



August 7, 2018

City of Mineral Wells, Texas Water and Wastewater Rate Study



ECONOMICS

STRATEGY

STAKEHOLDERS

SUSTAINABILITY

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Overarching Issues

- As the Board of Director's of a business, the City Council must contend with a number of unique issues:
 - Drought and conservation has impacted the traditional water utility business model
 - Business must adapt to a new “normal”
 - Long-term financial planning is essential
 - Need for City specific Capital Improvement Projects
 - Uncertainty of Turkey Peak Project
 - Essential the Board starts planning now for what is to come
 - Manage decline in Fund Balance

Projected City CIP and Funding

	2018	2019	2020	2021	2022	2023	Total
Water CIP	\$ 3,660,000	\$ 160,890	\$ 1,790,117	\$ 1,841,349	\$ 1,039,658	\$ 809,772	\$ 9,301,786
Wastewater CIP	1,705,000	206,208	903,587	602,823	621,534	349,542	4,388,694
Total CIP	\$ 5,365,000	\$ 367,098	\$ 2,693,705	\$ 2,444,172	\$ 1,661,192	\$ 1,159,314	\$ 13,690,481
Funding							
Cash	\$ -	\$ -	\$ 106,304	\$ 416,496	\$ 361,620	\$ 372,845	\$ 1,257,265
Fund Balance	-	367,098	344,377	-	-	-	711,475
Debt Service	5,365,000	-	2,243,023	2,027,676	1,299,572	786,470	11,721,741
	\$ 5,365,000	\$ 367,098	\$ 2,693,705	\$ 2,444,172	\$ 1,661,192	\$ 1,159,314	\$ 13,690,481
Debt Issuance							
Principal	\$ 5,365,000	\$ -	\$ 6,356,741	\$ -	\$ -	\$ -	\$ 11,721,741
Interest Rate ¹	3.45%	3.45%	3.45%	3.45%	3.45%	3.45%	
Term ¹	25	25	25	25	25	25	
Projected P&I ²	\$ -	\$ 343,944	\$ 345,100	\$ 728,199	\$ 727,499	\$ 731,499	\$ 2,876,241

Notes:

1 – Source: Mineral Wells, TX GO Bonds, Series 2018

2 – Assumes P&I Payments begin in the year after the debt is issued.

Inflation Factors

Inflation Factor	Description	Application
Producer Price Index	Index that gauges the average fluctuation in selling prices received by domestic producers over time.	Chemicals
Annual Energy Outlook	Projections of domestic energy markets	Electricity, Fuel, Natural Gas
Municipal Cost Index	Rate of inflation on the cost of providing municipal services	General Inflation, Personnel

Note: Customer growth and other key assumptions provided by City Staff.

Rate Adjustment Recommendations

- Consider changes to City's Water Rate Structure:
 - Reduce number of volumetric rate blocks
 - Establish increasing (inclining) block rate structure with rates 1.15x higher than previous block
 - Make all rate adjustments effective October 1, 2018
- Phase-in Rate Increases to reduce impact on customers

Proposed Water Rate Structure

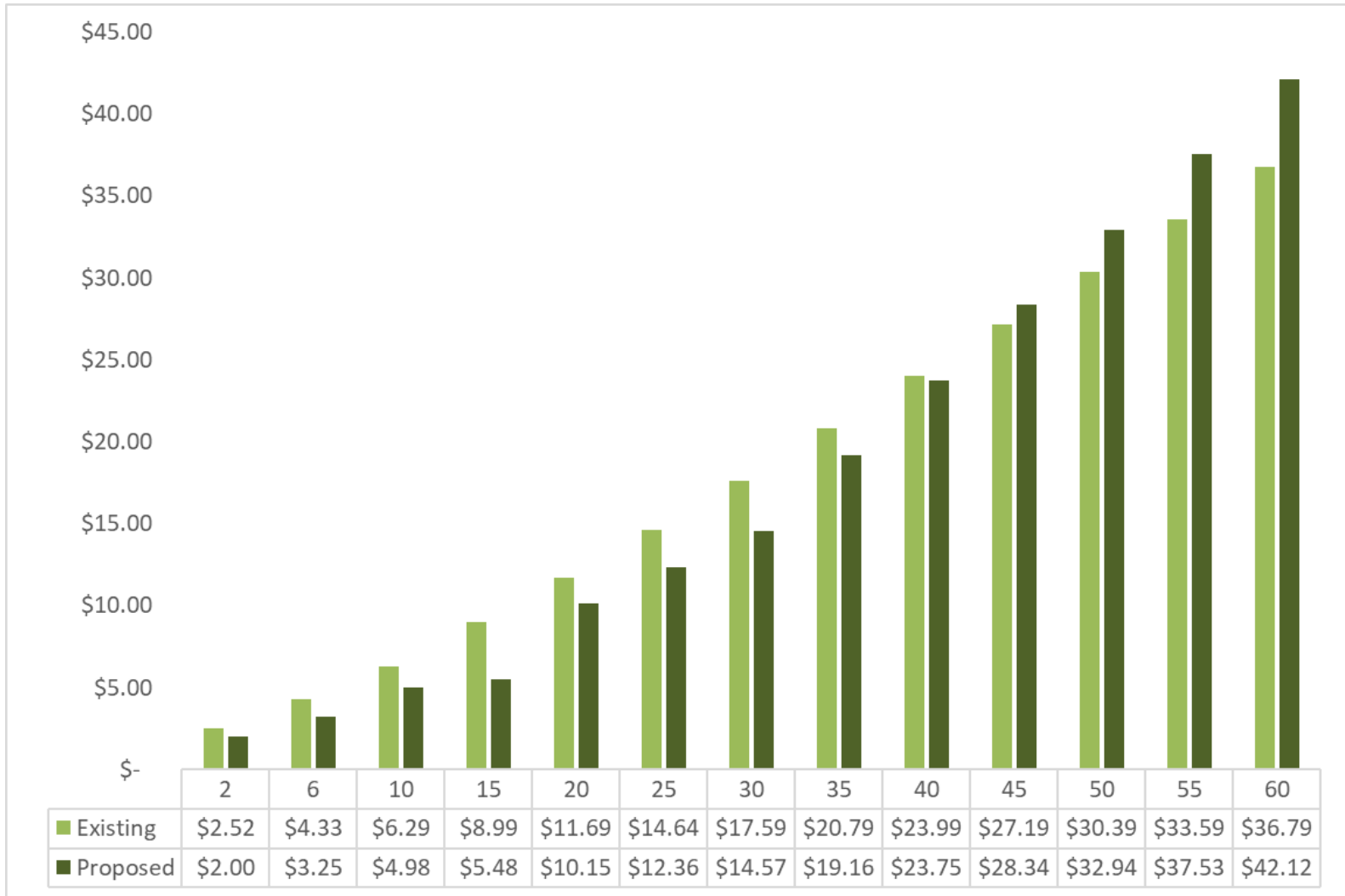
- Volumetric blocks reduced from 6 to 5

	Existing Structure	Proposed Structure
Block 1	0 – 3,000	0 - 2,000
Block 2	3,001 - 5,000	2,001 - 7,000
Block 3	5,001 - 10,000	7,001 - 15,000
Block 4	10,001 - 20,000	15,001 - 30,000
Block 5	20,001 - 30,000	30,001+
Block 6	30,001+	-

Monthly Customer Water Bill – (3/4”)

	Current	2019	2020	2021	2022	2023
<u>2,000 Gallons</u>						
Existing Rate Structure	\$ 25.18	\$ 27.70	\$ 30.47	\$ 33.52	\$ 33.94	\$ 34.36
Year over year change		2.52	2.77	3.05	0.42	0.42
Proposed Rate Structure	\$ 25.18	\$ 27.18	\$ 29.84	\$ 32.54	\$ 34.54	\$ 36.54
Year over year change		2.00	2.66	2.70	2.00	2.00
<u>6,000 Gallons</u>						
Existing Rate Structure	\$ 43.20	\$ 47.53	\$ 52.28	\$ 57.52	\$ 58.23	\$ 58.96
Year over year change		4.33	4.75	5.24	0.71	0.73
Proposed Rate Structure	\$ 43.20	\$ 46.45	\$ 50.64	\$ 54.94	\$ 56.94	\$ 58.94
Year over year change		3.25	4.19	4.30	2.00	2.00

Variations from Current Monthly Bills – Residential Water 3/4”



Projected Residential Water Rates (Current Rate Structure)

	Current	2019	2020	2021	2022	2023
Base Charge:						
3/4 inch	\$ 16.80	\$ 18.48	\$ 20.33	\$ 22.36	\$ 22.64	\$ 22.92
1 inch	27.52	30.27	33.30	36.63	37.09	37.55
1 ½ inch	54.02	59.42	65.36	71.90	72.80	73.71
2 inch	91.16	100.28	110.31	121.34	122.86	124.40
3 inch	197.33	217.06	238.77	262.65	265.93	269.25
Consumption Charge (per 1,000 gallons)						
0 – 3,000	\$ 4.19	\$ 4.61	\$ 5.07	\$ 5.58	\$ 5.65	\$ 5.72
3,001 – 5,000	4.45	4.90	5.39	5.93	6.00	6.08
5,001 - 10,000	4.93	5.42	5.96	6.56	6.64	6.72
10,001 - 20,000	5.44	5.98	6.58	7.24	7.33	7.42
20,001 - 30,000	5.93	6.52	7.17	7.89	7.99	8.09
30,001+	6.41	7.05	7.76	8.54	8.65	8.76

Rate Design Change Pros and Cons

- Pros
 - Lessens the administrative burden
 - Some simplification to facilitate customer understanding
- Cons
 - Requires Utility Billing System changes
 - Possible expenses associated with implementation
 - Various customer impacts

Projected Residential Water Rates (Proposed Rate Structure)

	Current		New Blocks	2019	2020	2021	2022	2023
Base Charge:								
3/4 inch	\$ 16.80			\$ 18.80	\$ 20.80	\$ 22.80	\$ 24.80	\$ 26.80
1 inch	27.52			30.80	34.07	37.35	40.62	43.90
1 ½ inch	54.02			60.45	66.88	73.31	79.74	86.17
2 inch	91.16			102.01	112.86	123.72	134.57	145.42
3 inch	197.33			220.82	244.31	267.81	291.30	314.79
Consumption Charge (per 1,000 gallons)								
0 – 3,000	\$ 4.19		0 - 2,000	\$4.19	\$4.52	\$4.87	\$4.87	\$4.87
3,001 – 5,000	4.45		2,001 - 7,000	4.82	5.20	5.60	5.60	5.60
5,001 - 10,000	4.93		7,001 - 15,000	5.54	5.98	6.44	6.44	6.44
10,001 - 20,000	5.44		15,001 - 30,000	6.37	6.87	7.40	7.40	7.40
20,001 - 30,000	5.93		30,001+	7.33	7.90	8.51	8.51	8.51
30,001+	6.41							

Projected Residential Wastewater Rates

	Current	2019	2020	2021	2022	2023
Demand Charge	\$ 10.44	\$ 11.17	\$11.95	\$12.79	\$12.92	\$13.05
Volumetric Rates						
0 - 12,000	\$ 5.82	\$ 6.23	\$6.67	\$7.14	\$7.21	\$7.28
12,001 +	0.00	0.00	0.00	0.00	0.00	0.00

Note: Max Residential Sewer Bill is \$80.34 or 12,000 gallons.

Example Winter Avg. Wastewater Bill

	Example
December Usage	6,000 Gallons
January Usage	4,500 Gallons
February Usage	5,700 Gallons
Winter Average Usage	5,400 Gallons
Minimum Bill	\$10.44
Volumetric Rate per k/gal	\$5.82
x Winter Avg Usage (k/gals)	5.4
Volumetric Revenue	\$31.43
Total Bill	\$41.87

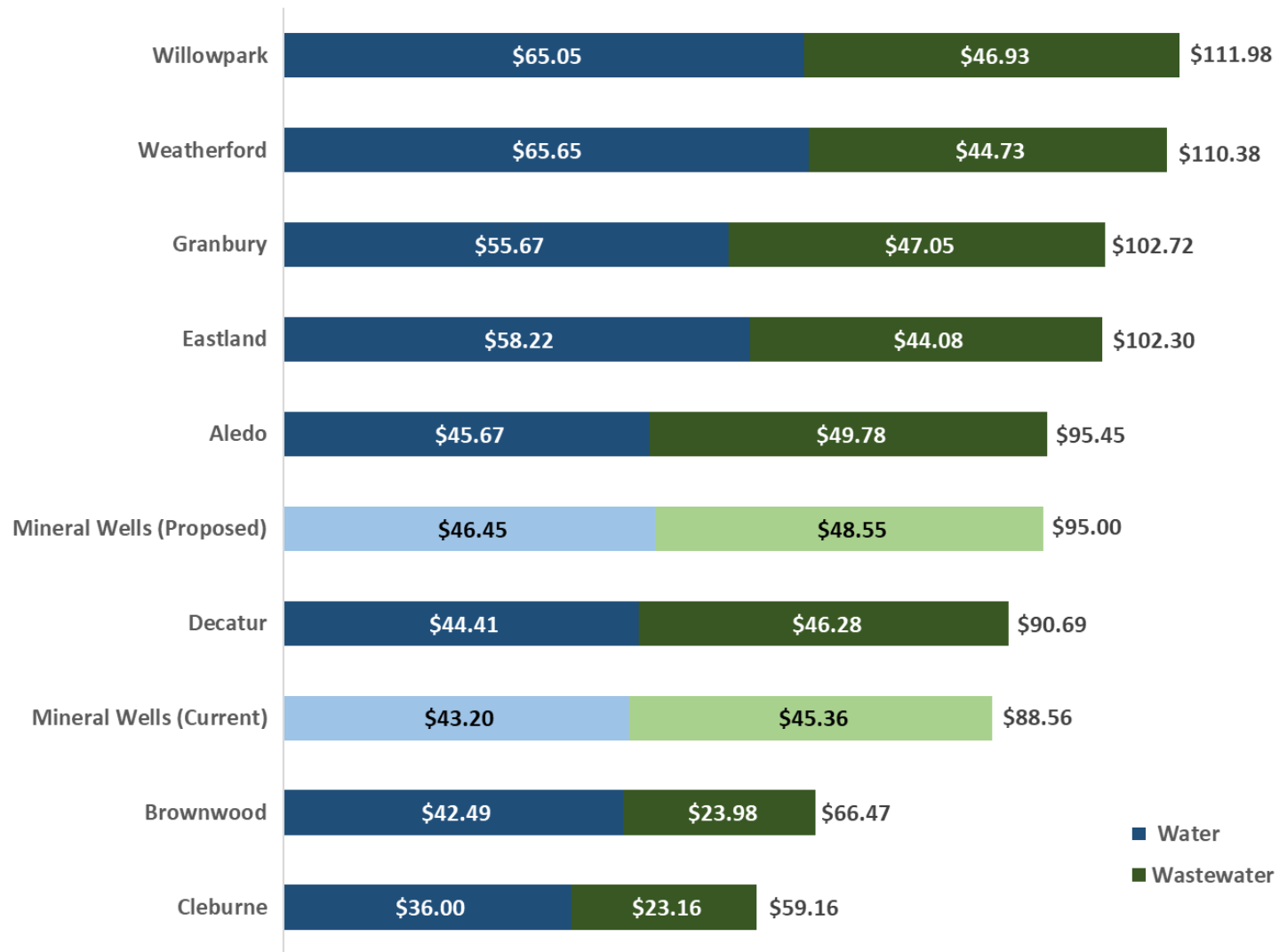
Monthly Customer Wastewater Bill

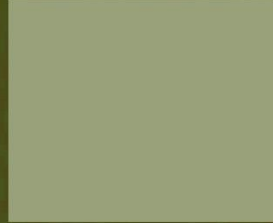
	Current	2019	2020	2021	2022	2023
2,000 Gallons	\$ 22.08	\$ 23.63	\$ 25.29	\$ 27.07	\$ 27.34	\$ 27.61
Year over year change	-	1.55	1.66	1.78	0.27	0.27
6,000 Gallons	\$ 45.36	\$ 48.55	\$ 51.97	\$ 55.63	\$ 56.18	\$ 56.73
Year over year change		3.19	3.42	3.66	0.55	0.55

Monthly Customer Total Bill – (¾”)

	Current	2019	2020	2021	2022	2023
<u>2,000 Gallons</u>						
Existing Structure	\$ 47.26	\$ 51.33	\$ 55.76	\$ 60.59	\$ 61.28	\$ 61.97
Year over year change		4.07	4.43	4.83	0.69	0.69
Proposed Structure	\$ 47.26	\$ 50.81	\$ 55.13	\$ 59.61	\$ 61.88	\$ 64.15
Year over year change		3.55	4.32	4.48	2.27	2.27
<u>6,000 Gallons</u>						
Existing Structure	\$ 88.56	\$ 96.08	\$ 104.25	\$ 113.15	\$ 114.41	\$ 115.69
Year over year change		7.52	8.17	8.90	1.26	1.28
Proposed Structure	\$ 88.56	\$ 95.00	\$ 102.61	\$ 110.57	\$ 113.12	\$ 115.67
Year over year change		6.44	7.61	7.96	2.55	2.55

Regional Comparison - Average Residential $\frac{3}{4}$ " Customer Bill (6,000 gallons)





Questions and Discussion

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