



FY 2021-22 Water Rates

March 23, 2021



1

Outline

- National & State-wide Trends in Rates
- Projected Need for Revenue Increase
- Translating Revenue Needs to Rates
- Customer Perspective
- Council Direction

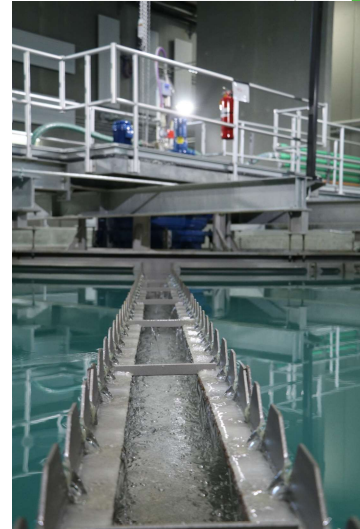


2

National and State Trends

Data sources include:

- **2018 Cost of Clean Water Index**
National Association of Clean Water Agencies
- **2019 Water and Wastewater Rate Survey**
American Water Works Association
- **2020 Iowa Water and Wastewater Rate Survey**
City of Ames Water and Pollution Control

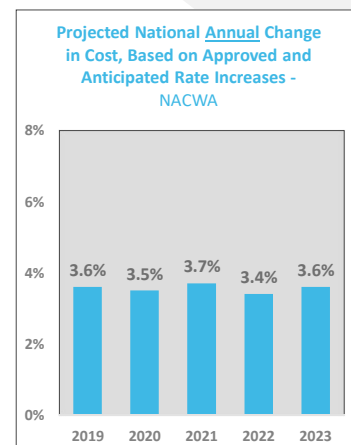


3

National Trends

2018 Cost of Clean Water Index, NACWA

- Average annual wastewater bill has doubled nationally in last 15 years
- Wastewater utilities expect charges to increase from 3.4% to 3.7% per year for the next 5 years
- Nationally, the average increase in 2018 was 1.6x the rate of inflation
(17th consecutive year that sewer rates nationally have outpaced inflation)



4

National Trends

2019 Water & Wastewater Rate Survey, American Water Works Association

- 79% of Drinking Water Utilities nationally have increased rates in the past two years
- 77% of Wastewater Utilities nationally have increased rates in the past two years
- Lowest costs for both water and sewer were in the Midwest



5

National Trends

2014 to 2019

Average Annual Increase in Water Rates:	4.8%
Average Annual Increase in Sewer Rates:	4.1%
Average Annual Increase in CPI:	2.0%

Sources: 2014 Water and Wastewater Rate Survey, AWWA/Raftelis Financial Consultants
2019 Water and Wastewater Rate Survey, AWWA/Raftelis Financial Consultants



6

Recent Rate Adjustments in Ames

	Water	Sewer
FY 16/17	--	--
FY 17/18	--	--
FY 18/19	3.5%	3%
FY 19/20	7%	--
FY 20/21	2%	5%
Annual Average	2.5%	1.6%



7

Ames Trends vs. National Trends

Water

National Average Annual Increase: 4.8%

Ames Average Annual Increase: 2.5%

Sewer

National Average Annual Increase: 4.1%

Ames Average Annual Increase: 1.6%

Average Annual Increase in CPI: 2.0%

National and CPI Data: 2014 – 2019
Ames Data: 2016 – 2020



8

Iowa Trends

Percent of Iowa Utilities with a rate increase in past two years:

- Drinking Water: 76% (22 of 29)
 - More than 5%: 41% (12 of 29)
 - More than 10%: 21% (6 of 29)
- Wastewater: 77% (33 of 43)
 - More than 5%: 58% (25 of 43)
 - More than 10%: 28% (12 of 43)

2020 Iowa Water & Wastewater Rate Survey, City of Ames, Iowa

9

Ames Trends vs. Iowa Trends

2016-2020 Trends

Water

Iowa Average Annual Increase:	5.6%
Ames Average Annual Increase:	2.6%

Sewer

Iowa Average Annual Increase:	7.3%
Ames Average Annual Increase:	1.6%

Average Annual Increase in CPI:	2.0%
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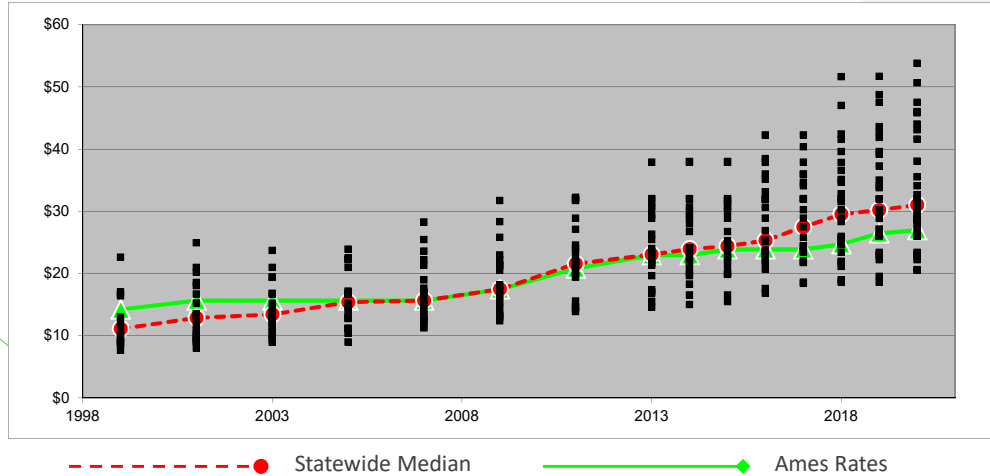
Iowa, Ames, and CPI Data: 2016 – 2020



10

Iowa Trends in Water Rates

1999-2020, Cities with population >10,000 with lime softening, 600 cf per month

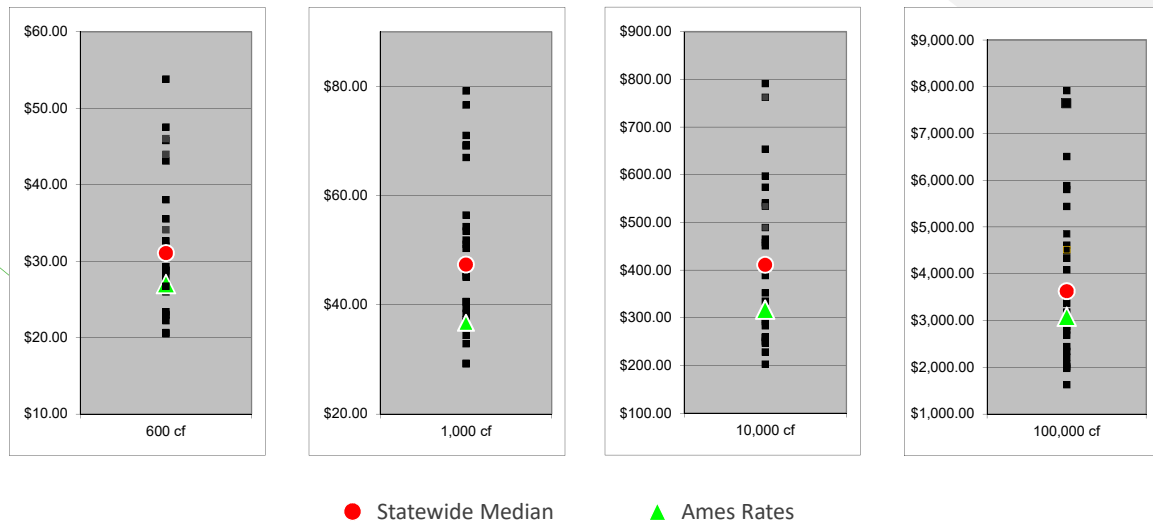


**** Ames is at the 29th percentile, based on 2020 rates ****

11

Comparing Across Water Demand Thresholds

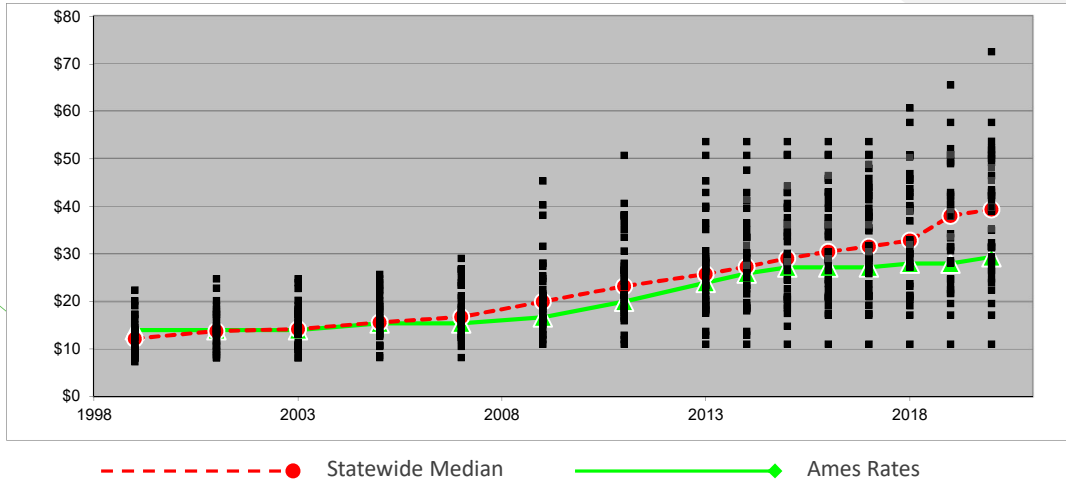
Cities with population >10,000 with lime softening, 2020



12

Iowa Trends in Sewer Rates

1999-2020, Cities with population >10,000, 600 cf per month

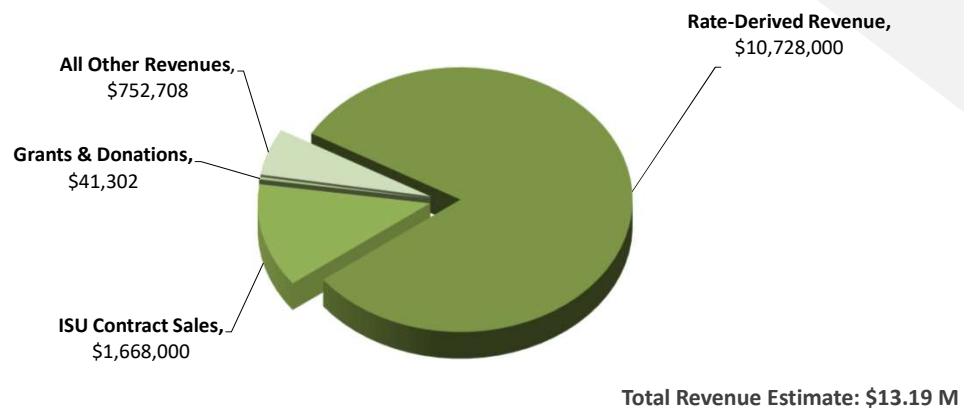


**** Ames is at the 24th percentile, based on 2020 rates ****

13

Water Revenue Sources

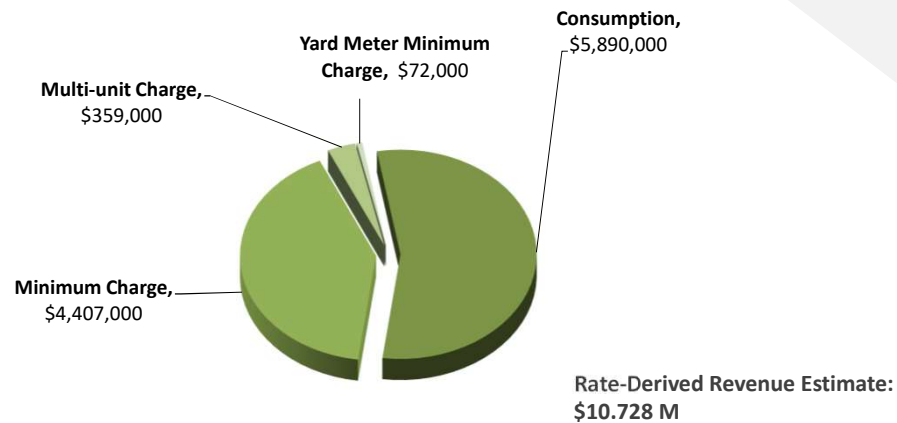
FY 20/21 Amended Budget



14

Water Rate-Derived Revenue

FY 19/20 Amended Budget



15

Current Water Rates (\$/cf)

	<u>Existing</u>
Winter	
All customers; all consumption	\$0.0243
Summer	
Residential	
Block 1 (First 1,000 cf)	\$0.0243
Block 2 (Next 1,500 cf)	\$0.0428
Block 3 (Over 2,500 cf)	\$0.0644
Irrigation & Yard Water	
Block 1 (First 2,000 cf)	\$0.0350
Block 2 (Next 3,000 cf)	\$0.0644
Block 3 (Over 5,000 cf)	\$0.1072
Non-Residential	
All consumption	\$0.0318
Non-Peaking Industrial	
All consumption	\$0.0243



16

Forces Driving Capital Expenses

Water Fund:

- New Source Water Capacity
- Resiliency

Sewer Fund:

- Nutrient Reduction Modifications

Both Funds:

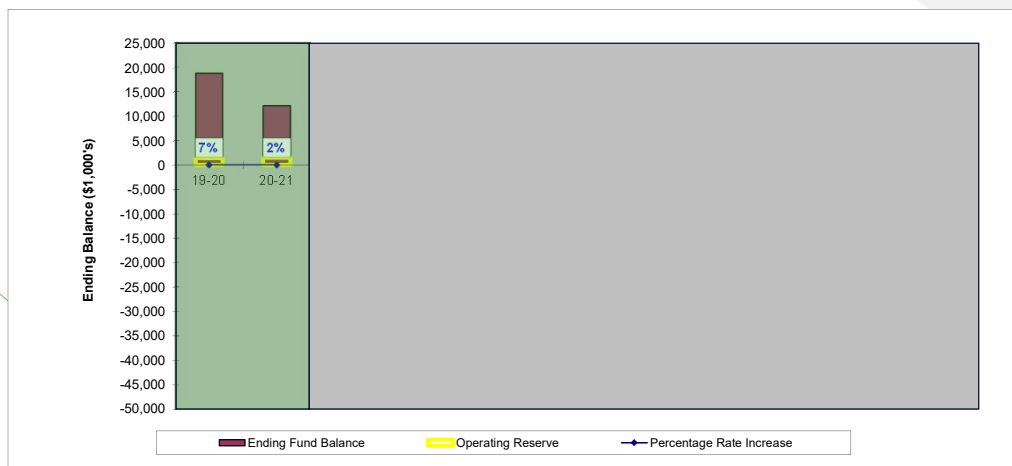
- Infrastructure Renewal/Replacement
Sewer Rehab, Water Main Replacement,
Treatment Facility Improvements

WATER SYSTEM IMPROVEMENTS DESCRIPTION/JUSTIFICATION This program provides for replacing water mains in areas that experience rusty water problems, generally caused by aged cast iron pipe (most often 4-inch and 6-inch but also some larger mains such as 12-inch). It also provides for installing larger distribution mains in areas that have 4-inch supply lines, transferring water services from 4-inch water mains to streets where larger water mains exist, and substituting 4-inch water mains. Replacing damaged water mains, where possible, with supply lines and less than present and proposed land uses, its condition, and redundancy can be replaced.	PROJECT STATUS: No Change	66 City of Ames, Iowa Capital Improvements Plan
WELL FIELD STANDBY POWER DESCRIPTION/JUSTIFICATION This project will provide standby electrical power to select well locations. Iowa's Water Supply Design Standards require that a water system have redundant electrical power available. Installing standby power for critical remote sites was one of the recommendations contained in the 2019-2020 Physical Security Assessment conducted by the U.S. Department of Homeland Security. As a result of the 2020 despatch storm event, the scope of this project has been expanded beyond what was shown last year.	PROJECT STATUS: Scope Change Advanced	53 City of Ames, Iowa Capital Improvements Plan
COMMENTS In addition to the dedicated emergency generator for portable generators in the City SAM Pump Station Improvements Project, this project will add three new wells and now include an emergency generator that will be the most recent update to the City's Chief eligible for Free Hazard Mitigation Grants.	PROJECT STATUS: Delayed	54 City of Ames, Iowa Capital Improvements Plan
DESCRIPTION/JUSTIFICATION This project involves the construction of a new one-million-gallon elevated tank ("water tower") to serve the newly annexed industrial area along Lincoln Way east of Interstate 35.	PROJECT STATUS: No Change	70 City of Ames, Iowa Capital Improvements Plan
COMMENTS In order to meet the anticipated water demands in this new area in east Ames, a new elevated tank is required. The tank will help stabilize pressures at the far eastern edge of the city limits, as well as provide the necessary volume for firefighting purposes in what is envisioned as a moderate to heavy industrial area.	PROJECT STATUS: No Change	42 City of Ames, Iowa Capital Improvements Plan
DESCRIPTION/JUSTIFICATION This is the annual program for rehabilitation/reconstruction of deficient sanitary sewers and deteriorated manholes at various locations throughout the city. Most of the problem areas are in sewers that can be bundled into a construction package for cost efficiency, or in problem areas deeper than City crews are equipped to handle. This program, therefore, provides for these repairs by outside firms. The goal of this program is to identify and remove major sources of effluent infiltration as a means of lowering the peak wet weather flow at the treatment plant.	PROJECT STATUS: No Change	42 City of Ames, Iowa Capital Improvements Plan
COMMENTS System improvement through manhole is highly seasonal, ranging from "4" and "6" inches of water covering the effluent.	PROJECT STATUS: No Change	42 City of Ames, Iowa Capital Improvements Plan
COMMENTS The new Nutrient Reduction Strategy lays out a schedule for point source discharges based on the National Pollutant Discharge Elimination System (NPDES) permit renewal cycle for each facility. When the next permit is issued, the City will be required to submit a plan to the Iowa Department of Natural Resources that outlines the cost and feasibility of installing nutrient reduction at the facility. The facility will then receive a compliance schedule requiring the construction of nutrient reduction facilities during subsequent NPDES permits.	PROJECT STATUS: No Change	42 City of Ames, Iowa Capital Improvements Plan
COMMENTS The schedule would consist of a schedule for the following three in Phase 1, with engineering beginning in FY 2022/23 and construction occurring over the following two years. The second phase would begin in approximately FY 2023/24 and would remove the existing effluent and construct additional nutrient removal capacity. The third and final phase would begin in approximately FY 2023/24, bringing on-line the full nutrient reduction capacity.	PROJECT STATUS: No Change	42 City of Ames, Iowa Capital Improvements Plan

Add a footer

17

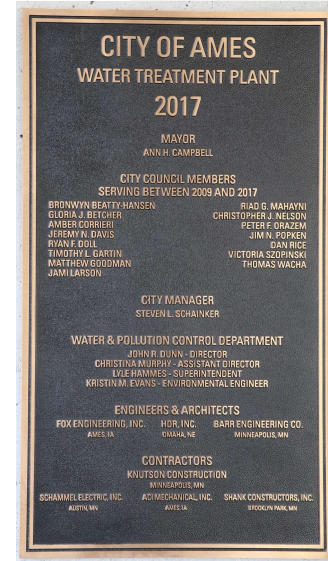
Water Fund Rate Model – No Adjustments



18

Guiding Philosophy on Rates

- Rate increases should be done with smaller percentage increases on a more frequent basis, as opposed to larger increases on a less frequent basis.
- Slowly grow the operating reserve in each Fund over time until it reaches 25% of the Fund's annual operating expenses



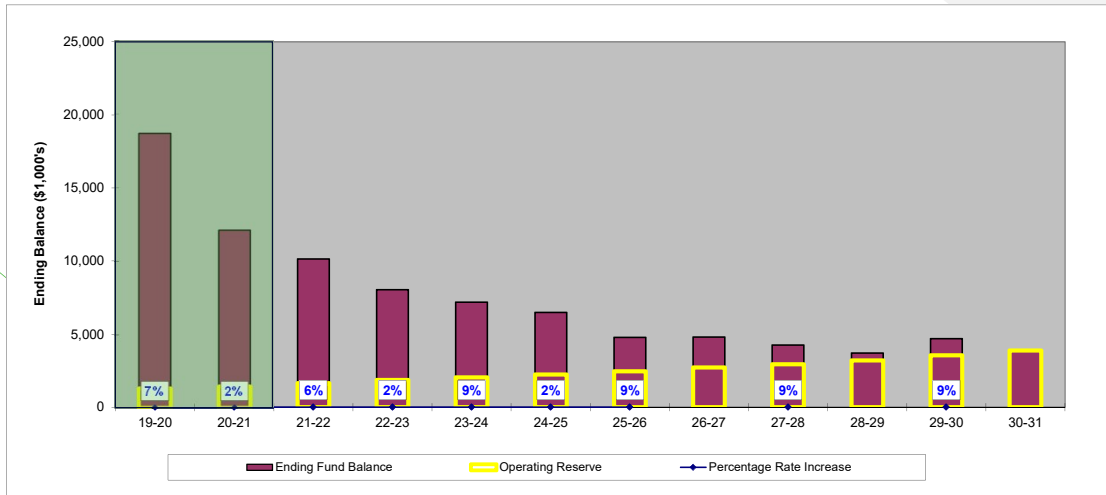
19

Water and Sewer Rate Projections

	Last Year	Current Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31
Water Fund	7%	2%	6%	2%	9%	2%	9%		9%		9%	
Sewer Fund		5%		5%		8%		8%		8%		9%

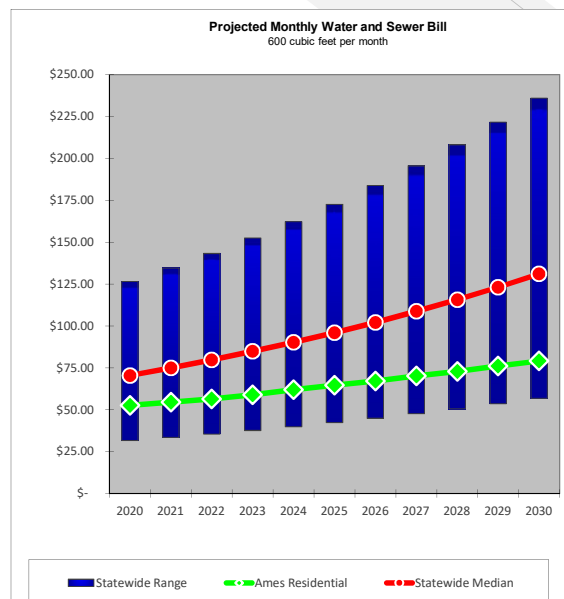


Water Fund Rate Model



21

Rate Projections vs. Statewide Trends



22

Revised Water Rates

	<u>Existing</u>	<u>6% Increase</u>	<u>New</u>
Winter			
All customers; all consumption	\$0.0243	\$0.0015	\$0.0257
Summer			
Residential			
Block 1 (First 1,000 cf)	\$0.0243	\$0.0015	\$0.0257
Block 2 (Next 1,500 cf)	\$0.0428	\$0.0026	\$0.0454
Block 3 (Over 2,500 cf)	\$0.0644	\$0.0039	\$0.0682
Irrigation & Yard Water			
Block 1 (First 2,000 cf)	\$0.0350	\$0.0021	\$0.0371
Block 2 (Next 3,000 cf)	\$0.0644	\$0.0039	\$0.0682
Block 3 (Over 5,000 cf)	\$0.1072	\$0.0064	\$0.1137
Non-Residential			
All consumption	\$0.0318	\$0.0019	\$0.0337
Non-Peaking Industrial			
All consumption	\$0.0243	\$0.0015	\$0.0257

23

Associated Rates and Fees

- Water minimum bills, multiple dwelling unit fees, bulk water charge would also adjust by 6%
- Meter setting fees would be adjusted based on actual cost recovery

Sample Customer Bill

Median Use Residential

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
600 kWh and 600 cf	\$81.10	\$4.95	\$26.98	\$29.34	\$142.37
Electric ECA	-\$4.32				-\$4.32
Totals	\$76.78	\$4.95	\$26.98	\$29.34	\$138.05
Increase Due to Rate Change	\$0.00	\$0.00	\$1.62	\$0.00	\$1.62
Totals	\$76.78	\$4.95	\$28.60	\$29.34	\$139.67
% Impact on Total Bill					1.17%

25

Recommended Action & Timeline

- Adopt on first reading, an ordinance to:
 - Adjust **Water Rates by 6%**
 - New rates **effective for bills mailed on or after July 1, 2021**
- Timeline
 - First reading on **March 23**
 - Second reading on **April 13**
 - Third reading and adoption on **April 27**





Questions & Direction

Sample Customer Bill

Minimal Use Residential

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
100 kWh and 100 cf	\$20.45	\$4.95	\$14.83	\$14.54	\$54.77
Electric ECA	-\$0.72				-\$0.72
Totals	\$19.73	\$4.95	\$14.83	\$14.54	\$54.05
Increase Due to Rate Change	\$0.00	\$0.00	\$0.89	\$0.00	\$0.89
Totals	\$19.73	\$4.95	\$15.72	\$14.54	\$54.94
% Impact on Total Bill					1.65%

Sample Customer Bill

Median Use Residential

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
600 kWh and 600 cf	\$81.10	\$4.95	\$26.98	\$29.34	\$142.37
Electric ECA	-\$4.32				-\$4.32
Totals	\$76.78	\$4.95	\$26.98	\$29.34	\$138.05
Increase Due to Rate Change	\$0.00	\$0.00	\$1.62	\$0.00	\$1.62
Totals	\$76.78	\$4.95	\$28.60	\$29.34	\$139.67
% Impact on Total Bill					1.17%

29

Sample Customer Bill

Large Residential

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
1,000 kWh and 1,000 cf	\$129.62	\$4.95	\$36.70	\$41.18	\$212.45
Electric ECA	-\$7.20				-\$7.20
Totals	\$122.42	\$4.95	\$36.70	\$41.18	\$205.25
Increase Due to Rate Change	\$0.00	\$0.00	\$2.20	\$0.00	\$2.20
Totals	\$122.42	\$4.95	\$38.90	\$41.18	\$207.45
% Impact on Total Bill					1.07%

30

Sample Customer Bill

Small Commercial (GP)

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
2,000 kWh and 600 cf	\$254.40	\$4.95	\$31.48	\$29.34	\$320.17
Electric ECA	-\$14.40				-\$14.40
Totals	\$240.00	\$4.95	\$31.48	\$29.34	\$305.77
Increase Due to Rate Change	\$0.00	\$0.00	\$1.89	\$0.00	\$1.89
Totals	\$240.00	\$4.95	\$33.37	\$29.34	\$307.66
% Impact on Total Bill					0.62%

31

Sample Customer Bill

Small Commercial (GP)

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
5,000 kWh and 1,000 cf	\$612.60	\$4.95	\$44.20	\$41.18	\$702.93
Electric ECA	-\$36.00				-\$36.00
Totals	\$576.60	\$4.95	\$44.20	\$41.18	\$666.93
Increase Due to Rate Change	\$0.00	\$0.00	\$2.65	\$0.00	\$2.65
Totals	\$576.60	\$4.95	\$46.85	\$41.18	\$669.58
% Impact on Total Bill					0.40%

32

Sample Customer Bill

Small Commercial (GP)

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
10,000 kWh and 3,000 cf	\$1,209.60	\$9.90	\$120.21	\$100.38	\$1,440.09
Electric ECA	-\$72.00				-\$72.00
Totals	\$1,137.60	\$9.90	\$120.21	\$100.38	\$1,368.09
Increase Due to Rate Change	\$0.00	\$0.00	\$7.21	\$0.00	\$7.21
Totals	\$1,137.60	\$9.90	\$127.42	\$100.38	\$1,375.30
% Impact on Total Bill					0.53%

33

Sample Customer Bill

Commercial (LP)

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
20,000 kWh and 5,000 cf	\$2,181.81	\$9.90	\$183.81	\$159.58	\$2,535.10
Electric ECA	-\$144.00				-\$144.00
Totals	\$2,037.81	\$9.90	\$183.81	\$159.58	\$2,391.10
Increase Due to Rate Change	\$0.00	\$0.00	\$11.03	\$0.00	\$11.03
Totals	\$2,037.81	\$9.90	\$194.84	\$159.58	\$2,402.13
% Impact on Total Bill					0.46%

34

Sample Customer Bill

Commercial (LP)

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
60,000 kWh and 15,000 cf	\$6,221.55	\$14.85	\$526.62	\$455.58	\$7,218.60
Electric ECA	-\$432.00				-\$432.00
Totals	\$5,789.55	\$14.85	\$526.62	\$455.58	\$6,786.60
Increase Due to Rate Change	\$0.00	\$0.00	\$31.60	\$0.00	\$31.60
Totals	\$5,789.55	\$14.85	\$558.22	\$455.58	\$6,818.20
% Impact on Total Bill	0.47%				

35

Sample Customer Bill

Commercial (LP)

Electric / Water Use	Electric Summer	Storm Water	Water Summer	Sewer	Total
100,000 kWh and 20,000 cf	\$10,284.95	\$44.55	\$735.25	\$603.58	\$11,668.33
Electric ECA	-\$720.00				-\$720.00
Totals	\$9,564.95	\$44.55	\$735.25	\$603.58	\$10,948.33
Increase Due to Rate Change	\$0.00	\$0.00	\$44.12	\$0.00	\$44.12
Totals	\$9,564.95	\$44.55	\$779.37	\$603.58	\$10,992.45
% Impact on Total Bill	0.40%				

36