



City of
Golden

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Council Memorandum

To: The Honorable Mayor and City Council

From: Anne Beierle, Deputy Director Public Works

Through: Dan Hartman, Public Work Director
Jason Slowinski, City Manager

Date: November 5, 2019

Re: Ordinances 2120 and 2121: Water, Wastewater and Drainage Utility Rates for 2020

Purpose of Agenda Item: To establish rates for 2020 for the water, sewer and drainage utilities.

Background: The City of Golden has three utilities, each with its own fund and fee structure. Although fees have been adjusted regularly to recover the costs of the services provided, the water and sewer utilities last conducted a comprehensive rate study in 1991 and the drainage utility completed one in 1997. Rate studies generally conform to industry accepted cost of service principles and methods developed by the American Water Works Association and the Water Environment Federation. The City hired Raffelis to conduct the rate study and assist with rate structure alternatives and public outreach. This work was completed in 2019 and is described in more detail below.

Rate Structure Analysis:

To provide input and advise staff on potential rate structure changes, an ad-hoc utility rate citizen committee was created with membership from existing boards and commissions and citizens at-large to make sure a broad range of interests were represented. Members of the committee were:

Don Cameron, Planning Commission
Tanja Rauch-Williams, Community Sustainability Advisory Board
Peter Luptovic, Citizens Budget Advisory Committee
Karen Oxman, Citizens Budget Advisory Committee
Adam Schiche, Golden Resident
Todd Margulies, Golden Resident
Steven Smith, Golden Resident

The committee met five times to discuss and evaluate a variety of rate structures that consider such issues as conservation, consumption characteristics of the customer classes, fairness, affordability implications, and customer understanding. The committee's recommendations for revised water, sewer and drainage rate structures are described in a summary report, which is included in your packet. The report from the committee includes the following recommendations:

Water Rate Structure:

- Increase the monthly service charge from 6.6% to 9.4% to increase revenue. The current monthly service charge structure of charging accounts by meter size should remain. Monthly service fees from small meters (3/4" and 1") will increase.
- Implement a three-tier rate structure for single-family residential accounts. The lowest rate block is equal to each individual customer's average winter use, block 2 is an allotment intended to meet the efficient outdoor irrigation needs of an average residential property and block 3 is equal to all water use in excess of block 2.
- For multifamily, commercial and irrigation accounts the volume rate structure should remain as a uniform rate, however the rate should be adjusted for cost of service.

Wastewater Rate Structure:

- Decrease the monthly service charge from 33.6% to 20%. The current monthly service charge structure of charging all accounts the same regardless of meter size should remain.
- The usage or volume rate structure (\$ per 1,000 gallons of metered water usage) for single-family residential and multifamily/commercial accounts should remain as a uniform approach with cost of service applied.

Drainage Rate Structure:

- The drainage rate structure of a flat fee for single-family residential accounts and multi-family accounts with less than four units should remain the same, but the amount charged should reflect the cost of service. This will increase the fee for these accounts.
- The current rate structure used for multi-family accounts with greater than four units and commercial accounts (\$ per square foot of impervious area) should remain the same, but the amount charged should reflect the cost of service. This will decrease the fee for these accounts.

Financial Analysis:

Separate from the effort to consider rate structure changes, Raftelis conducted a financial analysis of each utility, looking at operating costs, capital costs, asset value, reinvestment

targets, and reserve targets. Based on the financial analysis, they made the recommendations for rate changes for 2020: Increase water rates by 6.2%, increase drainage rates by 12%, and leave wastewater rates unchanged.

An open house was held August 14, 2019 to describe the changes to the rate structures and the suggested rate increases. The open house was relatively quiet, with less than 20 residents attending, but those who did attend were interested and engaged. No strong opposition or support to either proposal was expressed at the meeting or in the comment cards submitted.

Staff shared the changes with CBAC at their August 21, 2019 meeting and presented to City Council on September 12, 2019.

Public Outreach Efforts: As part of the project, Raftelis prepared a public engagement plan specific to the comprehensive rate study.

Highlights of the plan included:

- The creation of a citizen's committee with representation from a wide variety of interests to consider changes to the rate structure.
- Monthly meetings of the committee – posted in advance and open to the public, dedicated space on the City's website to post agendas, presentations, and minutes from the committee meetings.
- Monthly articles in the Informer about the rate study and progress to date.
- An open house to present results.

The proposed rates and rate structures were provided to all utility customers as in insert in October and November utility bills. A conversation was added to Guiding Golden where residents could provide comments and ask questions.

Fiscal Impact: All residents and businesses in City limits are served by the drainage utility. Most are also served by the water and sewer utility as well. Changes to the rate structure and/or the rates themselves for any of the utilities will have an impact on the fees paid by residents and businesses in the City.

Over time, Golden's fees have quit tracking with the relative cost of service by customer class. For example, residential customers have been under contributing to the water and drainage utilities and over contributing to the wastewater utility. Some of the changes proposed in the rate structure are intended to correct these cost of service issues.

Attached to this memo is a utility bill comparison graph. This graph shows how a typical residential total utility bill compares to other municipal governments that provide water, wastewater and drainage service. It also shows how that bill will change to reflect the cost of service analysis included in the rate study.

A second attachment shows customer bill impacts. This attachment illustrates how a typical residential customer's bill will change in the summer and what the average change in that customer's utility bill will look like. The bill impacts include both the proposed rate structure changes and potential fee increases. On average, a residential bill will increase by \$4.40/month or \$52/year.

Community Impact: It is in the community's best interest, long term, for all our utilities to be well funded and for the funding to consider operating and capital reinvestment costs. The long-term impacts of these changes, therefore, are good for the community. In order to accomplish this, the fiscal impacts described above will be necessary.

Alternatives: Council has several options regarding the rate for each of the utilities. In general, council may:

1. Approve the rates recommended in the comprehensive rate study for the water, wastewater and drainage utilities.
2. Approve the rates recommended in the comprehensive rate study for only one or two utilities and leave the existing rates in place for the other(s).
3. Recommend a delay in rate increases for one or more utility.
4. Recommend against rate increases for one or more utility.

Recommendations: Staff recommends that Council adopt Ordinances 2120 and 2121 which include the changes to the rate structures that have been recommended by the Utility Rate Citizen Committee and the rates recommended in the comprehensive rate study completed in 2019.



Utility Rate Citizen Committee Recommendation Report

July 30, 2019

Executive Summary

The City of Golden (City) formally convened the Utility Rate Citizen Committee (URCC or the Committee) on February 19, 2019. The mission of the URCC is to *assemble diverse perspectives that represent our community to evaluate and advise on the City's water, sewer, and drainage (stormwater) rate structures*. The URCC has three overarching purposes:

1. To represent and communicate the views of the community;
2. To provide input on rate structure options and associated customer impacts; and
3. To formulate a recommendation for Golden City Council.

The URCC was informed of the current rate structures for water, sewer and drainage; constraints of the rate study and analysis assumptions that included:

- The City's current rate structures have been in place for more than 20 years and although the City is not experiencing financial shortfalls with the existing rate structures, as a best practice the City initiated a rate study to ensure that the three rate structures best met the needs of the utility and the customers it serves.
- The City's cost of service study showed that for equity between customer classes for water, sewer, and drainage, changes would need to be made to assure customer classes were either not paying for all the costs associated with their service usage or were overpaying those costs (see table 4).
- Total annual water demand in the City has decreased by 18% since the City adopted sustainability goals in 2007. Annual per capita water use has declined by 29% over the same period due to consumer behavior change; installation of more efficient fixtures and appliances; conservation efforts; and general awareness of the value of water as a resource.
- Winter water demand is currently as low as it can be without cycling the water treatment plant on and off, reducing the efficiency of the plant. The plant operates best at flows over 2.0 million gallons per day (MGD), but modifications allow the plant to operate continuously at flows as low as 1.8 MGD. When Colorado School of Mines is on winter break the plant sees flows as low as 1.5-1.6 MGD, which requires cycling the plant.
- The City of Golden's utility operating rules do not allow for any special rates or discounts for specific customer classes.

- All rate structures considered must be supported by the City’s current customer information (billing) system and software.
- All rate structure-related work products were based on 2018 demand for water, sewer and drainage services and are not representative of actual rates to be recommended for 2020.
- The City moved from quarterly billing to monthly billing in January 2019, and the impacts of that change are still to be determined, although initial indications are that it was very positively received by customers. This change was brought to the URCC’s attention because customers do not have a full year of monthly billing to compare changes to, because 2018 bills were still quarterly.
- All rate structure alternatives considered were revenue neutral by customer class.

The URCC represents the constituency of the City’s customers and stakeholders including residents, the business community, environmental interests, large irrigators and commercial interests. Members of the committee included representatives from the City’s Citizens Budget Advisory Committee, Planning Commission, Sustainability Board and three individuals that responded to a request for volunteers placed in the *Golden Informer*. All Committee members are residents of the City of Golden. The meetings were open to the public and materials were posted on the City’s website throughout the process. Members of the URCC include:

Don Cameron
Planning Commission

Tanja Rauch-Williams
Sustainability Board

Peter Luptovic
Citizens Budget Advisory Committee

Adam Schiche
Golden Resident

Todd Margulies
Golden Resident

Steven Smith
Golden Resident

Karen Oxman
Citizens Budget Advisory Committee

URCC Summary of Recommendations to the Golden City Council

The URCC used a consensus-driven process to arrive at their recommendations. The URCC rate structure recommendations for consideration by the Golden City Council are summarized below.

WATER

1. Recommendation: The amount of the City’s annual total revenue derived from the monthly service charge should be increased from 6.6% to 9.4% to help achieve revenue stability. The current monthly service charge structure of charging accounts by meter size should remain.

2. Recommendation: The usage or volume rate structure (\$ per 1,000 gallons of metered water usage) for single family residential accounts should be changed from the current uniform approach to a three-tier structure. The Committee’s preferred alternative is the “AWC + Fixed” approach – an average winter

consumption (AWC – to be defined for the City of Golden as the average monthly water use per single family residence during the months of December through February) approach where Block 1 is equal to each individual customer’s AWC, Block 2 is equal to the AWC plus some allotment intended to meet the efficient outdoor irrigation needs of an average City residential property and Block 3 is equal to all water use over the customer’s AWC plus the allotment in Block 2. This structure helps encourage conservation while also ensuring that indoor water usage is charged at the lowest cost.

3. Recommendation: For multifamily/commercial accounts the volume rate structure should remain as a uniform rate, however the rate should be adjusted for cost of service to ensure that revenue is recovered equitably. The uniform rate structure best meets the broad range of types of water use in the commercial class and reflects that there were fewer seasonal fluctuations in usage patterns for commercial customers.

4. Recommendation: For irrigation accounts the rate structure should remain a uniform rate, with a flat rate charged per 1,000 gallons, but the rate should reflect the cost to serve these customers. This means that the rate would increase for these customers.

SEWER

5. Recommendation: The amount of the City’s annual total revenue derived from the monthly service charge should be decreased from 33.6% to 20%, to maintain revenue stability while addressing affordability. The current monthly service charge structure of charging all accounts the same regardless of meter size should remain.

6. Recommendation: The usage or volume rate structure (\$ per 1,000 gallons of metered water usage) for single family residential and multifamily/commercial accounts should remain as a uniform approach with cost of service applied.

DRAINAGE

7. Recommendation: The drainage rate structure (\$ per unit per bill) for single family residential accounts and multi-family accounts with less than four units should remain the same, but the amount charged should reflect the cost of service. This means that the rate charged will increase for single family residential customers. The rate structure for commercial customers (\$ per square foot) should remain the same and rate charged should reflect the cost of service, which means a slight decrease for these customers.

Report Background

I. URCC Activities

The URCC met five times to discuss and consider the items noted in Table 1. For each meeting City staff prepared and presented a variety of information. The City of Golden had previously selected a consulting firm, Raftelis, to conduct the rate study. Todd Cristiano and Hannah Palmer-Dwore with Raftelis served as technical consultants and Melissa Elliott with Raftelis served as meeting facilitator. City staff also offered make-up sessions to accommodate Committee members who were unable to attend the scheduled meetings to ensure informed recommendations.

Table 1 - URCC Meetings and Agenda		
Meeting	Date	Agenda
1	Feb. 19, 2019	Introductions, Mission Statement, background information, water, sewer and drainage system overview, overview of current rate structures and pricing objectives and City of Golden rate history.
2	March 19, 2019	Rate-setting 101, customer information, and pricing objectives ranking exercise.
3	April 16, 2019	Preliminary water rate structures for single family residential, multi-family/commercial and irrigation. Narrow down options for consideration.
4	May 21, 2019	Conservation and customer assistance presentation, preliminary sewer and drainage rate structures, further refinement on water rate structures. Narrow down options for consideration.
5	July 16, 2019	Review draft recommendations and review and narrow down water rate structures for irrigation customers. Discuss August public open house.

II. URCC Determines Pricing Objectives

During the second meeting the URCC participated in a discussion and ranking exercise to determine pricing objectives important in the consideration of rate design alternatives. Tables 2 and 3 are the result of the ranking exercise for water and sewer. No ranking exercise was performed for drainage.

Table 2 - Ranked Pricing Objectives for Water	
Objective	Ranking
<ul style="list-style-type: none"> • Defensibility • Revenue Stability • Revenue Sufficiency 	Required Objectives for any alternatives
<ul style="list-style-type: none"> • Conservation • Equity Between Classes • Essential Use Affordability 	Most Important (in alphabetical order)
<ul style="list-style-type: none"> • Customer Bill Impact • Customer Understanding • Demand Management • Ease of Implementation • Equity Within Classes 	Less important (in alphabetical order)

Table 3 - Ranked Pricing Objectives for Sewer	
Objective	Ranking
<ul style="list-style-type: none"> • Defensibility • Revenue Stability • Revenue Sufficiency 	Required Objectives for any alternative
<ul style="list-style-type: none"> • Equity Between Classes • Equity Within Classes • Essential Use Affordability 	Most Important (in alphabetical order)
<ul style="list-style-type: none"> • Customer Bill Impact • Customer Understanding • Ease of Implementation 	Less important (in alphabetical order)

Ranking of pricing objectives was a key component in evaluating alternative rate structures. The most important objectives selected by the URCC (identified in Tables 2 and 3) served as criteria for assessing the relevance and effectiveness of the alternative rate structures. It should be noted that the other pricing objectives were also considered in the URCC’s evaluation—they were not ignored.

III. URCC Understanding of Cost of Service

Because the City has not conducted a rate study for many years, as part of this rate study, the City also conducted a cost of service study to determine what costs each customer class places on each utility. The consultant determined this cost of service and then compared it to the revenue coming from that customer class from the existing rate structures. The results of the cost of service study are shown below in Table 4 for each utility: water, sewer and drainage. Note that there were differences identified for each customer class and utility. The URCC was informed that cost of service was built into the rate structure options that they reviewed.

Table 4

Water Utility Cost of Service				
Customer Class	COS	Revenue at Existing Rates	Change - \$	Change %
Residential	\$2,264,850	\$2,008,517	\$256,333	12.8%
Comm/MF	\$2,354,435	\$2,798,783	(\$444,348)	-15.9%
Irrigation	\$872,935	\$684,920	\$188,015	27.5%
Total	\$5,492,220	\$5,492,220	\$0	0%

Wastewater Utility Cost of Service				
Customer Class	COS	Revenue at Existing Rates	Change \$	Change %
Residential	\$753,501	\$1,057,055	(\$303,554)	-28.7%
Non-Residential	\$1,660,258	\$1,356,704	\$303,554	22.4%
Total	\$2,413,759	\$2,413,759	\$0	0%

Drainage Utility Cost of Service

Customer Class	COS	Revenue at Existing Rates	Change - \$	Change %
Residential, MF units <=4	\$354,383	\$256,086	\$98,296	38.4%
Comm, MF >4 units	\$884,000	\$982,296	(\$98,296)	-10.0%
Total	\$1,238,382	\$1,238,382	\$0	0%

IV. URCC Recommendations on Water Rate Structures

Increase in Service Charge Revenue for Water

Background: The current water rate structure includes both a volumetric rate component and a monthly service charge. The service charge is currently \$4.43 per month per bill and generates approximately \$360,000 per year or about 6.6% of the water utility’s total annual revenue.

Consensus on Increase in Service Charge Revenue

1. RECOMMENDATION: The URCC recommends increasing the amount of revenue derived from the service charge from 6.6% to 9.4% to mitigate revenue volatility. The URCC also recommends keeping the existing method of assessing the water service charge based on meter size.

***Rationale:** The URCC was informed that compared to other Colorado utilities, the City’s service charge revenue was very low. The URCC considered the impacts of this change including impacts to customer bills, conservation signaling and at-risk customers. The URCC was informed that service charges by meter size is widely used in the water industry and that varying the service charge by meter size addresses the cost to serve customers.*

The recommended service charge by meter size is provided in Table 5.

Table 5

Meter Size (inches)	Existing	URCC Recommendation [1]
5/8 x 3/4	\$4.43	\$7.31
1	\$4.90	\$7.79
1 ¼ x 1 1/2	\$10.07	\$8.99
2	\$12.15	\$10.43
3	\$55.60	\$14.28
4	\$66.81	\$18.62
6	\$87.34	\$30.65

¹This amount and other values, rates, etc., contained in this report are for illustrative purposes only. If directed by the City Council to pursue any changes in the user charge structure, City of Golden staff will further evaluate these changes and, as appropriate, make specific recommendations for consideration by the City Council.

V. URCC Recommendation on Single Family Residential Volume Rate Structure

Background: The URCC considered several water rate structure alternatives for single family residential accounts, i.e., individually metered residential dwelling units. Their process included applying the pricing objectives defined and ranked in meeting #2 (see Tables 2 and 3).

Table 6 was shown to the Committee, so they could see how the pricing objectives they selected as the most important aligned with various rate structure alternatives. Table 6 provides an indication of how well each of the rate alternatives “performs” in terms of achieving the indicated pricing objective. Green indicates the rate structure supports the pricing objective while yellow indicates the rate structure somewhat supports the pricing objective. Red indicates the rate structure does not specifically support the pricing objective. The evaluation of the City of Golden’s existing uniform water rate structure indicated that this rate structure only somewhat met the pricing objectives of conservation and essential use affordability that the URCC had identified as two of three most important objectives (see Table 2).

Table 6

Structure	Revenue Stability	Demand Mgmt	Conservation	Interclass Equity	Intraclass Equity	Essential Use Affordability	Customer Understanding	Ease of Implement/ Admin
Flat	Green	Red	Red	Red	Red	Red	Green	Green
Uniform	Green	Yellow	Yellow	Green	Green	Yellow	Green	Green
Seasonal	Yellow	Green	Yellow	Green	Yellow	Yellow	Green	Green
Inclining block	Yellow	Green	Green	Green	Yellow	Yellow	Yellow	Yellow
Individualized	Yellow	Yellow	Green	Green	Yellow	Green	Yellow	Red

The URCC discussed the importance of conservation signaling through tiered pricing and felt that there was an opportunity to use current usage profiles and price ratios to more directly communicate the efficiency-conservation message to a greater portion of customers using water for discretionary purposes. A three-tiered structure was selected to align indoor use with the first block, recognize efficient outdoor water use in the second block, and establish usage above the third block as above average or inefficient water use. The results of a “pros and cons” exercise led to the recommended single-family rate structure. A similar process was followed in considering rate structure alternatives for the other customer classes. Members of the URCC were asked to individually rank their “pros” and “cons” and preferred alternatives based on subsequent presentations, data provided by staff and discussions within the group.

It should be noted that the preference expressed by the Committee is not necessarily a strong preference in part because no rate structure was an obvious choice, and as shown in Table 6, there is not an ideal rate structure that meets all pricing objectives. The Committee size was about six members during most of the ranking exercises and some Committee members expressed a clear interest in rate structures that could potentially achieve greater levels of conservation—including indoor conservation. Other members expressed a strong interest in revenue stability, citing that these pricing objectives—

revenue stability and conservation—can compete with each other. Some of these views are provided in the “Other Considerations” section of this report.

Consensus on Single Family Rate Structure Options

2. RECOMMENDATION: The usage or volume rate structure (\$ per 1,000 gallons of metered water usage) for single family residential accounts should be changed from the current uniform approach to a three-tier structure. The Committee’s preferred alternative is the “AWC + Fixed” approach – an average winter consumption (AWC – to be defined for the City of Golden as the average monthly water use per single family residence during the months of December through February) approach where Block 1 is equal to each individual customer’s AWC, Block 2 is equal to the AWC plus some allotment intended to meet the efficient outdoor irrigation needs of an average City residential property and Block 3 is equal to all water use over the customer’s AWC plus the allotment in Block 2. This structure helps encourage conservation while also ensuring that indoor water usage is charged at the lowest cost.

Rationale: *After reviewing the structure alternatives, the URCC selected the top two options of the four considered. The top options, in rank order, are:*

1. *AWC + Fixed – the preferred approach*
2. *Seasonal*

The positive aspects of the AWC + Fixed approach included, but are not limited to:

1. *Provides a “customized” conservation signal, i.e., once a customer’s water use exceeds their indoor use (their AWC), they would pay at the higher rate per 1,000 gallons. This approach sends a clear pricing signal regarding the distinction between indoor and outdoor water use. When the rate structure is combined with the City’s metering technology that allows the customer to access their nearly real-time water consumption information the customer can be highly informed of when their water use begins to tip into a higher tier.*
2. *A minimum AWC equal to the class average (approximately 5,000 gallons) would be the minimum threshold for users who use less than 5,000 gallons or are new customers with no consumption history. The use of a default value is an accommodation to balance inequities that would otherwise exist. The City of Golden Public Works Department can consider variances for a customer’s AWC and possibly a maximum AWC threshold.*
3. *The use of an individualized method to determining the Block 1 usage results in greater intra-class equity and greater equity within the single-family class. Each customer’s indoor use (as measured by AWC) is charged at the lowest rate; this was also viewed positively in terms of the essential use or affordability pricing objective. This is a contrast with the alternative fixed block approach, which defines for all single-family customers the Block 1 use. Under the current uniform approach, this rigid definition includes at the lowest available rate per 1,000 gallons any water that is used for outdoor purposes.*
4. *Several options for the Block 2 level were reviewed (10,000 gallons, 15,000 gallons and 20,000 gallons) and it was decided that this determination was best left to City*

staff to recommend what level best met the needs of efficient outdoor water use for an average residential lot.

An example of the AWC + Fixed alternative for Single Family Residential Customers is shown in Table 7.

Table 7¹

AWC + Fixed					
Block	Threshold (kgal)	Existing	Block 2 +10 kgal	Block 2 +15 kgal	Block 2 +20 kgal
1	AWC, min. 5 [1]	\$5.26	\$4.77	\$4.84	\$4.88
2	AWC + x kgal	\$5.26	\$6.20	\$6.29	\$6.34
3	> AWC + x kgal	\$5.26	\$7.63	\$7.74	\$7.81
[1] Threshold is set at the maximum of AWC or 5,000 gallons. Customer is billed based on actual usage.					

¹This amount and other values, rates, etc., contained in this report are for illustrative purposes only. If directed by the City Council to pursue any changes in the user charge structure, City of Golden staff will further evaluate these changes and, as appropriate, make specific recommendations for consideration by the City Council. Several options for the Block 2 level are provided here (10,000 gallons, 15,000 gallons and 20,000 gallons). The determination of which Block size to select has been left to City staff to recommend what level best meets the needs of efficient outdoor water use for an average residential lot.

VI. Other Customer Classes – Rate Structure Options

Background: The URCC considered alternatives for the non-single family, individually metered customer classes—these classes and the alternatives considered include:

Multifamily/Commercial (multifamily includes accounts with greater than four dwelling units; unlike the single-family residential accounts, in the case of multifamily accounts, each dwelling unit is not individually metered)

- Uniform (Current)
- AWC Peak
- Seasonal

Irrigation

- Uniform (Current)
- Fixed inclining block
- Individualized Water Budget

Consensus on Rate Structure Options for Other Customer Classes

3. RECOMMENDATION: For multifamily/commercial accounts the volume rate structure should remain as a uniform rate, however the rate should be adjusted for cost of service to ensure that revenue is recovered equitably. Although several other options were reviewed, the uniform rate structure best met

the broad range of types of water use in the commercial class and reflected that there were fewer seasonal fluctuations in use for commercial customers.

4. RECOMMENDATION: For irrigation accounts the rate structure should remain a uniform rate, with a flat rate charged per 1,000 gallons, but the rate should reflect the cost to serve these customers. This means that the rate would increase.

***Rationale:** After reviewing the structure alternatives, the URCC selected the following options for the indicated customer classes:*

- *Multifamily/Commercial – Uniform*
- *Irrigation - Uniform*

In recommending the Uniform approach, the URCC recognizes the great diversity in use that exists within the multifamily and commercial customer classes. Because of this diversity in usage, the URCC felt that retaining the uniform rate structure was the best approach, although it should be noted that the preference expressed by the Committee is not necessarily a strong preference. The Committee size was about six members during most of the ranking exercises and a minority of the Committee members expressed a clear interest in rate structures that would achieve greater levels of conservation—including commercial customers. Some of these views are provided in the “Other Considerations” section of this report.

Similarly, in recommending the Uniform approach for irrigation customer classes, the URCC recognized that although there are other rate structures that may provide a stronger conservation pricing signal, they heard City staff say that in their experience these customers fall into two categories: 1) irrigation customers that are highly aware of their water use and work hard to be as efficient as possible (such as a school or well-managed homeowners association) and 2) irrigation customers that have very little awareness or interest in their water use and whose bills are typically paid by someone that is not directly responsible for the irrigation (such as a commercial retail establishment or business park). The consensus was that recommending more complex rate structures at this time would be an administrative burden, but the URCC suggested that City staff keep thinking of ways that they can raise awareness of the need for efficient irrigation with this customer class and perhaps in the future a more conservation-based rate structure could be adopted.

VII. URCC Recommendations on Sewer Rate Structures

Background: The current sewer rate structure includes both a volumetric rate component and a monthly service charge. The service charge is currently \$12.11 per month per bill and generates approximately \$795,000 per year or about 33.6% of the sewer utility’s total annual revenue. The volumetric rate component is uniform for all customers, although some commercial customers pay additional strength charges based on the wastewater treatment impact their wastewater has. Of note in the current structure, Single Family Residential customers’ volumetric rate is based on their February bill, but Multifamily/Commercial customers are billed based on actual water usage each month.

Consensus on Decrease in Service Charge Revenue and Cost of Service Volume Rate

5. RECOMMENDATION: The amount of the City’s annual total revenue derived from the monthly service charge should be decreased from 33.6% to 20%, to maintain revenue stability while addressing affordability. The current monthly service charge structure of charging all accounts the same regardless of meter size should remain.

6. RECOMMENDATION: The usage or volume rate structure (\$ per 1,000 gallons of metered water usage) for single family residential and multifamily/commercial accounts should remain as a uniform approach with cost of service applied. The Committee recommends aligning the determination of residential sewer volumetric rate with the average winter consumption (AWC - December through February) determination for the water rate structure. Strength charges for certain commercial customers would remain unchanged.

***Rationale:** The URCC was informed that compared to other Colorado utilities, the percentage of revenue coming from the City’s sewer service charge was high, even if the amount charged for sewer service was not out of line with other utilities. The URCC discussed the impacts of this change including potential positive impacts to customer bills and at-risk customers provided by lowering the fixed charge and having more revenue come from the volumetric charge. In addition, the URCC discussed that the City has under-recovered revenue from residential customers and over-recovered revenue from non-residential customers based on the cost to service analysis.*

The recommended rate structure is provided in Table 8.

Table 8 Recommended Wastewater Rate Structure¹

Rate Component	Existing	URCC Recommendation
Service charge, \$ per bill	\$12.11	\$7.21
Volume charge, \$ per kgal	\$2.61	\$3.14

¹This amount and other values, rates, etc., contained in this report are for illustrative purposes only. If directed by the City Council to pursue any changes in the user charge structure, City of Golden staff will further evaluate these changes and, as appropriate, make specific recommendations for consideration by the City Council.

VIII. URCC Recommendations on Drainage Rate Structures

Background: The current drainage rate structure for single family is a uniform charge of \$4.22 per unit per bill. Commercial customers and multi-family residential accounts with greater than four units are charged \$0.0022 per square foot of impervious area.

Consensus on Charging All Customers Based on Impervious Area and Cost of Service

7. RECOMMENDATION: The drainage rate structure (\$ per unit per bill) for single family residential accounts and multi-family accounts with less than four units should remain the same, but the amount charged should reflect the cost of service. This means that the rate charged will increase for single family

residential customers. The rate structure for commercial customers (\$ per square foot) should remain the same and rate charged should reflect the cost of service, which means a slight decrease for these customers.

Rationale: The URCC discussed aligning the single-family residential structure with the commercial structure to charge a rate per square foot of impervious area. The URCC discussed that there would be a high administrative burden on City staff to develop highly accurate data on each single family property’s impervious area and to keep up with changes that property owners make over time, and that it would be preferable to keep the structures as they are, but to charge a rate that aligns with the cost of serve the specific customer class. The cost of service study found that single family residential customers were paying less than the cost of service and commercial customers were paying more than their cost of service, so aligning the charges to the study will ensure that each customer class is charged equitably.

The recommended rate structure is provided in Table 9.

Table 9 Recommended Drainage Rate Structure²

Customer Class	Existing	URCC Recommendation
Residential	\$4.22 per unit per bill	\$5.84 per unit per bill
Commercial	\$0.0022 per sq. ft. [1]	\$0.00198 per sq. ft. [1]
[1]Per square foot of impervious area		

²This amount and other values, rates, etc., contained in this report are for illustrative purposes only. If directed by the City Council to pursue any changes in the user charge structure, City of Golden staff will further evaluate these changes and, as appropriate, make specific recommendations for consideration by the City Council.

IX. The Big Picture

As the URCC made their recommendations, committee members stressed that it was important to see the results of how the various recommendations for different rate structures, customer classes and usage levels would appear from the customer's perspective. The following examples were provided to the URCC to demonstrate a comparison between existing rate structures and those the URCC recommended.

Residential monthly bill Water, wastewater, drainage

Meter size: 0.75"

Water use: 13,000 gallons

Wastewater billable volume: 4,000 gallons

Drainage impervious area = 2,950 sq. Ft.



5

Residential monthly bill Water, wastewater, drainage

Meter size: 0.75"

Water use: 4,000 gallons

Wastewater billable volume: 4,000 gallons

Drainage impervious area = 2,950 sq. ft.



6

IX. Other Considerations

In addition to the recommendations on rate structures for the water, sewer, and drainage utilities, the URCC would like the City Council to be aware of other considerations that the URCC discussed.

- The URCC heard a presentation on the City’s water conservation programs and discussed that it will be important to continue a range of conservation programs. Specifically, the URCC urged the City to consider incentives and education in addition to price signals through rate structures to encourage efficient water use.
- The URCC recognizes that informative and useful messages on customer bills help educate customers on the relationship between usage and price, on-bill customer engagement and conservation signaling, and what costs are driving customers’ rates (i.e. future capital needs). The URCC would like the City’s Public Works Department to enhance their use of this type of messaging.
- Members of the URCC would like consideration of implementation of formal financial customer assistance programs as the need for these programs may increase in the future. Suggestions included a “bill-leveling” program, a “round-up” donation, or a donation check-off to fund customer assistance.
- Regarding the recommended rate structure for single family residential AWC + Fixed, some URCC members would like the City Council to consider lowering the average minimum AWC of 5,000 gallons to less than that to encourage indoor conservation. Using the class average, customers with an AWC less than 5,000 gallons (approximately 75% of customers) will have possible discretionary use below 5,000 gallons billed at the Block 1 rate.

Glossary of Terms

AWC – Average winter consumption. Average of billed water for the previous winter months (December, January, and February) for a given customer account.

AWC + Fixed Rate Structure – A rate structure whereby Block 1 is equal to each individual customer’s AWC, Block 2 is equal to the AWC plus some allotment intended to meet the efficient outdoor irrigation needs of an average City residential property and Block 3 is equal to all water use over the customer’s AWC plus the allotment in Block 2. This structure helps encourage conservation while also ensuring that indoor water usage is charged at the lowest cost.

Blocks – A component of an inclining block volumetric rate structure. With an inclining block structure, as more is used, the rate increases. A block refers to a volume threshold which is priced a particular rate. Volume up to the next threshold is charged at a higher rate.

Cost of Service – The cost to provide water, sewer, or drainage service to each customer class based on the demands they impose on the utility. The cost of service determines the amount that must be collected from each customer class to insure equity between classes.

Customer Class – A homogeneous group of consumers. Utility customers are classified as single family residential, multifamily residential, commercial, and irrigation for rate making and other purposes. Specific customers may be identified as a class based on specific usage characteristics, level of service characteristics, or contract requirements.

Drainage – Golden uses this term for their stormwater utility

Fixed inclining block rate structure – A structure where the cost per unit increases as consumption increases.

Impervious area – Surfaces that impede stormwater infiltration and generate surface runoff such as roadways, parking lots, rooftops, sidewalks, driveways, and other pavements.

Individualized water budgets – A type of rate structure that allocates an amount of water to a water utility customer to meet their anticipated water requirements for a given time (e.g. month, year).

Irrigation customer – Golden water customers that receive water service solely for the purpose of irrigation, such as a school or homeowners association.

MGD – Million gallons per day. Unit of measurement for treatment plant water production

Water meter size – A meter tracks water usage at a property. the size of a water meter is based on the diameter of its supply line. .

Monthly service charge – A fixed charge that recovers costs associated with the number of customer-related activities such as billing and administrative costs and meter reading. A service charge may vary by meter size.

Multifamily customer – Those residing in residential property containing more than four living units.

Per capita water use – Amount of water used per person in a given time.

Pricing objective – A goal set by a utility in order to determine how it will charge for water.

Rate – The amount charged per increment.

Rate structure – The rates and charges applicable to the various customer classes and customers

Revenue neutral – An outcome of changes in rates that result in no change to the amount of revenue the utility receives when compared to current rates

Seasonal Rate Structure – Structure based on the cost-of-service variations with respect to system seasonal requirements. For example, higher rates may be charged during the summer months when a system peak occurs, which requires facilities not needed to meet lower winter loads. Seasons may be divided by summer and winter or may include a rate for ‘shoulder’ months – such as a spring or fall rate.

Single family residential customer – Those residing in a property upon which one living unit only is located.

Uniform rate structure – A volumetric rate structure where the unit price is the same for all water usage.

URCC – Utility Rate Citizens Committee

Table 1: Rate structure changes only

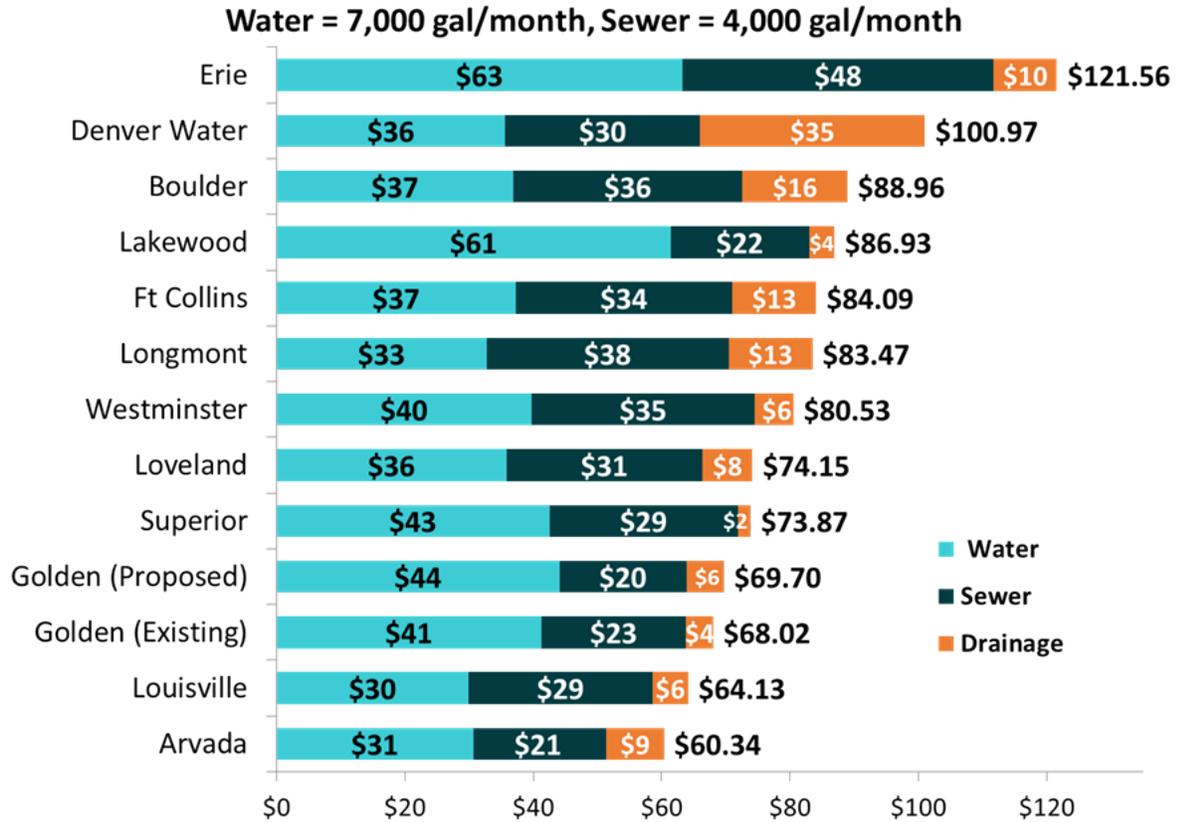
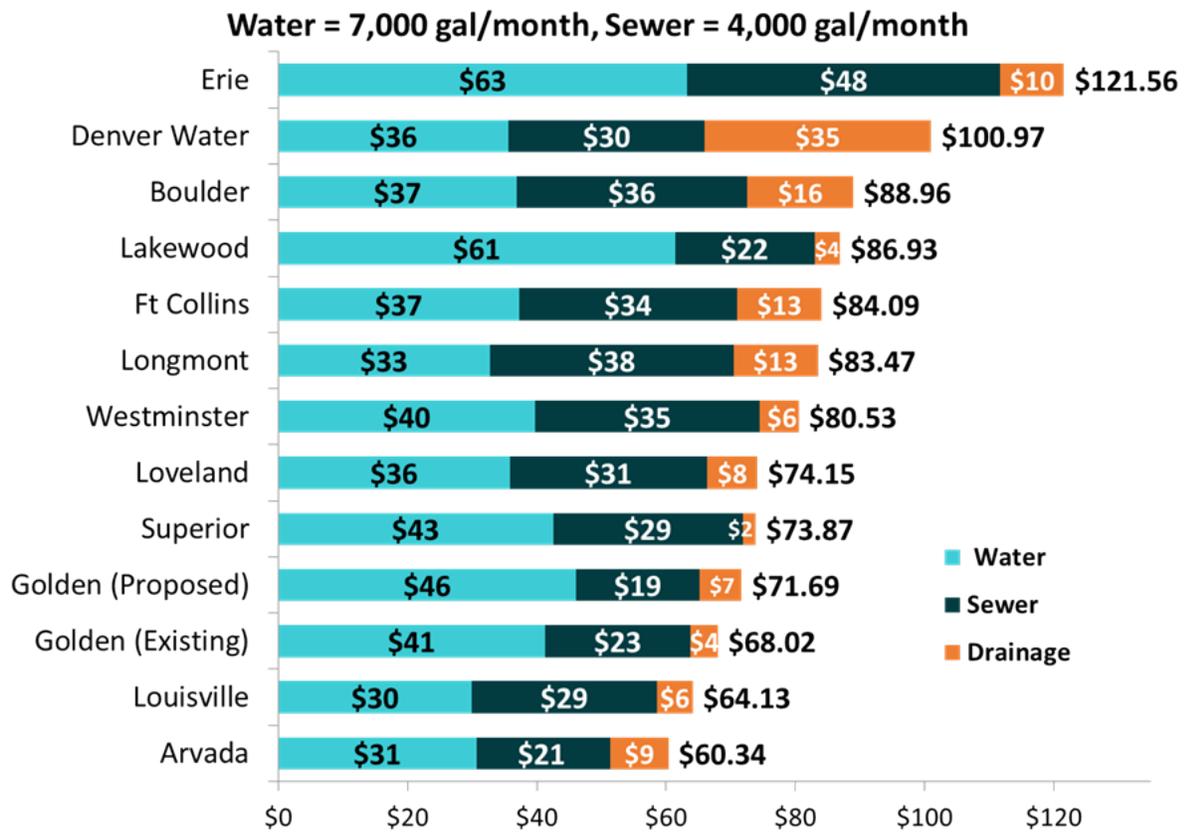


Table 2: Rate structure changes and rate increase





PROPOSED 2020 RATES

WATER RATE STRUCTURE

Existing Water Rate Structure

Meter Size*	Fixed Monthly Charge
5/8" and 3/4"	\$4.43
1"	\$4.90

Customer	Monthly Water Usage (\$/1,000 gallons)
Single Family Residential	\$5.26
Multifamily	\$5.26
Commercial	\$5.26
Irrigation	\$5.26



Proposed Water Rate Structure - 2020

Meter Size*	Fixed Monthly Charge
5/8" and 3/4"	\$9.82
1"	\$10.74

Customer	Monthly Water Usage (\$/1,000 gallons)
Single Family Residential	
Tier 1: AWC** (min 5,000 gallons)	\$4.77
Tier 2: AWC + 15,000 gallons	\$6.21
Tier 3: >AWC + 15,000 gallons	\$7.16
Multifamily	\$4.70
Commercial	\$4.70
Irrigation	\$6.24

*The majority of residential customers are served by service lines ranging from ranging from 5/8" - 1" in diameter.

**Average Winter Consumption

SEWER RATE STRUCTURE

Existing Sewer Rate Structure

Customer	Fixed Monthly Charge
All Customers	\$12.11

Customer	Monthly Usage (\$/1,000 gallons)
All Customers*	\$2.61



Proposed Sewer Rate Structure - 2020

Customer	Fixed Monthly Charge
All Customers	\$7.30

Customer	Monthly Usage (\$/1,000 gallons)
All Customers*	\$3.13

*Residential customers are charged a monthly monthly water usage rate based on their Average Winter Consumption. Commercial customers are charged a monthly volumetric rate based on monthly usage.

DRAINAGE RATE STRUCTURE

Existing Drainage Rate Structure

Customer	Fixed Monthly Charge
Residential (includes multifamily <4 units)	\$4.22
Commercial and >4 unit multifamily	\$0.0022/per square foot of impervious area



Proposed Drainage Rate Structure -2020

Customer	Fixed Monthly Charge
Residential (includes multifamily <4 units)	\$6.54
Commercial and >4 unit multifamily	\$0.00222/per square foot of impervious area

Water rates have not increased since 2014.
 To secure our water future, more frequent rate increases are needed.

For 2020, Golden is considering a **6.2%** increase in your water bill and a **10-15%** increase in your drainage bill to pay for:



Replacing aging pipes and delivery systems



Responding to new regulations



Responding to new technology



City of Golden

CUSTOMER

BILL IMPACTS

Proposed Changes to Monthly Bill Single Family Residential Average Summer Bill

Meter size: 0.75"
Water use: 13,000 gallons/month
Wastewater billable volume: 4,000 gallons/month
Drainage impervious area = 2,950 sq. Ft.



An average **summer** residential bill for 13,000 gallons of water will increase by \$9.40 per month.

Proposed Changes to Monthly Bill Single Family Residential Average Monthly Bill

Meter size: 0.75"
Water use: 7,000 gallons/month
Wastewater billable volume: 4,000 gallons/month
Drainage impervious area = 2,950 sq. ft.



An average **bill** residential bill for 7,000 gallons of water will increase by \$3.70 per month.



For more information and to provide feedback on these changes, go to GuidingGolden.com or come to City Council budget hearings on 10/24/2019 or 12/5/2019 at 6:30 pm in Council Chambers.

ORDINANCE NO. 2120

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GOLDEN COLORADO ESTABLISHING WATER AND WASTEWATER RATES AND CHARGES PURSUANT TO CHAPTER 13.08 OF THE GOLDEN MUNICIPAL CODE

WHEREAS, the City of Golden ("City") provides water and wastewater services to customers within and outside the City limits; and

WHEREAS, in accordance with Section 13.08.020 of the Golden Municipal Code ("Code") water and wastewater charges are to be prescribed by separate ordinances to be adopted by City Council in conjunction with the annual budget process; and

WHEREAS, guided by the requirements of Section 13.08.020 of the Code a comprehensive rate study was completed in 2019 with input from a citizen committee and an analysis performed by Raftelis Financial Consultants Inc, ("Raftelis"), which is a nationally recognized expert in the analysis and setting of municipal water utility rates and charges; and

WHEREAS, the rate study indicated that increases to the water and wastewaters rate structures are needed to meet the requirements of the Code and the goals established by the citizen committee, which include water conservation, equity between customer classes and essential use affordability; and

WHEREAS, the rate study also indicated that water and wastewater rates must be increased to provide adequate revenues to fund the water and wastewater utilities' operations and required capital improvements.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GOLDEN, COLORADO:

Section 1. In accordance with Section 13.08.020 of the Code, water rates and service charges shall be as follows:

Monthly Service Charge

<u>Meter Size (inches)</u>	<u>Monthly Service Charge (\$)</u>
3/4	9.82
1	10.74
1 ½	13.05
2	15.81
3	23.19
4	31.48
6	54.53
8	82.19

Volume Rates, \$ per 1,000 gallons

<u>Customer Class</u>	<u>Volume Rate</u>
Single Family Residential Block 1: 0 – AWC*	4.77

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Page 2

Block 2: AWC* + 15,000 gallons	6.21
Block 3: over AWC* + 15,000 gallons	7.16

*AWC = Average Winter Consumption or 5,000 gallons whichever is greater

Multi-Family/Commercial 4.70

Irrigation	
Potable Water	6.24
Non-potable Water	2.68

Section 2. In accordance with Section 13.08.020 of the Code, wastewater rates and service charges shall be as follows:

Monthly Service Charge (\$)	7.30
Volume Rate (\$ per 1,000 gallons)	3.13

Section 3. The water and wastewater rates and charges set forth in this Ordinance shall take effect January 1, 2020 and at such time Ordinance No. 1926 establishing the current water and wastewater rates and charges shall be repealed in its entirety.

Section 4. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision will not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 5. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 6. The repeal or modification of any provision of the Municipal Code of the City of Golden by this ordinance shall not release, extinguish, alter, modify or change in whole or in part any penalty, forfeiture or liability, either civil or criminal, which shall have been incurred under such provision. Each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings and prosecutions for enforcement of the penalty, forfeiture or liability, as well as for the purpose of sustaining any judgment, decree or order which can or may be rendered, entered or made in such actions, suits, proceedings or prosecutions.

INTRODUCED, READ AND PASSED AS AN ORDINANCE, ON FIRST READING,
AT A REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF GOLDEN,
COLORADO, THE _____ DAY OF _____, 2019.

Ordinance No.
Page 3

READ, PASSED AND ADOPTED AS AN ORDINANCE ON SECOND READING,
AT A REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF GOLDEN,
COLORADO, THE _____ DAY OF _____, 2019.

Marjorie N. Sloan
Mayor

ATTEST:

Monica S. Mendoza, CMC
City Clerk

APPROVED AS TO FORM:

David S. Williamson
City Attorney

ORDINANCE NO. 2121

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GOLDEN COLORADO ESTABLISHING DRAINAGE SERVICE AND FACILITY MONTHLY USAGE FEES PURSUANT TO CHAPTER 13.35 OF THE GOLDEN MUNICIPAL CODE.

WHEREAS, the City of Golden ("City") provides drainage service and facilities for each and every improved lot and parcel of land within the City; and

WHEREAS, in accordance with Section 13.35.030 of the Golden Municipal Code ("Code"), the monthly usage fee for drainage service and facilities imposed upon property owners shall be established by ordinance of City Council; and

WHEREAS, guided by the requirements of Section 13.35.030 of the Code, a comprehensive rate study was completed in 2019, with input from a citizen committee and an analysis performed by Raftelis Financial Consultants Inc., ("Raftelis"), which is a nationally recognized expert in the analysis and setting of municipal utility rates and charges; and

WHEREAS, the rate study indicated that increases to the drainage service and facility fees are needed to meet the fees purposes set forth in the Code and the pricing objectives established by the citizen committee; and

WHEREAS, the rate study also indicated that drainage service and facility fees must be increased to provide adequate revenues to fund the drainage service and facilities operations and required capital improvements.

THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GOLDEN, COLORADO:

Section 1. In accordance with Section 13.35.030 of the Code, monthly drainage service and facility usage fees shall be as follows:

Single Family Residential and Multi-Family with less than 4 units	Monthly Drainage Fee: \$6.54 per unit
Commercial and Multi-Family Accounts with more than 4 units	Monthly Drainage Fee: \$0.0022/square foot impervious area

Section 2. The drainage service and facility fees set forth in this Ordinance shall take effect January 1, 2020, and at such time Ordinance No. 1999 establishing the current drainage and facility fees and those commencing effective January 1, 2020 shall be repealed in its entirety.

Section 3. If any article, section, paragraph, sentence, clause or phrase of this ordinance is held to be unconstitutional or invalid for any reason, such decision will not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each part or parts hereof irrespective of the fact that any one part or parts be declared unconstitutional or invalid.

Section 4. All other ordinances or portions thereof inconsistent or conflicting with this ordinance or any portion hereof is hereby repealed to the extent of such inconsistency or conflict.

Section 5. This ordinance is deemed necessary for the protection of the health, welfare and safety of the community.

Section 6. The repeal or modification of any provision of the Municipal Code of the City of Golden by this ordinance shall not release, extinguish, alter, modify or change in whole or in part any penalty, forfeiture or liability, either civil or criminal, which shall have been incurred under such provision. Each provision shall be treated and held as still remaining in force for the purpose of sustaining any and all proper actions, suits, proceedings and prosecutions for enforcement of the penalty, forfeiture or liability, as well as for the purpose of sustaining any judgment, decree or order which can or may be rendered, entered or made in such actions, suits, proceedings or prosecutions.

INTRODUCED, READ AND PASSED AS AN ORDINANCE, ON FIRST READING,
AT A REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF GOLDEN,
COLORADO, THE _____ DAY OF _____, 2019.

READ, PASSED AND ADOPTED AS AN ORDINANCE ON SECOND READING,
AT A REGULAR MEETING OF THE CITY COUNCIL OF THE CITY OF GOLDEN,
COLORADO, THE _____ DAY OF _____, 2019.

Marjorie N. Sloan
Mayor

ATTEST:

Monica S. Mendoza, CMC
City Clerk

APPROVED AS TO FORM:

David S. Williamson
City Attorney