
Meeting Date

May 3, 2022

New Business Item #2

Subject

Resolution 2022-02
Water & Wastewater Rates

Recommendation

Staff recommends the Board of Directors adopt Resolution 2022-02, confirming existing water rates and establishing new wastewater rates and billing methodologies to become effective June 1, 2022.

Background

In December 2020, through its consultant, Carollo Engineers, BWA completed the 2021 Water and Wastewater Rate Study, which included cost-of-service analyses and recommended rate designs for water and wastewater services. The cost-of-service analysis indicated no increases in water revenues were likely needed until 2023. However, increases in wastewater revenues as well as changes to billing methodology were recommended beginning in 2021. This resolution as proposed would modify only charges and rates associated with wastewater service as described below.

Proposed Wastewater Cost Recovery

To provide more accurate and equitable means of allocating wastewater costs of service to customers, study recommendations included the following:

1. A reduction in fixed (base) charges for wastewater service, establishing said charges based on the cost to provide and maintain service irrespective of wastewater volume.
2. Establishing a volumetric rate to be applied to each customer's estimated usage.
3. Changing wastewater billing to a winter quarter average (WQA) methodology commonly used in the industry to estimate each residential customer's actual usage.

In addition to the proposed changes in billing methodology described above, the cost-of-service analysis showed that, beginning in early 2021 and over the next several years, BWA would need to increase wastewater revenues to cover costs for wastewater service and maintain appropriate financial reserves consistent with BWA's financial policies.

In April of 2021, the BWA Board approved a 6.5% increase in wastewater rates (the first such increase in five years) but did not authorize a change in billing methodology. In October 2021, the Board directed staff to begin plans for a transition to WQA billing as recommended in the study. Accordingly, BWA sent notices to all residential customers regarding the proposed change to WQA billing and have since quantified the winter consumption and revenue requirements necessary to establish the proposed wastewater rate structure.

Base Charge

The functional allocation analysis of the Authority's wastewater operation has shown approximately 17.8% of the total cost of service applicable to customer and capacity categories. These are expenditures common to all customers

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(such as utility billing, customer service, administrative support and wastewater meter and capacity related costs) and under the recommended billing methodology would be uniformly recovered from each customer through a monthly fixed charge. Staff recommends fixed customer charges based on meter size as shown below:

Table 1

Meter Size	Base Charge	Meter Size	Base Charge
5/8	\$ 9.30	2	\$ 9.43
3/4	\$ 9.32	3	\$ 9.59
1	\$ 9.33	4	\$ 9.80
1 1/2	\$ 9.38	6	\$ 10.42

Current Single-Family (SF), Multi-Family (MF) and Commercial class base charges (which include up to 400 cubic feet of usage) are \$18.29, \$18.28, and \$24.48, respectively.

Rate Development

Recommended base charges and volumetric rates have been determined utilizing the general methodology from the referenced 2021 Water & Wastewater Rate Study. The budget adopted for 2022 projected total wastewater sales of \$5,050,011. The estimated revenues through May 2022 are anticipated to be \$1,815,393, leaving a \$3,234,618 revenue requirement for June thru December 2022. Of this amount, \$575,762 is to be recovered through fixed (base) customer charges (See Table 1, above), \$55,417 through rates applicable only to the Commercial customer class for services related to Fats, Oils and Grease, and the remaining \$2,603,439 or about 80.5% to be recovered through the volumetric rate applied proportionally across all customer classes. The revenue requirement along with the estimated wastewater volume from the most recent winter quarter have been used in the volumetric rate calculation described below.

Volumetric Rate Calculation

Recommended wastewater rates have been calculated utilizing the remaining revenue requirements for 2022 (June-December) and the assumed monthly wastewater flows (based on the system-wide WQA consumption through February 2022). Considering historic contributions to total flows from each customer class, costs have been allocated to SF, MF and Commercial customer classes as recommended in the rate study (Class Allocation Percentage). Additionally, costs for service which are unique to the Commercial customer class (generally related to Fats, Oils and Grease or FOG) have been allocated to the Commercial class only. A summary of the cost allocation and proposed rates is provided in Table 2.

Table 2

	Description	SFR	MFR	Commercial	Total
1	Class Allocation %	73%	18%	9%	100%
2	Allocated Costs	\$1,900,510	\$468,619	\$234,310	\$2,603,439
3	FOG Allocation Cost	\$0	\$0	\$55,417	\$55,417
4	Total Cost by Customer Class	\$1,900,510	\$468,619	\$289,727	\$2,658,856
5	Volume Basis (kgal)	254,322	62,710	31,355	348,386
6	WW Rate (\$/1,000 gal)	7.47	7.47	9.24	n/a
7	WW Rate (\$/CF)	0.0559	0.0559	0.0691	n/a

Analysis

The projected combined wastewater rate for FY2023 in the Water and Wastewater Rate Study for Residential and Commercial customer classes was \$6.38 per 1,000 gallons (\$0.0477/cubic foot) and \$8.09 per 1,000 gallons (\$0.0605/cubic foot), respectively. However, this projection did not contemplate the 14.98% increase in Fort Worth wholesale wastewater rates which became effective in October 2021. Accounting for the wholesale wastewater rate increase results in total volumetric rates in line with the recommended rates proposed in the Resolution.

The current wastewater rate structure includes base charges for various customer classes which account for the first 400 cubic feet of water used, a volumetric rate for usage over 400 cubic feet and, in the case of residential customers, a cap on the maximum bill of \$58.47 per month, which is based on a maximum total monthly wastewater volume of 1,500 cubic feet. If approved, this Resolution would reduce the minimum base charge to cover the cost to maintain service (See Table 1, above) and establish a uniform volumetric rate. For single-family residential customers, the maximum monthly volume used for billing purposes would be increased from 1,500 to 1,750 cubic feet, resulting in a maximum volumetric charge of \$97.83 (which would be billed in addition to the fixed charge). The maximum volumetric charge would be applicable only to single-family residential customers. There would be no cap on multi-family or commercial customer bills.

For billing purposes, wastewater rates are currently applied to actual metered water usage which tends to vary seasonally, particularly for residential customers that increase water usage outdoors in the summer and don't have separate meters measuring outdoor water use. Using the WQA methodology proposed will provide for a more accurate estimate of actual wastewater volumes generated by residential customers and eliminate monthly fluctuations in wastewater billing.

WQA volumes will be based on the water usage shown in December through March bills. The highest month will be discarded, and the remaining three months will be averaged. These three months will be used to provide a more accurate measure of water going into the wastewater collection system. The calculated average winter monthly volume for each customer will be applied to the calculated system volumetric rate, establishing the monthly wastewater bill which will remain until the next WQA calculation. Annual adjustments to billed volumes will be made each year following the calculation of the previous winter quarter (monthly) usage.

WQA billing only applies to residential customer classes. Commercial customers will be billed the monthly fixed charge plus the volumetric rate times the actual metered usage for the month (with no maximum volume).

Financial Impact

Adoption of Resolution 2022-02 is anticipated to ensure that wastewater revenue requirements established in the 2022 budget will be met.