

AMERICAN FORK CITY COUNCIL
DECEMBER 7, 2021
WORK SESSION AGENDA

WORK SESSION

The purpose of City Work Sessions is to prepare the City Council for upcoming agenda items on future City Council Meetings. The Work Session is not an action item meeting. No one attending the meeting should rely on any discussion or any perceived consensus as action or authorization. These come only from the City Council Meeting.

The American Fork City Council will meet in a work session on Tuesday, December 7, 2021, in the City Administration Office Conference Room, located at 51 East Main Street, commencing at 4:00 p.m. The agenda shall be as follows:

1. Report on Steel Days 2021 by the American Fork Chamber of Commerce.
2. Discussion on updating the city's storm water rates.
3. Adjourn.

Dated this 3rd day of December 2021.



Terilyn Lurker
City Recorder

- In accordance with the Americans with Disabilities Act, American Fork City will make reasonable accommodations to participate in the meeting. Requests for assistance can be made by contacting the City Recorder at 801-763-3000 at least 48 hours in advance of the meeting.
- The order of agenda items may change to accommodate the needs of the City Council, the staff, and the public.

CITY COUNCIL STUDY ITEM

City of American Fork
COUNCIL WORK SESSION
DECEMBER 7, 2021

Department Recorder

Department Terilyn Lurken

STUDY ITEM Discussion on updating the city's storm water rates.

BACKGROUND

Representatives from Bowen and Collins will be at the work session to go over updating the city's storm water rates and will be available to answer any questions.

SUPPORTING DOCUMENTS

American Fork Storm Drain Rate Study Update V3 (PDF)



TECHNICAL MEMORANDUM

TO: Scott Sensanbaugher, American Fork City
COPIES: File
FROM: Keith Larson, Bowen Collins & Associates
DATE: December 2, 2021
SUBJECT: Storm Drain Rate Structure Update

INTRODUCTION

In 2014, American Fork City (City) hired Bowen Collins & Associates (BC&A) to update its sewer and storm drain rates. The primary focus of that study was revenue needs. While some consideration of customer classes and cost-of-service was included, the City largely desired to maintain its existing rate structures.

Since that time, a few changes have occurred within the City. Most importantly for the purposes of this scope of services, the City has received some questions regarding how multi-unit residential customers should be billed. The purpose of this study is to evaluate this issue and other cost of service considerations and then provide recommendations to update City storm drain rates based on the results of the evaluation. This memo serves to summarize those recommendations.

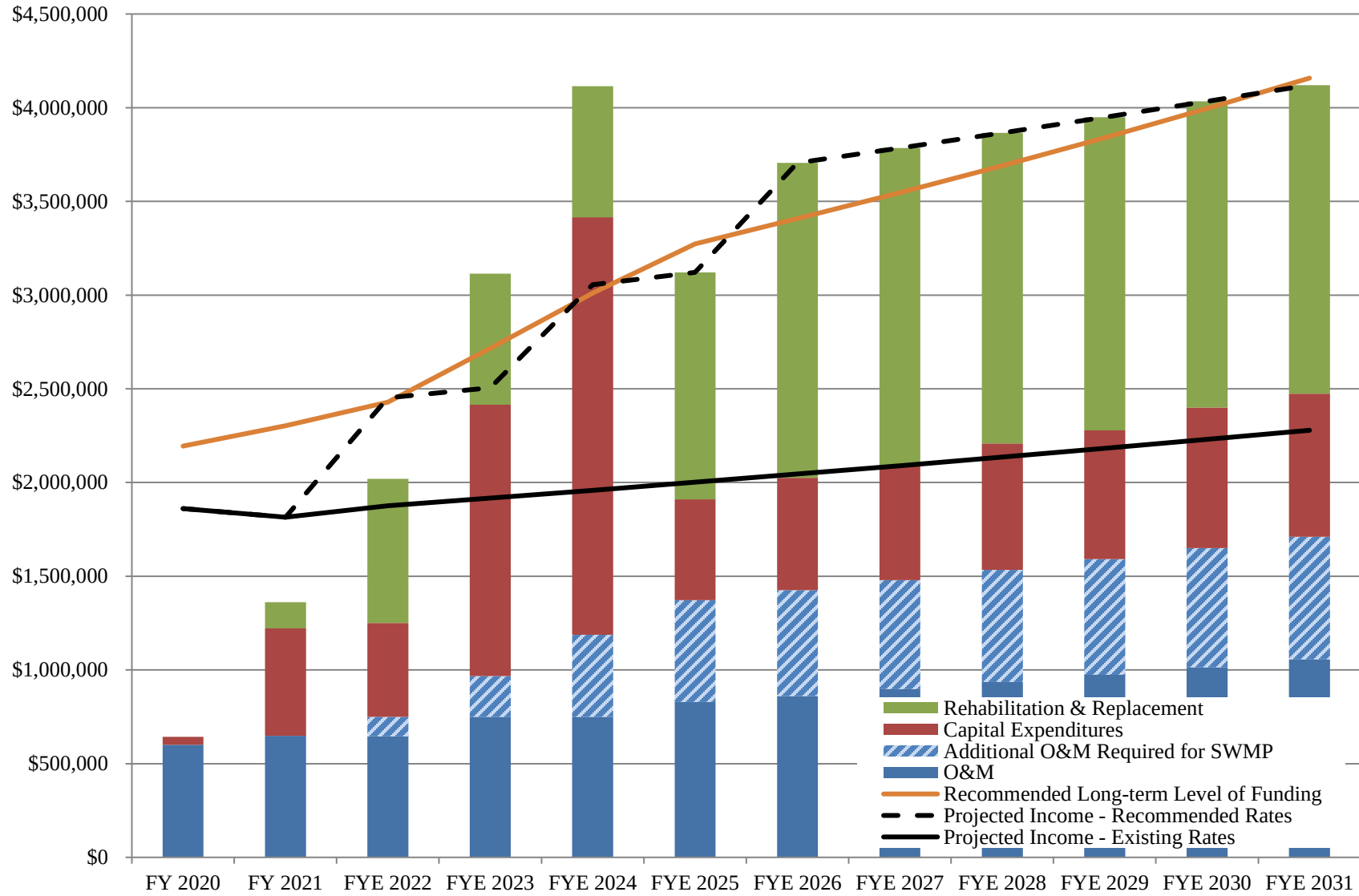
This memo will focus on storm drain rates only. While sewer rates were a part of the 2014 study, those rates have already been examined and updated rates were recommended in a 2020 study.

REVENUE REQUIREMENTS

Prior to looking at specific cost of service issues associated with the current rate structure, the City needs to identify its overall plan for financing upcoming storm drain related expenditures. Working with City staff, BC&A identified both historical and projected storm drain system revenues and expenditures as shown in Figure 1. Several conclusions can be made from the data contained in the figure:

- **Projected Expenditures** – As shown in the figure, historic revenues have been sufficient to fund observed expenditures in the storm drain system. This is not expected to be the case in the near future. This is the result of three specific issues:
 - ***Increased Costs Associated with Storm Water Management Plan*** – Over the last several years, the federal government has become more strict regarding its storm drain management requirements. In order to comply with the requirements of its Municipal Separate Storm Sewer System (MS4) permit, the City needs to make significant investments in both staff and equipment. Without these investments, the City could face large fines if they are unable to meet the federal requirements. The City has recently adopted a plan to implement this required additional O&M and this additional budget has been added to the figure.

Figure 1
10-Year Revenue and Expenditures - Storm Drain



- **Capital Expenditures** – City storm drain rates have not increased for many years. With the limited funding under existing rates, the City has been forced to postpone several major planned investments in the storm drain system. Projects currently in the City’s capital improvement budget that need to be addressed in the near future include work required as part of the City’s 36-inch waterline, channel rehabilitation on the American Fork River, storage bays for new storm drain equipment, and participation in the new public works facility. These projects, as currently shown in the City’s storm water budget, are included in the figure.
- **Rehabilitation and Replacement** – Storm water facilities have a finite design life. The City needs to adequately budget for rehabilitation and/or replacement of these facilities over time or they will eventually fail. Failure to proactively address this issue can result in high cost and liability for the City. To consider the need for rehabilitation and replacement, BC&A examined the approximate replacement value of existing facilities divided by the expected service life of those facilities. This represents the average annual level of investment needed to sustainably maintain the system. While this exact value is not needed every year, funding the system at less than this value for a sustained period of time will lead to system problems. For storm drain facilities (including curb and gutter), the recommended level of investment is approximately \$1.6 million in 2021, but this will increase over time as the system grows. Figure 1 includes an orange line showing recommended total funding based on this methodology. For budgeting purposes in Figure 1, proposed expenditures for rehabilitation and replacement have been reduced to minimum recommended levels through 2025 (while other capital costs are high) but have then been set to approximately match recommended long-term sustainable levels.

Overall, projected system expenditures are expected to increase from \$2.0 million in FYE 2022 to \$4.1 million in FYE 2031. Growth in expenditures is expected to be relatively consistent with the exception of two large capital projects in 2023 and 2024.

- **Projected Revenues** – If existing rates remain unchanged, the City will only have enough revenue to fund expected O&M and most (but not quite all) capital projects. The City will not be able to fund any rehabilitation & replacement projects.

Future Revenue Needs Recommendation

To help revenues keep pace with expected growth in expenditures, it is recommended that the City include periodic storm drain rate increases. BC&A recommends increasing rates now because of the immediate need for storm drain system funding, especially revenue required to meet federal SWMP requirements. Future rate increases are also needed to match growing SWMP costs and keep pace with sustainable system rehabilitation and replacement.

Recommended rates for single-unit residential customers are summarized in Table 1. This includes three proposed increases every other year beginning in FYE 2022. Detailed rate recommendations for other customers are discussed in a subsequent section of this memo. Figure 1 includes a projection of expected income based on the recommended increases.

Table 1
Recommended Storm Drain Increases

Monthly Base Rate – Single-Unit Residential	
Existing	\$6.00/Unit
2022	\$8.50/Unit
2023	\$8.50/Unit
2024	\$10.50/Unit
2025	\$10.50/Unit
2026	\$12.50/Unit

Please note that these projections are based on a 2.1 percent system growth rate. The timing of needed projects, as well as projected system revenues, will be dependent on actual growth in the system. If growth is significantly different than amount assumed here over the next several years, the projections and corresponding conclusions of this study may need to be revisited.

STORM DRAIN RATE STRUCTURE CHANGES

The previous section discussed the need for overall increases in the City's storm drain rate. This section discusses the specifics of the City's detailed rate structure. City staff and BC&A collaborated to examine the City's current storm drain rate structure, and discuss what changes might be needed based on cost of service considerations and experience with the existing rate structure over the last several years. This section details the results of this collaboration.

Historical Rate Structure

Table 1 summarizes the historic storm drain rate structure for City customers. As shown in the table, all residential customers (both single- and multi-unit) have historically been charged based on a per unit basis, with non-residential (commercial and institutional) charged the same amount but with their equivalent residential units (ERU) calculated based on the impervious area of their property. Recently, some multi-unit property owners have noted that City code does not currently read this way. Instead, City code indicates that multi-unit customers are to be charged in the same way commercial customers are. This change in interpretation is also summarized in Table 2.

Table 2
Existing Storm Drain Rates

Monthly Base Rate		
Customer Class	Rate Per Month – Historic	Rate Per Month – City Code
Single Unit Residential	\$6.00/Unit	\$6.00/Unit
Multi-Unit Residential	\$6.00/Unit	\$6.00/ERU (1 ERU = 3,400 Square Feet Impervious)
Commercial/Institutional	\$6.00/ERU (1 ERU = 3,400 Square Feet Impervious)	\$6.00/ERU (1 ERU = 3,400 Square Feet Impervious)

Weaknesses of the Historic Rate Structure

The biggest weakness of the historic rate structure is that it doesn't make any distinction between base customer costs associated with the storm drain system and costs directly associated with the volume of runoff:

- **Base Customer Costs** – A majority of costs in operating a storm drain system are independent of the amount of runoff produced by a specific customer. Most operation and maintenance costs are fixed and independent of flow. The same is true for permit compliance and billing. It is essential that all customers pay an equal amount for these shared costs. There are also shared benefits that should be paid for equally. All residents benefit from the storm drain systems that provide general flood control or serve their streets as they drive to school or work, regardless of the size and amount of runoff from their individual property.
- **Volume Costs** – In contrast to the costs above, there are some system costs that are directly tied to the magnitude of runoff created by a property. Capital costs for pipelines and detention basins are directly connected to the volume of runoff served. Correspondingly, a rate structure must have some consideration for volume of runoff. For example, a single stacked duplex would have less impervious area than a side-by-side duplex, and the decrease in impervious area results in less runoff in a storm. This decreased runoff could allow the City's storm drain infrastructure to be smaller, and therefore result in less expensive ongoing capital costs. In this case, it would be inequitable to charge a customer the same amount as a different customer that produces more runoff.

In essence, the existing rates as defined in City code tie all costs to the volume of runoff (as represented by impervious area). This creates significant potential inequity.

Proposed Changes to Rate Structure

To address this challenges, BC&A recommends one major change to the existing rate structure:

- **Modify the rate to include a per-unit cost and an area based volume cost** – To better reflect cost of service, it is recommended that the rate structure be modified to include one rate for each unit and a separate rate for the amount of impervious area.

PROPOSED NEW RATE STRUCTURE

The following new rate structure is proposed to address the weaknesses found in the original structure. Table 3 summarizes the recommended rate structure if it were to be applied to the existing rate of \$6.00/ERU. The division of cost between these two charges is based on an analysis of the cost of service within the storm drain system.

Table 3
Recommended General Storm Drain Rate Structure – Modified Existing Rates

Charge	Rate Per Month
Single-Unit Residential Monthly Rate	\$6.00/Unit
Other Customers - Base Rate	\$4.72/Unit
Other Customers - Area Based Volume Rate	\$0.38/1,000 Square Feet Impervious Area

It should be noted that the per-unit rate and volumetric rate are the same for all customer classes, including single-unit residential customers. However, the administration of these rates is slightly different for each customer class. To achieve general equity but still have a structure that is practical to administer, impervious area will only be calculated for individual customers in the case of multi-unit and commercial customers. For single-unit residential, the area based volume rate will be incorporated into a single base rate based on the average impervious area for single-unit residential of 3,400 AF (i.e. $\$4.72 + (3.4 \times \$0.38) = \$6.00/\text{unit}$). Units for all residential (both single-unit and multi-unit) will be based on dwelling units while ERUs for commercial and institutional customers will continue to be calculated based on impervious area.

Expected Impact of New Rate Structure

The recommended rate structure change will have no impact on single-unit residential or commercial/institutional customers. While the underlying basis of the rates will change slightly, the application for these two customer classes results in the same rates as charged previously.

There will be an impact for multi-unit customers. The magnitude of this impact will vary depending on the actual amount of impervious area associated with each multi-unit account. Table 4 summarizes the impact of the recommended change based on a multi-unit residential property with an impervious area per unit of 1,689 square feet (average for current City multi-unit accounts).

Table 4
Impact of Recommended Storm Drain Rate Structure Changes on Multi-Unit Customers – Modified Existing Rates

Impact on Multi-Unit Rates	Historic Rates	Per Current City Code	Recommended Modified Existing Rate
Base Monthly Charge per Unit	\$6.00	\$0.00	\$4.72
Area Charge per 1000 SF Impervious	\$0.00	\$1.76	\$0.38
Average Charge Per Unit (Based on Calculated 1,689 Impervious SF/unit)	\$6.00	\$2.98	\$5.36
Percent of Historic	100%	50%	89%

As summarized in the table, the recommended change will result in a reduction of just over 10% for the average multi-unit customer when compared to historic charges. This is not as much of a reduction as would occur based on the application of current City code language but is much more consistent with cost of service principles resulting in improved equity for all customers.

Application of New Structure to Future Rates

Table 5 summarizes recommended future rates using the new structure and overall rate increases recommended previously.

Table 5
Recommended Storm Drain Rates

Recommended Final Rates	Existing	Modified Existing Rate	2022	2023	2024	2025	2026	2027
Single-Unit Residential								
Base Monthly Charge per Unit	\$6.00	\$6.00	\$8.50	\$8.50	\$10.50	\$10.50	\$12.50	\$12.50
Multi-Unit Residential								
Base Monthly Charge per Unit	\$6.00	\$4.72	\$6.69	\$6.69	\$8.27	\$8.27	\$9.85	\$9.85
Area Charge per 1000 SF Impervious	\$0.00	\$0.38	\$0.53	\$0.53	\$0.66	\$0.66	\$0.78	\$0.78
Commercial/Institutional								
Base Monthly Charge (per 3,400 Impervious SF)	\$6.00	\$4.72	\$6.69	\$6.69	\$8.27	\$8.27	\$9.85	\$9.85
Area Charge per 1000 SF Impervious	\$0.00	\$0.38	\$0.53	\$0.53	\$0.66	\$0.66	\$0.78	\$0.78

Several items should be noted regarding the table:

- **Recommended Changes for 2022** – It is recommended that the City implement the proposed rates as soon as possible.
- **Definition of Single Unit Residential and Multi-Unit Residential** – There has been some confusion in the past regarding what types of units qualify as single vs. multi-unit residential. For the purposes of storm drain rates (and independent of any definitions for zoning or other purposes), single unit residential should be used for all residential units that are not connected to a second residence or have their own storm drain bill. These residents will all have their own storm drain bill. Multi-unit residential should be reserved for circumstances in which more than one residential unit is connected to another and share a common storm drain bill.
- **Multi-Use Properties** – In making these changes, the City may encounter some customers that have multiple types of uses on the same account. Specifically, the City may encounter properties with components of both residential and commercial development (e.g. multi-story building with commercial on the ground floor with residential above). In these cases, it is recommended that the total number of units used for the base charge be:
 - the total number of residential dwelling units; plus
 - an adjusted equivalent residential unit charge for commercial based on the following formula:

$$\frac{[Total\ Impervious\ Area\ in\ SF - (Number\ of\ dwelling\ units \times 1,700\ SF)]}{3,400\ SF}$$

The 1,700 SF allowance per dwelling unit is based on the average impervious area for multi-unit customers in the City. In no case should the adjusted ERU charge for commercial be less than 1 unit.

CONCLUSION

The proposed rate structure maintains equity between customers based on their actual use of the storm drain system. Additionally, the proposed rate increases provide the City with enough storm drain budget to perform required rehabilitation and replacement projects as well as meet federal SWMP requirements.

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Department *Terilyn Lurken*

STUDY ITEM Report on Steel Days 2021 by the American Fork Chamber of Commerce.

BACKGROUND

The American Fork Chamber of Commerce will be at the work session to report on Steel Days 2021.

SUPPORTING DOCUMENTS