improvements will result in an increase of 11%, or \$1.3 million, in Fort Worth's payments to the TRA in FY2016.

Bio-solids processing, odor control and land application costs are increasing by almost \$6.8 million in FY2016. Regulatory changes enacted by the Texas Commission on Environmental Quality in late 2014 regarding the handling and land application of bio-solids are impacting the cost of treatment and hauling. In addition, changes in bio-solids characteristics and expansion of urban areas into once rural areas have contributed to an increase in odor complaints, requiring additional processing and chemicals to address.

To the Mayor and Members of the City Council

July 28, 2015

Page 2 of 3

**SUBJECT: WATER DEPARTMENT FY2016 PROJECTED REVENUE REQUIREMENTS**

Finally, the FY2016 budget includes nearly \$1.2 million in equipment purchases for the Sanitary Sewer Asset Management program. Formed through a reorganization of existing staff in 2015, the group performs preventive maintenance to maintain regulatory compliance proactively by preventing and responding to sewer collection system emergencies and limiting the number of sanitary sewer backups and overflows.

*Water Consumption Reduction*

The Department continues to experience reduced water volumes from changes in customer behaviors due to conservation efforts, year-round outdoor watering efficiency measures enacted in FY2014, more efficient appliances and plumbing code requirements. To reflect more accurate consumption levels, projected retail water volumes used to set rates in FY2016 were reduced 8.3% from FY2015 budgeted volumes and 0.3% from FY2014 actual volumes.

*Residential Water Volume Tiers*

As part of the revenue requirement analysis, staff reviews water and sewer usage trends for all of the retail customer classes. In FY2014, 62% of all residential water usage occurred in the first of four tiers. The first tier (up to 8 CCF, or nearly 6,000 gallons, of usage) is intended to reflect typical indoor or domestic use, such as cooking and bathing. The rate for the first tier is set below the cost of service. To further refine the baseline volume for domestic service, staff reviewed usage patterns for residential water and sewer use. In 2014, the typical residential customer was billed for 5.93 CCF/month for sewer service. The winter quarter average, which is based on winter water use and generally reflects indoor use, is currently 6.96 CCF and has been steadily declining over the last decade. This trend is expected to continue. Given those factors, staff determined that the residential tiers could be restructured to lower the first two tiers to better reflect usage patterns, while recovering sufficient revenue to operate the Utility. Adjustments in the volumes associated with the first three tiers allows for the rate by tier to remain flat. This recommendation lowers the first tier from the current 0-8 CCF down to 0-6 CCF, and lowers the second tier from the current 8-20 CCF down to 6-18 CCF. The third tier broadens from the current 20-30 CCF to 18-30 CCF while the fourth tier remains unchanged at all volumes greater than 30 CCF. FY2016 rates by tier would not increase. This tier restructuring topic was discussed at length with the customer Stakeholder Group, which supported the recommendation to adjust the residential tiers.

*Fixed vs. Variable Revenue Stability Plan*

The FY2016 budget continues the multi-year implementation of increased cost recovery from fixed service charges for both water and sewer service to improve revenue stability. This reduces the Utility's dependence on more volatile, volume sales-based revenues. Begun in FY2014, the revenue derived from fixed charges for Water service are increasing from a ratio of 17% fixed and 83% variable to a 30%/70% ratio using a phased approach. Likewise, the fixed revenues for Sewer service are increasing from a ratio of 12% fixed and 88% variable to a 20-25% fixed component. The FY2016 recommended rates reflect the third year of the Water plan and the second year of the Sewer plan. Moving to a higher percentage of fixed revenue collection is a utility industry trend that lessens dependence on weather conditions and improves stability in revenue collection and cash flow. This issue was reviewed with the customer Stakeholder Group, which continued to support the plan.

**To the Mayor and Members of the City Council**

**July 28, 2015**

Page 3 of 3



**SUBJECT: WATER DEPARTMENT FY2016 PROJECTED REVENUE REQUIREMENTS**

Wholesale Water and Sewer Rate Process

Wholesale rates paid by the Department’s 30 water customer cities and 23 sewer customer cities are based on cost of service studies performed on a three-year rotation using consultant services, alternating water and sewer, with Department staff completing the study the alternate years. The process and methodology are established within the Uniform Wholesale Contracts for water and sewer services. Studies are based on test year expenditure data, adjusting for known and measurable changes. Volumes used to calculate the rate change are based on prior year actual use. Results of the cost of service studies and preliminary rates are presented to the Wholesale Advisory Committee, comprised of representatives of each of the customer cities. Staff met with the Cost of Service Subcommittee of the Wholesale Advisory Committee on May 24 and June 25, and met with the full Wholesale Advisory Committee on June 10 to present the preliminary FY2016 wholesale water and sewer rates. Final rates were provided to the Wholesale Advisory Committee on July 14.

FY2016 Recommendations and System Adjustments

Based on the cost of service studies and the input received from the Stakeholder Group for retail rates and Wholesale Advisory Committee for wholesale rates, staff recommends the following structural changes and system-wide FY2016 recommended adjustments:

*Retail Residential Water Volume Tiers* – Staff recommends restructuring the retail water tiers for the residential customer class. The current residential tier structure has been in effect since 2008 and this recommendation adjusts the tiers to reflect basic domestic use in the first tier more accurately, while recovering sufficient revenue to operate the Utility with no impact on residential water rates. The structure of all other retail classes is recommended to remain unchanged from the current structure.

*Fixed vs. Variable Revenue* – Staff recommends moving forward with year three and year two of the Water and Sewer fixed revenue recovery plans, respectively, to improve revenue stability.

These recommendations result in the following adjustments in revenue requirements for Retail and Wholesale Water and Sewer service.

- Retail Water: Based on the tiered rate structures, typical residential users will see an increase of 7.55% and typical irrigation bills will rise 0.44%. The remaining customer classes have uniform rate structures and will see increases ranging from 9.82% to 16.65%
- Retail Sewer: +11.46% system-wide
- Wholesale Water: + 2.12%
- Wholesale Sewer: + 8.56%

Staff would like to provide the City Council with additional detailed information about the recommended FY2016 rates in August. Should you have any questions about the retail or wholesale rate processes, please contact John Carman, Water Director, at 817-392-8246.

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**City Manager**