



City of Muscatine

ITEM NUMBER 2023-0180

AGENDA ITEM SUMMARY

DATE: 5/18/2023

STAFF

Nancy Lueck, Finance Director
Jon Koch, Water Pollution Control Plant Director

SUBJECT

Third and Final Reading of an Ordinance Amending Title 13, Chapter 5, Section 4 Collection and Drainage and Title 13, Chapter 5, Section 5, Subsection A, Sewerage Rate Component to Set Collection and Drainage and Sewer Rates

EXECUTIVE SUMMARY

A review of the 2023 Sewer Rate Study was presented to the City Council at the In Depth meeting on April 13, 2023 by Bob Veenstra of Veenstra and Kimm Engineering. This rate study was designed to determine revenue needs compared to projected costs of the Collection and Drainage Fund and the Water Pollution Control Operations Fund. The study concluded that incremental increases in rates over the next 5 years will be necessary to maintain acceptable funding levels in the two funds studied. It is now time for City Council to consider the ordinance providing for the implementation of the 2023 Sewer Rate Study recommendations.

STAFF RECOMMENDATION

Staff recommends adoption of this ordinance on third and final reading.

BACKGROUND/DISCUSSION

Since the City enacted the current rate structure approximately 20 years ago, the City Council has tried to avoid large rate increases. The City Council has focused on implementing smaller rate increases on an annual basis. City staff directed that the study be conducted with the same focus to minimize the impact on the rate payer. By forecasting what large capital expenses were expected over the next 10 years, Bob Veenstra used computer modeling to determine if current revenue levels would maintain acceptable funding levels in these funds. Based on future capital and operational cost projections in the computer model, the rate study recommendations include (1) 3% annual increases in the sewer rates over the next five years; and (2) 5% annual increases in the collection and drainage rate over the next four years and 3% for the 5th year. The larger percentage increases in collection and drainage rates are due to upcoming projects including the Papoose Force Main Redundant Line mandated by an

Administrative Consent Order with the Iowa Department of Natural Resources to be completed by December 31, 2026.

Sewer and Collection and Drainage rate changes are required to be done by ordinance. The three ordinance readings are scheduled for:

April 20, 2023 1st Reading

May 4, 2023 2nd Reading

May 18, 2023 3rd Reading

CITY FINANCIAL IMPACT

None since the 2023/2024 budget allowed for these rate increases.

ATTACHMENTS

1. Veenstra & Kimm Sewer Enterprise Fund Overview and Recommendations.230317 (1) 4-13-23
2. Veenstra & Kimm Collection & Drainage Overview and Recommendations.4-13-23
3. Average Monthly Bill Impacts
4. Sewer Rate Ord Eff 7-1-23.4-20-23 (First Reading) (1) (1)



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March 20, 2023

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MUSCATINE, IOWA
SEWER RATE STUDY – 2022
SEWER ENTERPRISE FUND
OVERVIEW AND RECOMMENDATIONS

This letter presents an overview of the 2022 Sewer Rate Study related to the Sewer Enterprise Fund. This letter sets forth recommendations for rate adjustments for the five year period from FY 2023-2024 (FY 24) through FY 2027-2028 (FY 28).

The last sewer rate study for the City of Muscatine was completed in 2018. The 2018 rate study recommended the City continue the program of annual increases in both the monthly availability charge and the commodity charge. That rate study recommended a 3% annual increase in each of the two components of the rate structure. The City Council subsequently adopted the recommendation.

The first aspect of the rate study was to compare the projected revenues and expenses for FY 19 through FY 22 with the actual revenues and expenditures. Because the current fiscal year ending June 30, 2023 is not complete, the rate study does not compare the 2018 rate study projection to the current fiscal year.

The following table shows a comparison of the projection to actual for each of the four fiscal years.

<u>Category</u>	<u>Projected</u>	<u>Actual</u>
<u>FY 19</u>		
Total Revenue	\$5,252,786	\$5,018,345
Total Expenditures	\$5,412,159	\$5,082,734
Gain/Loss	-\$159,373	-\$64,389
Year End Fund Balance	\$1,066,072	\$1,784,198
<u>FY 20</u>		
Total Revenue	\$5,526,301	\$5,338,572
Total Expenditures	\$5,793,492	\$5,026,818
Gain/Loss	-\$267,191	\$311,754
Year End Fund Balance	\$798,881	\$2,078,012
<u>FY 21</u>		
Total Revenue	\$5,815,586	\$5,631,872
Total Expenditures	\$6,064,693	\$5,404,112
Gain/Loss	-\$249,107	\$227,760
Year End Fund Balance	\$549,774	\$2,456,315
<u>FY 22</u>		
Total Revenue	\$6,121,573	\$5,721,184
Total Expenditures	\$5,867,456	\$5,437,165
Gain/Loss	\$254,117	\$284,019
Year End Fund Balance	\$803,890	\$2,511,019

The projected year end for the fiscal year ending June 30, 2023.

<u>Category</u>	<u>Projected</u>
<u>FY 23</u>	
Total Revenue	\$5,873,507
Total Expenditures	\$5,378,890
Gain/Loss	\$498,617
Year End Fund Balance	\$3,009,907

During the four year period FY 19 through FY 22 the Sewer Enterprise Fund performed better than anticipated. The 2018 rate study projected during the four year period FY 19 through FY 23 the fund would experience a loss in three of the four years and would only experience a gain in the final fiscal year FY 22. The fund balance was projected to decrease over the four year period by approximately \$421,500.

During the four year period the fund experienced a small loss in FY 19 and noticeable gains in FY 20 through FY 22. Rather than declining, the fund balance actually increased over the four year period and ended on June 30, 2022 with a balance of \$2,511,019.

Over the four year period the actual revenue trailed the 2018 revenue projection. The actual revenue of \$21,709,973 was \$1,006,273 less than the revenue of \$22,716,246 projected in the 2018 rate study. Over the four year period the total revenue lagged the projection by 4.43%.

During the four year period the expenditures were lower than the projected expenditures in the 2018 rate study. The actual four year expenditures totaled \$20,950,829. The 2018 rate study projected expenditures during the four fiscal year period were \$23,137,800. The actual expenditures were \$2,186,971 less than the 2018 rate study projection. This lower expenditures translated to 9.45% of the projected expenditures.

Over the four fiscal year period the expenditures were a net 5% lower than the expected expenditures when adjusted for the lag in revenue. It is the lower expenditures in relationship to revenue that result in an increase in the year end fund balance.

It is noted while it is possible to compare the annual gain and loss, the year end fund balance is not as easily trackable. The year end fund balance on June 30, 2018 was only a projection as that fiscal year was not complete at the time of the 2018 rate study. The performance of the fund during the fiscal year ending June 30, 2018 exceeded the projection and resulted in a fund balance on June 30, 2018 that was greater than projected in the rate study. Also, there are adjustments that are made through the four year period that result in deviations between the

theoretical fund balance and the actual fund balance. For purposes of the rate study the focus should be on the actual fund balance at the end of each fiscal year and not on a numeric tracking of the fund balance based on annual gain and loss.

The fund balance on June 30, 2022 of \$2,511,019 translates to 46% of the expenditures in FY 22. Historically, the City has targeted a fund balance in the range of 30% of annual revenue.

The City has identified a series of capital improvement projects to be implemented over the next several years, including the Priority 1 and Priority 2 projects. When embarking on an aggressive capital improvement program it is always prudent to have a strong fund balance. The fund balance provides the City the option to absorb unexpected increases in capital project costs while still maintaining the long term rate setting strategy the City has utilized for the last 20 years.

One of the significant factors affecting the revenue projection is the number of monthly minimums paid and the number of commodity units billed on an annual basis. Periodically it is appropriate to reassess both the number of bills as well as the commodity volume for each of the class users. An assessment of billing units was completed as part of the 2018 rate study as there appeared to be deviations from the levels projected in the 2013 rate study.

A review of the units billed for the last four fiscal years indicate there have been changes in the usage levels since the last adjustment in 2018. The 2018 rate study reviewed the actual number of monthly minimums and commodity units to adjust the levels for the Class 1, Class 1 - Senior, Class 2, Class 3, Class 5 and City billed industrial users.

The following tabulation shows the utilization levels used for the 2018 rate study compared to the number of units used for the 2022 rate study.

<u>User/Classification</u>	<u>2018 Annual Units</u>	<u>2018 Annual Minimums</u>	<u>2022 Annual Units</u>	<u>2022 Annual Minimums</u>
Class 1	650,000	95,000	617,800	98,250
Class 1 - Senior	46,000	13,000	41,400	12,100
Class 2	79,000	268	58,200	281
Class 3	6,000	168	3,735	160
Class 5	33,000	802	28,200	760
GPC	60,000	12	52,000	12
Lutheran Homes	7,800	12	11,230	12
Linde	22,000	12	41,850	12
Union Tank Car	11,000	12	6,425	12
Phelps	15,000	12	20,200	12
Ripley's	34,176	12	34,176	12

For most categories the 2022 rate study number of units was based on the actual number of units for FY 22.

As noted in the tabulation there was an overall decline in the number of units between 2018 and 2022. There are some exceptions to the overall decline. For example, the number of minimum units for Class 1 increased between the two rate studies.

Some of the industrial users showed an increase in the number of units between the 2018 rate study and the 2022 rate study. Other industrial users showed a decrease in the overall number of units between the 2018 rate study and the 2022 rate study.

In aggregate, there was a decline in the number of billing units between 2018 and 2022. As noted earlier the revenue over the four year period FY 19 through FY 22 was lower than projected in the 2018 rate study. The decrease in revenue is attributable to the decrease in the number of aggregate billing units.

The aggregate decline in the number of billing units between 2018 and 2022 is a continuation of the trend that started with the 2013 rate study. For example, in the 2013 rate study the number of Class 1 billing commodity units was 700,000. That number of billing units has decreased by slightly more than 10% over the last 10 years.

Over the 10 year period the number of Class 2 billing units decreased from a projected 107,000 in 2013 to 58,200 in the 2022 rate study. There were some exceptions to the trend of decreasing higher class user units.

The following table shows a comparison of the revenues projected for Kraft Heinz for the five fiscal years FY 2018 through FY 2022 compared to the actual revenue.

<u>Fiscal Year</u>	<u>2018 Rate Study Projection</u>	<u>Actual Revenue</u>
FY 2018	\$509,535.00	\$502,208.40
FY 2019	\$601,589.00	\$574,940.70
FY 2020	\$613,620.78	\$649,856.52
FY 2021	\$625,893.20	\$710,647.68
FY 2022	\$638,411.06	\$786,368.82

A major source of increased revenue over the five year period is the Kraft Heinz billings. In FY 18 and FY 19 the Kraft Heinz revenue was relatively close to the rate projection. Starting in FY 20 and continuing through FY 22 the Kraft Heinz revenue was noticeably higher than the revenue projected in the 2018 rate study.

The Kraft Heinz revenue is based on the block rate agreement concept the City and Kraft Heinz have utilized for over 20 years. The Kraft Heinz revenue is directly related to a combination of its annual volume of flow and annual biological loading (BOD₅). The increased revenue is attributable to either an increase in flow, an increase in biological loading or a combination of increases in flow and biological loading.

Over the 10 year period since 2013 the Kraft Heinz revenue has increased noticeably. In the timeframe of the 2013 rate study the annual Kraft Heinz revenue was projected to be about \$180,000 per year. Adjusted for the annual rate increases the 2013 Kraft Heinz revenue of \$180,000 would translate to a revenue in 2022 of approximately \$240,000. The increased flow and loading from Kraft Heinz over the last 10 years have directly translated to an increase in revenue of approximately \$540,000 annually.

This rate study utilized the same basic concept for projecting revenues and expenses based on prior years used in the previous rate studies. Sewer user charge revenue from the various users are projected based on the annual number of units and the rate established by the rate ordinance. Charges for miscellaneous income sources remain relatively stable and are based on the prior year level of revenue.

The 2018 rate study added a new revenue source from fat, oil and grease charges. The 2018 rate study projected the revenue from the fat, oil and grease charges would be in the range of \$200,000 per year. In FY 18 and FY 19 the actual revenue was just over \$100,000, or noticeably less than the revenue projected in the 2018 rate study. In FY 20, FY 21 and FY 22 the revenue exceeded the projection with the revenue in FY 20 and FY 22 averaging around \$250,000 per year. The revenue in FY 21 of approximately \$418,000 is considered an anomaly.

For purposes of this rate study the fat, oil and grease charge revenue is projected to increase annually above the actual revenue in FY 22. The baseline revenue in FY 22 was \$255,598. This revenue is slowly projected to increase to about \$300,000 in FY 28.

The 2018 rate study added a new category of high strength waste charges. The 2018 rate study projected the high strength waste charges would be average about \$100,000 per year.

The first separately identified high strength waste charge revenue was experienced in FY 20 at just under \$16,000. By FY 22 the revenue had increased to \$120,398.75.

For purposes of this rate study the high strength waste revenue is projected to increase at a rate of 2% per year of the baseline revenue in FY 2022. By FY 28 the high strength waste revenue is projected to reach about \$135,000.

The 2018 rate study projected the total revenue from fat, oil and grease and high strength waste to total \$300,000 per year. The 2022 rate study projects the revenue to be approximately \$385,000 in FY 23 and increasing to \$440,000 per year in FY 28.

The expenditures for the Sewer Enterprise Fund consist of the operating and administrative expenditures, the transfers to reserve funds and the debt service from the previous WPCP capital improvement project. Historically, the City has projected increases in operating expenditures at 2% per year. That strategy was successful during the period when inflation was at a relatively modest rate.

With the current rate of inflation this rate study utilizes a larger annual increase in operating expenditures. For FY 23 through FY 27 operating expenses are projected to increase at 3.5% per year. It is recognized based on the recent inflation rates the actual operating expenditures may increase at greater than 3.5% per year in the near term. Inflation rates are expected to decrease and in the latter part of the four year period it is reasonable to assume inflation rates and operating expenditures increases will increase at a rate less than the 3.5% level to allow the City to catch up with any shortfall. The fund balance is adequate to allow this longer term strategy relative to address the current rate of inflation in operating expenditures.

Beyond 2027 operating expenditures are projected to increase at 3% annually. The long term rate of 3% is greater than the historical rate of 2% and recognizes it may be unlikely inflation will return to the low levels experienced over the last several years. .

The administrative transfer is an annual transfer to fund select administrative service of the City that support the overall operations.

The projected total operating expenses and administrative transfer for the last full fiscal year, the current fiscal year and the next five fiscal years is as follows:

<u>Fiscal Year</u>	<u>Operating Expenditures</u>	<u>Administrative Transfer</u>
FY 2022	\$3,115,937	\$218,000
FY 2023	\$3,224,995	\$219,925
FY 2024	\$3,337,995	\$226,523
FY 2025	\$3,454,695	\$233,319
FY 2026	\$3,575,609	\$240,319
FY 2027	\$3,700,756	\$247,529
FY 2028	\$3,811,778	\$254,955

The debt service on previous capital project continues. The largest component of debt service is the last major upgrade of the treatment facility. That debt service is retired on June 1, 2032. The debt service for the current fiscal year and the next five fiscal years is as follows:

<u>Fiscal Year</u>	<u>Debt Service</u>
FY 2023	\$1,033,710
FY 2024	\$1,044,970
FY 2025	\$1,050,800
FY 2026	\$1,062,130
FY 2027	\$1,430,310
FY 2028	\$1,444,240

The final component of the expenditures is the transfers associated with capital improvement projects. The City has been transferring \$200,000 per year to the West Hill Project Reserve Fund since FY 2012. This transfer will continue through FY 2028.

In FY 2019 the City established a debt service reserve transfer associated with the biogas project. The transfer to the debt service reserve is \$85,000 per year.

The final expenditure from the Sewer Enterprise Fund is annual transfer to the Plant Replacement Fund. The 2018 rate study indicated the City could not sustain a \$700,000 per year annual transfer to the Plant Replacement Fund based on the 3% annual rate increase without depleting the fund balance. To preserve the fund balance, the annual transfer was decreased to \$400,000 in FY 23.

The City recently completed a comprehensive evaluation of the Water Pollution Control Plan. That evaluation identified a number of improvements projects that should be undertaken over the next several years. The City evaluated the recommended improvements and prioritized the improvements. The highest priority improvements that need to be constructed first are identified as the Priority 1 improvements. The next highest priority of improvements is identified as Priority 2. Each of the priority groups includes a number of projects. The total cost for each of the Priority 1 projects and Priority 2 project is each approximately \$5,000,000.

The City currently does not have sufficient reserve funds to finance this level of capital improvements. It is anticipated the City will need to borrow to fund both Priority 1 and Priority 2 improvements. Based on the current fund balance it is possible the City can finance and fund a portion of the Priority 1 or Priority 2 improvements from fund balances or reserve funds. However, for purposes of the rate study it is assumed the City will borrow \$5,000,000 for the Priority 1 improvements and \$5,000,000 for the Priority 2 improvements.

For purposes of the rate study it is assumed the City will finance both the Priority 1 improvements and Priority 2 improvements using the State Revolving Fund (SRF) loan program. That program offers 20 year loans at an interest rate that is currently 2% per year. Under the SRF loan program the average annual principal and interest payment on a \$5,000,000 borrowing is \$306,000 per year.

The 2022 rate study includes new debt service for the Priority 1 and Priority 2 improvements. Under the SRF loan program the first full principal and interest payment is due on June 30 of not more than 12 months following completion of the project. For purposes of the rate study it is assumed the first full principal and interest payment on the SRF loan for the Priority 1 improvements will be due on June 1, 2026, or in FY 26.

It is assumed the first full principal and interest payment on the SRF loan for the Priority 2 improvements will be on June 30, 2029, or FY 29. Debt service for the Priority 2 improvements will be incurred in the first full fiscal year beyond the five year focus of this rate study. Because the project will be in progress during the five year period the longer term projection of this rate study took into account the debt service for the Priority 2 improvements starting in FY 29.

The initial analysis of the Sewer Enterprise Fund was completed based on the continuation of existing expenditures and the addition of the debt service for the Priority 1 and Priority 2 improvements. The analysis was completed based on a continuation of the 3% annual increase in both components of the sewer user charge rate.

In completing the analysis it was recognized the City's current fund balance of approximately \$2,500,000 is greater than the City has considered a necessary funding balance. Historically, the City has considered a fund balance in the range of \$1,500,000 to \$2,000,000 to be adequate. In completing the evaluation it was assumed the fund balance could decrease over the next several years as long as the fund balance remained at a reasonable level. It was recognized that starting in FY 33 the financial position of the Sewer Enterprise Fund changes noticeably with the retirement of the large SRF debt service that decreases debt service expenditures by slightly more than \$1,000,000 per year.

Based on the current condition the initial evaluation of the rate model was based on a continuation of the \$400,000 per year transfer to the plant replacement fund. It was recognized the City have varied the plant replacement fund transfer from time to time based on the interaction between the fund balance and the objective of a 3% annual rate increase. The initial analysis showed the fund would experience modest losses in FY 23 through FY 25. However, in FY 26 with the debt service on the Priority 1 improvements the annual loss would increase to the range of \$300,000 to \$400,000 per year and this would result in depleting the fund balance in FY 31. Although the fund balance can decrease over the next several years, it is necessary to maintain a reasonable positive fund balance. To achieve this target it would either be necessary to decrease expenditures or to adjust the sewer user charge rate increase to a level above 3%.

The City will be undertaking the Priority 1 and Priority 2 improvements over the next five to seven years. The financial position of the enterprise fund will also strengthen significantly starting on July 1, 2032. Given these two factors it appeared preferable to decrease the transfer to the plant replacement fund over the next 10 years. The rate model includes both the transfer to the plant replacement fund and an estimated annual \$400,000 per year in small capital expenditures. A combination of these two line items provide significant resources for ongoing plant improvements concurrently with the larger Priority 1 and Priority 2 improvements.

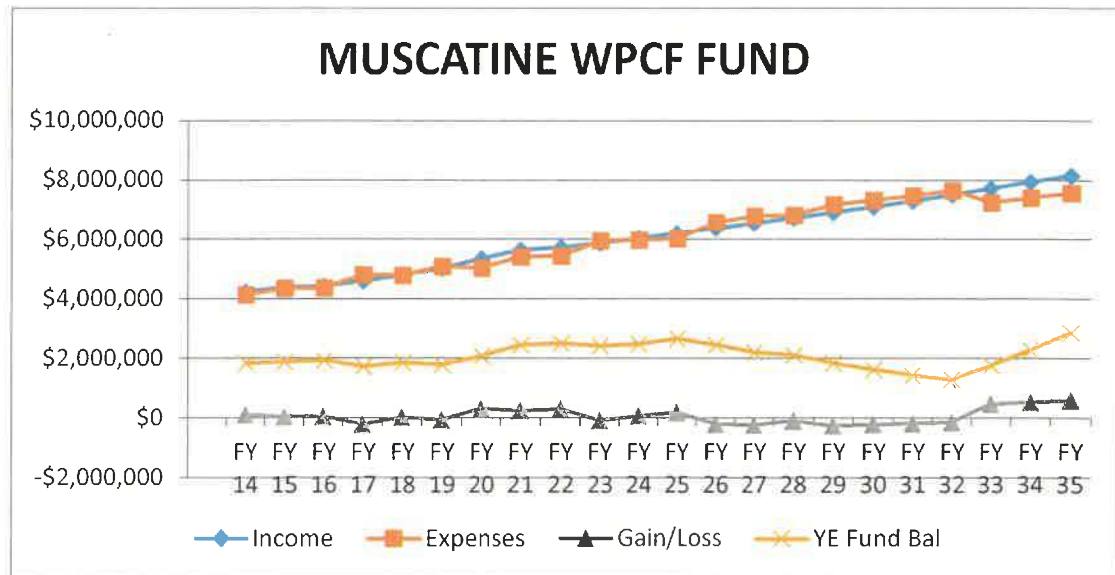
Rather than adjusting the rate increase above the historical 3%, this report recommends decreasing the annual transfer to the plant replacement fund starting in FY 24. The decrease would be from \$400,000 to \$200,000 per year and that transfer amount is projected to continue through FY 32. This rate study shows the annual transfer to the plant replacement fund to increase to \$700,000 per year starting in FY 33. This transfer rate is equal to the transfer rate prior to 2018. The transfer rate increase is beyond FY 28 and can be evaluated as part of the next rate study

This strategy allows the City to slowly decrease the fund balance over the next nine years to a level that is consistent with the City's long term objective and allows the City to maintain the 3% annual rate increase for the next five years and likely beyond. This strategy is consistent with the City's historical practice of adjusting the funds available for capital improvements from time to time as necessary to maintain the desired 3% annual rate increase.

Based on the projection of revenues and expenses the revenues and expenses for FY 2022 through FY 2035 are summarized as follows:

<u>Year</u>	<u>Income</u>	<u>Expenses</u>	<u>Gain/Loss</u>	<u>YE Fund Balance</u>
FY 22	\$5,721,185	\$5,437,165	\$284,020	\$2,511,290
FY 23	\$5,873,221	\$5,960,866	-\$87,645	\$2,423,645
FY 24	\$6,035,275	\$5,976,098	\$59,177	\$2,482,822
FY 25	\$6,202,005	\$6,022,466	\$179,539	\$2,662,362
FY 26	\$6,373,549	\$6,581,262	-\$207,713	\$2,454,649
FY 27	\$6,550,046	\$6,796,781	-\$246,735	\$2,207,914
FY 28	\$6,731,642	\$6,832,361	-\$100,718	\$2,107,195
FY 29	\$6,918,486	\$7,182,675	-\$264,189	\$1,843,007
FY 30	\$7,110,731	\$7,334,192	-\$223,461	\$1,619,546
FY 31	\$7,308,535	\$7,491,315	-\$182,780	\$1,436,766
FY 32	\$7,512,060	\$7,652,130	-\$140,070	\$1,296,696
FY 33	\$7,721,475	\$7,256,767	\$464,708	\$1,761,404
FY 34	\$7,936,951	\$7,414,560	\$522,391	\$2,283,795
FY 35	\$8,158,665	\$7,577,087	\$581,579	\$2,865,373

The information regarding the long term revenues and expenses is shown in the following chart.



The projection of revenues and expenditures indicates for the period FY 23 through FY 25 the fund balance will experience a gain of approximately \$150,000. Starting in FY 26 and continuing through FY 32 the 3% annual rate increase results in an annual loss to the fund ranging from approximately \$100,000 per year to approximately \$265,000 per year. Over this period the fund balance will decline on an annual basis and reach a projected low point at the end of FY 32 of approximately \$1,300,000. In the period FY 30 through FY 32 the fund balance would be at or below the City's target level of \$1,500,000.

With the retirement of the debt in FY 32, the financial position of the fund will recover starting in FY 33. Annual gains in the range of \$460,000 to \$580,000 are projected in FY 33 through FY 35. This gain is above the \$500,000 increase in the plant replacement transfer. By the end of FY 35 the fund balance will increase to approximately \$2,865,000.

The rate study recognizes through FY 32 the City should continue its annual 3% increase in rates. The long term forecast would project in the timeframe of FY 33 the City may be able to pause the annual rate increases for several years. However, that projection is almost 10 years in the future and many conditions can change prior to that time. In particular, the current rate study only evaluates the Priority 1 and Priority 2 improvements to the treatment facility. The long range capital plan identifies additional improvements than may be required. The magnitude of these capital improvements mitigates the potential for reducing rates starting in FY 33, but may allow for up to a several year pause in the annual rate increases.

Based on this recommendation the Class 1 rates for each of the next five fiscal years would be as follows:

<u>WPCP Rates</u>	<u>Monthly Availability</u>	<u>Commodity Rate</u>
FY 23	\$9.21	\$3.15
FY 24	\$9.49	\$3.24
FY 25	\$9.77	\$3.34
FY 26	\$10.06	\$3.44
FY 27	\$10.37	\$3.55
FY 28	\$10.68	\$3.65

In previous rate studies the City developed a projection of the annual sewer user charge bill based on typical usage of 7.5 CCF. Based on this usage the Class 1 sewer bill for the current fiscal year and the next five fiscal years would be as follows:

<u>Fiscal Year</u>	<u>Typical Class 1 Monthly Bill</u>
FY 23	\$32.84
FY 24	\$33.82
FY 25	\$34.83
FY 26	\$35.88
FY 27	\$36.96
FY 28	\$38.06

Under the recommended five year rate program a typical Class 1 user would see an increase in their sewer user charge rate in the range of approximately \$1.04 per month. This would increase the typical bill over the next five years from \$32.84 to \$38.06.

An average residential bill in the \$33 to \$38 range would be considered below average to average for communities that have a compliant wastewater treatment plant. There are communities with lower sewer user bills. However, many of those communities will be facing major improvements over the next few years that will necessitate rate increases.

Nancy Lueck
March 20, 2023
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If you have any questions or comments concerning the project, please contact the writer at 800-241-8000, or bveenstra@v-k.net.

VEENSTRA & KIMM, INC.

A handwritten signature in blue ink, appearing to read 'H. R. Veenstra Jr.', with a stylized, cursive script.

H. R. Veenstra Jr.

HRVJr:paj
20819
cc: Jon Koch



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March 8, 2023

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MUSCATINE, IOWA
SEWER RATE STUDY – 2022
COLLECTION AND DRAINAGE FUND
OVERVIEW AND RECOMMENDATIONS

This letter is to present an overview of the results of the Sewer Rate Study - 2022 relating to the Collection and Drainage Fund. This letter sets forth the recommendation for the Collection and Drainage Fund rate for the next five fiscal years from FY 23-24 (FY 24) through FY 27-28 (FY 28).

The Collection and Drainage Fund was last evaluated during the 2018 Sewer Rate Study. The 2018 Sewer Rate Study recommended the City increase the Collection and Drainage Fee 2% per year for the five fiscal years through FY 23. The City Council subsequently adopted the recommendation and implemented the five year rate program. The current rate program will expire at the end of FY 23.

The first part of the rate study compared the revenue and expense projections for the collection drainage fund in the 2018 rate study with the actual revenue and expenses through FY 22.

The following table shows a comparison of the projected revenues and expenses from the 2018 rate study with the actual revenue and expenses.

<u>Category</u>	<u>Total Revenue</u>	<u>Total Expenditures</u>
<u>FY 19</u>		
Projection	\$1,455,600.00	\$1,469,900.00
Actual	\$1,408,516.22	\$1,502,257.09
<u>FY 20</u>		
Projection	\$1,423,100.00	\$1,440,900.00
Actual	\$1,495,159.36	\$1,516,760.80
<u>FY 21</u>		
Projection	\$1,451,150.00	\$1,465,365.81
Actual	\$1,456,903.26	\$1,446,178.30
<u>FY 22</u>		
Projection	\$1,479,761.00	\$1,490,937.78
Actual	\$1,482,654.89	\$1,495,490.68

The projected year revenues and expenses at the end of the current fiscal year on June 30, 2023 is as follows:

Total Revenues:	\$1,508,944.22
Total Expenditures:	\$1,599,636.99

Over the four year period FY 19 through FY 22 the revenues have been relatively close to the revenue projections in the 2018 rate study. The actual revenue of \$5,843,233.73 over the four years exceeded the projected revenue of \$5,809,611 by 0.58%. Only a small deviation in revenue is expected as the revenue is derived by the number of customers billed monthly. The customer count in Muscatine is relatively stable.

During the five year period ending on June 30, 2022 the variation between the projected expenditures and the actual expenditures was only slightly greater than the deviation in revenue. The actual expenditures of \$5,791,768.78 over the four years were lower than the projected expenditures of \$5,867,103.09 by 1.28%.

The collection and drainage revenue is primarily used to fund operational expenditures and transfers to reserves and capital improvements.

In the previous rate studies the operational expenditures have been projected to increase at 3% per year. This annual adjustment percentage is being used in this rate study.

Since 2012 the City has transferred \$200,000 per year from the Collection and Drainage Fund to the West Hill Reserve. This \$200,000 per year transfer is projected to continue for at least the next five to six years.

Prior to FY 2018 the City was transferring \$180,000 per year from collection and drainage to the Sewer Extension and Improvement Reserve. This transfer increased to \$350,000 per year starting in FY 19. This transfer rate is projected to continue at this level.

For the last 15 years the City has targeted increasing the Collection and Drainage Fee at a rate of 2% per year. To keep the rate increase at that level the prior rate studies focused on managing total expenditures to stay within the projected revenue generated by the Collection and Drainage Fee. In the 2018 rate study the transfer rate to the Sewer Extension and Improvement Reserve was increased. To fund the additional transfer rate no other capital improvements were shown to be funded from collection and drainage for the five year period through FY 23. Although there were transfers out of the fund for capital related projects during the five year period. Since 2018, the total transfers for capital projects was significantly lower than in prior years. The minimal capital expenditures have been consistent with the intent of the last rate study. The budgetary allocation for sewer repair and maintenance in the operations of the system was set at \$120,000. Starting in FY 20 this repair line item was \$60,000 per year.

In prior rate studies the City considered funding additional capital improvements from the Collection and Drainage Fee. However, the decision was made to forego funding any capital improvements in preference to maintaining the 2% rate increase.

The City is currently under a Consent Order to complete the Papoose Redundant Line. The estimated cost for that project is \$3,200,000. The City has identified the Progress Park Redundant Line as a desirable project. Although that project is not required under a Consent Order, the City has determined a redundant line should be constructed to improve the reliability of the collection system. The estimated cost for that project is approximately \$1,800,000.

To date the City has not identified a funding source for either the Papoose Redundant Line or the Progress Park Redundant Line. The estimated total project cost of \$5,000,000 for these two improvements is large enough the City will need to borrow funds and determine a source for funding the debt service.

Both projects are part of the Collection and Drainage system. As such, funding the debt service for these two projects from Collection and Drainage revenue would be appropriate. Funding of these two projects is similar to the funding of a portion of the West Hill Sewer Separation project and the Sewer Extension and Improvement projects that have been funded from Collection and Drainage revenue.

This rate study recommends the City plan to fund the debt service for these two projects from Collection and Drainage revenue. It is anticipated both projects will be funded through the State Revolving Fund (SRF) loan program. That program provides 20 year loans at the current interest rate of 2%.

For purposes of the rate study the projected debt service on the Papoose Redundant Line is \$196,000 and would be incurred as early as FY 25. The debt service on the Progress Park Redundant Line is estimated to be \$115,000. That debt service is projected to be incurred in FY 29. Although the debt service for the Progress Park Redundant Line will not be incurred until just beyond the five year period of this rate study, the project will likely be in progress during the five year period. As a result it is necessary to consider the debt service in projecting rates as part of this rate study.

The addition of these two larger capital projects will not allow the City to continue the historical trend of a 2% annual rate increase in the Collection and Drainage Fee.

To fund these two larger projects this rate study recommends the City phase in a larger rate increase strategy over the next four fiscal years and then return to a more modest rate increase in line with historical inflationary cost increases. For the last 20 years the companion sewer rates have increased at 3% per year and that strategy has proven successful in aligning revenues and expenditures. Historically, the City's 2% increase in the Collection and Drainage Fee has resulted in the City needing to scale back capital improvements funded from Collection and Drainage. The rate structure is to a point where the City cannot continue to fund operations and basic transfers beyond the phased in increase to fund the two projects. This rate study recommends the City's long term strategy adjust from a 2% increase to a 3% increase that would align with the historical practice for the sewer rates.

To fund the two capital projects the following rate increases are anticipated for the next five fiscal years.

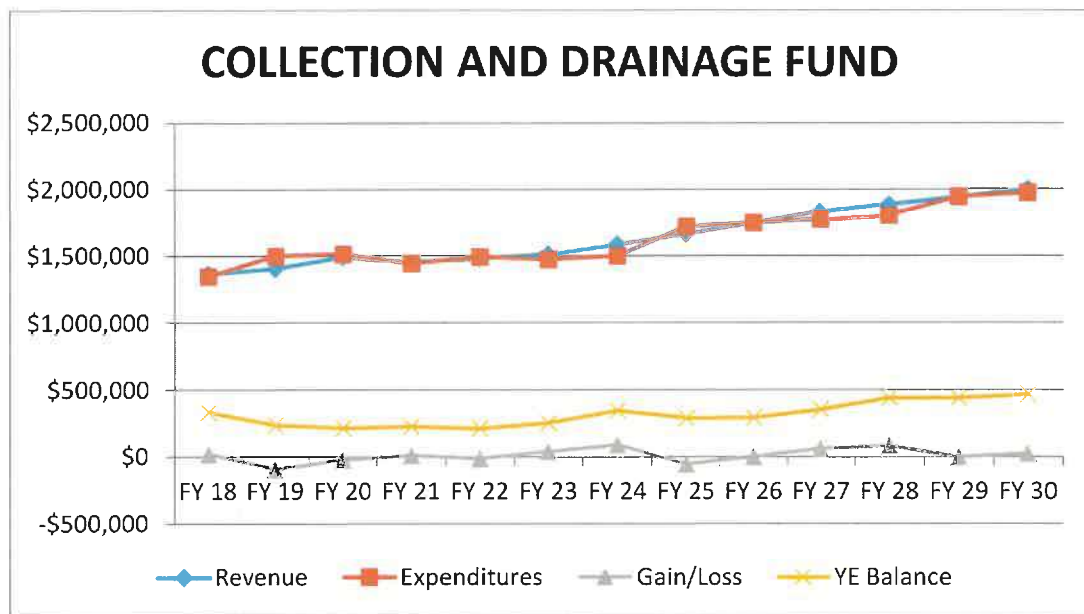
FY 24	5%
FY 25	5%
FY 26	5%
FY 27	5%
FY 28	3%

It is anticipated starting in FY 29 there will be 3% annual increases. Those increases will be established in the next rate study to be completed during FY 28.

With these adjustments the projected revenues and expenses of the collection and drainage fund is as follows:

	<u>Actual</u> <u>2021-2022</u>	<u>2022-2023</u>	<u>2023-2024</u>	<u>2024-2025</u>	<u>2025-2026</u>	<u>2026-2027</u>	<u>2027-2028</u>
Total Revenue	\$1,482,654.89	\$1,516,387.96	\$1,591,177.35	\$1,669,706.22	\$1,752,161.53	\$1,838,739.61	\$1,893,283.80
Total Expenditures	\$1,495,490.68	\$1,476,598.47	\$1,501,827.42	\$1,723,798.24	\$1,750,533.19	\$1,778,055.19	\$1,806,387.84
Annual Gain/Loss	-\$12,835.79	\$39,789.49	\$89,349.93	-\$54,092.02	\$1,628.34	\$60,684.42	\$86,895.95
Beginning Balance	\$225,378.46	\$212,542.67	\$252,332.16	\$341,682.09	\$287,590.06	\$289,218.41	\$349,902.83
Ending Balance	\$212,542.67	\$252,332.16	\$341,682.09	\$287,590.06	\$289,218.41	\$349,902.83	\$436,798.78

The following chart shows graphically the revenues, expenses, gain/loss and year-end balance of the fund over the period FY 18 through FY 30.



The rate study shows there will be an approximately \$200,000 gain in the fund balance over the next five fiscal years. The average gain over the next five fiscal years would be about \$40,000 per year, or about 3% of the projected annual expenditures of the fund. Looking beyond the end of the five year period, the City will incur the additional debt service for the Progress Park Redundant Line starting in FY 29. That additional debt service will result in a break even position in the following two fiscal years. When the following two fiscal years are taken into account, the annual gain over seven years is projected to be slightly less than 2% of revenue.

The City's experience with the Collection and Drainage Fund has shown there are always minor variations in revenues and slightly larger variations in expenditures. To account for these variations prudent planning for long term rate projections targets an annual gain of 2% to 5% per year. The City's projected gain averaging 2% per year over the next seven fiscal years would be considered sound rate setting practice.

Nancy Lueck
March 8, 2023
Page 7

Based on the recommendations in this rate study the Collection and Drainage Fee on a per bill basis for the current fiscal year and the next five fiscal years would be as follows:

<u>Year</u>	<u>Monthly Fee</u>	<u>Monthly Increase</u>
FY 23 (Current)	\$13.40	
FY 24	\$14.07	\$0.67
FY 25	\$14.77	\$0.70
FY 26	\$15.51	\$0.74
FY 27	\$16.29	\$0.78
FY 28	\$16.78	\$0.49

If you have any questions or comments concerning the project, please contact the writer at 800-241-8000, or bveenstra@v-k.net.

VEENSTRA & KIMM, INC.



H. R. Veenstra Jr.

HRVJr:paj
20819

cc: Brian Stineman

The average Class 1 sewer bill for the current fiscal year and the next five fiscal years would be as follows:

<u>Fiscal Year</u>	<u>Typical Class 1 Monthly Bill</u>	<u>Monthly Increase</u>
FY 23	\$32.84	
FY 24	\$33.82	\$0.98
FY 25	\$34.83	\$1.01
FY 26	\$35.88	\$1.05
FY 27	\$36.96	\$1.08
FY 28	\$38.06	\$1.10

The Collection and Drainage Fee on a per bill basis for the current fiscal year and the next five fiscal years would be as follows:

<u>Fiscal Year</u>	<u>Monthly Fee</u>	<u>Monthly Increase</u>
FY 23	\$13.40	
FY 24	\$14.07	\$0.67
FY 25	\$14.77	\$0.70
FY 26	\$15.51	\$0.74
FY 27	\$16.29	\$0.78
FY 28	\$16.78	\$0.49

ORDINANCE NO. 2023-0180

AN ORDINANCE AMENDING TITLE 13, CHAPTER 5, SECTION 4 COLLECTION AND DRAINAGE AND TITLE 13, CHAPTER 5, SECTION 5, SUBSECTION A SEWERAGE RATE COMPONENT TO SET COLLECTION AND DRAINAGE AND SEWER RATES

WHEREAS, the City Council for the City of Muscatine, Iowa, has established a monthly fee for expenses incurred in the collection and conveyance of wastewater through the collection and drainage system; and

WHEREAS, the City of Muscatine, Iowa, has established a sewage rate component for the treatment of wastewater; and

WHEREAS, it is necessary for the City of Muscatine to periodically adjust the unit rates contained in Title 13, Chapter 5, Sections 4 and 5; and

WHEREAS, the City contracted for a rate study for collection and drainage and sewer rates; and

WHEREAS, the City Council concurs with the recommendations in that study and has chosen to implement those recommendations;

NOW, THEREFORE, BE IT ORDAINED that Title 13, Chapter 5, Section 4 be amended to read as follows:

13-5-4 Collection and Drainage. To provide for the recovery of costs associated with the operation of the collection and drainage system, the following per bill charge shall be assessed to all users of the POTW, except for users provided by special agreement, on the following basis:

- A. From July 1, 2023 through June 30, 2024, \$14.07 per bill.
- B. From July 1, 2024 through June 30, 2025, \$14.77 per bill.
- C. From July 1, 2025 through June 30, 2026, \$15.51 per bill.
- D. From July 1, 2026 through June 30, 2027, \$16.29 per bill
- E. On and after July 1, 2027, \$16.78 per bill.

These unit rates may be reviewed and adjusted by Ordinance adopted by the City Council and published per Section 362.3 of the Iowa Code.

NOW, THEREFORE, BE IT FURTHER ORDAINED BY THE CITY COUNCIL OF MUSCATINE, IOWA, that Title 13, Chapter 5, Section 5, subsection A, parts 1 through 7 be amended to read as follows:

13-5-5 Sewage Rate Component.

A. The sewage rate system shall be determined on the basis of a monthly customer charge and a sewer user charge for a domestic strength wastewater customer (Class 1 customer). The sewage rate components shall be as follows:

1. From July 1, 2023 through June 30, 2024:
 - a. Customer charge, \$9.49 per bill
 - b. Volume, \$3.24 per 100 cubic feet
2. From July 1, 2024 through June 30, 2025:
 - a. Customer charge, \$9.77 per bill
 - b. Volume, \$3.34 per 100 cubic feet
3. From July 1, 2025 through June 30, 2026:
 - a. Customer charge, \$10.06 per bill
 - b. Volume, \$3.44 per 100 cubic feet
4. From July 1, 2026 through June 30, 2027:
 - a. Customer charge, \$10.37 per bill
 - b. Volume, \$3.55 per 100 cubic feet
5. On and after July 1, 2027:
 - a. Customer charge, \$10.68 per bill
 - b. Volume, \$3.65 per 100 cubic feet

These sewage rate components may be reviewed and adjusted by ordinance adopted by the City Council and published per Section 362.3 of the Iowa Code.

6. The minimum charge for service shall be determined based on the customer charge and the unit rate for up to a minimum quantity of three hundred (300) cubic feet per month of normal domestic strength wastewater. The minimum charge for service for each month or fraction thereof shall be:

- a. From July 1, 2023 through June 30, 2024, \$19.21
- b. From July 1, 2024 through June 30, 2025, \$19.79
- c. From July 1, 2025 through June 30, 2026, \$20.38
- d. From July 1, 2026 through June 30, 2027, \$21.05
- e. On and after July 1, 2027, \$18.66

The minimum charge for sewerage rates as set forth in this Section shall be in addition to the per bill charge for collection and drainage as set forth in Section 13-5-4.

The minimum sewerage service charge shall apply to any individual, firm, institution or private corporation discharging by conveyance of the collection system, waste water or other liquid into the water pollution control facilities of the city, even though no water meter is installed upon his, her, or its premises.

7. The sewerage user charge component in this section shall be applicable to all customers except those customers subject to a special agreement.

PASSED, APPROVED, AND ADOPTED by the City Council for the City of Muscatine, Iowa, on this 18th day of May, 2023.



A handwritten signature in black ink, appearing to read "B.B.K.", is positioned above a horizontal line.

Dr. Brad Bark, Mayor

ATTEST:

A handwritten signature in black ink, appearing to read "Carol Webb", is positioned above a horizontal line.

Carol Webb (May 24, 2023 15:36 CDT)

Carol Webb, City Clerk

First Reading: April 20, 2023

Second Reading: May 4, 2023

Third Reading: May 18, 2023

Publication:

***** Proof of Publication *****

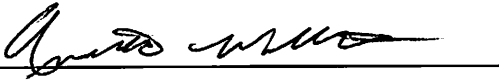
The undersigned, being first duly sworn, on oath does say that he/she is an authorized employee of THE MUSCATINE JOURNAL, morning edition, a daily newspaper printed and published by Lee Enterprises, Incorporated, in the City of Davenport, Scott County, Iowa, and that a notice, a printed copy of which is made a part of this affidavit, was published in said THE MUSCATINE JOURNAL, on the dates listed below.

CITY OF MUSCATINE- Legals account

215 Sycamore Street
MUSCATINE, IA 52761

ORDER NUMBER 156182

The affiant further deposes and says that all of the facts set forth in the foregoing affidavit are true as he/she verily believes.



Section: Notices & Legals

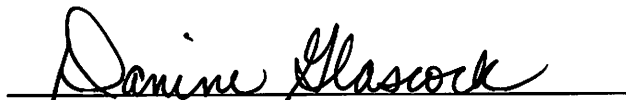
Category: 2627 Miscellaneous Notices

PUBLISHED ON: 05/30/2023

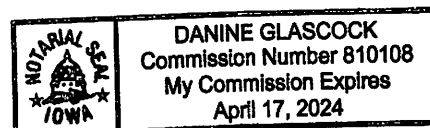
TOTAL AD COST: 105.48

FILED ON: 5/30/2023

Subscribed and sworn to before me by said affiant this 30 day of May 2023.



Notary Public in and for Scott County, Iowa



*** Proof of Publication ***

ORDINANCE NO. 2023-0180

AN ORDINANCE AMENDING TITLE 13, CHAPTER 5, SECTION 4 COLLECTION AND DRAINAGE AND TITLE 13, CHAPTER 5, SECTION 5, SUBSECTION A SEWERAGE RATE COMPONENT TO SET COLLECTION AND DRAINAGE AND SEWER RATES

WHEREAS, the City Council for the City of Muscatine, Iowa, has established a monthly fee for expenses incurred in the collection and conveyance of wastewater through the collection and drainage system; and

WHEREAS, the City of Muscatine, Iowa, has established a sewage rate component for the treatment of wastewater; and

WHEREAS, it is necessary for the City of Muscatine to periodically adjust the unit rates contained in Title 13, Chapter 5, Sections 4 and 5; and

WHEREAS, the City contracted for a rate study for collection and drainage and sewer rates; and

WHEREAS, the City Council concurs with the recommendations in that study and has chosen to implement those recommendations;

NOW, THEREFORE, BE IT ORDAINED that Title 13, Chapter 5, Section 4 be amended to read as follows:

13-5-4 Collection and Drainage. To provide for the recovery of costs associated with the operation of the collection and drainage system, the following per bill charge shall be assessed to all users of the POTW, except for users provided by special agreement, on the following basis:

- A. From July 1, 2023 through June 30, 2024, \$14.07 per bill.
- B. From July 1, 2024 through June 30, 2025, \$14.77 per bill.
- C. From July 1, 2025 through June 30, 2026, \$15.51 per bill.
- D. From July 1, 2026 through June 30, 2027, \$16.29 per bill.
- E. On and after July 1, 2027, \$16.78 per bill.

These unit rates may be reviewed and adjusted by Ordinance adopted by the City Council and published per Section 362.3 of the Iowa Code.

NOW, THEREFORE, BE IT FURTHER ORDAINED BY THE CITY COUNCIL OF MUSCATINE, IOWA, that Title 13, Chapter 5, Section 5, subsection A, parts 1 through 7 be amended to read as follows:

13-5-5 Sewage Rate Component.

A. The sewage rate system shall be determined on the basis of a monthly customer charge and a sewer user charge for a domestic strength wastewater customer (Class 1 customer). The sewage rate components shall be as follows:

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 - a. Customer charge, \$10.06 per bill
 - b. Volume, \$3.44 per 100 cubic feet
- 4. From July 1, 2026 through June 30, 2027:
 - a. Customer charge, \$10.37 per bill
 - b. Volume, \$3.55 per 100 cubic feet
- 5. On and after July 1, 2027:
 - a. Customer charge, \$10.68 per bill
 - b. Volume, \$3.65 per 100 cubic feet

These sewage rate components may be reviewed and adjusted by ordinance adopted by the City Council and published per Section 362.3 of the Iowa Code.

6. The minimum charge for service shall be determined based on the customer charge and the unit rate for up to a minimum quantity of three hundred (300) cubic feet per month of normal domestic strength wastewater. The minimum charge for service for each month or fraction thereof shall be:

- a. From July 1, 2023 through June 30, 2024, \$19.21
- b. From July 1, 2024 through June 30, 2025, \$19.79
- c. From July 1, 2025 through June 30, 2026, \$20.38
- d. From July 1, 2026 through June 30, 2027, \$21.02
- e. On and after July 1, 2027, \$21.63

The minimum charge for sewerage rates as set forth in this Section shall be in addition to the per bill charge for

*** Proof of Publication ***

collection and drainage as set forth in Section 13-5-4.

The minimum sewerage service charge shall apply to any individual, firm, institution or private corporation discharging by conveyance of the collection system, waste water or other liquid into the water pollution control facilities of the city, even though no water meter is installed upon his, her, or its premises.

7. The sewerage user charge component in this section shall be applicable to all customers except those customers subject to a special agreement.

PASSED, APPROVED, AND ADOPTED by the City Council for the City of Muscatine, Iowa, on this 18th day of May, 2023.

Dr. Brad Bark, Mayor

ATTEST:

Carol Webb, City Clerk

First Reading: April 20, 2023

Second Reading: May 4, 2023

Third Reading: May 18, 2023

Publication: May 30, 2023