



**BENBROOK WATER AUTHORITY**

Board of Directors Meeting

Tuesday, May 3, 2022

1121 Mercedes Street, Benbrook, TX 76126

3:00 p.m.

**The BWA Board of Directors may discuss, consider, and take all necessary action, including possible expenditure of funds, regarding each of the agenda items below**

1. Call To Order
2. Invocation
3. Citizen Comment On Any Agenda Item

4. Consent Agenda

Items listed under Consent Agenda are considered routine and are enacted under one motion. The exception to this rule is that a Board Member, Citizen or General Manager may request one or more items to be removed from the Consent Agenda for separate discussion and action.

1. Minutes of the Public Hearing and Regular Meeting held on April 19, 2022.

5. General Manager's Report And Update

The General Manager and staff will brief the Board on the administrative, financial, or operational matters of the BWA including without limitation activities of the General Manager and staff since the last board meeting, new or ongoing residential, commercial, or other developments in the BWA, capital projects, planning activities, issues involving the water treatment plant, water distribution system, wastewater collection system, and other infrastructure and facilities, service extensions, billing and customer services issues, interactions with other governmental entities or officials, and any other items included in the General Manager's written report, which may include without limitation the following items:

1. Update on current administrative activities.
2. Report on developments under contract with BWA.
3. Report on developments that are currently proposed, but not under contract.
4. Update on active capital projects.
5. Update on miscellaneous projects.

6. New Business

- 6.I. Consider A One Year Contract Extension Of The Annual Requirements Contract For Aluminum Sulfate With Chameleon Industries

Documents:

[ALUM RENEWAL SR 05-03-22.PDF](#)

- 6.II. CONSIDER AND ACT UPON RESOLUTION 2022-2, A RESOLUTION SUPERSEDING RESOLUTION 2021-01, THEREBY ESTABLISHING A POLICY WITH REFERENCE TO IMPLEMENTING WATER AND WASTEWATER RATES

Documents:

[WW RATE SR 05-03-22.PDF](#)  
[2022-02 BWA RATE RESOLUTION - FINAL.PDF](#)

7. Public Comment

All persons wishing to provide public comment should complete a public comment information form and submit it to the General Manager before the meeting.

Documents:

[PUBLIC COMMENT FORM.PDF](#)

8. Director / Staff Comment

Announcements from Board Members and / or Staff; there will be no discussion or formal action taken on these items.

9. Executive Session

Conduct Closed Executive Session Pursuant to Chapter 551, Government Code, for: consultation with the BWA attorney regarding pending or contemplated litigation, settlement offers, or other attorney-client matters (§551.071); deliberation regarding real property (§551.072); deliberation regarding prospective gifts (§551.073); personnel matters (§551.074); or deliberation regarding security devices (§551.076).

1. Any other item set forth in any section of this notice/agenda.

10. Re-Convene In Open Meeting

Take any Action Necessary from Executive Session

11. Adjournment

Next regularly scheduled meeting is May 17, 2022

12. Work Session

Discussion of current / future agenda items

*The above agenda schedule represents an estimate of the order for the indicated items and is subject to change at any time. Public hearings and public meetings of the BWA Board of Directors are available to all persons. This facility is wheelchair accessible. If you require special assistance to attend a hearing or meeting, please call (817) 249-1250 at least 24 hours in advance of the hearing or meeting to coordinate any special physical access arrangements. For sign interpretative services, please call 48 hours in advance.*

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**Meeting Date**

May 3, 2022

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**New Business Item #1**

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**Subject**

Annual Requirements Contract Renewal  
Aluminum Sulfate (Hydrate)

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**Recommendation**

Staff recommends the Board authorize the General Manager to execute a one (1) year contract extension of the Annual Requirements Contract for Aluminum Sulfate with Chameleon Industries at a revised contract price of \$365 per dry ton.

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**Background**

This item is for the consideration by the BWA Board to approve the renewal for one (1) year of the annual requirements contract for the supply of aluminum sulfate (hydrate alum) with Chameleon Industries, Inc. of Mesquite, Texas. The current contract was approved by the BWA Board on April 14, 2020, for a unit price bid of \$240.50 per dry ton (estimated total annual amount of \$74,555). The contract provided for an initial one (1) year term, with up to four (4) additional one-year renewals, subject to mutual agreement between the vendor and Authority. If approved, this will be the 2nd renewal of this agreement.

The vendor has requested an increase of \$124.50 in the contract price and has provided documentation regarding their own increased raw materials costs which justify the increase in costs to BWA.

**Financial Impact**

Based on typical chemical usage for water production needs, the anticipated annual budget impact is \$38,595 (based on 310 dry tons per year estimated usage).

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**Meeting Date**

May 3, 2022

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**New Business Item #2**

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**Subject**

Resolution 2022-02  
Water & Wastewater Rates

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**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.

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**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

# Staff Report

(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.

**RESOLUTION 2022-02**

**BY THE BOARD OF DIRECTORS OF BENBROOK WATER AUTHORITY SUPERSEDING RESOLUTION 2021-01, THEREBY ESTABLISHING A POLICY WITH REFERENCE TO IMPLEMENTING WATER AND WASTEWATER RATES.**

WHEREAS, Benbrook Water Authority ("Authority") is a political subdivision of the State of Texas and a conservation and reclamation district organized and existing under and by virtue of Article XVI, Section 59, of the Texas Constitution and operating pursuant to Chapters 49 and 51 of the Texas Water Code;

WHEREAS, the Authority most recently amended its policy with regard to the Authority's water and wastewater rates in 2021 through Resolution 2021-01;

WHEREAS, the Board of Directors of the Authority desires to review and amend the Authority's policy with regard to its water and wastewater rates;

WHEREAS, the Board of Directors of the Authority determined in October 2021 to utilize a winter-quarter-average wastewater billing methodology beginning in 2022; and

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF DIRECTORS OF BENBROOK WATER AUTHORITY AS FOLLOWS:

1. That there are hereby fixed and established for water furnished by the water system of the Authority the following monthly rates for its residential customers, other than Multi-Family:

**Single Family Residential Water Rates**

| <b>Metered Usage (in cubic feet, CF)</b>  | <b>Rate</b> |
|---|-------------|
| Minimum charge per month for usage of 0 to 400 CF                                   | \$20.31     |
| For each cubic foot of water over 400 CF but not to exceed 1,000 CF for one month   | 0.0316      |
| For each cubic foot of water over 1,000 CF but not to exceed 2,000 CF for one month | 0.0330      |
| For each cubic foot of water over 2,000 CF but not to exceed 3,000 CF for one month | 0.0349      |
| For each cubic foot of water over 3,000 CF but not to exceed 4,000 CF for one month | 0.0366      |
| For each cubic foot of water over 4,000 CF but not to exceed 5,000 CF for one month | 0.0390      |
| For each cubic foot of water over 5,000 CF but not to exceed 6,000 CF for one month | 0.0407      |
| For each cubic foot of water over 6,000 CF but not to exceed 7,000 CF for one month | 0.0417      |
| For each cubic foot of water over 7,000 CF for one month                            | 0.0438      |

2. That there are hereby fixed and established for water furnished by the Authority the following water volume rates for Multi-Family Residential customers:

**Multi-Family Residential Water Rates**

| <b>Metered Usage (in cubic feet, CF)</b>  | <b>Rate</b> |
|---|-------------|
| Minimum rate per month per unit for usage of 0 to 400 CF  | \$23.63     |
| For each cubic foot of water over 400 CF but not to exceed 1,000 CF for one month. <sup>(1)</sup>   | 0.0316      |
| For each cubic foot of water over 1,000 CF but not to exceed 2,000 CF for one month. <sup>(1)</sup> | 0.0330      |
| For each cubic foot of water over 2,000 CF but not to exceed 3,000 CF for one month. <sup>(1)</sup> | 0.0349      |
| For each cubic foot of water over 3,000 CF but not to exceed 4,000 CF for one month. <sup>(1)</sup> | 0.0366      |
| For each cubic foot of water over 4,000 CF but not to exceed 5,000 CF for one month. <sup>(1)</sup> | 0.0390      |
| For each cubic foot of water over 5,000 CF but not to exceed 6,000 CF for one month. <sup>(1)</sup> | 0.0407      |
| For each cubic foot of water over 6,000 CF but not to exceed 7,000 CF for one month. <sup>(1)</sup> | 0.0417      |
| For each cubic foot of water over 7,000 CF for one month. <sup>(1)</sup>                            | 0.0438      |

<sup>(1)</sup> This amount to be determined for each unit by dividing the total amount of water metered each month by the total number of units served by the meter.

That there are hereby fixed and established for water furnished by the water system of Benbrook Water Authority a \$15 per month connection charge for each meter associated with a multi-family account.

- That there are hereby fixed and established for water furnished by the Authority the following water volume rates for Commercial customers:

**Commercial and Construction Water Rates**

| Metered Usage (in cubic feet, CF)   | Rate    |
|---|---------|
| Minimum rate per month for usage of 0 to 400 CF                                     | \$32.55 |
| For each cubic foot of water over 400 CF but not to exceed 1,000 CF for one month   | 0.0331  |
| For each cubic foot of water over 1,000 CF but not to exceed 2,000 CF for one month | 0.0357  |
| For each cubic foot of water over 2,000 CF but not to exceed 3,000 CF for one month | 0.0366  |
| For each cubic foot of water over 3,000 CF but not to exceed 4,000 CF for one month | 0.0384  |
| For each cubic foot of water over 4,000 CF but not to exceed 5,000 CF for one month | 0.0400  |
| For each cubic foot of water over 5,000 CF but not to exceed 6,000 CF for one month | 0.0421  |
| For each cubic foot of water over 6,000 CF but not to exceed 7,000 CF for one month | 0.0438  |
| For each cubic foot of water over 7,000 CF for one month                            | 0.0451  |
| Rate per month for fire sprinkler systems (per inch diameter of service main)       | 6.53    |

- That there are hereby fixed charges for all wastewater customers based on meter size, regardless of whether water is received during a billing cycle:

**Fixed Charges Applicable to All Wastewater Customers**

| 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    |

The fixed charge for Single-Family Residential Customers having a private water supply and not connected to the Authority’s water system shall be based on a 1-inch meter.

- That there are hereby fixed and established for wastewater service furnished by the Authority the following wastewater rates for Single Family and Multi-Family Residential customers, for which billing shall be based on average monthly water consumption during winter months ("winter quarter average"). Wastewater volumes used for monthly billing purposes will be based on the water usage shown on the December through March bills for each customer. The highest month usage will be discarded and remaining three months averaged to determine the monthly wastewater billing volume. The winter quarter average shall be recomputed following the March billing of each year to reestablish the winter quarter average; this will be the basis for calculation of water use for the wastewater bill for the next twelve-month period and shall be applicable whether service is to be furnished by the Authority’s own wastewater system or the City of Fort Worth pursuant to a contract between the Authority and said City:

**Single Family & Multi-Family Residential Wastewater Rates**

| Metered Usage (in cubic feet)                  | Rate   |
|--|--------|
| For each cubic foot of water <sup>(2)(3)</sup> | 0.0559 |

<sup>(2)</sup> Based on winter-quarter-average metered consumption.

<sup>(3)</sup> Excluding fixed charge described in Section 4. Not to exceed a total volumetric charge of \$97.83 per month for single-family customer accounts.

- a. For single-family residential customers with prior usage histories insufficient to establish average wastewater volumes, the system-wide single-family residential winter quarter average volume will be used for monthly billing until completion of the next winter quarter average calculation.
  - b. For multi-family residential customers with prior usage histories insufficient to establish average wastewater volumes, the system wide multi-family residential winter quarter average volume will be used for monthly billing until completion of the next winter quarter average calculation.
6. That there are hereby fixed and established for wastewater furnished by the Authority the following wastewater rates for Single Family Residential customers having a private water supply and not served water by the Authority, for which billing shall be based on average for the Single-Family Residential Customer Class monthly water consumption ("winter quarter average") for the months December, January, and February. The winter quarter average shall be recomputed following the March billing of each year to reestablish the winter quarter average; this will be the basis for calculation of water use for the wastewater bill for the next twelve-month period and shall be applicable whether service is to be furnished by the Authority's own wastewater system or the City of Fort Worth pursuant to a contract between the Authority and said City:

**Single Family Residential Wastewater Rates (Wastewater Only Customers)**

| Metered Usage (in cubic feet)               | Rate   |
|---|--------|
| For each cubic foot of water <sup>(4)</sup> | 0.0559 |

<sup>(4)</sup> Based on system-wide winter-quarter-average metered consumption.

7. That there are hereby fixed and established for wastewater service furnished by the Authority the following wastewater rates for Commercial (including all non-residential) customers, which rates shall be applicable whether service is to be furnished by the Authority's own wastewater system or the City of Fort Worth pursuant to a contract between the Authority and said City:

**Commercial Wastewater Rates**

| Metered Usage (in cubic feet, CF)           | Rate  |
|---|-------|
| For each cubic foot of water <sup>(5)</sup> | .0691 |

<sup>(5)</sup> Based on actual monthly metered consumption.

8. That the provisions of this Resolution shall have no effect on, or otherwise conflict with the provisions of Resolution 2017-2 (or any subsequent resolutions) establishing Water and Wastewater Impact Fees, or Resolution 2021-05 (or any subsequent resolutions), establishing Deposits, Service, Plan Review, Construction, Permitting and Observation Fees. All fees and charges established by this Resolution are in addition to fees or charges established by separate resolution.
9. That this Resolution shall be in effect not later than \_\_\_\_\_ and all prior Resolutions or parts thereof in conflict herewith are hereby repealed.

APPROVED AND ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
President, Board of Directors

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Secretary, Board of Directors

