

**City of Lake City
Water, Wastewater &
Reclaimed Rate Study
City Council Workshop
November 2, 2009**

Rate Study Goals

- **Implement conservation water rates (Water Management District).**
- **Develop a reclaimed water user rate.**
- **Achieve revenue sufficiency for water, wastewater and reclaimed water service.**
- **Develop strategy to fund 3-year CIP**
- **Maintain compliance with Bond Covenant requirements.**

User Rate Review Components

- **Rate Structure**

- How the revenues are recovered from users.
- Structure issues include:
 - Conservation blocks
 - Availability Charge Policy
 - Base charge vs. usage (per gallon) charge
 - Relationship between customer classes
 - Base charge meter ratios
 - Senior Citizen Discount

User Rate Review Components (cont.)

- **Rate Revenues**

- How much revenue is generated from rates.
- Revenue Issues include:
 - Operation and Maintenance Costs
 - Capital Projects Funding
 - Bond Covenant Requirements

- **Both Components are addressed as part of the Rate Study.**

Availability Charges

- **Charged on all customer connections whether active or not**
- **Recommendations:**
 - Rename availability charge for active customers to Base Charge
 - Discontinue charging the service availability charge to inactive customers
- **Revenue Impact of discontinuing Service Availability Charge is approx. \$210k to \$420k**

Current Water Rates

Water Rates	Residential ⁽¹⁾	MM Multi-Family	Commercial ⁽²⁾
Monthly Base Charge (includes 3,0000 gals)			
5/8" x 3/4"	\$16.81	\$16.81	\$16.81
1"	\$16.81	\$16.81	\$33.42
1.5"	\$16.81	\$16.81	\$61.61
2"	\$16.81	\$16.81	\$95.44
3"	\$16.81	\$16.81	\$174.36
4"	\$16.81	\$16.81	\$287.11
6"	\$16.81	\$16.81	\$568.99
8"	\$16.81	\$16.81	\$907.24
Volumetric Charge (per 1,000 gals)	\$2.35	\$2.35	\$2.35

(1) Senior Citizens receive 11.11% discount on rates

(2) Irrigation water rates are same as Commercial water rates

Water Rate Issues

- **Encouragement of conservation.**
- **Capital Improvement Program.**
 - Pay-as-you go financed
 - Debt financed
- **Base Charges for larger meters.**
- **Revenue Sufficiency.**

Inclining Block Rate Structure

- **Designed to promote water conservation by providing price signals that prompt customers to use water efficiently.**
- **Amount paid per unit of consumption increases when larger amounts of water are consumed**
- **Example:**
 - Block 1 (0 - 5,000): \$1.00 per 1,000 gallons
 - Block 2 (5,001 - 10,000): \$2.00 per 1,000 gallons
 - Block 3 (10,001 – 15,000): \$3.00 per 1,000 gallons
 - Block 4 (15,000 +): \$4.00 per 1,000 gallons

Water Capital Improvement Program

Water 3-year CIP	
12" Water Main	\$ 420,000
Fire Hydrant Upgrade/replacement	\$ 150,000
Edgley Estates 12" loop	\$ 90,000
12" Direction Bore for 20" radial main	\$ 150,000
12" water main connector radial CR252B to SE Real Rd	\$ 250,000
Carolyn Heights system upgrades	\$ 200,000
12" main extension from Hunter Panel west to CR245	\$ 200,000
Two 12" lines under CSX RR	\$ 500,000
12" main extension from SE Race Track Rd to CHS HS	\$ 250,000
Total Water 3-year CIP	\$ 2,210,000

Water Revenue Requirements

	Debt Financed CIP	Pay-as-you-go CIP
O&M Expenses	\$3,888,871	\$3,888,871
Availability Charge Policy Cost	\$136,300	\$136,300
Existing Debt Service	\$1,427,110	\$1,427,110
Proposed Debt Service	\$153,913	\$0
Pay-as-you-go Capital	\$195,105	\$736,667
Non-Operating Expenses	<u>\$99,958</u>	<u>\$99,958</u>
Total Expenses	\$5,900,867	\$6,288,516
Miscellaneous Revenues	<u>\$381,553</u>	<u>\$381,553</u>
Net Revenue Requirements	\$5,519,314	\$5,906,963

Proposed Water Rate Changes

- **Reduce base charges & eliminate the 3,000 gallon inclusion.**
- **Adopt 4 conservation blocks**
- **Conservation blocks to change with meter size.**
- **Update meter size ratios to match those published by AWWA.**

Water Meter Size Ratios

Meter Size	Current Ratios – Multi Family	Current Ratios - Commercial	AWWA Ratios
5/8" x 3/4"	1.00	1.00	1.00
1"	1.00	1.99	2.50
1.5"	1.00	3.66	5.00
2"	1.00	5.68	8.00
3"	1.00	10.37	16.00
4"	1.00	17.08	25.00
6"	1.00	33.84	50.00
8"	1.00	53.96	80.00

Proposed Residential Water Rates

Pay-as-you-go Financed CIP

Water Rates	Existing	Proposed ⁽¹⁾	\$ Difference	% Difference
Monthly Base Charge	\$16.81	\$14.54	-\$2.27	-13.52%
Volumetric Charges				
Block 1 (0 – 5,000)	\$2.35	\$1.87	-\$0.48	-20.26%
Block 2 (5,001 – 10,000)	\$2.35	\$2.81	\$0.46	19.60%
Block 3 (10,001 – 15,000)	\$2.35	\$3.74	\$1.40	59.47%
Block 4 (15,000 +)	\$2.35	\$4.68	\$2.33	99.34%
(1) Proposed Base Charges do not include 3,000 gallons (2) Senior Citizens receive 11.11% discount on rates (3) Outside City customers pay 25% surcharge to all rates				

Proposed Master Metered Multi-Family Water Rates

Pay-as-you-go Financed CIP

Water Rates	Existing	Proposed	\$ Difference	% Difference
Monthly Base Charge				
5/8" x 3/4"	\$16.81	\$14.54	-\$2.27	-13.52%
1"	\$16.81	\$36.35	\$19.54	116.20%
1.5"	\$16.81	\$72.70	\$55.89	332.40%
2"	\$16.81	\$116.32	\$99.51	591.84%
3"	\$16.81	\$232.64	\$215.83	1283.68%
4"	\$16.81	\$363.50	\$346.69	2062.00%
6"	\$16.81	\$727.00	\$710.19	4224.01%
8"	\$16.81	\$1,163.20	\$1,146.39	6818.41%
Volumetric Charges				
Block 1	\$2.35	\$1.87	-\$0.48	-20.26%
Block 2	\$2.35	\$2.81	\$0.46	19.60%
Block 3	\$2.35	\$3.74	\$1.40	59.47%
Block 4	\$2.35	\$4.68	\$2.33	99.34%

Proposed Commercial Water Rates

Pay-as-you-go Financed CIP

Water Rates	Existing	Proposed	\$ Difference	% Difference
Monthly Base Charge				
5/8" x 3/4"	\$16.81	\$14.54	-\$2.27	-13.52%
1"	\$33.42	\$36.35	\$2.93	8.75%
1.5"	\$61.61	\$72.70	\$11.09	18.00%
2"	\$95.44	\$116.32	\$20.88	21.88%
3"	\$174.36	\$232.64	\$58.28	33.42%
4"	\$287.11	\$363.50	\$76.39	26.61%
6"	\$568.99	\$727.00	\$158.01	27.77%
8"	\$907.24	\$1,163.20	\$255.96	28.21%
Volumetric Charges				
Block 1	\$2.35	\$1.87	-\$0.48	-20.26%
Block 2	\$2.35	\$2.81	\$0.46	19.60%
Block 3	\$2.35	\$3.74	\$1.40	59.47%
Block 4	\$2.35	\$4.68	\$2.33	99.34%
(1) Irrigation water rates are same as Commercial water rates (2) Outside City customers pay 25% surcharge to all rates				

Proposed Water Consumption Blocks

Meter Size	Block 1	Block 2	Block 3	Block 4
5/8" x 3/4"	5,000	10,000	15,000	15,000 +
1"	12,500	25,000	37,500	37,500 +
1.5"	25,000	50,000	75,000	75,000 +
2"	40,000	80,000	120,000	120,000 +
3"	80,000	160,000	240,000	240,000 +
4"	125,000	250,000	375,000	375,000 +
6"	250,000	500,000	750,000	750,000 +
8"	400,000	800,000	1,200,000	1,200,000 +

Proposed Water Rates

Comparison of funding CIP funding options

Water Rates	Existing	Proposed	\$ Difference	% Difference
Volumetric Charges – Pay-as-you-go Financed CIP				
Block 1	\$2.35	\$1.87	-\$0.48	-20.26%
Block 2	\$2.35	\$2.81	\$0.46	19.60%
Block 3	\$2.35	\$3.74	\$1.40	59.47%
Block 4	\$2.35	\$4.68	\$2.33	99.34%

Volumetric Charges – Debt CIP				
Block 1	\$2.35	\$1.68	-\$0.67	-28.53%
Block 2	\$2.35	\$2.52	\$0.17	7.21%
Block 3	\$2.35	\$3.36	\$1.01	42.95%
Block 4	\$2.35	\$4.20	\$1.85	78.68%

Projected Water Rates

Pay-as-you-go Financed CIP

Water Rates	Existing	2009/10	2010/11	2011/12	2012/13	2013/14
Base Charge (per ERU)	\$16.81	\$14.54	\$14.76	\$14.98	\$15.20	\$15.43
Volumetric Charges						
Block 1	\$2.35	\$1.87	\$1.90	\$1.93	\$1.96	\$1.99
Block 2	\$2.35	\$2.81	\$2.85	\$2.89	\$2.93	\$2.97
Block 3	\$2.35	\$3.74	\$3.80	\$3.86	\$3.92	\$3.98
Block 4	\$2.35	\$4.68	\$4.75	\$4.82	\$4.89	\$4.96
Annual Rate Increase:			1.5%	1.5%	1.5%	1.5%

Current Wastewater Rates

Wastewater Rates	Residential ⁽¹⁾	MM Multi-Family	Commercial
Monthly Base Charge			
5/8" x 3/4"	\$31.73	\$27.56	\$40.10
1"	\$31.73	\$27.56	\$94.51
1.5"	\$31.73	\$27.56	\$185.20
2"	\$31.73	\$27.56	\$293.99
3"	\$31.73	\$27.56	\$547.88
4"	\$31.73	\$27.56	\$910.65
6"	\$31.73	\$27.56	\$1,817.47
8"	\$31.73	\$27.56	\$2,905.44
Volumetric Charge (per 1,000 gals)	\$1.83	\$1.83	<div>Class I \$1.83</div> <div>Class II \$2.11</div> <div>Class III \$2.38</div>

(1) Residential Users Capped at 16,000 gallons monthly
 (2) Outside City customers pay 25% surcharge to all rates

Wastewater Rate Issues

- **Funding Capital Improvement Program.**
- **Base Charges for larger meters.**
- **Variance between Customer Classes**
- **Revenue Sufficiency.**

Wastewater Capital Improvement Program

Wastewater 3-year CIP	
St. Margaret's Reuse Facility	\$ 1,400,000
Reuse Water Distribution System	\$ 1,000,000
1.5 MGD Wastewater Facility	\$ 17,000,000
Total Wastewater 3-year CIP	\$ 19,400,000

Wastewater Revenue Requirements

O&M Expenses	\$3,149,205
Availability Charge Policy Cost	\$285,161
Existing Debt Service	\$846,243
Proposed Debt Service	\$1,351,000
Non-Operating Expenses	<u>\$325,694</u>
Total Expenses	\$5,957,303
Miscellaneous Revenues	<u>\$273,222</u>
Net Revenue Requirements	\$5,684,081

Proposed Wastewater Rate Changes

- **Consistent base charges for all user classes.**
- **Update meter size ratios to match those published by AWWA.**
- **Phase in approach to increase**

Wastewater Meter Size Ratios

Meter Size	Current Ratios – Multi Family	Current Ratios - Commercial	AWWA Ratios
5/8" x 3/4"	1.00	1.00	1.00
1"	1.00	2.36	2.50
1.5"	1.00	4.62	5.00
2"	1.00	7.33	8.00
3"	1.00	13.66	16.00
4"	1.00	22.71	25.00
6"	1.00	45.33	50.00
8"	1.00	72.46	80.00

Calculated Residential Wastewater Rates

Water Rates	Existing	Proposed	\$ Difference	% Difference
Monthly Base Charge	\$31.73	\$30.42	-\$1.31	-4.13%
Volumetric Charge	\$1.83	\$3.84	\$2.01	109.77%
(1) Residential Users Capped at 16,000 gallons monthly (2) Outside City customers pay 25% surcharge to all rates				

Calculated Master Metered Multi-Family Wastewater Rates

Water Rates	Existing	Proposed	\$ Difference	% Difference
Monthly Base Charge				
5/8" x 3/4"	\$27.56	\$30.42	\$2.86	10.37%
1"	\$27.56	\$76.05	\$48.49	175.92%
1.5"	\$27.56	\$152.10	\$124.54	451.84%
2"	\$27.56	\$243.36	\$215.80	782.94%
3"	\$27.56	\$486.72	\$459.16	1665.88%
4"	\$27.56	\$760.50	\$732.94	2659.18%
6"	\$27.56	\$1,521.00	\$1,493.44	5418.37%
8"	\$27.56	\$2,433.60	\$2,406.04	8729.39%
Volumetric Charge	\$1.83	\$3.84	\$2.01	109.77%

Calculated Commercial Wastewater Rates

Water Rates	Existing	Proposed	\$ Difference	% Difference
Monthly Base Charge				
5/8" x 3/4"	\$40.10	\$30.42	-\$9.68	-24.14%
1"	\$94.51	\$76.05	-\$18.46	-19.53%
1.5"	\$185.20	\$152.10	-\$33.10	-17.87%
2"	\$293.99	\$243.36	-\$50.63	-17.22%
3"	\$547.88	\$486.72	-\$61.16	-11.16%
4"	\$910.65	\$760.50	-\$150.15	-16.49%
6"	\$1,817.47	\$1,521.00	-\$296.47	-16.31%
8"	\$2,905.44	\$2,433.60	-\$471.84	-16.24%
Volumetric Charges				
Class I	\$1.83	\$3.84	\$2.01	109.77%
Class II	\$2.11	\$4.42	\$2.31	109.77%
Class III	\$2.38	\$5.00	\$2.61	109.77%
(1) Outside City customers pay 25% surcharge to all rates				

Proposed Wastewater Rate Phase In

Wastewater Rates	Existing	2009/10	2010/11	2011/12	2012/13	2013/14
Base Charge (per ERU)	\$31.73	\$30.42	\$30.88	\$31.34	\$31.81	\$32.29
Volumetric Charges						
Residential	\$1.83	\$2.54	\$3.25	\$3.96	\$4.02	\$4.08
MM Multi-Family	\$1.83	\$2.54	\$3.25	\$3.96	\$4.02	\$4.08
Commercial I	\$1.83	\$2.54	\$3.25	\$3.96	\$4.02	\$4.08
Commercial II	\$2.11	\$2.92	\$3.74	\$4.56	\$4.63	\$4.69
Commercial III	\$2.38	\$3.31	\$4.23	\$5.15	\$5.23	\$5.31
Annual Change:						
Base Charge		-4.1%	1.5%	1.5%	1.5%	1.5%
Volumetric		38.8%	27.9%	21.8%	1.5%	1.5%

Reclaimed Rate

- **System under construction in 2010**
- **No existing user rates**
- **One user under contract but not yet receiving reclaimed water**
 - Expected to use 250,000 gallons per day
- **Estimated revenue requirement**
 - FY 2009/10: \$57,457
- **Single Volumetric Rate: \$0.63 per 1,000 gallons**

Availability Charges

- Rates presented reflect a conservative revenue impact of approx. \$420,000.
- Less conservative alternative considers 50% or \$210,000.
- This would reduce proposed rates and customer bills by:
 - Water: 1.89%
 - Wastewater: 5.12%

Typical Monthly Bill Comparison

Residential Water

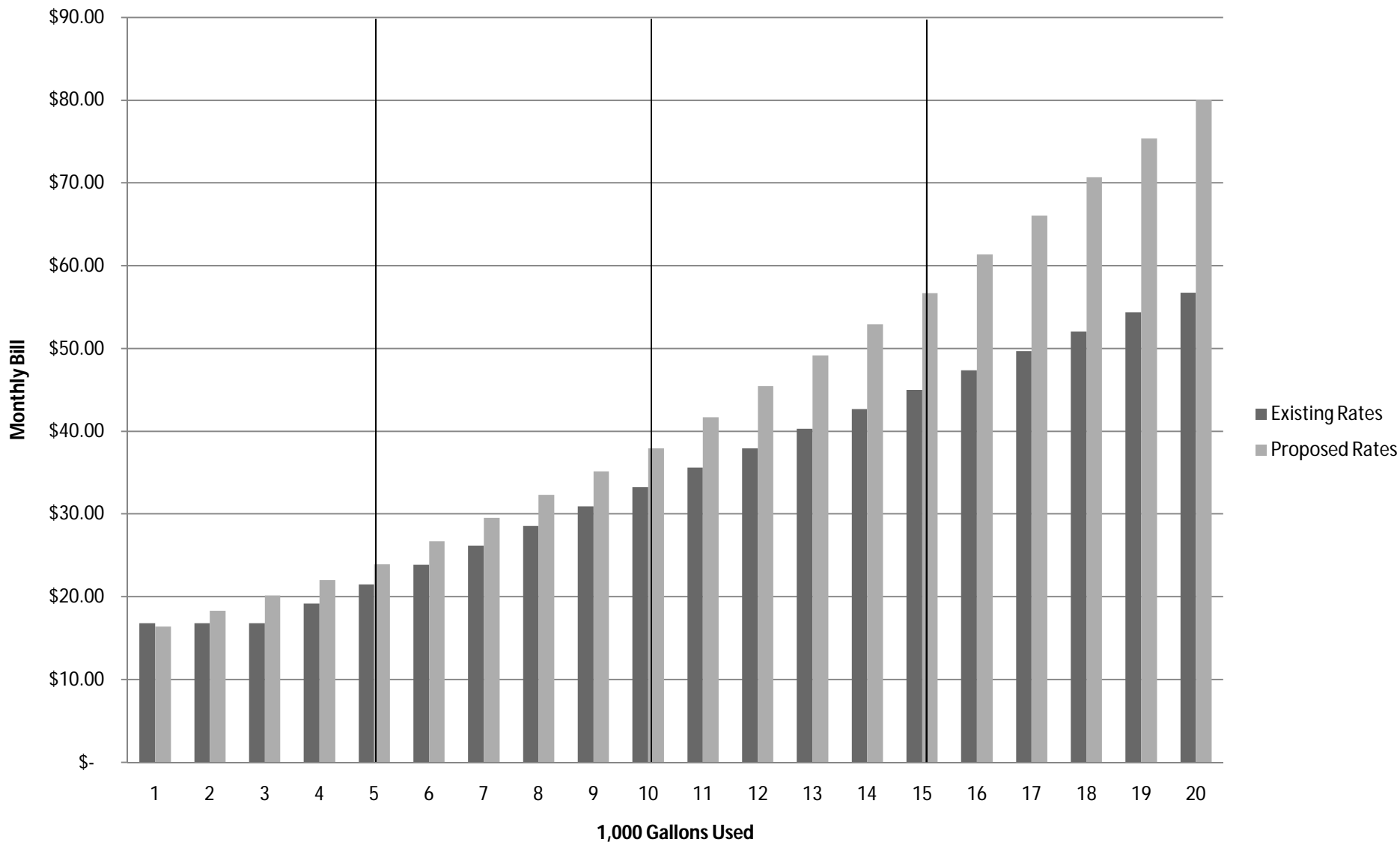
Pay-as-you-go Financed CIP

Monthly Charges			Difference	
Flows (gallons)	Existing Bill	Proposed Bill	% Change	\$ Change
1000	\$16.81	\$16.41	-2.38%	-\$0.40
2000	\$16.81	\$18.28	8.75%	\$1.47
3000	\$16.81	\$20.16	19.89%	\$3.34
4000	\$19.16	\$22.03	14.97%	\$2.87
<u>5000</u>	<u>\$21.51</u>	<u>\$23.90</u>	<u>11.12%</u>	<u>\$2.39</u>
8000	\$28.55	\$32.33	13.21%	\$3.77
10000	\$33.25	\$37.95	14.12%	\$4.69
12000	\$37.95	\$45.44	19.73%	\$7.49
14000	\$42.64	\$52.92	24.11%	\$10.28
16000	\$47.34	\$61.35	29.59%	\$14.01
18000	\$52.04	\$70.71	35.89%	\$18.68
20000	\$56.73	\$80.07	41.14%	\$23.34
25000	\$68.48	\$103.48	51.12%	\$35.00
35000	\$91.96	\$150.29	63.43%	\$58.33
45000	\$115.44	\$197.10	70.74%	\$81.66

Typical Monthly Bill Comparison

Residential Water

Pay-as-you-go Financed CIP



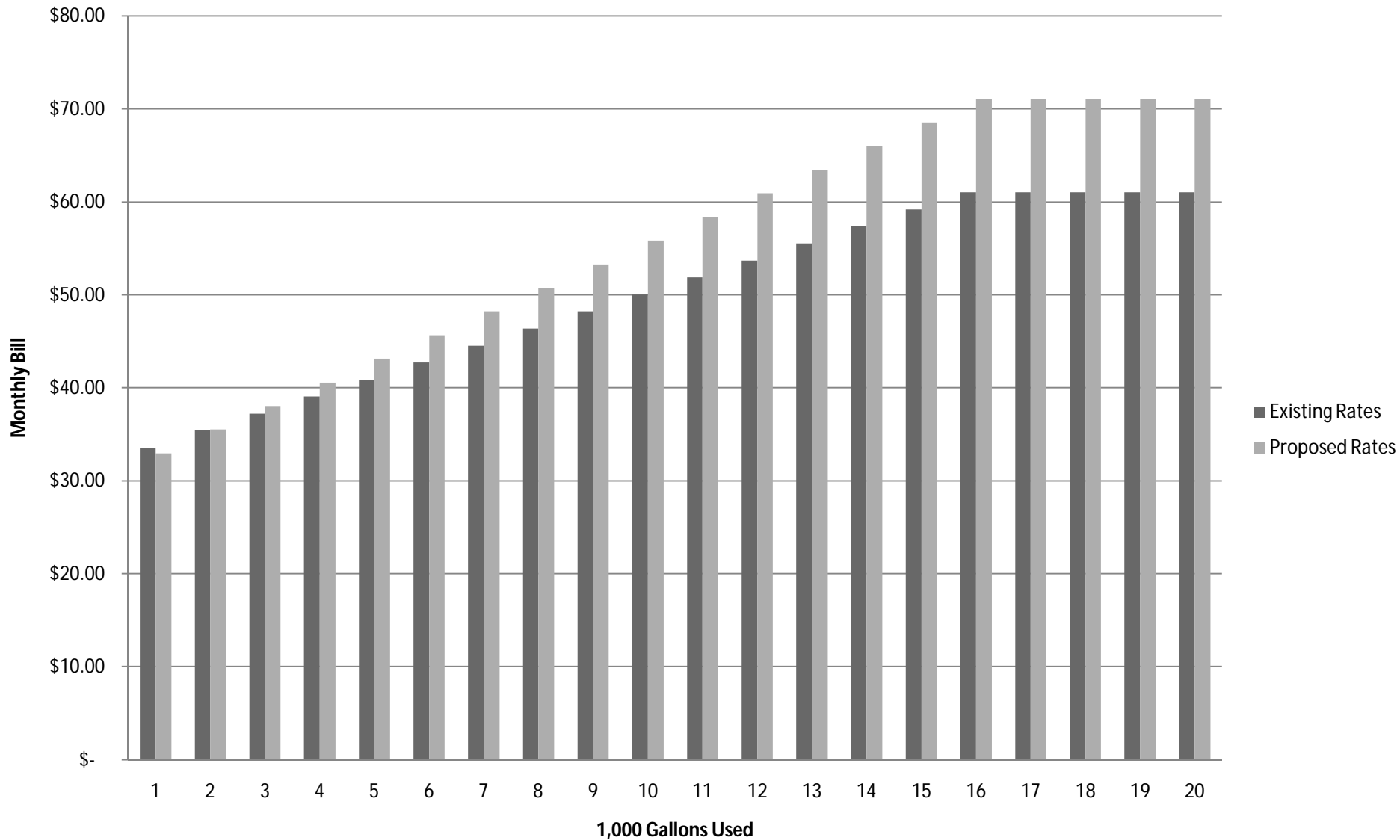
Typical Monthly Bill Comparison

Residential Wastewater

Monthly Charges			Difference	
Flows (gallons)	Existing Bill	Proposed Bill	% Change	\$ Change
1000	\$33.56	\$32.96	-1.79%	-\$0.60
2000	\$35.39	\$35.50	0.31%	\$0.11
3000	\$37.22	\$38.04	2.20%	\$0.82
4000	\$39.05	\$40.58	3.92%	\$1.53
<u>5000</u>	<u>\$40.88</u>	<u>\$43.12</u>	<u>5.48%</u>	<u>\$2.24</u>
8000	\$46.37	\$50.74	9.42%	\$4.37
10000	\$50.03	\$55.82	11.57%	\$5.79
12000	\$53.69	\$60.90	13.43%	\$7.21
14000	\$57.35	\$65.98	15.05%	\$8.63
16000	\$61.01	\$71.06	16.47%	\$10.05
18000	\$61.01	\$71.06	16.47%	\$10.05
20000	\$61.01	\$71.06	16.47%	\$10.05
25000	\$61.01	\$71.06	16.47%	\$10.05
35000	\$61.01	\$71.06	16.47%	\$10.05
45000	\$61.01	\$71.06	16.47%	\$10.05

Typical Monthly Bill Comparison

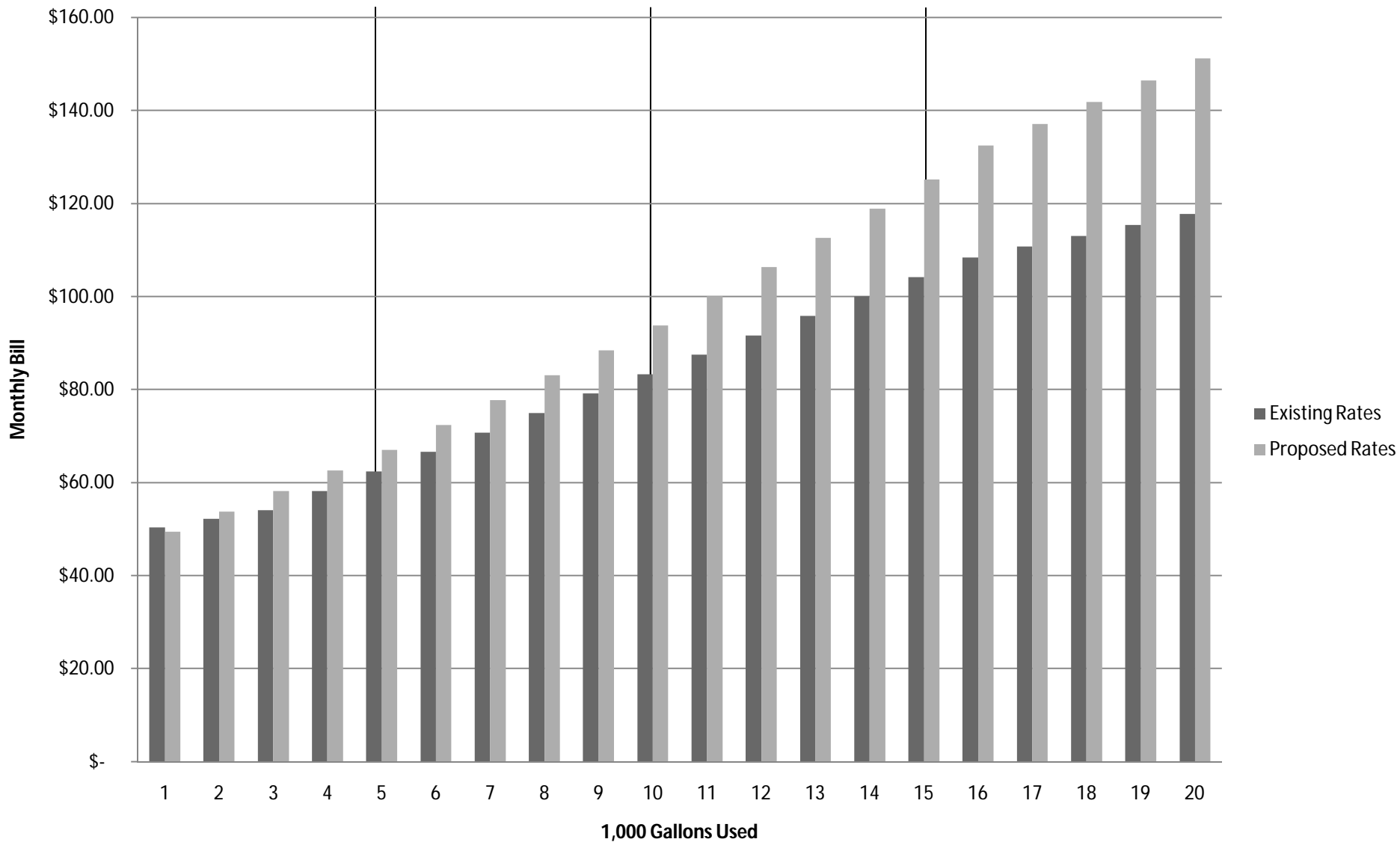
Residential Wastewater



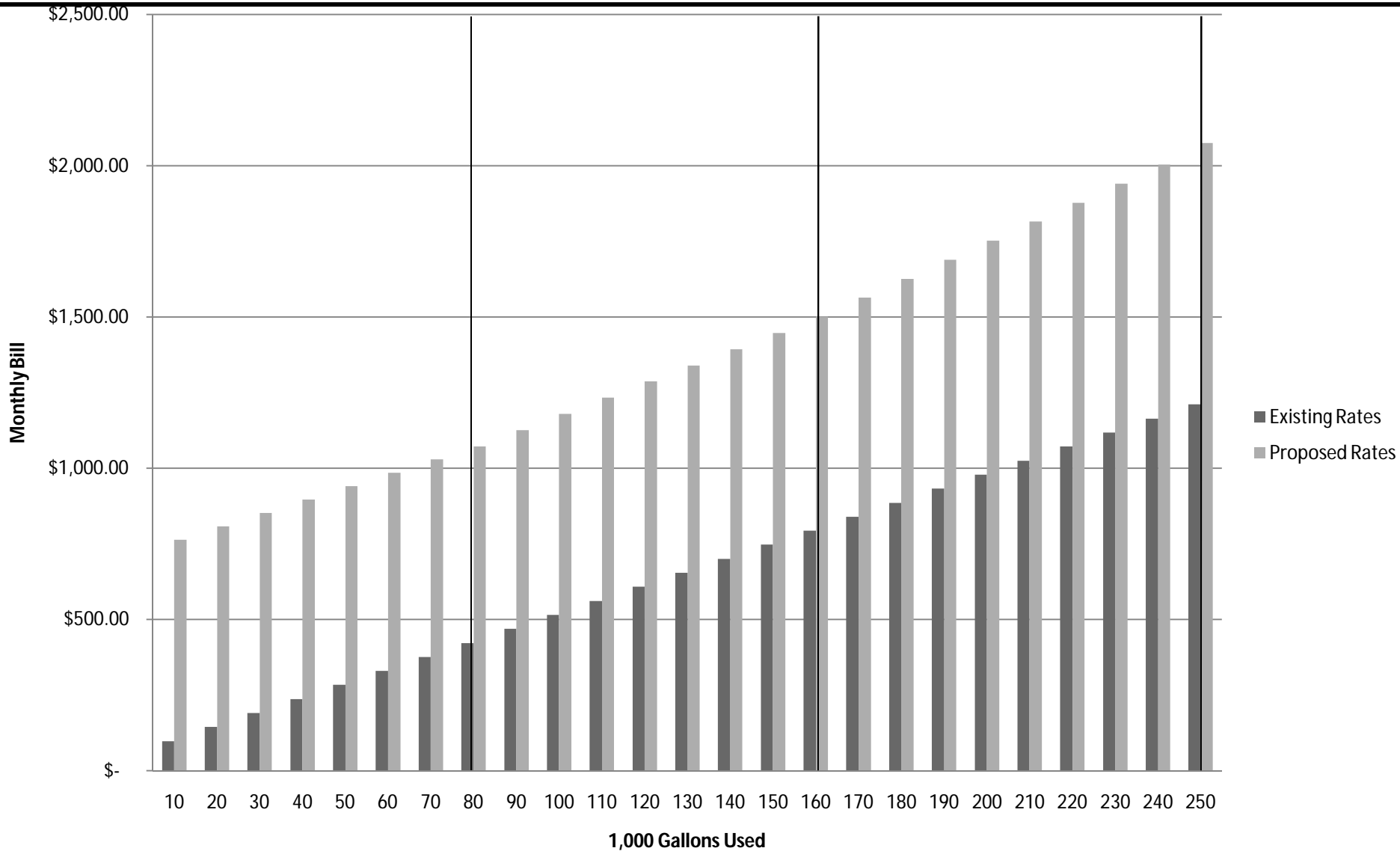
Typical Monthly Bill Comparison Residential Combined Water & Wastewater Pay-as-you-go Financed CIP

Monthly Charges			Difference	
Flows (gallons)	Existing Bill	Proposed Bill	% Change	\$ Change
1000	\$50.37	\$49.37	-1.99%	-\$1.00
2000	\$52.20	\$53.79	3.03%	\$1.58
3000	\$54.03	\$58.20	7.71%	\$4.16
4000	\$58.21	\$62.61	7.56%	\$4.40
<u>5000</u>	<u>\$62.39</u>	<u>\$67.02</u>	<u>7.42%</u>	<u>\$4.63</u>
8000	\$74.93	\$83.07	10.87%	\$8.14
10000	\$83.28	\$93.77	12.59%	\$10.48
12000	\$91.64	\$106.34	16.04%	\$14.70
14000	\$100.00	\$118.91	18.91%	\$18.91
16000	\$108.35	\$132.41	22.20%	\$24.06
18000	\$113.05	\$141.77	25.41%	\$28.72
20000	\$117.75	\$151.14	28.36%	\$33.39
25000	\$129.49	\$174.54	34.79%	\$45.05
35000	\$152.97	\$221.35	79.90%	\$68.38
45000	\$176.45	\$268.16	87.21%	\$91.71

Typical Monthly Bill Comparison Residential Combined Water & Wastewater

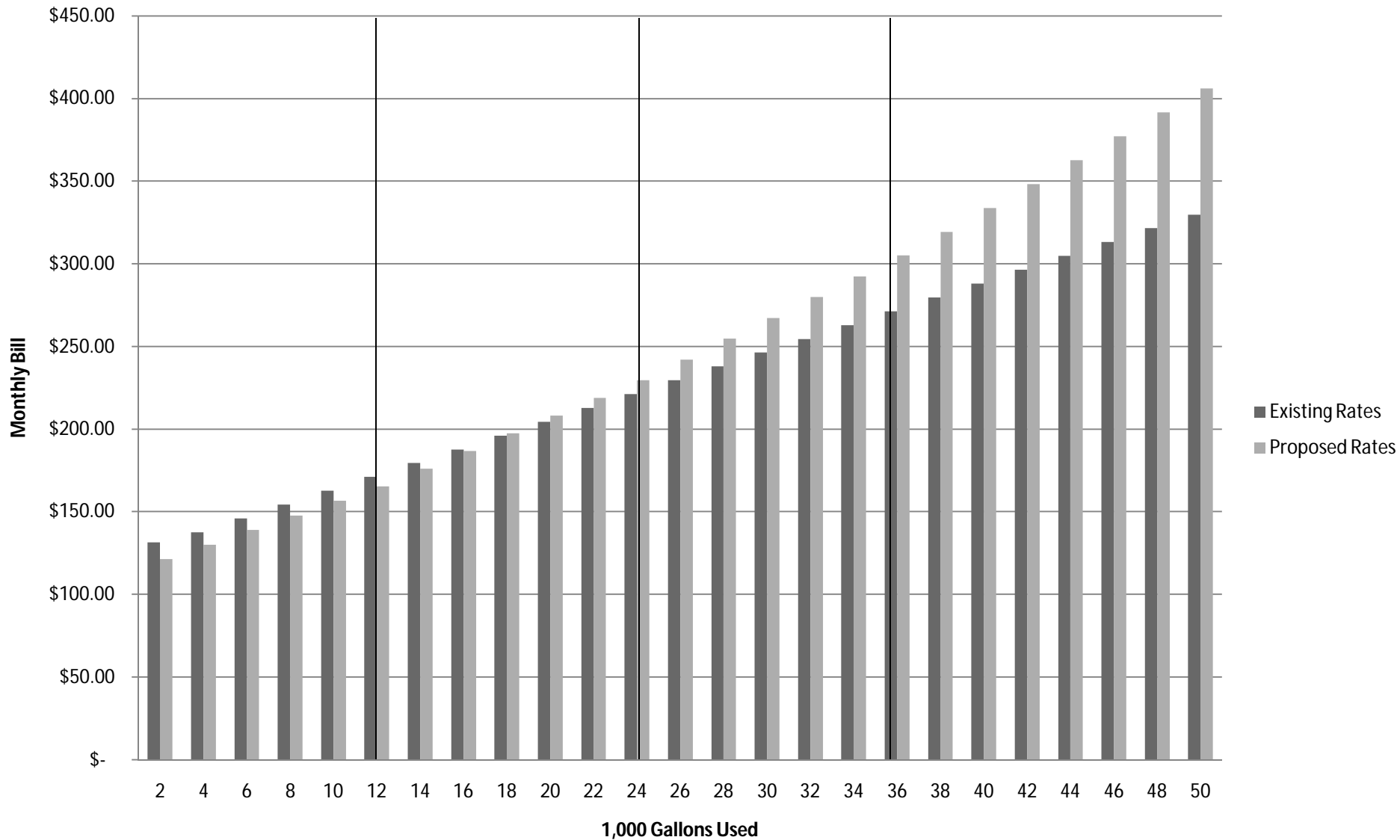


Master Metered Multi Family – 3” meter Combined Water & Wastewater



Commercial – 1" meter

Combined Water & Wastewater



Typical Bill Comparison with Neighboring Utilities

5/8" – 3/4" Meter with 5,000 gal. Monthly usage

Utility	Water	Wastewater	Combined
Lake City			
Existing	\$ 21.51	\$ 40.88	\$ 62.39
Proposed	\$ 23.90	\$ 43.12	\$ 67.02
Palatka	\$ 12.74	\$ 18.19	\$ 30.93
GRU	\$ 14.95	\$ 30.70	\$ 45.65
JEA	\$ 15.73	\$ 32.04	\$ 47.77
Ocala	\$ 16.47	\$ 43.13	\$ 59.60
Marion County	\$ 17.54	\$ 43.36	\$ 60.90
Lake City Proposed	\$ 23.90	\$ 43.12	\$ 67.02
Live Oak	\$ 35.06	\$ 48.14	\$ 83.20
High Springs	\$ 17.21	\$ 67.55	\$ 84.76
Clay County	\$ 31.77	\$ 68.27	\$ 100.04
Survey Average	\$ 20.60	\$ 43.83	\$ 64.43
Survey High	\$ 35.06	\$ 68.27	\$ 100.04

Combined System Financial Performance

	2009/10	2010/11	2011/12	2012/13	2013/14
Rate Revenue	\$10,669,657	\$11,410,295	\$12,204,485	\$12,509,591	\$12,821,924
Other Revenue ⁽¹⁾	\$654,775	\$657,591	\$663,340	\$669,162	\$675,056
Total Revenues	\$11,324,432	\$12,067,886	\$12,867,825	\$13,178,753	\$13,496,980
O&M Expenses	\$7,511,629	\$7,579,759	\$7,822,323	\$7,990,512	\$8,163,107
Net Revenues	\$3,812,803	\$4,488,127	\$5,045,502	\$5,188,241	\$5,333,873
Existing Debt Service	\$2,273,354	\$2,271,479	\$2,267,189	\$2,275,791	\$2,276,291
Proposed Debt Service	\$0	\$675,500	\$1,351,000	\$1,351,000	\$1,351,000
Non-Operating Expenses	\$1,167,294	\$1,168,068	\$1,168,854	\$1,169,651	\$1,170,460
Net Balance	\$372,155	\$373,080	\$258,459	\$391,799	\$536,122
Debt Coverage Achieved	1.68	1.52	1.39	1.43	1.47
Debt Coverage Required	1.10	1.10	1.10	1.10	1.10
(1) Impact Fee revenues not included					

Recommendations

- 1. Accept the new user rates as presented.**
 - Water rates (slides 12-15)
 - Wastewater rates (slides 23-25)
 - Reclaimed rates (slide 27)
- 2. Schedule hearings for Ordinance change**
- 3. Notice customers of proposed rate increase.**

**City of Lake City
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