



JACKSON THORNTON

# **City of Franklin, TN**

## **Cost of Service Study**

12-Months Ending June 2011 ProForma



# Typical Objectives of Rate Study



1. Revenue Stability and Sufficiency
2. Fairness and Equity
  - Fair is related to cross subsidies
  - Equity is related to  $\text{Price}=\text{Cost}$
3. Ability to Pay
4. Simplicity (Admin & Cust Understanding)
5. Legally Defendable



# Overview of Process

1. Determine Revenue Requirements
  - How much does the system need to make?
2. Develop Revenue Requirements by Rate Class
  - How much do I need to make by rate class?
3. Develop COS Rates and Design Acceptable Rates
  - How do I best recover the needed revenues?
4. Implement Rate Changes

# Water Cost of Service

Test Year 12-Months Ending  
June 2011 ProForma



# Cash Method – Water Revenue Requirement

Total

## TOTAL REV. REQ.

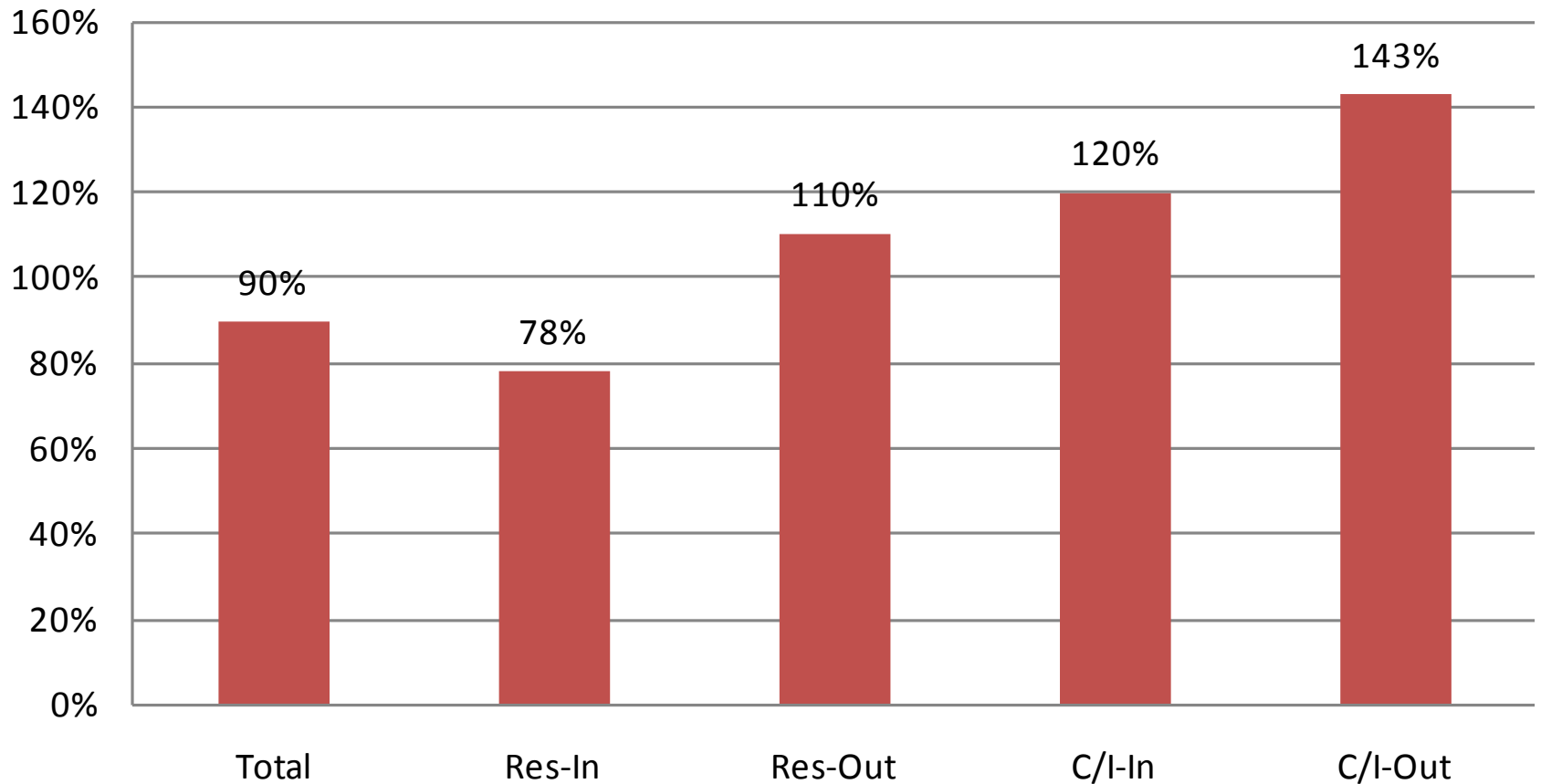
Operations & Maintenance Expense	\$ 7,561,711
Plus: Taxes & PILOT	\$ 81,403
Plus: Debt Service	\$ 410,587
Plus: Rate Funded Capital	\$ 1,100,000
Total Revenue Requirement	<u>\$ 9,153,701</u>
Less: Other Revenue	<u>\$ 492,172</u>
Rate Requirement	<u>\$ 8,661,529</u>



# Recovery by Class



## Recovery by Rate Class





## Results & Options - Water



- Based on the 12-months ending June 2011, the City is projected to under-recover by approximately \$954,000
- As discussed at the meeting held on September 28<sup>th</sup>, in taking a measured 5 Year Approach, 4% annual rate increases should be enough to achieve revenue sufficiency for the water system. A 4% increase this year is approximately \$308,000.





# Water Availability Charge - Breakdown

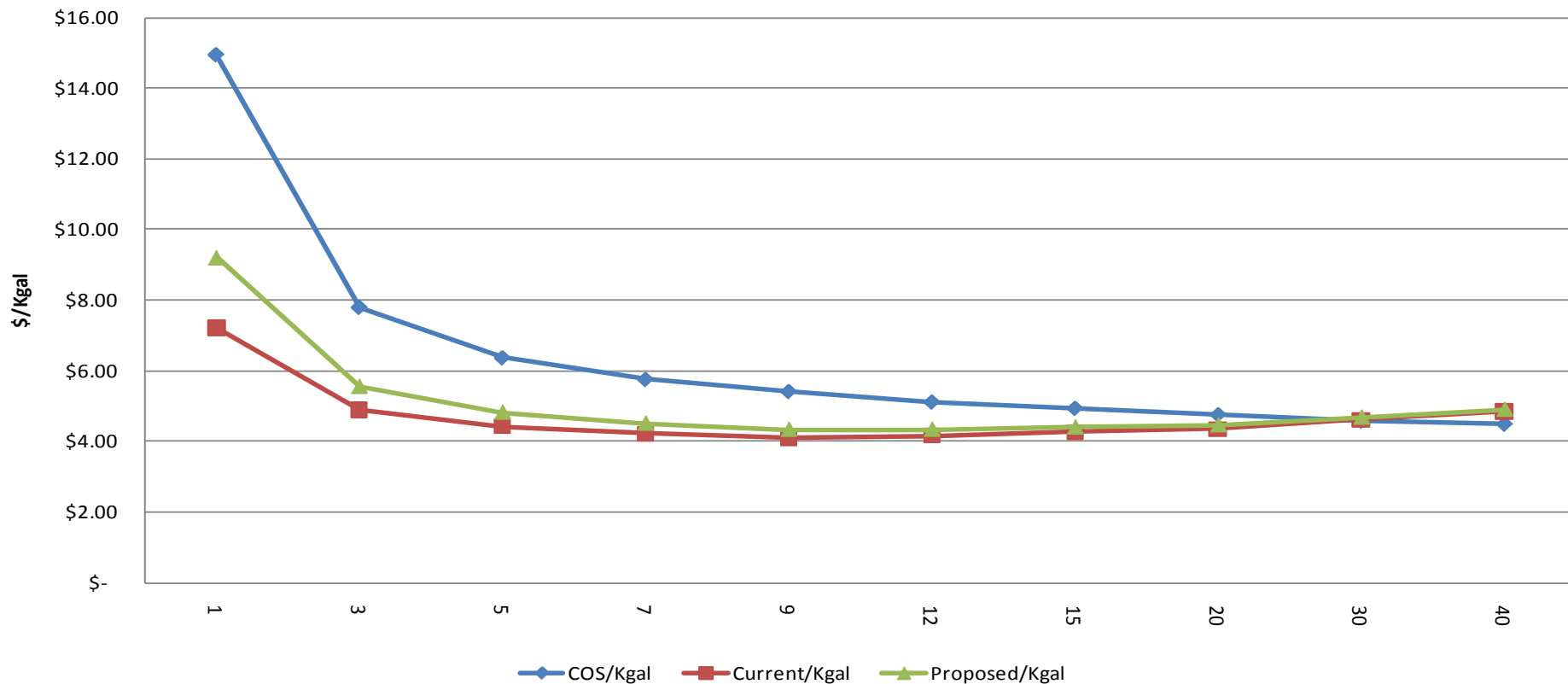


Availability Charge Revenue Requirement	2011	Funding Percentage
Operations & Maintenance Expense	\$ 2,176,924	82.1%
Plus: Debt Service	\$ 410,587	15.5%
Plus: Rate Funded Capital	\$ 63,471	2.4%
Plus: Reserve (for future years)	\$ -	0.0%
Total Revenue Requirement	<u>\$ 2,650,982</u>	<u>100%</u>

# Water Rate Change – Option 1

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 10.71	\$ 7.22	\$ 9.22	\$ 2.00
Next 9,000 Gallons	\$ 4.23	\$ 3.72	\$ 3.72	\$ -
Next 15,000 Gallons		\$ 4.65	\$ 4.65	\$ -
All Additional		\$ 5.58	\$ 5.58	\$ -

Res Inside - Cost Curve/Kgal



# Water Option 1 – Rate Impacts

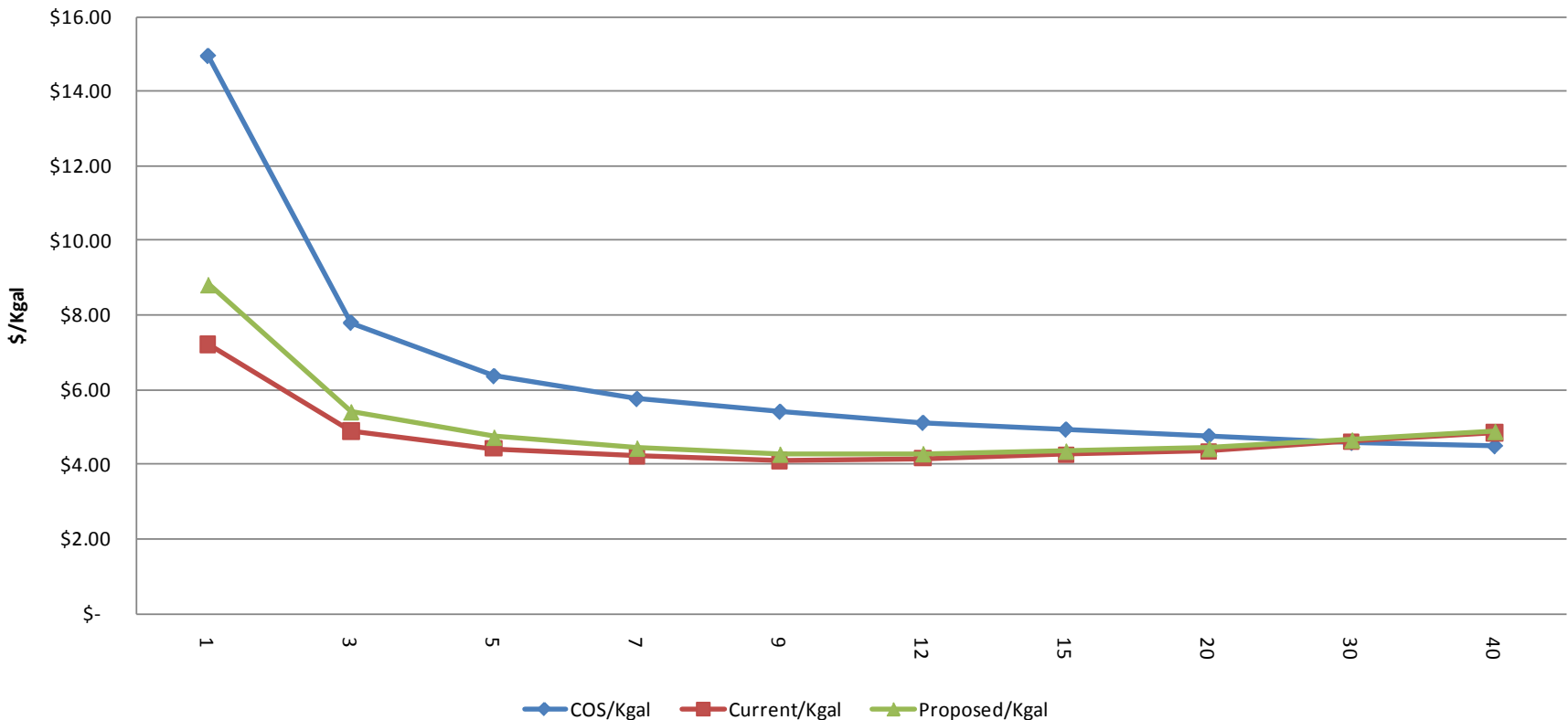
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/Kgal
1	\$ 14.94	\$ 7.22	\$ 9.22	\$ 2.00	\$ 0.07	\$ 14.94	\$ 7.22	\$ 9.22	\$ 2.00
3	\$ 23.39	\$ 14.66	\$ 16.66	\$ 2.00	\$ 0.07	\$ 7.80	\$ 4.89	\$ 5.55	\$ 0.67
<b>5</b>	<b>\$ 31.85</b>	<b>\$ 22.10</b>	<b>\$ 24.10</b>	<b>\$ 2.00</b>	<b>\$ 0.07</b>	<b>\$ 6.37</b>	<b>\$ 4.42</b>	<b>\$ 4.82</b>	<b>\$ 0.40</b>
<b>7</b>	<b>\$ 40.31</b>	<b>\$ 29.54</b>	<b>\$ 31.54</b>	<b>\$ 2.00</b>	<b>\$ 0.07</b>	<b>\$ 5.76</b>	<b>\$ 4.22</b>	<b>\$ 4.51</b>	<b>\$ 0.29</b>
9	\$ 48.77	\$ 36.98	\$ 38.98	\$ 2.00	\$ 0.07	\$ 5.42	\$ 4.11	\$ 4.33	\$ 0.22
12	\$ 61.45	\$ 50.00	\$ 52.00	\$ 2.00	\$ 0.07	\$ 5.12	\$ 4.17	\$ 4.33	\$ 0.17
15	\$ 74.14	\$ 63.95	\$ 65.95	\$ 2.00	\$ 0.07	\$ 4.94	\$ 4.26	\$ 4.40	\$ 0.13
20	\$ 95.28	\$ 87.20	\$ 89.20	\$ 2.00	\$ 0.07	\$ 4.76	\$ 4.36	\$ 4.46	\$ 0.10
30	\$ 137.57	\$ 138.35	\$ 140.35	\$ 2.00	\$ 0.07	\$ 4.59	\$ 4.61	\$ 4.68	\$ 0.07
40	\$ 179.85	\$ 194.15	\$ 196.15	\$ 2.00	\$ 0.07	\$ 4.50	\$ 4.85	\$ 4.90	\$ 0.05
Average Usage		6,607							

Proposed Increase in Availability Revenue	\$ 311,990
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 311,990</u>

# Water Rate Change - Option 2 (Res-Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 10.71	\$ 7.22	\$ 8.82	\$ 1.60
Next 9,000 Gallons	\$ 4.23	\$ 3.72	\$ 3.72	\$ -
Next 15,000 Gallons		\$ 4.65	\$ 4.65	\$ -
All Additional		\$ 5.58	\$ 5.58	\$ -

Res Inside - Cost Curve/Kgal



# Water Option 2 – Rate Impacts (Res-Inside)

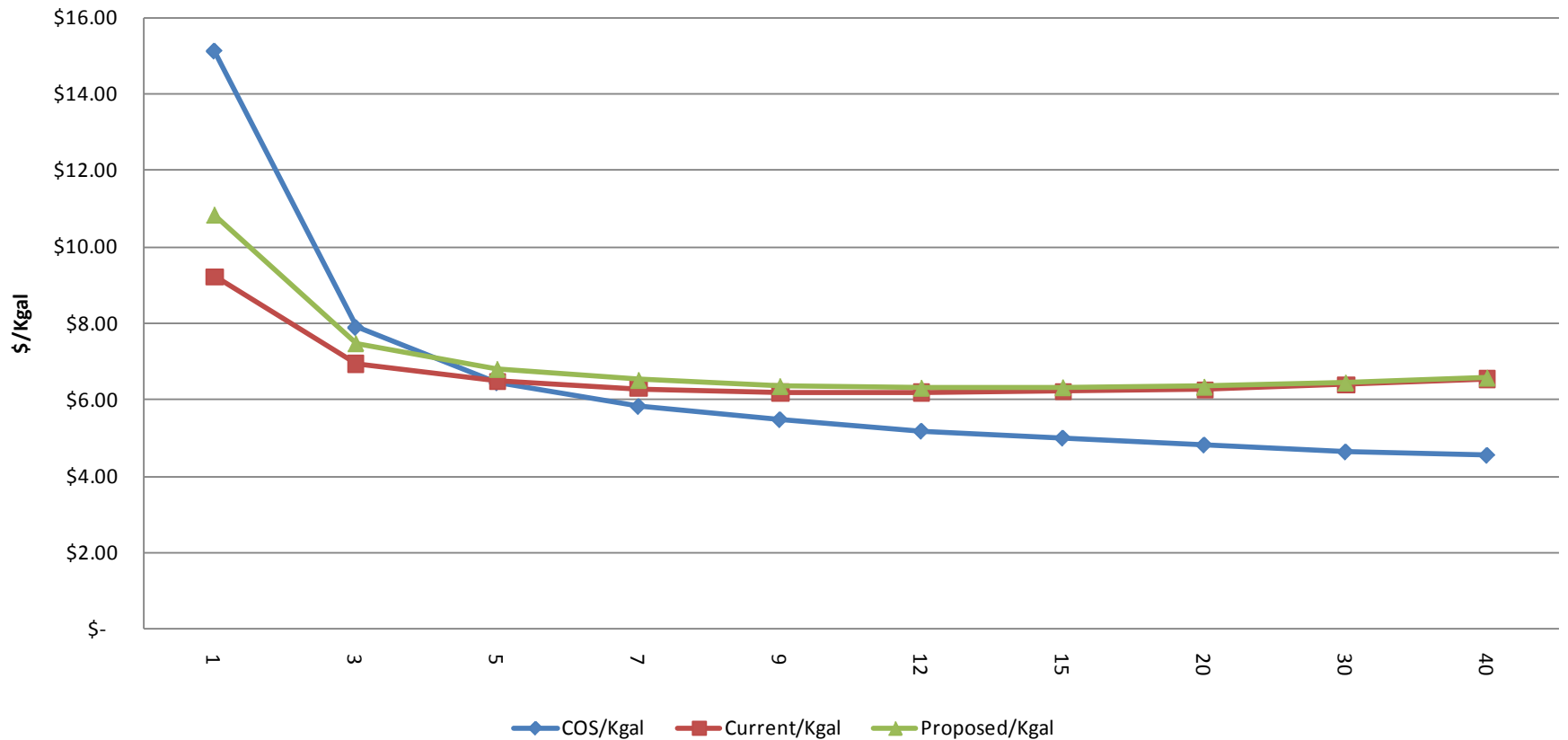
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/Kgal
1	\$ 14.94	\$ 7.22	\$ 8.82	\$ 1.60	\$ 0.05	\$ 14.94	\$ 7.22	\$ 8.82	\$ 1.60
3	\$ 23.39	\$ 14.66	\$ 16.26	\$ 1.60	\$ 0.05	\$ 7.80	\$ 4.89	\$ 5.42	\$ 0.53
<b>5</b>	<b>\$ 31.85</b>	<b>\$ 22.10</b>	<b>\$ 23.70</b>	<b>\$ 1.60</b>	<b>\$ 0.05</b>	<b>\$ 6.37</b>	<b>\$ 4.42</b>	<b>\$ 4.74</b>	<b>\$ 0.32</b>
<b>7</b>	<b>\$ 40.31</b>	<b>\$ 29.54</b>	<b>\$ 31.14</b>	<b>\$ 1.60</b>	<b>\$ 0.05</b>	<b>\$ 5.76</b>	<b>\$ 4.22</b>	<b>\$ 4.45</b>	<b>\$ 0.23</b>
9	\$ 48.77	\$ 36.98	\$ 38.58	\$ 1.60	\$ 0.05	\$ 5.42	\$ 4.11	\$ 4.29	\$ 0.18
12	\$ 61.45	\$ 50.00	\$ 51.60	\$ 1.60	\$ 0.05	\$ 5.12	\$ 4.17	\$ 4.30	\$ 0.13
15	\$ 74.14	\$ 63.95	\$ 65.55	\$ 1.60	\$ 0.05	\$ 4.94	\$ 4.26	\$ 4.37	\$ 0.11
20	\$ 95.28	\$ 87.20	\$ 88.80	\$ 1.60	\$ 0.05	\$ 4.76	\$ 4.36	\$ 4.44	\$ 0.08
30	\$ 137.57	\$ 138.35	\$ 139.95	\$ 1.60	\$ 0.05	\$ 4.59	\$ 4.61	\$ 4.67	\$ 0.05
40	\$ 179.85	\$ 194.15	\$ 195.75	\$ 1.60	\$ 0.05	\$ 4.50	\$ 4.85	\$ 4.89	\$ 0.04
Average Usage		6,607							

Proposed Increase in Availability Revenue	\$ 249,592
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 249,592</u>

# Water Rate Change - Option 2 (Res-Outside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 10.84	\$ 9.22	\$ 10.82	\$ 1.60
Next 9,000 Gallons	\$ 4.28	\$ 5.80	\$ 5.80	\$ -
Next 15,000 Gallons		\$ 6.38	\$ 6.38	\$ -
All Additional		\$ 6.96	\$ 6.96	\$ -

### Res Outside Cost Curve/Kgal



# Water Option 2 – Rate Impacts (Res-Outside)

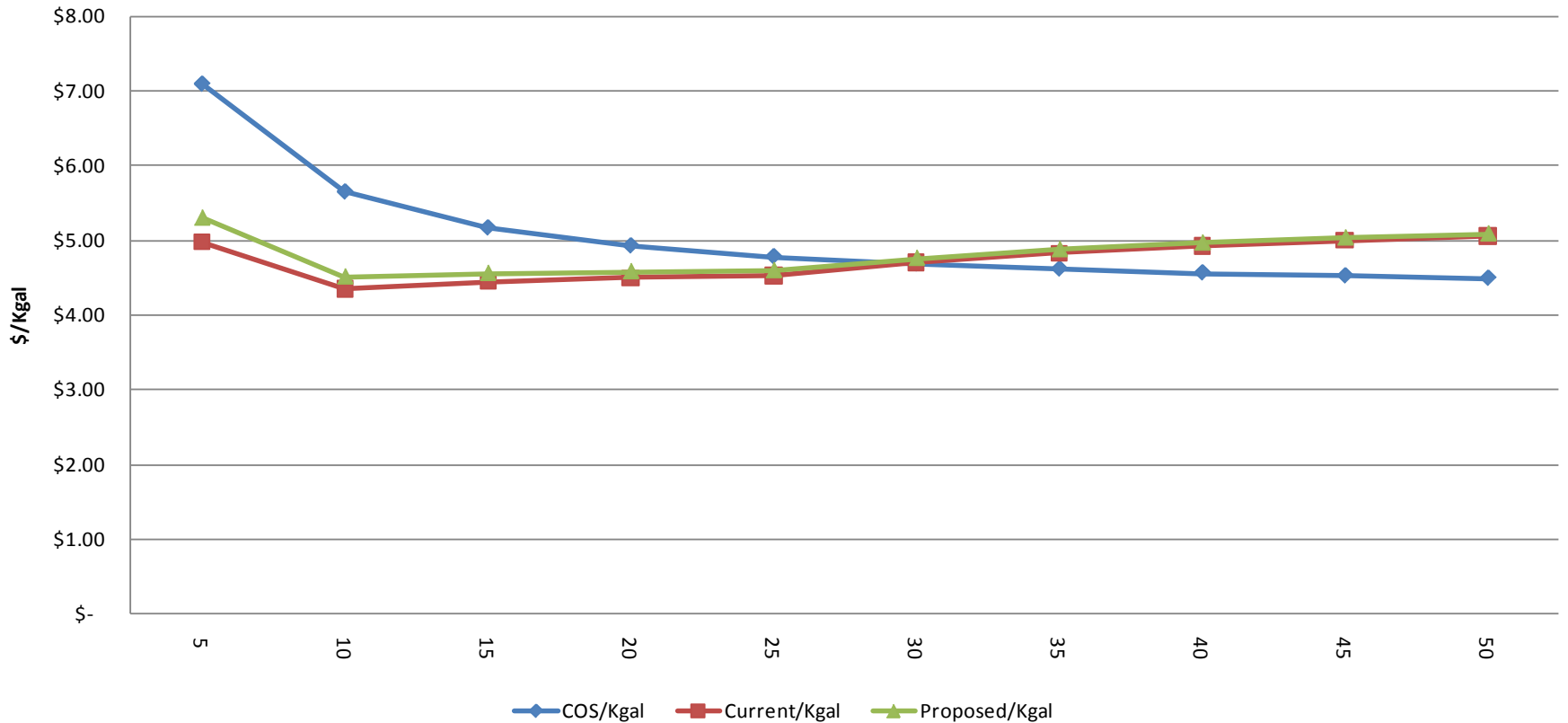
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/Kgal
1	\$ 15.12	\$ 9.22	\$ 10.82	\$ 1.60	\$ 0.05	\$ 15.12	\$ 9.22	\$ 10.82	\$ 1.60
3	\$ 23.67	\$ 20.82	\$ 22.42	\$ 1.60	\$ 0.05	\$ 7.89	\$ 6.94	\$ 7.47	\$ 0.53
5	\$ 32.23	\$ 32.42	\$ 34.02	\$ 1.60	\$ 0.05	\$ 6.45	\$ 6.48	\$ 6.80	\$ 0.32
<b>7</b>	<b>\$ 40.78</b>	<b>\$ 44.02</b>	<b>\$ 45.62</b>	<b>\$ 1.60</b>	<b>\$ 0.05</b>	<b>\$ 5.83</b>	<b>\$ 6.29</b>	<b>\$ 6.52</b>	<b>\$ 0.23</b>
9	\$ 49.34	\$ 55.62	\$ 57.22	\$ 1.60	\$ 0.05	\$ 5.48	\$ 6.18	\$ 6.36	\$ 0.18
12	\$ 62.17	\$ 74.18	\$ 75.78	\$ 1.60	\$ 0.05	\$ 5.18	\$ 6.18	\$ 6.32	\$ 0.13
15	\$ 75.00	\$ 93.32	\$ 94.92	\$ 1.60	\$ 0.05	\$ 5.00	\$ 6.22	\$ 6.33	\$ 0.11
20	\$ 96.39	\$ 125.22	\$ 126.82	\$ 1.60	\$ 0.05	\$ 4.82	\$ 6.26	\$ 6.34	\$ 0.08
30	\$ 139.17	\$ 191.92	\$ 193.52	\$ 1.60	\$ 0.05	\$ 4.64	\$ 6.40	\$ 6.45	\$ 0.05
40	\$ 181.94	\$ 261.52	\$ 263.12	\$ 1.60	\$ 0.05	\$ 4.55	\$ 6.54	\$ 6.58	\$ 0.04
Average Usage		6,976							

Proposed Increase in Customer Revenue	\$ 44,088
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 44,088</u>

# Water Rate Change - Option 2 (Com-Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 14.46	\$ 10.01	\$ 11.61	\$ 1.60
Next 9,000 Gallons	\$ 4.20	\$ 3.72	\$ 3.72	\$ -
Next 15,000 Gallons		\$ 4.65	\$ 4.65	\$ -
All Additional		\$ 5.58	\$ 5.58	\$ -

Com Inside Cost Curve/Kgal





# Water Option 2 – Rate Impacts (Com- Inside)

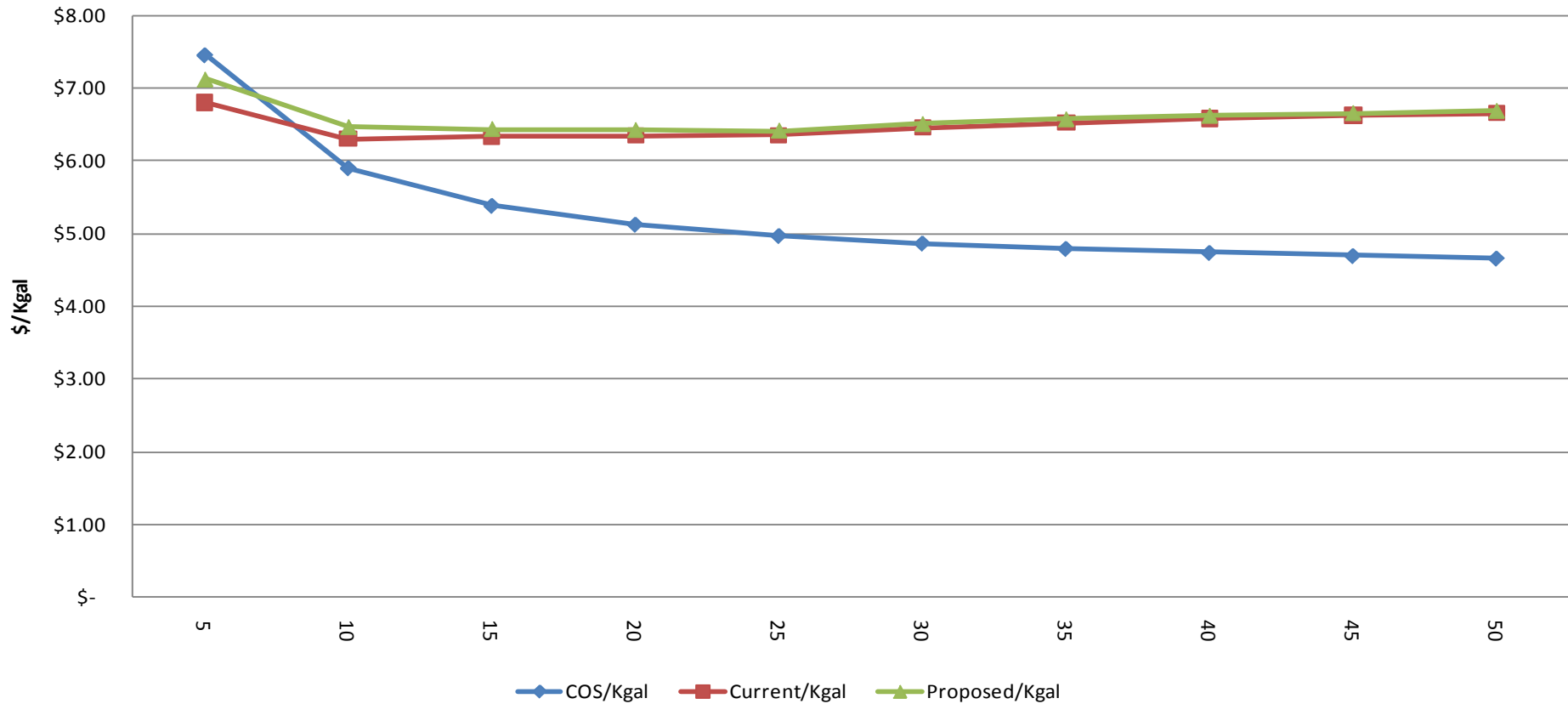
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal
5	\$ 35.45	\$ 24.89	\$ 26.49	\$ 1.60	\$ 0.05	\$ 7.09	\$ 4.98	\$ 5.30	\$ 0.32
10	\$ 56.44	\$ 43.49	\$ 45.09	\$ 1.60	\$ 0.05	\$ 5.64	\$ 4.35	\$ 4.51	\$ 0.16
15	\$ 77.42	\$ 66.74	\$ 68.34	\$ 1.60	\$ 0.05	\$ 5.16	\$ 4.45	\$ 4.56	\$ 0.11
<b>20</b>	<b>\$ 98.41</b>	<b>\$ 89.99</b>	<b>\$ 91.59</b>	<b>\$ 1.60</b>	<b>\$ 0.05</b>	<b>\$ 4.92</b>	<b>\$ 4.50</b>	<b>\$ 4.58</b>	<b>\$ 0.08</b>
<b>25</b>	<b>\$ 119.40</b>	<b>\$ 113.24</b>	<b>\$ 114.84</b>	<b>\$ 1.60</b>	<b>\$ 0.05</b>	<b>\$ 4.78</b>	<b>\$ 4.53</b>	<b>\$ 4.59</b>	<b>\$ 0.06</b>
30	\$ 140.38	\$ 141.14	\$ 142.74	\$ 1.60	\$ 0.05	\$ 4.68	\$ 4.70	\$ 4.76	\$ 0.05
35	\$ 161.37	\$ 169.04	\$ 170.64	\$ 1.60	\$ 0.05	\$ 4.61	\$ 4.83	\$ 4.88	\$ 0.05
40	\$ 182.36	\$ 196.94	\$ 198.54	\$ 1.60	\$ 0.05	\$ 4.56	\$ 4.92	\$ 4.96	\$ 0.04
45	\$ 203.34	\$ 224.84	\$ 226.44	\$ 1.60	\$ 0.05	\$ 4.52	\$ 5.00	\$ 5.03	\$ 0.04
50	\$ 224.33	\$ 252.74	\$ 254.34	\$ 1.60	\$ 0.05	\$ 4.49	\$ 5.05	\$ 5.09	\$ 0.03
Average Usage		23,948							

Proposed Increase in Customer Revenue	\$ 19,662
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 19,662</u>

# Water Rate Change - Option 2 (Com-Outside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 15.54	\$ 10.81	\$ 12.41	\$ 1.60
Next 9,000 Gallons	\$ 4.35	\$ 5.80	\$ 5.80	\$ -
Next 15,000 Gallons		\$ 6.38	\$ 6.38	\$ -
All Additional		\$ 6.96	\$ 6.96	\$ -

### Com Outside Cost Curve/Kgal



# Water Option 2 – Rate Impacts (Com- Outside)

Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal
5	\$ 37.29	\$ 34.01	\$ 35.61	\$ 1.60	\$ 0.05	\$ 7.46	\$ 6.80	\$ 7.12	\$ 0.32
10	\$ 59.04	\$ 63.01	\$ 64.61	\$ 1.60	\$ 0.05	\$ 5.90	\$ 6.30	\$ 6.46	\$ 0.16
15	\$ 80.79	\$ 94.91	\$ 96.51	\$ 1.60	\$ 0.05	\$ 5.39	\$ 6.33	\$ 6.43	\$ 0.11
20	\$ 102.54	\$ 126.81	\$ 128.41	\$ 1.60	\$ 0.05	\$ 5.13	\$ 6.34	\$ 6.42	\$ 0.08
25	\$ 124.29	\$ 158.71	\$ 160.31	\$ 1.60	\$ 0.05	\$ 4.97	\$ 6.35	\$ 6.41	\$ 0.06
30	\$ 146.05	\$ 193.51	\$ 195.11	\$ 1.60	\$ 0.05	\$ 4.87	\$ 6.45	\$ 6.50	\$ 0.05
35	\$ 167.80	\$ 228.31	\$ 229.91	\$ 1.60	\$ 0.05	\$ 4.79	\$ 6.52	\$ 6.57	\$ 0.05
40	\$ 189.55	\$ 263.11	\$ 264.71	\$ 1.60	\$ 0.05	\$ 4.74	\$ 6.58	\$ 6.62	\$ 0.04
45	\$ 211.30	\$ 297.91	\$ 299.51	\$ 1.60	\$ 0.05	\$ 4.70	\$ 6.62	\$ 6.66	\$ 0.04
50	\$ 233.05	\$ 332.71	\$ 334.31	\$ 1.60	\$ 0.05	\$ 4.66	\$ 6.65	\$ 6.69	\$ 0.03
Average Usage		26,169							

Proposed Increase in Customer Revenue	\$ 1,221
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 1,221</u>



# Water Option 2 – Summary



Rate Class	Additional Revenue
Residential - Inside	\$ 249,592
Residential - Outside	\$ 44,088
Com/Ind - Inside	\$ 19,662
Com/Ind - Outside	\$ 1,221
Total	<u>\$ 314,563</u>

# Wastewater Cost of Service

Test Year 12-Months Ending  
June 2011 ProForma



# Revenue Requirement



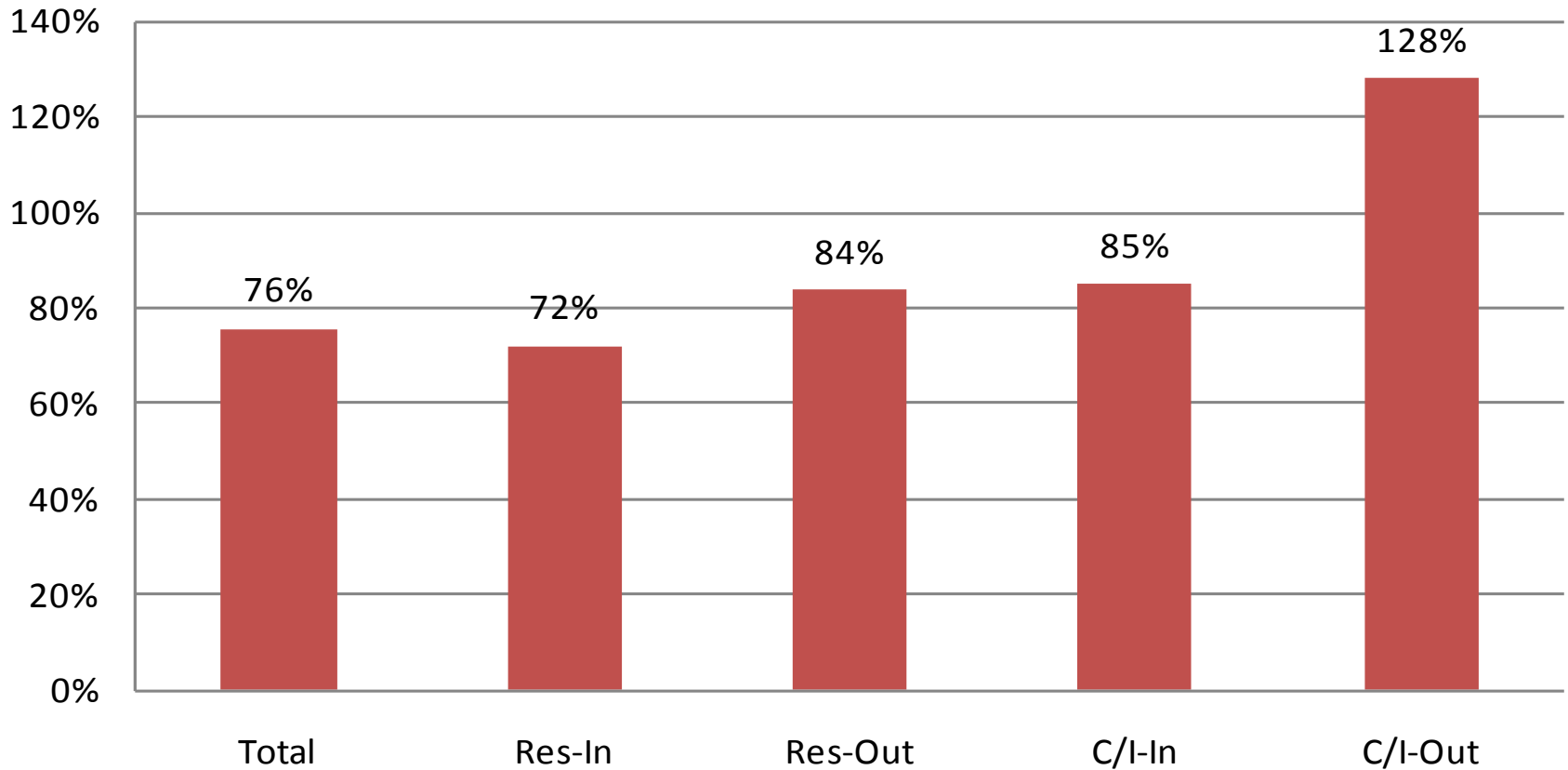
	Total
<b>TOTAL REV. REQ.</b>	
Operations & Maintenance Expense	\$ 7,559,163
Plus: Taxes & PILOT	\$ 134,886
Plus: Debt Service	\$ 1,894,551
Plus: Rate Funded Capital	\$ 3,000,000
Total Revenue Requirement	<u>\$ 12,588,600</u>
Less: Other Revenue	<u>\$ 46,195</u>
Rate Requirement	<u>\$ 12,542,405</u>



# Sewer Recovery by Class



## Recovery by Rate Class





## Results & Options - Wastewater



- Based on the 12-months ending June 2011, the City is projected to under-recover by approximately \$3,052,000
- As discussed at the meeting held on September 28<sup>th</sup>, in taking a measured 5 Year Approach, 7% annual rate increases should be enough to achieve revenue sufficiency for the water system. A 7% increase this year is approximately \$664,000.





# Results & Options - Wastewater



- Option 1 – recover the \$664,000 by increasing the Availability Charges on all four rate classes.
- Option 2 – recover the \$664,000 by increasing the Usage Charges on all classes but Commercial Outside.
- Option 3 recover the \$664,000 by a combination of Availability and Usage Charges on all classes but Commercial Outside.



# Wastewater – Availability Charge Breakdown

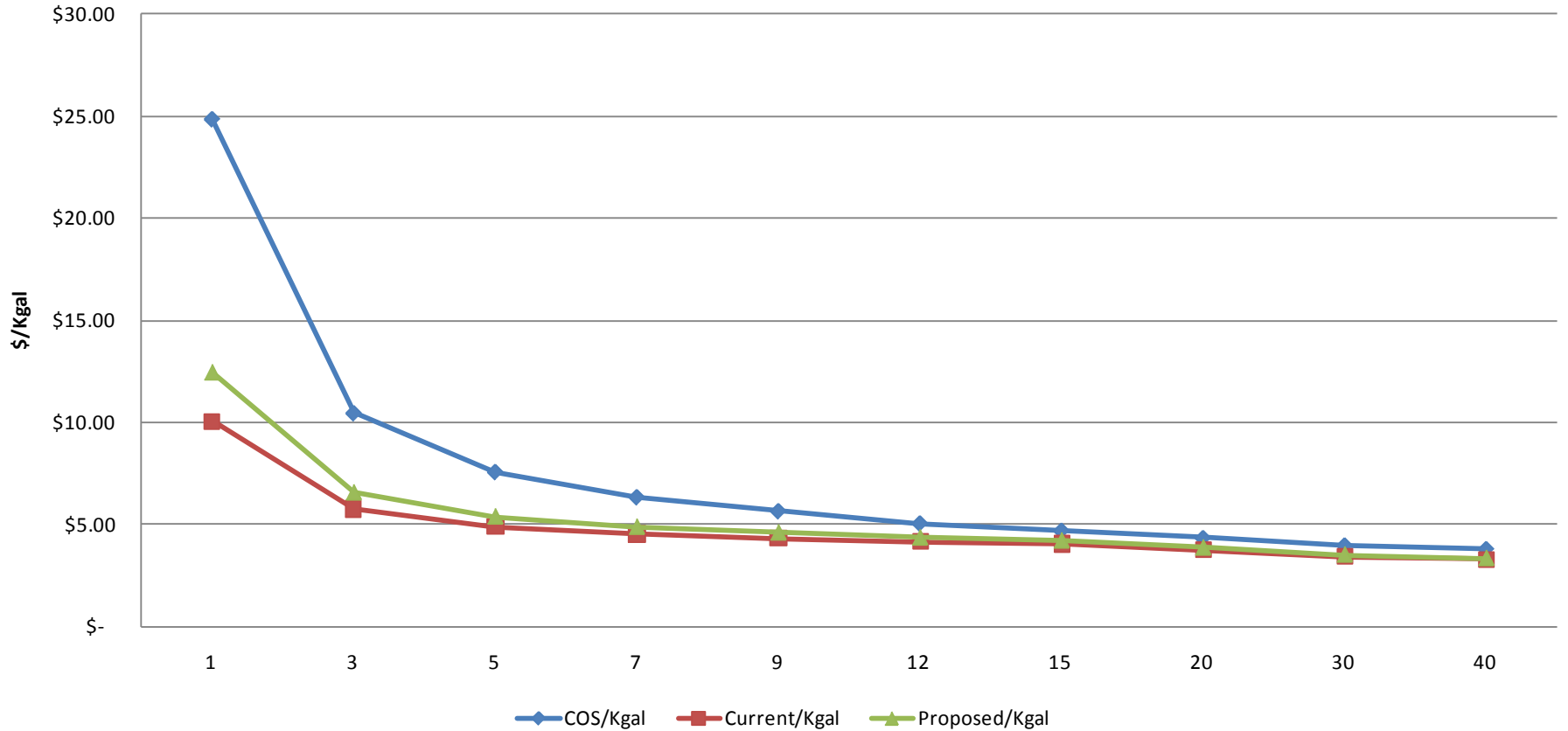


Availability Charge Revenue Requirement	2011	Funding Percentage
Operations & Maintenance Expense	\$ 7,694,049	61.1%
Plus: Debt Service	\$ 1,894,551	15.0%
Plus: Rate Funded Capital	\$ 3,000,000	23.8%
Plus: Reserve (for future years)	\$ -	0.0%
Total Revenue Requirement	<u>\$ 12,588,600</u>	<u>100%</u>

# Wastewater Rate Change – Option 1 (Res Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 21.56	\$ 10.05	\$ 12.45	\$ 2.40
Next 14,000 Gallons	\$ 3.26	\$ 3.61	\$ 3.61	\$ -
All Additional		\$ 2.82	\$ 2.82	\$ -

### Res Inside Cost Curve/Kgal



# Wastewater Option 1 – Rate Impacts (Res Inside)



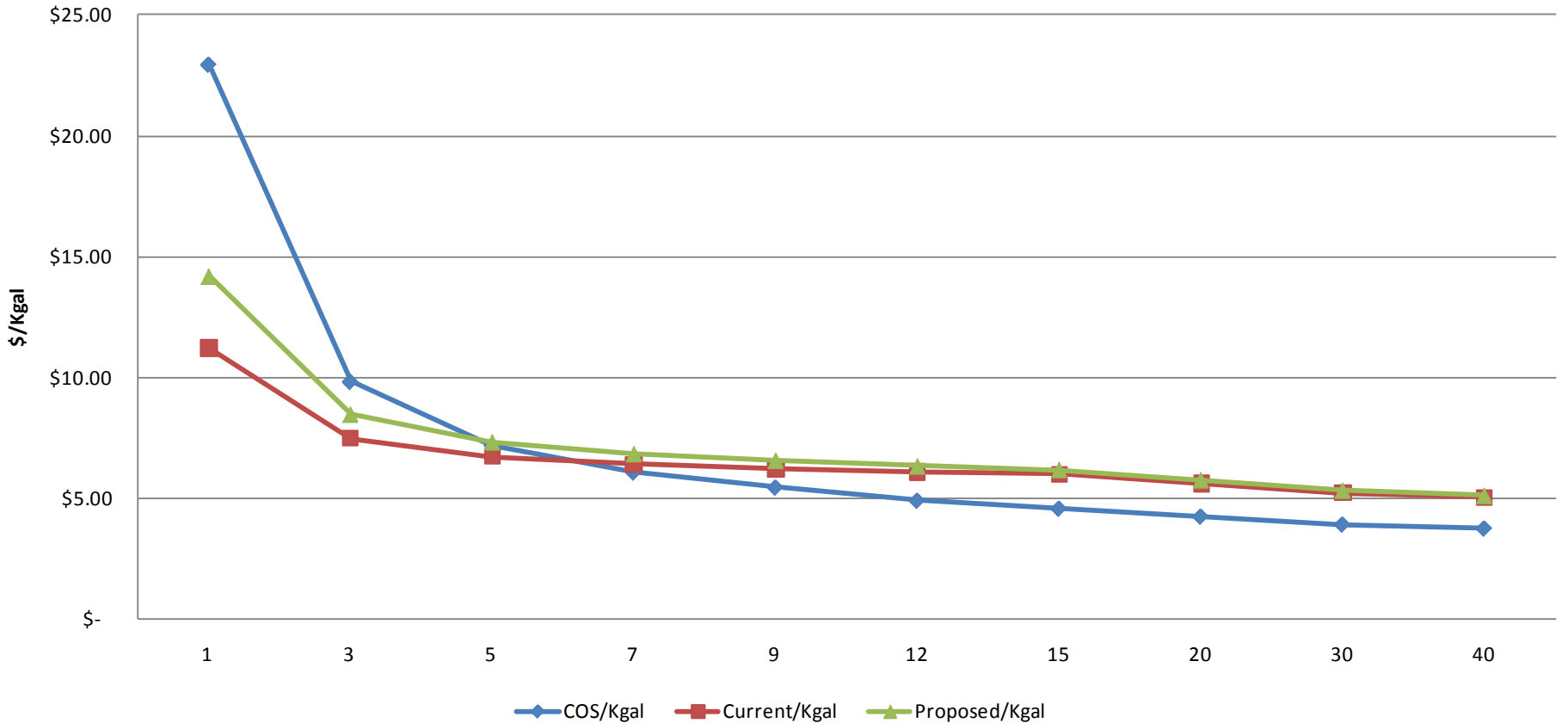
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal
1	\$ 24.82	\$ 10.05	\$ 12.45	\$ 2.40	\$ 0.08	\$ 24.82	\$ 10.05	\$ 12.45	\$ 2.40
3	\$ 31.35	\$ 17.27	\$ 19.67	\$ 2.40	\$ 0.08	\$ 10.45	\$ 5.76	\$ 6.56	\$ 0.80
<b>5</b>	<b>\$ 37.87</b>	<b>\$ 24.49</b>	<b>\$ 26.89</b>	<b>\$ 2.40</b>	<b>\$ 0.08</b>	<b>\$ 7.57</b>	<b>\$ 4.90</b>	<b>\$ 5.38</b>	<b>\$ 0.48</b>
<b>7</b>	<b>\$ 44.40</b>	<b>\$ 31.71</b>	<b>\$ 34.11</b>	<b>\$ 2.40</b>	<b>\$ 0.08</b>	<b>\$ 6.34</b>	<b>\$ 4.53</b>	<b>\$ 4.87</b>	<b>\$ 0.34</b>
9	\$ 50.93	\$ 38.93	\$ 41.33	\$ 2.40	\$ 0.08	\$ 5.66	\$ 4.33	\$ 4.59	\$ 0.27
12	\$ 60.72	\$ 49.76	\$ 52.16	\$ 2.40	\$ 0.08	\$ 5.06	\$ 4.15	\$ 4.35	\$ 0.20
15	\$ 70.51	\$ 60.59	\$ 62.99	\$ 2.40	\$ 0.08	\$ 4.70	\$ 4.04	\$ 4.20	\$ 0.16
20	\$ 86.83	\$ 74.69	\$ 77.09	\$ 2.40	\$ 0.08	\$ 4.34	\$ 3.73	\$ 3.85	\$ 0.12
30	\$ 119.46	\$ 102.89	\$ 105.29	\$ 2.40	\$ 0.08	\$ 3.98	\$ 3.43	\$ 3.51	\$ 0.08
40	\$ 152.10	\$ 131.09	\$ 133.49	\$ 2.40	\$ 0.08	\$ 3.80	\$ 3.28	\$ 3.34	\$ 0.06
Average Usage		6,707							

Proposed Increase in Customer Revenue	\$ 516,790
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 516,790</u>

# Wastewater Rate Change – Option 1 (Res Outside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 19.68	\$ 11.21	\$ 14.21	\$ 3.00
Next 14,000 Gallons	\$ 3.26	\$ 5.62	\$ 5.62	\$ -
All Additional		\$ 4.47	\$ 4.47	\$ -

Cost Curve/Kgal



# Wastewater Option 1 – Rate Impacts (Res Outside)



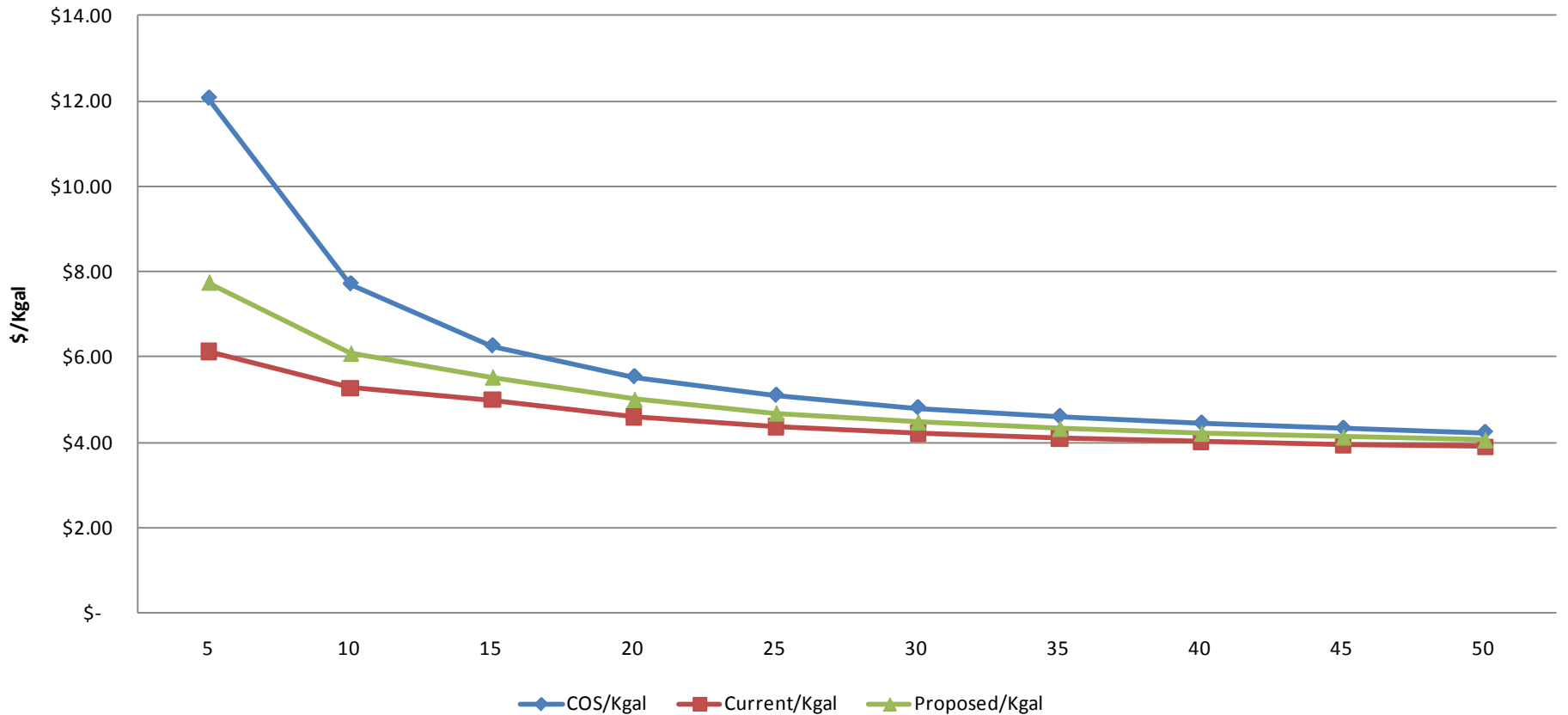
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal		
1	\$ 22.94	\$ 11.21	\$ 14.21	\$ 3.00	\$ 0.10	\$ 22.94	\$ 11.21	\$ 14.21	\$ 3.00		
<b>3</b>	<b>\$ 29.47</b>	<b>\$ 22.45</b>	<b>\$ 25.45</b>	<b>\$ 3.00</b>	<b>\$ 0.10</b>	<b>\$ 9.82</b>	<b>\$ 7.48</b>	<b>\$ 8.48</b>	<b>\$ 1.00</b>		
<b>5</b>	<b>\$ 36.00</b>	<b>\$ 33.69</b>	<b>\$ 36.69</b>	<b>\$ 3.00</b>	<b>\$ 0.10</b>	<b>\$ 7.20</b>	<b>\$ 6.74</b>	<b>\$ 7.34</b>	<b>\$ 0.60</b>		
7	\$ 42.52	\$ 44.93	\$ 47.93	\$ 3.00	\$ 0.10	\$ 6.07	\$ 6.42	\$ 6.85	\$ 0.43		
9	\$ 49.05	\$ 56.17	\$ 59.17	\$ 3.00	\$ 0.10	\$ 5.45	\$ 6.24	\$ 6.57	\$ 0.33		
12	\$ 58.84	\$ 73.03	\$ 76.03	\$ 3.00	\$ 0.10	\$ 4.90	\$ 6.09	\$ 6.34	\$ 0.25		
15	\$ 68.63	\$ 89.89	\$ 92.89	\$ 3.00	\$ 0.10	\$ 4.58	\$ 5.99	\$ 6.19	\$ 0.20		
20	\$ 84.95	\$ 112.24	\$ 115.24	\$ 3.00	\$ 0.10	\$ 4.25	\$ 5.61	\$ 5.76	\$ 0.15		
30	\$ 117.58	\$ 156.94	\$ 159.94	\$ 3.00	\$ 0.10	\$ 3.92	\$ 5.23	\$ 5.33	\$ 0.10		
40	\$ 150.22	\$ 201.64	\$ 204.64	\$ 3.00	\$ 0.10	\$ 3.76	\$ 5.04	\$ 5.12	\$ 0.08		
Average Usage		3,686									

Proposed Increase in Customer Revenue	\$ 12,099
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 12,099</u>

# Wastewater Rate Change – Option 1 (Com Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 43.52	\$ 13.00	\$ 21.00	\$ 8.00
Next 14,000 Gallons	\$ 3.35	\$ 4.42	\$ 4.42	\$ -
All Additional		\$ 3.43	\$ 3.43	\$ -

Cost Curve/Kgal



# Wastewater Option 1 – Rate Impacts (Com Inside)



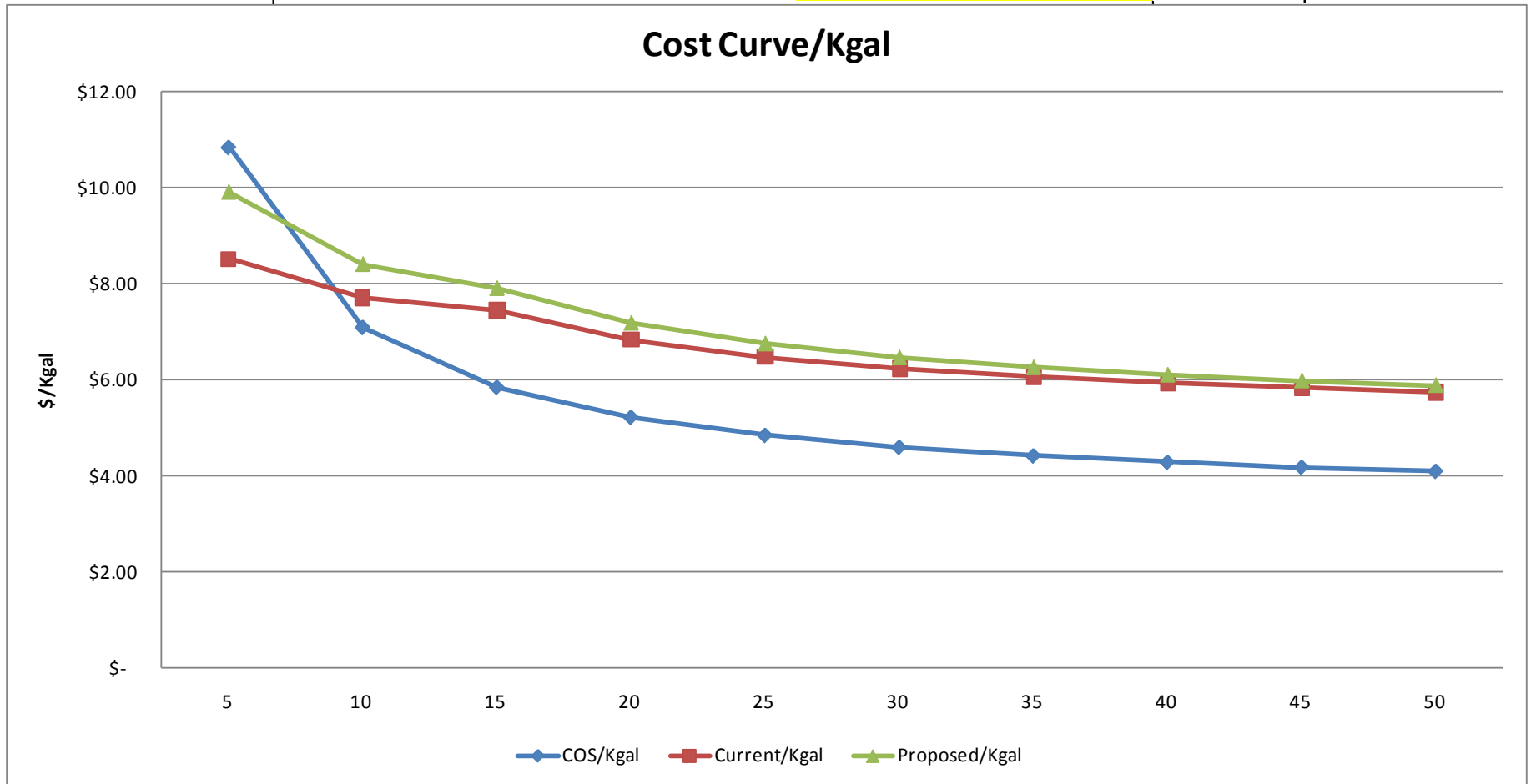
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal
5	\$ 60.30	\$ 30.68	\$ 38.68	\$ 8.00	\$ 0.27	\$ 12.06	\$ 6.14	\$ 7.74	\$ 1.60
10	\$ 77.07	\$ 52.78	\$ 60.78	\$ 8.00	\$ 0.27	\$ 7.71	\$ 5.28	\$ 6.08	\$ 0.80
15	\$ 93.85	\$ 74.88	\$ 82.88	\$ 8.00	\$ 0.27	\$ 6.26	\$ 4.99	\$ 5.53	\$ 0.53
20	\$ 110.62	\$ 92.03	\$ 100.03	\$ 8.00	\$ 0.27	\$ 5.53	\$ 4.60	\$ 5.00	\$ 0.40
25	\$ 127.40	\$ 109.18	\$ 117.18	\$ 8.00	\$ 0.27	\$ 5.10	\$ 4.37	\$ 4.69	\$ 0.32
30	\$ 144.17	\$ 126.33	\$ 134.33	\$ 8.00	\$ 0.27	\$ 4.81	\$ 4.21	\$ 4.48	\$ 0.27
35	\$ 160.95	\$ 143.48	\$ 151.48	\$ 8.00	\$ 0.27	\$ 4.60	\$ 4.10	\$ 4.33	\$ 0.23
<b>40</b>	<b>\$ 177.72</b>	<b>\$ 160.63</b>	<b>\$ 168.63</b>	<b>\$ 8.00</b>	<b>\$ 0.27</b>	<b>\$ 4.44</b>	<b>\$ 4.02</b>	<b>\$ 4.22</b>	<b>\$ 0.20</b>
45	\$ 194.50	\$ 177.78	\$ 185.78	\$ 8.00	\$ 0.27	\$ 4.32	\$ 3.95	\$ 4.13	\$ 0.18
50	\$ 211.27	\$ 194.93	\$ 202.93	\$ 8.00	\$ 0.27	\$ 4.23	\$ 3.90	\$ 4.06	\$ 0.16
Average Usage		40,923							

Proposed Increase in Customer Revenue	\$ 130,248
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 130,248</u>



# Wastewater Rate Change – Option 1 (Com Outside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 37.46	\$ 15.00	\$ 22.00	\$ 7.00
Next 14,000 Gallons	\$ 3.35	\$ 6.91	\$ 6.91	\$ -
All Additional		\$ 5.02	\$ 5.02	\$ -



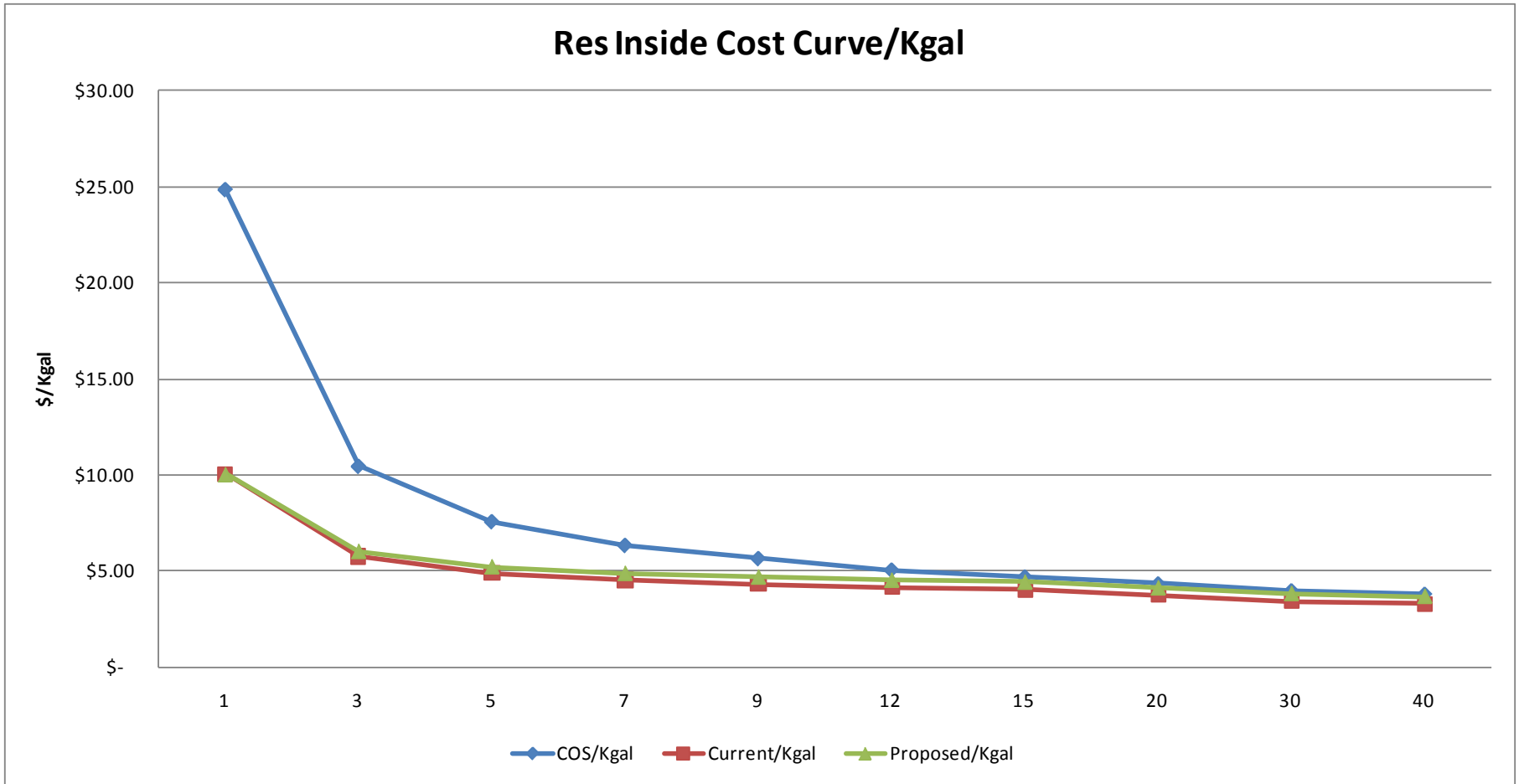
# Wastewater Option 1 – Rate Impacts (Com Outside)

Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/ Kgal
5	\$ 54.24	\$ 42.64	\$ 49.64	\$ 7.00	\$ 0.23	\$ 10.85	\$ 8.53	\$ 9.93	\$ 1.40
10	\$ 71.01	\$ 77.19	\$ 84.19	\$ 7.00	\$ 0.23	\$ 7.10	\$ 7.72	\$ 8.42	\$ 0.70
15	\$ 87.79	\$ 111.74	\$ 118.74	\$ 7.00	\$ 0.23	\$ 5.85	\$ 7.45	\$ 7.92	\$ 0.47
20	\$ 104.56	\$ 136.84	\$ 143.84	\$ 7.00	\$ 0.23	\$ 5.23	\$ 6.84	\$ 7.19	\$ 0.35
25	\$ 121.34	\$ 161.94	\$ 168.94	\$ 7.00	\$ 0.23	\$ 4.85	\$ 6.48	\$ 6.76	\$ 0.28
<b>30</b>	<b>\$ 138.11</b>	<b>\$ 187.04</b>	<b>\$ 194.04</b>	<b>\$ 7.00</b>	<b>\$ 0.23</b>	<b>\$ 4.60</b>	<b>\$ 6.23</b>	<b>\$ 6.47</b>	<b>\$ 0.23</b>
35	\$ 154.89	\$ 212.14	\$ 219.14	\$ 7.00	\$ 0.23	\$ 4.43	\$ 6.06	\$ 6.26	\$ 0.20
40	\$ 171.66	\$ 237.24	\$ 244.24	\$ 7.00	\$ 0.23	\$ 4.29	\$ 5.93	\$ 6.11	\$ 0.18
45	\$ 188.44	\$ 262.34	\$ 269.34	\$ 7.00	\$ 0.23	\$ 4.19	\$ 5.83	\$ 5.99	\$ 0.16
50	\$ 205.21	\$ 287.44	\$ 294.44	\$ 7.00	\$ 0.23	\$ 4.10	\$ 5.75	\$ 5.89	\$ 0.14
Average Usage		31,436							

Proposed Increase in Customer Revenue	\$ 5,663
Proposed Increase in Usage Revenue	\$ -
Proposed Increase in Revenue	<u>\$ 5,663</u>

# Wastewater Rate Change – Option 2 (Res Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 21.56	\$ 10.05	\$ 10.05	\$ -
Next 14,000 Gallons	\$ 3.26	\$ 3.61	\$ 4.01	\$ 0.40
All Additional		\$ 2.82	\$ 3.22	\$ 0.40



# Wastewater Option 2 – Rate Impacts (Res Inside)

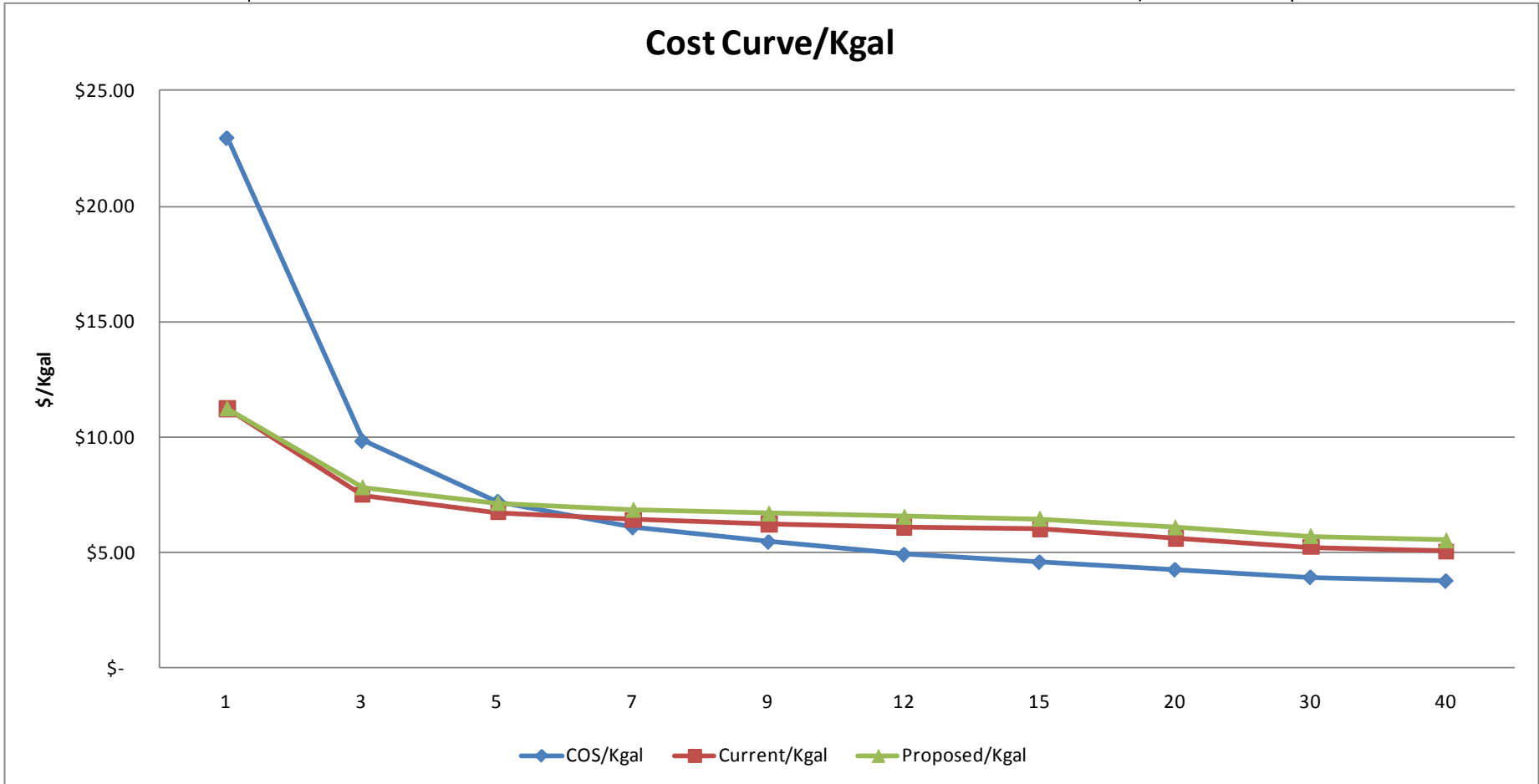


Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/ Kgal
1	\$ 24.82	\$ 10.05	\$ 10.05	\$ -	\$ -	\$ 24.82	\$ 10.05	\$ 10.05	\$ -
3	\$ 31.35	\$ 17.27	\$ 18.07	\$ 0.80	\$ 0.03	\$ 10.45	\$ 5.76	\$ 6.02	\$ 0.27
<b>5</b>	<b>\$ 37.87</b>	<b>\$ 24.49</b>	<b>\$ 26.09</b>	<b>\$ 1.60</b>	<b>\$ 0.05</b>	<b>\$ 7.57</b>	<b>\$ 4.90</b>	<b>\$ 5.22</b>	<b>\$ 0.32</b>
<b>7</b>	<b>\$ 44.40</b>	<b>\$ 31.71</b>	<b>\$ 34.11</b>	<b>\$ 2.40</b>	<b>\$ 0.08</b>	<b>\$ 6.34</b>	<b>\$ 4.53</b>	<b>\$ 4.87</b>	<b>\$ 0.34</b>
9	\$ 50.93	\$ 38.93	\$ 42.13	\$ 3.20	\$ 0.11	\$ 5.66	\$ 4.33	\$ 4.68	\$ 0.36
12	\$ 60.72	\$ 49.76	\$ 54.16	\$ 4.40	\$ 0.15	\$ 5.06	\$ 4.15	\$ 4.51	\$ 0.37
15	\$ 70.51	\$ 60.59	\$ 66.19	\$ 5.60	\$ 0.19	\$ 4.70	\$ 4.04	\$ 4.41	\$ 0.37
20	\$ 86.83	\$ 74.69	\$ 82.29	\$ 7.60	\$ 0.25	\$ 4.34	\$ 3.73	\$ 4.11	\$ 0.38
30	\$ 119.46	\$ 102.89	\$ 114.49	\$ 11.60	\$ 0.39	\$ 3.98	\$ 3.43	\$ 3.82	\$ 0.39
40	\$ 152.10	\$ 131.09	\$ 146.69	\$ 15.60	\$ 0.52	\$ 3.80	\$ 3.28	\$ 3.67	\$ 0.39
<b>Average Usage</b>		<b>6,707</b>							

Proposed Increase in Customer Revenue	\$ -
Proposed Increase in Usage Revenue	\$ 491,569
Proposed Increase in Revenue	<u>\$ 491,569</u>

# Wastewater Rate Change – Option 2 (Res Outside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 19.68	\$ 11.21	\$ 11.21	\$ -
Next 14,000 Gallons	\$ 3.26	\$ 5.62	\$ 6.12	\$ 0.50
All Additional		\$ 4.47	\$ 4.97	\$ 0.50



# Wastewater Option 2 – Rate Impacts (Res Outside)

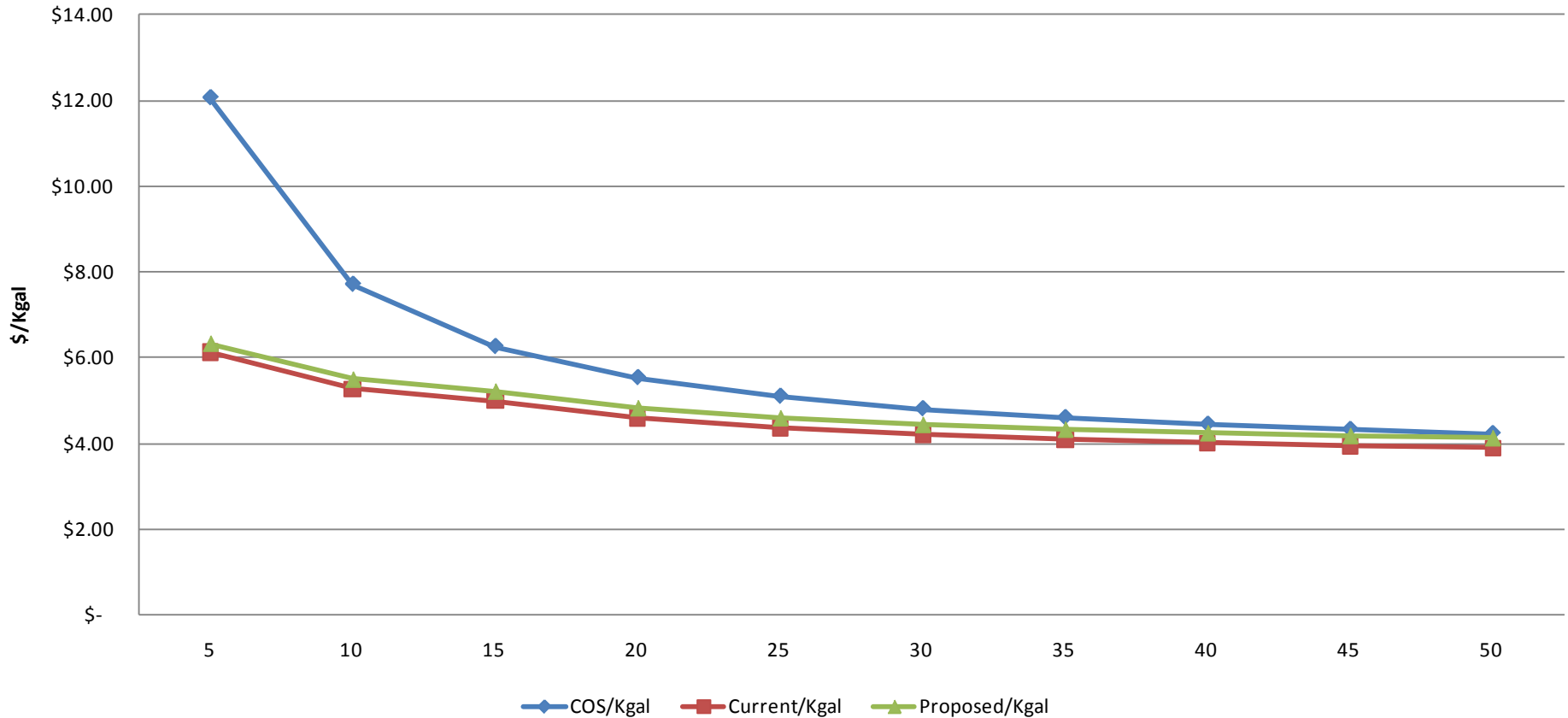
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal			
1	\$ 22.94	\$ 11.21	\$ 11.21	\$ -	\$ -	\$ 22.94	\$ 11.21	\$ 11.21	\$ -			
3	\$ <b>29.47</b>	\$ <b>22.45</b>	\$ <b>23.45</b>	\$ <b>1.00</b>	\$ <b>0.03</b>	\$ <b>9.82</b>	\$ <b>7.48</b>	\$ <b>7.82</b>	\$ <b>0.33</b>			
5	\$ <b>36.00</b>	\$ <b>33.69</b>	\$ <b>35.69</b>	\$ <b>2.00</b>	\$ <b>0.07</b>	\$ <b>7.20</b>	\$ <b>6.74</b>	\$ <b>7.14</b>	\$ <b>0.40</b>			
7	\$ 42.52	\$ 44.93	\$ 47.93	\$ 3.00	\$ 0.10	\$ 6.07	\$ 6.42	\$ 6.85	\$ 0.43			
9	\$ 49.05	\$ 56.17	\$ 60.17	\$ 4.00	\$ 0.13	\$ 5.45	\$ 6.24	\$ 6.69	\$ 0.44			
12	\$ 58.84	\$ 73.03	\$ 78.53	\$ 5.50	\$ 0.18	\$ 4.90	\$ 6.09	\$ 6.54	\$ 0.46			
15	\$ 68.63	\$ 89.89	\$ 96.89	\$ 7.00	\$ 0.23	\$ 4.58	\$ 5.99	\$ 6.46	\$ 0.47			
20	\$ 84.95	\$ 112.24	\$ 121.74	\$ 9.50	\$ 0.32	\$ 4.25	\$ 5.61	\$ 6.09	\$ 0.48			
30	\$ 117.58	\$ 156.94	\$ 171.44	\$ 14.50	\$ 0.48	\$ 3.92	\$ 5.23	\$ 5.71	\$ 0.48			
40	\$ 150.22	\$ 201.64	\$ 221.14	\$ 19.50	\$ 0.65	\$ 3.76	\$ 5.04	\$ 5.53	\$ 0.49			
Average Usage		3,686										

Proposed Increase in Customer Revenue	\$ -
Proposed Increase in Usage Revenue	\$ 5,416
Proposed Increase in Revenue	<u>\$ 5,416</u>

# Wastewater Rate Change – Option 2 (Com Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 43.52	\$ 13.00	\$ 13.00	\$ -
Next 14,000 Gallons	\$ 3.35	\$ 4.42	\$ 4.67	\$ 0.25
All Additional		\$ 3.43	\$ 3.68	\$ 0.25

### Com Inside Cost Curve/Kgal



# Wastewater Option 2 – Rate Impacts (Com Inside)



Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/Kgal
5	\$ 60.30	\$ 30.68	\$ 31.68	\$ 1.00	\$ 0.03	\$ 12.06	\$ 6.14	\$ 6.34	\$ 0.20
10	\$ 77.07	\$ 52.78	\$ 55.03	\$ 2.25	\$ 0.08	\$ 7.71	\$ 5.28	\$ 5.50	\$ 0.23
15	\$ 93.85	\$ 74.88	\$ 78.38	\$ 3.50	\$ 0.12	\$ 6.26	\$ 4.99	\$ 5.23	\$ 0.23
20	\$ 110.62	\$ 92.03	\$ 96.78	\$ 4.75	\$ 0.16	\$ 5.53	\$ 4.60	\$ 4.84	\$ 0.24
25	\$ 127.40	\$ 109.18	\$ 115.18	\$ 6.00	\$ 0.20	\$ 5.10	\$ 4.37	\$ 4.61	\$ 0.24
30	\$ 144.17	\$ 126.33	\$ 133.58	\$ 7.25	\$ 0.24	\$ 4.81	\$ 4.21	\$ 4.45	\$ 0.24
35	\$ 160.95	\$ 143.48	\$ 151.98	\$ 8.50	\$ 0.28	\$ 4.60	\$ 4.10	\$ 4.34	\$ 0.24
<b>40</b>	<b>\$ 177.72</b>	<b>\$ 160.63</b>	<b>\$ 170.38</b>	<b>\$ 9.75</b>	<b>\$ 0.33</b>	<b>\$ 4.44</b>	<b>\$ 4.02</b>	<b>\$ 4.26</b>	<b>\$ 0.24</b>
45	\$ 194.50	\$ 177.78	\$ 188.78	\$ 11.00	\$ 0.37	\$ 4.32	\$ 3.95	\$ 4.20	\$ 0.24
50	\$ 211.27	\$ 194.93	\$ 207.18	\$ 12.25	\$ 0.41	\$ 4.23	\$ 3.90	\$ 4.14	\$ 0.25
Average Usage		40,923							

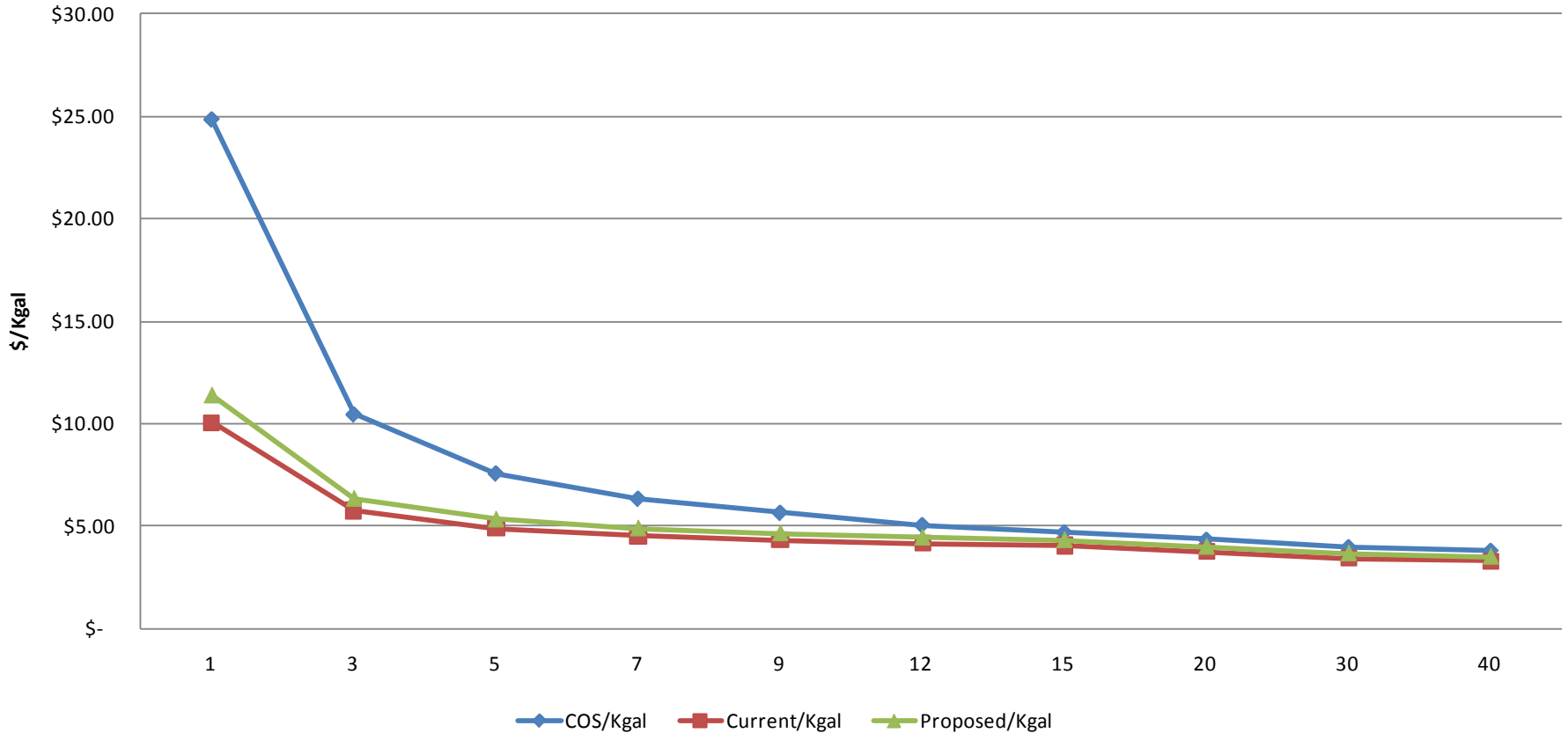
Proposed Increase in Customer Revenue	\$ -
Proposed Increase in Usage Revenue	\$ 162,497
Proposed Increase in Revenue	<u>\$ 162,497</u>



# Wastewater Rate Change – Option 3 (Res Inside)

	Cost of Service		Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$	<b>21.56</b>	\$ 10.05	\$ 11.40	\$ 1.35
Next 14,000 Gallons	\$	<b>3.26</b>	\$ 3.61	\$ 3.81	\$ 0.20
All Additional	\$		\$ 2.82	\$ 3.02	\$ 0.20

**Res Inside Cost Curve/Kgal**



# Wastewater Option 3 – Rate Impacts (Res Inside)



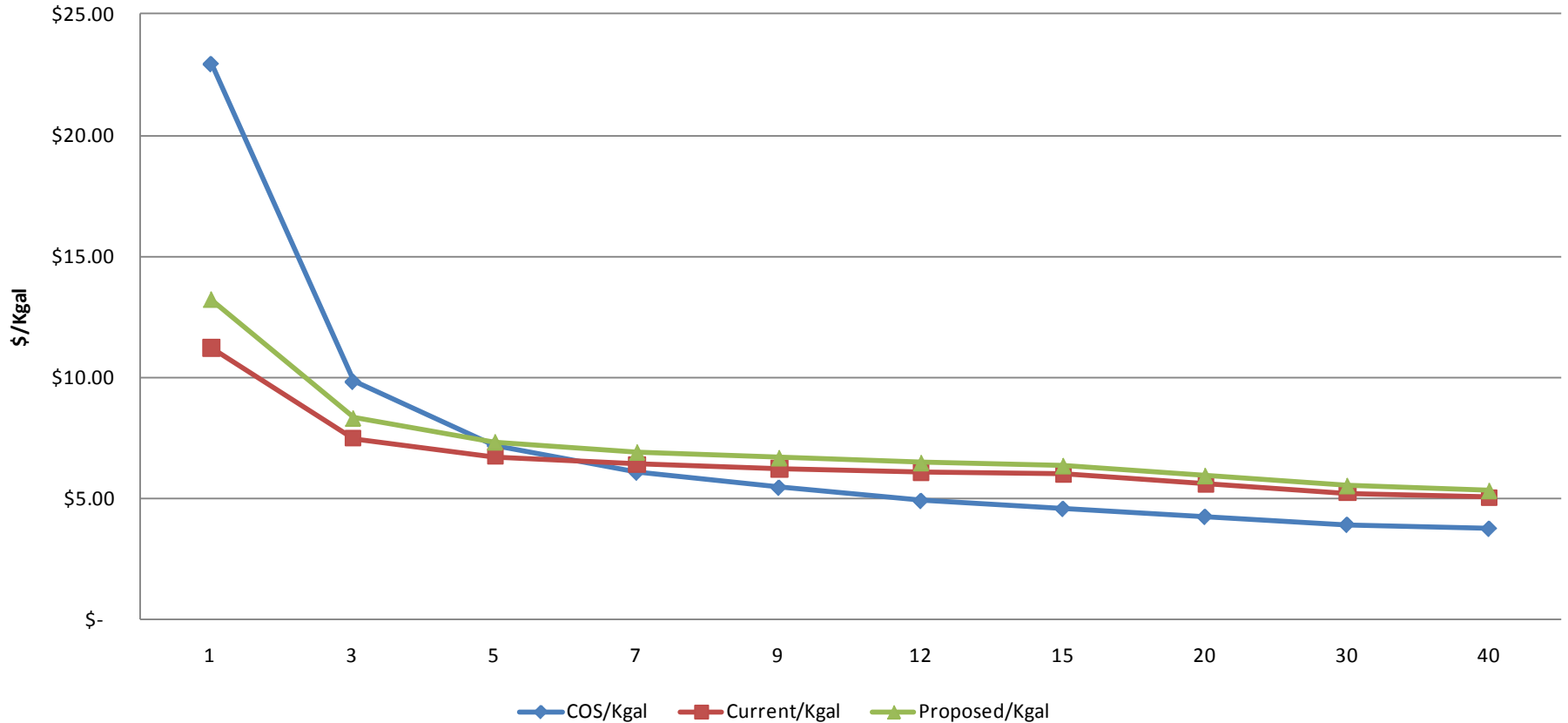
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/kGal				
1	\$ 24.82	\$ 10.05	\$ 11.40	\$ 1.35	\$ 0.05	\$ 24.82	\$ 10.05	\$ 11.40	\$ 1.35				
3	\$ 31.35	\$ 17.27	\$ 19.02	\$ 1.75	\$ 0.06	\$ 10.45	\$ 5.76	\$ 6.34	\$ 0.58				
<b>5</b>	<b>\$ 37.87</b>	<b>\$ 24.49</b>	<b>\$ 26.64</b>	<b>\$ 2.15</b>	<b>\$ 0.07</b>	<b>\$ 7.57</b>	<b>\$ 4.90</b>	<b>\$ 5.33</b>	<b>\$ 0.43</b>				
<b>7</b>	<b>\$ 44.40</b>	<b>\$ 31.71</b>	<b>\$ 34.26</b>	<b>\$ 2.55</b>	<b>\$ 0.08</b>	<b>\$ 6.34</b>	<b>\$ 4.53</b>	<b>\$ 4.89</b>	<b>\$ 0.36</b>				
9	\$ 50.93	\$ 38.93	\$ 41.88	\$ 2.95	\$ 0.10	\$ 5.66	\$ 4.33	\$ 4.65	\$ 0.33				
12	\$ 60.72	\$ 49.76	\$ 53.31	\$ 3.55	\$ 0.12	\$ 5.06	\$ 4.15	\$ 4.44	\$ 0.30				
15	\$ 70.51	\$ 60.59	\$ 64.74	\$ 4.15	\$ 0.14	\$ 4.70	\$ 4.04	\$ 4.32	\$ 0.28				
20	\$ 86.83	\$ 74.69	\$ 79.84	\$ 5.15	\$ 0.17	\$ 4.34	\$ 3.73	\$ 3.99	\$ 0.26				
30	\$ 119.46	\$ 102.89	\$ 110.04	\$ 7.15	\$ 0.24	\$ 3.98	\$ 3.43	\$ 3.67	\$ 0.24				
40	\$ 152.10	\$ 131.09	\$ 140.24	\$ 9.15	\$ 0.31	\$ 3.80	\$ 3.28	\$ 3.51	\$ 0.23				
Average Usage		6,707											

Proposed Increase in Customer Revenue	\$ 290,694
Proposed Increase in Usage Revenue	\$ 245,785
Proposed Increase in Revenue	<u>\$ 536,479</u>

# Wastewater Rate Change – Option 3 (Res Outside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 19.68	\$ 11.21	\$ 13.21	\$ 2.00
Next 14,000 Gallons	\$ 3.26	\$ 5.62	\$ 5.87	\$ 0.25
All Additional		\$ 4.47	\$ 4.72	\$ 0.25

### Res Outside Cost Curve/Kgal



# Wastewater Option 3 – Rate Impacts (Res Outside)

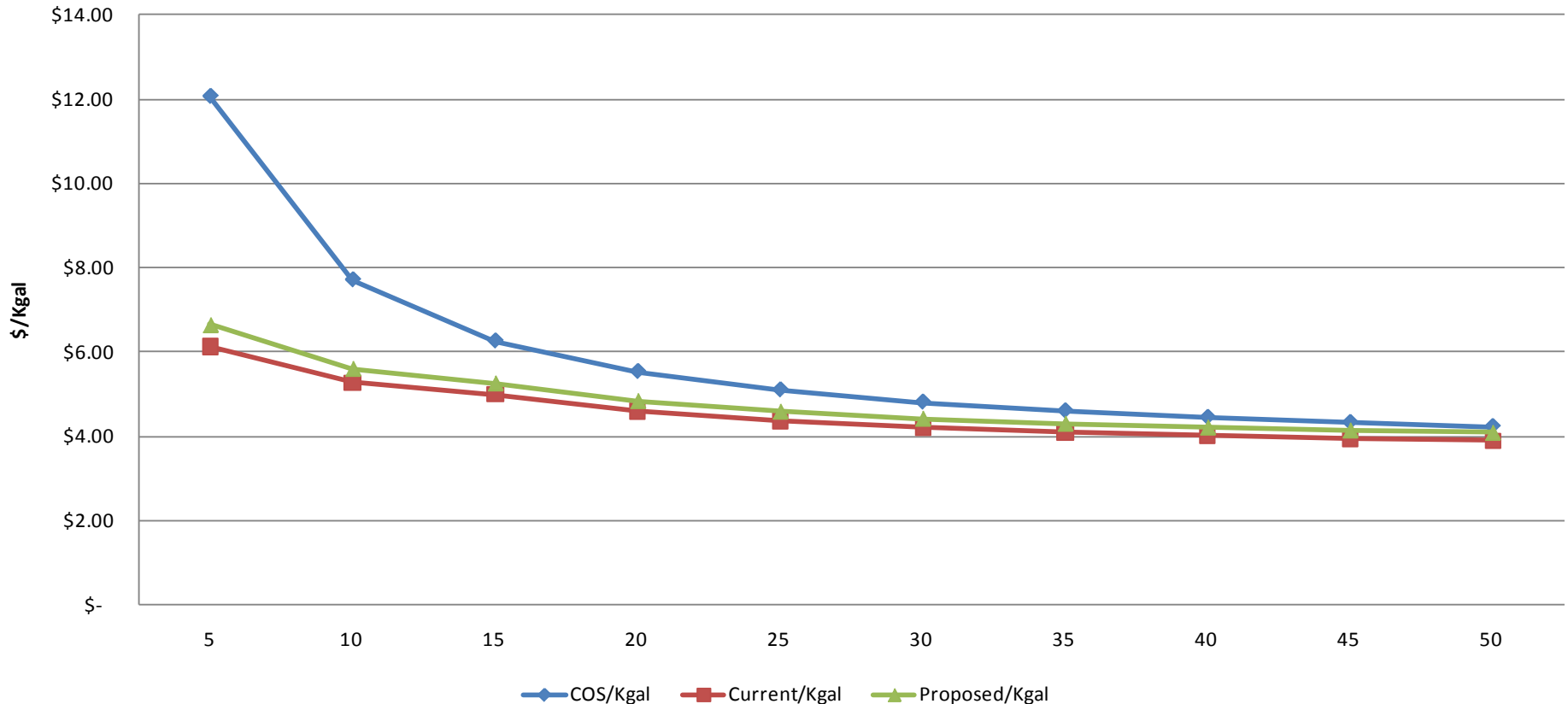
Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/Kgal
1	\$ 22.94	\$ 11.21	\$ 13.21	\$ 2.00	\$ 0.07	\$ 22.94	\$ 11.21	\$ 13.21	\$ 2.00
<b>3</b>	<b>\$ 29.47</b>	<b>\$ 22.45</b>	<b>\$ 24.95</b>	<b>\$ 2.50</b>	<b>\$ 0.08</b>	<b>\$ 9.82</b>	<b>\$ 7.48</b>	<b>\$ 8.32</b>	<b>\$ 0.83</b>
<b>5</b>	<b>\$ 36.00</b>	<b>\$ 33.69</b>	<b>\$ 36.69</b>	<b>\$ 3.00</b>	<b>\$ 0.10</b>	<b>\$ 7.20</b>	<b>\$ 6.74</b>	<b>\$ 7.34</b>	<b>\$ 0.60</b>
7	\$ 42.52	\$ 44.93	\$ 48.43	\$ 3.50	\$ 0.12	\$ 6.07	\$ 6.42	\$ 6.92	\$ 0.50
9	\$ 49.05	\$ 56.17	\$ 60.17	\$ 4.00	\$ 0.13	\$ 5.45	\$ 6.24	\$ 6.69	\$ 0.44
12	\$ 58.84	\$ 73.03	\$ 77.78	\$ 4.75	\$ 0.16	\$ 4.90	\$ 6.09	\$ 6.48	\$ 0.40
15	\$ 68.63	\$ 89.89	\$ 95.39	\$ 5.50	\$ 0.18	\$ 4.58	\$ 5.99	\$ 6.36	\$ 0.37
20	\$ 84.95	\$ 112.24	\$ 118.99	\$ 6.75	\$ 0.23	\$ 4.25	\$ 5.61	\$ 5.95	\$ 0.34
30	\$ 117.58	\$ 156.94	\$ 166.19	\$ 9.25	\$ 0.31	\$ 3.92	\$ 5.23	\$ 5.54	\$ 0.31
40	\$ 150.22	\$ 201.64	\$ 213.39	\$ 11.75	\$ 0.39	\$ 3.76	\$ 5.04	\$ 5.33	\$ 0.29
Average Usage		3,686							

Proposed Increase in Customer Revenue	\$ 8,066
Proposed Increase in Usage Revenue	\$ 2,708
Proposed Increase in Revenue	<u>\$ 10,774</u>

# Wastewater Rate Change – Option 3 (Com Inside)

	Cost of Service	Current	Proposed	Difference
Availability Charge (1,000 Gal)	\$ 43.52	\$ 13.00	\$ 15.00	\$ 2.00
Next 14,000 Gallons	\$ 3.35	\$ 4.42	\$ 4.57	\$ 0.15
All Additional		\$ 3.43	\$ 3.58	\$ 0.15

### Com Inside Cost Curve/Kgal



# Wastewater Option 3 – Rate Impacts (Com Inside)



Usage (Kgal)	COS Rates	Current Rates	Proposed Rates	Monthly Change	Daily Change	COS Rate/kGal	Current Rate/kGal	Proposed Rate/kGal	Change/Kgal
5	\$ 60.30	\$ 30.68	\$ 33.28	\$ 2.60	\$ 0.09	\$ 12.06	\$ 6.14	\$ 6.66	\$ 0.52
10	\$ 77.07	\$ 52.78	\$ 56.13	\$ 3.35	\$ 0.11	\$ 7.71	\$ 5.28	\$ 5.61	\$ 0.34
15	\$ 93.85	\$ 74.88	\$ 78.98	\$ 4.10	\$ 0.14	\$ 6.26	\$ 4.99	\$ 5.27	\$ 0.27
20	\$ 110.62	\$ 92.03	\$ 96.88	\$ 4.85	\$ 0.16	\$ 5.53	\$ 4.60	\$ 4.84	\$ 0.24
25	\$ 127.40	\$ 109.18	\$ 114.78	\$ 5.60	\$ 0.19	\$ 5.10	\$ 4.37	\$ 4.59	\$ 0.22
30	\$ 144.17	\$ 126.33	\$ 132.68	\$ 6.35	\$ 0.21	\$ 4.81	\$ 4.21	\$ 4.42	\$ 0.21
35	\$ 160.95	\$ 143.48	\$ 150.58	\$ 7.10	\$ 0.24	\$ 4.60	\$ 4.10	\$ 4.30	\$ 0.20
<b>40</b>	<b>\$ 177.72</b>	<b>\$ 160.63</b>	<b>\$ 168.48</b>	<b>\$ 7.85</b>	<b>\$ 0.26</b>	<b>\$ 4.44</b>	<b>\$ 4.02</b>	<b>\$ 4.21</b>	<b>\$ 0.20</b>
45	\$ 194.50	\$ 177.78	\$ 186.38	\$ 8.60	\$ 0.29	\$ 4.32	\$ 3.95	\$ 4.14	\$ 0.19
50	\$ 211.27	\$ 194.93	\$ 204.28	\$ 9.35	\$ 0.31	\$ 4.23	\$ 3.90	\$ 4.09	\$ 0.19
Average Usage		40,923							

Proposed Increase in Customer Revenue	\$ 32,562
Proposed Increase in Usage Revenue	\$ 97,498
Proposed Increase in Revenue	<u>\$ 130,060</u>



# Wastewater Options Summary



Rate Class	Option 1	Option 2	Option 3
Res - Inside	\$516,790	\$491,569	\$536,479
Res - Outside	\$ 12,099	\$ 5,416	\$ 10,774
Com/Ind - Inside	\$130,248	\$162,497	\$130,060
Com/Ind - Outside	\$ 5,663	\$ -	\$ -
Total	<u>\$664,800</u>	<u>\$659,482</u>	<u>\$677,313</u>