

Cherryvale, KS, Proposed Water Rates Scenario 4

This scenario assumes capital improvements will be accelerated and financed with a State Revolving Fund Loan. It also assumes out of city customers will pay rates that are 50% higher than in-city customers.

This report contains detailed information on your financial outlook that assumes you adjust rates and fees as proposed. It also compares this outlook with what you should expect if you do not make any adjustments. To effectuate the outcome depicted in this analysis you must do the following.

- The model assumes continued monthly billing.
- The minimum charge will be set at \$9.69 for in-city customers and 50% higher at \$14.63 for out of city customers.
- The minimum charge will include no usage allowance.
- The unit charge will be set at \$7.25/1,000 gallons for in-city customers and 50% higher at \$10.88/1,000 gallons for out of city customers.
- Average new customer tap fees will be increased to \$1,000.
- All rates and fees will be initially adjusted on January 1, 2008.
- All future rates and fees will be increased by 5 percent on January 1 of each subsequent year.

Base line data appears in the four tables at the end of this report.

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Produced by

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Terms Used in This Report and for Rate Setting Generally

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Affordability Index	The monthly charge for 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0, meaning a household pays one percent of its income to pay its bill, is considered affordable.
Capital Improvement Plan or Program (CIP)	Anticipated capital improvements. These are the more expensive items such as water towers, treatment plants and lines, that generally require bond or grant funding. They do not include equipment replacement items.
Capital Improvement Reserves	Cash reserves generally used to fund the CIP
Coverage Ratio (CR)	Incomes and reserves available to pay debt divide by the amount of the debt for that year. Most systems should have a CR of 1.25 or higher.
Current Position	For a year, the sum of all incomes and reserves minus all financial obligations for that year. This is a good measure of overall financial health.
Impact Fee	Generally, a charge assessed to a property being connected to the system that recaptures all or part of the cost of the infrastructure needed to provide service to that connection.
Infrastructure	Hard assets, such as water towers, treatment plants and lines needed to provide service to customers connected to the system
Operating Ratio (OR)	Current incomes and undedicated reserves minus current expenses, not including debt. An OR of 1.0 is "break even." Most systems should have an OR of 1.25 or higher.
Proportional to use Rates	Rates where the minimum charge recovers all fixed costs, the unit charge recovers all variable costs, the unit charge is the same for all volume sold, and there is no usage allowance in the minimum charge.
Replacement Schedule	A timetable that describes equipment replacement and important repairs that are too infrequent and/or too expensive to cover as annual operating costs but not so expensive that they need to be covered as capital improvements.
Replacement Reserves	Cash reserves used to fund the Replacement Schedule
Tap fee	Charge for allowing a property to be connected to the system. This fee may or may not include equipment or work provided by system staff.
Test Year	The one year period from which data was gathered to be the basis of the analysis
User Fee, User Charge	Fees assessed to customers for use of the system. Does not include tap fees, impact fees or other charges assessed when a property is first connected to the system.
Working Capital (Net Income)	The amount left in the operating fund after paying all costs due during that month, year or other time period. Working capital of \$0 is "break even."
Working Capital Goal	The desired percentage above "break even" for the operating fund. Small systems (a few hundred connections) generally should target 35 percent or greater. Larger systems can target less, down to a minimum of about 20 percent for systems with 5,000 or more connections.

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Executive Summary

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This analysis package contains a "proposed rates scenario" that depicts what will happen under the adjusted rates and other changes we recommend you make. The results of this scenario are compared to the results you can expect if you do not adjust rates. This is often called the "current rates" scenario.

Approximate daily loss from postponing increases by one additional day: \$202

This is the daily erosion in your current position if you postpone rate and fee increases past the rate adjustment date modeled.

In the following table you can see several key financial benchmarks made possible by the proposed rates. The first column below is the test year, the year from which historical data was used to build this analysis. The second is the year following the test year - the year during which initial rate adjustments will go into effect. The third column is the fifth year following the test year. Five years out is a good financial planning horizon; long enough to let you see into the future but not so long that results become overly speculative.

	Results for Years Ending on		
	12/31/07	12/31/08	12/31/12
Rate revenues collected	\$503,531	\$638,957	\$788,405
Sum of incomes	\$729,532	\$769,150	\$1,065,241
Sum of operating costs	\$626,081	\$630,300	\$732,121
Net income (loss)	\$103,451	\$138,850	\$333,120
Capital improvement reserves	\$313,794	\$330,612	\$296,911
Replacement reserves	\$41,808	\$62,263	\$76,401
Current position*	\$438,281	\$511,270	\$613,433
*All current incomes plus reserves minus all current obligations			
Increase (decrease) in current position due to this analysis	\$4,615	\$142,959	\$999,053

Return on Investment

Return on Investment due to This Analysis	97%	3020%	21104%
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Return rate is based upon the following investments:

Fees to Carl Brown Consulting	\$4,234
Estimated value of city staff time and incidentals to assemble needed information	\$500
Total Investment	\$4,734

Data shown in Charts 13 through 16 is historical or will not change depending on rates to be set. Most of the data in Chart 2 will also not change depending on rates to be set. All other charts depict your financial performance under the proposed rates. The easiest way to grasp the financial future of the system under the proposed and current rates is to view the line graphs, Charts 5 through 11. Chart 12 is a table that depicts the bills your users are paying now compared to the bills they would pay under the proposed rates scenario.

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Chart 1A - Starting Balances and Incomes These charts depict starting balances, incomes and expenses during the test year, this year and for the next 10 years.

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(First year balances and incomes are actual, subsequent years are projected.)

	Infla./De- flation (-) Factor	Year Starting 1/1/06	Year Starting 1/1/07	Year Starting 1/1/08	Year Starting 1/1/09	Year Starting 1/1/10	Year Starting 1/1/11	Year Starting 1/1/12	Year Starting 1/1/13	Year Starting 1/1/14	Year Starting 1/1/15	Year Starting 1/1/16
Average Customers for the Year		1330	1335	1340	1345	1350	1355	1360	1365	1370	1375	1381
New Taps Growth Rate		0.6%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Average Rate Increases in Future Years					5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Working Capital Starting Balance	NA	\$588,418	\$197,383	\$103,451	\$138,850	\$186,895	\$238,599	\$247,208	\$256,242	\$269,494	\$277,364	\$289,496
Operating Incomes												
Actual and Estimated User Fee Collections	NA	\$501,281	\$503,531	\$638,957	\$673,428	\$709,758	\$748,049	\$788,405	\$830,938	\$875,765	\$923,011	\$972,806
Surcharges	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Working Capital Interest Earned (or Paid)	NA	\$18,374	\$3,948	\$2,069	\$2,777	\$3,738	\$4,772	\$4,944	\$5,125	\$5,390	\$5,547	\$5,790
Tap & Impact Fees Devoted to Operating Costs	NA	\$1,000	\$750	\$753	\$756	\$758	\$761	\$764	\$767	\$770	\$773	\$776
Other Charges (Late Payment Penalties, etc.)	NA	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281	\$10,281
Transfers From Capital Improvements Reserve	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers From Debt Reserve	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Debt Reserve Interest Earned (or Paid)	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers From Other Reserves	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Reserve Interest Earned (or Paid)	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Compensating Use Tax	NA	\$37,887	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Meter Resets/Reconnects	NA	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295	\$4,295
Connection Service Fees	NA	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135	\$7,135
Insufficient Checks	NA	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150	\$150
Water Protection Fee	NA	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059	\$2,059
Sum of Incomes and Working Capital Starting Balance		\$1,170,880	\$729,532	\$769,150	\$839,730	\$925,069	\$1,016,101	\$1,065,241	\$1,116,992	\$1,175,339	\$1,230,615	\$1,292,788

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Chart 1B - Costs and Net Income

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(First year costs and net incomes are actual, subsequent years are projected.)

	Infla./De- flation (-) Factor	Year Starting 1/1/06	Year Starting 1/1/07	Year Starting 1/1/08	Year Starting 1/1/09	Year Starting 1/1/10	Year Starting 1/1/11	Year Starting 1/1/12	Year Starting 1/1/13	Year Starting 1/1/14	Year Starting 1/1/15	Year Starting 1/1/16
Operating Costs (Note: Some future costs will experience inflation. Those costs that go up as use goes up are <u>also</u> increased by the growth rate in users and the percentage by which that cost is variable as reported in Chart 4.)												
Salaries, Benefits, Training for Administration Staff	3.0%	\$49,449	\$61,364	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Billing, Office Operation, Rent & Other Overhead	5.0%	\$11,694	\$12,800	\$2,350	\$2,468	\$2,591	\$2,720	\$2,856	\$2,999	\$3,149	\$3,307	\$3,472
Insurance & Bonding	5.0%	\$4,860	\$7,000	\$5,000	\$5,250	\$5,513	\$5,788	\$6,078	\$6,381	\$6,700	\$7,036	\$7,387
Accounting, Legal, Engineering, Medical, etc.	3.0%	\$916	\$2,000	\$500	\$515	\$530	\$546	\$563	\$580	\$597	\$615	\$633
Bond and Interest	0.0%	\$56,220	\$59,960	\$58,440	\$56,840	\$55,200	\$58,500	\$56,520	\$59,495	\$57,195	\$59,845	\$47,205
Existing Debt Reserve Payments	0.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency Expenses Reserve	0.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salaries, Benefits, Training for Operations Staff	5.0%	\$42,124	\$52,273	\$69,811	\$73,301	\$76,966	\$80,814	\$84,855	\$89,098	\$93,553	\$98,231	\$103,142
Electricity & Utilities for Operations	5.0%	\$1,739	\$5,300	\$3,800	\$3,990	\$4,190	\$4,399	\$4,619	\$4,850	\$5,092	\$5,347	\$5,614
Gas - Filter Plant, Neosho Shop	5.0%	\$1,851	\$5,700	\$4,200	\$4,410	\$4,631	\$4,862	\$5,105	\$5,360	\$5,628	\$5,910	\$6,205
Supplies	5.0%	\$12,867	\$10,000	\$12,000	\$12,600	\$13,230	\$13,892	\$14,586	\$15,315	\$16,081	\$16,885	\$17,729
Chemicals	5.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contract Labor	5.0%	\$894	\$1,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Auto & Other Rolling Stock	5.0%	\$6,374	\$5,700	\$7,500	\$7,875	\$8,269	\$8,682	\$9,116	\$9,572	\$10,051	\$10,553	\$11,081
General Fund-Overhead	3.0%	\$0	\$0	\$75,000	\$77,250	\$79,568	\$81,955	\$84,413	\$86,946	\$89,554	\$92,241	\$95,008
Permits, Taxes and Fees	0.0%	\$8,101	\$8,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300	\$10,300
Payment to Replacement Account	0.0%	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650	\$48,650
Surchargeable Water Services (Adjustment)	5.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Unaccounted-for Water (Adjustment)	1.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Treated Water Purchase	5.0%	\$275,864	\$295,000	\$290,000	\$304,500	\$319,725	\$335,711	\$352,497	\$370,122	\$388,628	\$408,059	\$428,462
Special Highway	5.0%	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	0.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Training, Uniforms and Physicals	5.0%	\$2,955	\$3,500	\$5,200	\$5,460	\$5,733	\$6,020	\$6,321	\$6,637	\$6,968	\$7,317	\$7,683
Building Improvements and Capital Outlay	5.0%	\$9,041	\$35,000	\$30,000	\$31,500	\$33,075	\$34,729	\$36,465	\$38,288	\$40,203	\$42,213	\$44,324
Building & Grounds	5.0%	\$1,819	\$1,000	\$1,000	\$1,050	\$1,103	\$1,158	\$1,216	\$1,276	\$1,340	\$1,407	\$1,477
Water Meters, Testing, Reimbursement & Misc	5.0%	\$2,184	\$6,550	\$6,550	\$6,878	\$7,221	\$7,582	\$7,962	\$8,360	\$8,778	\$9,217	\$9,677
Replacements Handled in Operating Budget This Year	5.0%	-\$48,650	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
User Charge Analysis Services & Staff Time	5.0%	\$0	\$4,734	\$0	\$0	\$5,219	\$0	\$0	\$5,754	\$0	\$0	\$6,344
Total Operating Costs		\$563,952	\$626,081	\$630,300	\$652,836	\$681,712	\$706,308	\$732,121	\$769,983	\$792,468	\$827,131	\$854,394
Net Income (or Loss)		\$606,928	\$103,451	\$138,850	\$186,895	\$243,358	\$309,793	\$333,120	\$347,009	\$382,872	\$403,485	\$438,394
Working Capital Goal 35%		In Dollars, That is:	\$197,383	\$219,128	\$220,605	\$228,492	\$238,599	\$247,208	\$256,242	\$269,494	\$277,364	\$289,496

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Chart 2 - Capital Improvement Program

This chart depicts the capital improvements needed for the next 10 years and how they will be paid for. Costs reflect inflation.

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	Year Starting 1/1/06	Year Starting 1/1/07	Year Starting 1/1/08	Year Starting 1/1/09	Year Starting 1/1/10	Year Starting 1/1/11	Year Starting 1/1/12	Year Starting 1/1/13	Year Starting 1/1/14	Year Starting 1/1/15	Year Starting 1/1/16
CIP Spending Plan											
Capital Improvements to be Paid With Debt											
Line Replacements, etc. Done as a Package	\$0	\$0	\$0	\$0	\$1,228,351	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Improvements to be Paid With Debt	\$0	\$0	\$0	\$0	\$1,228,351	\$0	\$0	\$0	\$0	\$0	\$0
Capital Improvements to be Paid With Cash											
Line Replacements, etc. Done Yearly	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cap Imprvmts to be Paid From CIP Funds	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total CIP Planned Spending	\$0	\$100,000	\$0	\$0	\$1,228,351	\$0	\$0	\$0	\$0	\$0	\$0
CIP Funding Plan											
CIP Account Carryover Plus Transfers in	\$0	\$409,544	\$313,794	\$330,612	\$348,118	\$371,100	\$366,538	\$373,788	\$381,411	\$417,322	\$462,048
CIP Account Interest Earned (or Paid)	\$0	\$0	\$12,552	\$13,224	\$13,925	\$14,654	\$12,158	\$11,876	\$12,156	\$12,473	\$13,922
Tap Fees Devoted to Capital Improvements	\$0	\$4,250	\$4,266	\$4,282	\$4,298	\$4,314	\$4,331	\$4,347	\$4,363	\$4,380	\$4,396
(Transfers to) Operating Account for Operating Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contributions From Developers, Customers & Others	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(Repayments to) Developers, Customers & Others	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SRF Loan, 3.46%, 20 years	\$0	\$0	\$0	\$0	\$1,228,351	\$0	\$0	\$0	\$0	\$0	\$0
Total CIP Fund Sources	\$0	\$413,794	\$330,612	\$348,118	\$1,594,693	\$390,068	\$383,026	\$390,011	\$397,930	\$434,174	\$480,366
New Debt Payment Plan											
Payments assume 100 percent financing for projects, term of: 20 years and 3.46% interest											
Payment on SRF Loan, 3.46%, 20 years	\$0	\$0	\$0	\$0	\$0	\$86,116	\$86,116	\$86,116	\$86,116	\$86,116	\$86,116
Payments to Debt Reserves	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total New Debt Obligations	\$0	\$0	\$0	\$0	\$0	\$86,116	\$86,116	\$86,116	\$86,116	\$86,116	\$86,116
Total CIP Spending Plus Debt Repayment	\$0	\$100,000	\$0	\$0	\$1,228,351	\$86,116	\$86,116	\$86,116	\$86,116	\$86,116	\$86,116
Capital Improvement Fund Balance	\$0	\$313,794	\$330,612	\$348,118	\$366,341	\$303,952	\$296,911	\$303,896	\$311,814	\$348,059	\$394,251

Notes: Currently, line replacements, etc. are being done as small projects each year. This scenario will group all such capital improvements planned for the next 10 years into one larger project and loan finance that project. That will enable the city to take advantage of low interest rates available through the SRF Loan Program, avoid high inflation rates in capital improvement projects and upgrade the system more rapidly. All of this will reduce the city's overall expenses and user rates.

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Chart 3A - Rate Adjustments and Incomes for the Year

1/1/07 Through 12/31/07

These charts depict how rates will be adjusted and the outcomes from those adjustments.

- _____ \$125 This is the current average tap fee
- _____ \$1,000 Proposed average tap fee
- _____ \$850 The part of the proposed average tap fee, above, that will be devoted to future capital improvements
- _____ \$0 Surcharges

12/31/07 Date when fees will first be collected at adjusted rates

Compare the rates here with the adjusted rates in the table below. Rates are "proportional to use" when there is no usage allowance, the minimum charge is \$9.69 and the unit charge is \$7.25 per 1000 gallons. After rate adjustments are made, general customers will be billed monthly.

Proposed User Rates and Projected User Rate Revenues

Class Bottom	Class Top	Total Charges This Class at Test Year's Rates	New Minimum Charge Rates ¹	New Minimum Usage Allowance in Thousands	New Unit Charge per 1000 gal	Total Charges This Class at Adjusted Rates	Total Blended Rate Revenues Projected for This Year
	In-city Residential	\$405,604	\$9.69	0.0	\$7.25	\$1,304	\$406,908
	Out of City Residential	\$59,162	\$14.53	0.0	\$10.88	\$289	\$59,451
	In-city Commercial	\$62,918	\$9.69	0.0	\$7.25	\$226	\$63,144
	Out of City Commercial	\$7,002	\$14.53	0.0	\$10.88	\$39	\$7,041
	No Charge Users	\$0	\$0.00	0.0	\$0.00	\$0	\$0
Rate Revenues at Current Rates		\$534,686	Rate Revenues at Adjusted Rates		\$1,858		
			Total Blended Rate Revenues for the Year ²				\$536,544

Note 1: If meter size-based minimum charges are being used, the amounts shown in this column are for fixed operating costs only. See the Meter Size-based Minimum Charges chart for the full minimum charges to assess to each meter or connection size class.

Note 2: Blended Rate Revenues for the one-year period 1/1/07 through 12/31/07 assume the following: 0.0 months collected at the new user charge rates and 12.0 months at the old rates.

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Chart 3B - Rate Statistics

This chart shows the equitability of your rates as set in the Rate Setting Chart.

If your rates are absolutely proportional to use on a volumetric basis, your % of usage and % of revenues figures will be the same within all the classes. That is not possible if you have any minimum charge.

Normally, the % of usage figure will be lower than the % of revenue for the lower volume classes. That will switch for the higher volume classes. Even for declining rate structures, this switch should occur near the volume of the average residential user, typically near 5,000 gallons (668 cu ft).

In urban and suburban areas the average monthly use for residential or general customers can be twice that used by their rural and "old town" counterparts. Use is largely dependent upon who lives in a community. Older people living in longer established neighborhoods tend to use less volume than younger people living in more recently developed areas. Consider this.

Your average residential and general customer uses 3,492 gallons per billing cycle.

Compare the % of Usage and % of Revenue for this volume of use, and others, in the chart below to get an idea of how proportional to actual volume use the rates are as proposed in this analysis.

General Customer Class (use per Billing Cycle in Gallons)		% Users		% Usage		% Rev at	
Class Bottom	Class Top	Current Rates	Proposed Rates	Current Rates	Proposed Rates	Current Rates	Proposed Rates
	In-city Residential	84.8%	71.0%	75.9%	70.2%		
	Out of City Residential	7.7%	12.1%	11.1%	15.6%		
	In-city Commercial	6.8%	14.8%	11.8%	12.1%		
	Out of City Commercial	0.4%	1.8%	1.3%	2.1%		
	No Charge Users	0.4%	0.4%	0.0%	0.0%		
Totals		100.0%	100.0%	100.0%	100.0%		

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Chart 4 - Indicators

This chart depicts the affordability of future rates, the financial health of the system and the ending balances in various accounts for the next 10 years.

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	Inflation Factor	Year Starting 1/1/06	Year Starting 1/1/07	Year Starting 1/1/08	Year Starting 1/1/09	Year Starting 1/1/10	Year Starting 1/1/11	Year Starting 1/1/12	Year Starting 1/1/13	Year Starting 1/1/14	Year Starting 1/1/15	Year Starting 1/1/16
Capacity Indicators												
Equivalent Monthly Bill for all Customers System-wide Averaged for the Year	0.0%	\$33.48	\$33.50	\$42.35	\$44.47	\$46.69	\$49.03	\$51.48	\$54.05	\$56.75	\$59.59	\$62.57
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User		\$37.48	\$45.90	\$45.90	\$48.20	\$50.61	\$53.14	\$55.79	\$58.58	\$61.51	\$64.59	\$67.82
Annual Median Household Income (AMHI)	2.1%	\$29,703	\$30,327	\$30,964	\$31,614	\$32,278	\$32,956	\$33,648	\$34,354	\$35,076	\$35,812	\$36,564
Affordability Index - Proposed Rates		1.51%	1.82%	1.78%	1.83%	1.88%	1.93%	1.99%	2.05%	2.10%	2.16%	2.23%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. 1.0% is generally considered affordable.												
Operating Ratio - Proposed Rates		2.31	1.29	1.34	1.41	1.48	1.57	1.58	1.57	1.60	1.60	1.60
1.0 is break even for Operating Ratio. Below 1.0 indicates operating in the "red." Generally, the operating ratio should be at least 1.15 for larger systems and 1.30 or more for smaller systems.												
Coverage Ratio - Proposed Rates		11.80	7.96	9.03	10.41	11.96	4.81	4.88	4.94	5.11	5.37	6.20
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.												
		Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on	Balance Ending on
Reserves		12/31/06	12/31/07	12/31/08	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16
Working Capital		\$606,928	\$103,451	\$138,850	\$186,895	\$238,599	\$247,208	\$256,242	\$269,494	\$277,364	\$289,496	\$299,038
Capital Improvement		\$0	\$313,794	\$330,612	\$348,118	\$366,341	\$303,952	\$296,911	\$303,896	\$311,814	\$348,059	\$394,251
New and Existing Debt		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contingency Expenses Reserve		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Current Position (sum of all Reserves)		\$0	\$21,036	\$41,808	\$62,263	\$26,099	\$43,488	\$60,281	\$76,401	\$91,769	\$106,298	\$119,896
		\$606,928	\$438,281	\$511,270	\$597,277	\$631,039	\$594,648	\$613,433	\$649,791	\$680,947	\$743,852	\$813,185
Working Capital + CIP + Contingency		\$606,928	\$417,245	\$469,462	\$535,013	\$604,941	\$551,160	\$553,153	\$573,390	\$589,178	\$637,555	\$693,289
Working Cap + CIP + Contingency Balances Discounted for Inflation		\$606,928	\$417,245	\$450,683	\$493,068	\$535,213	\$468,126	\$451,026	\$448,825	\$442,736	\$459,925	\$480,126

Chart 5 - Operating Ratio

Cherryvale, KS

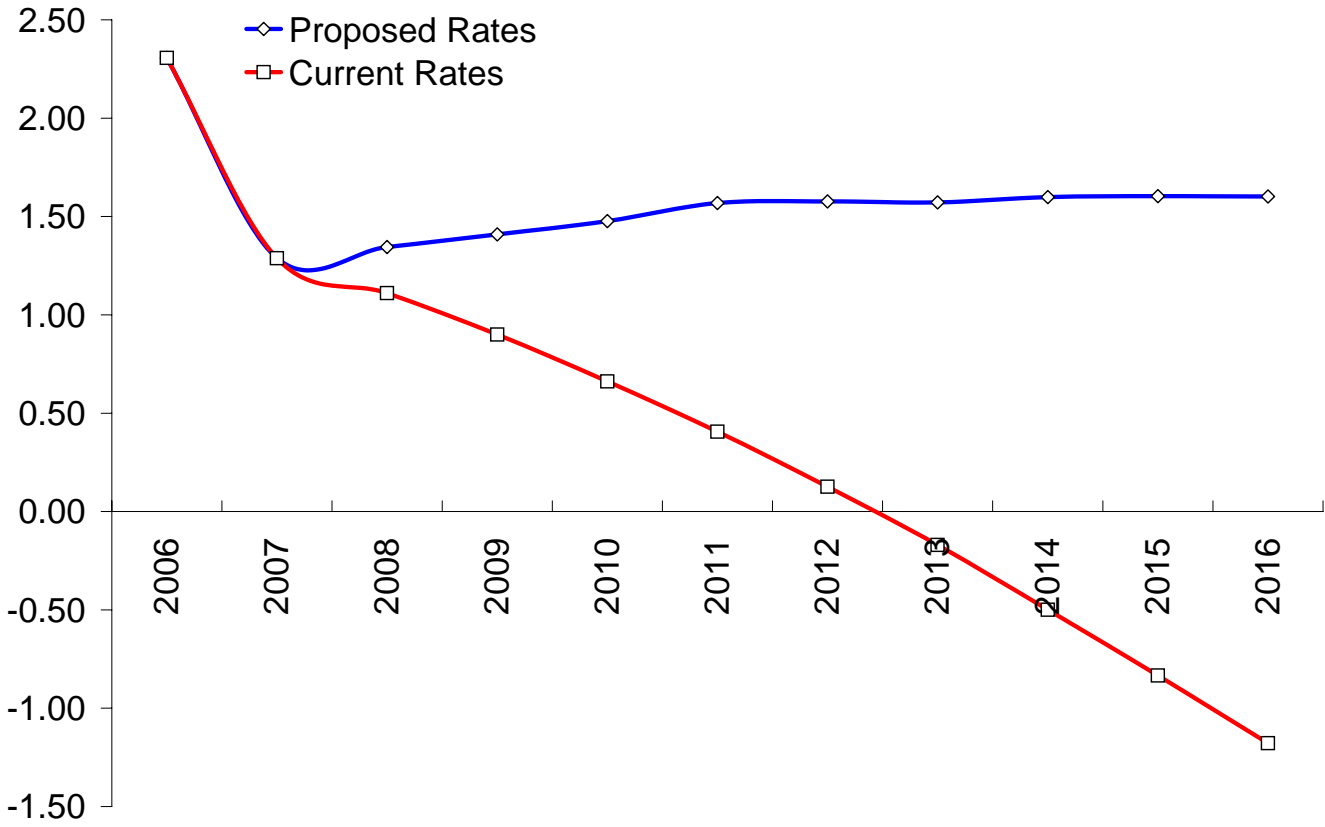


Chart 6 - Average User's Bill

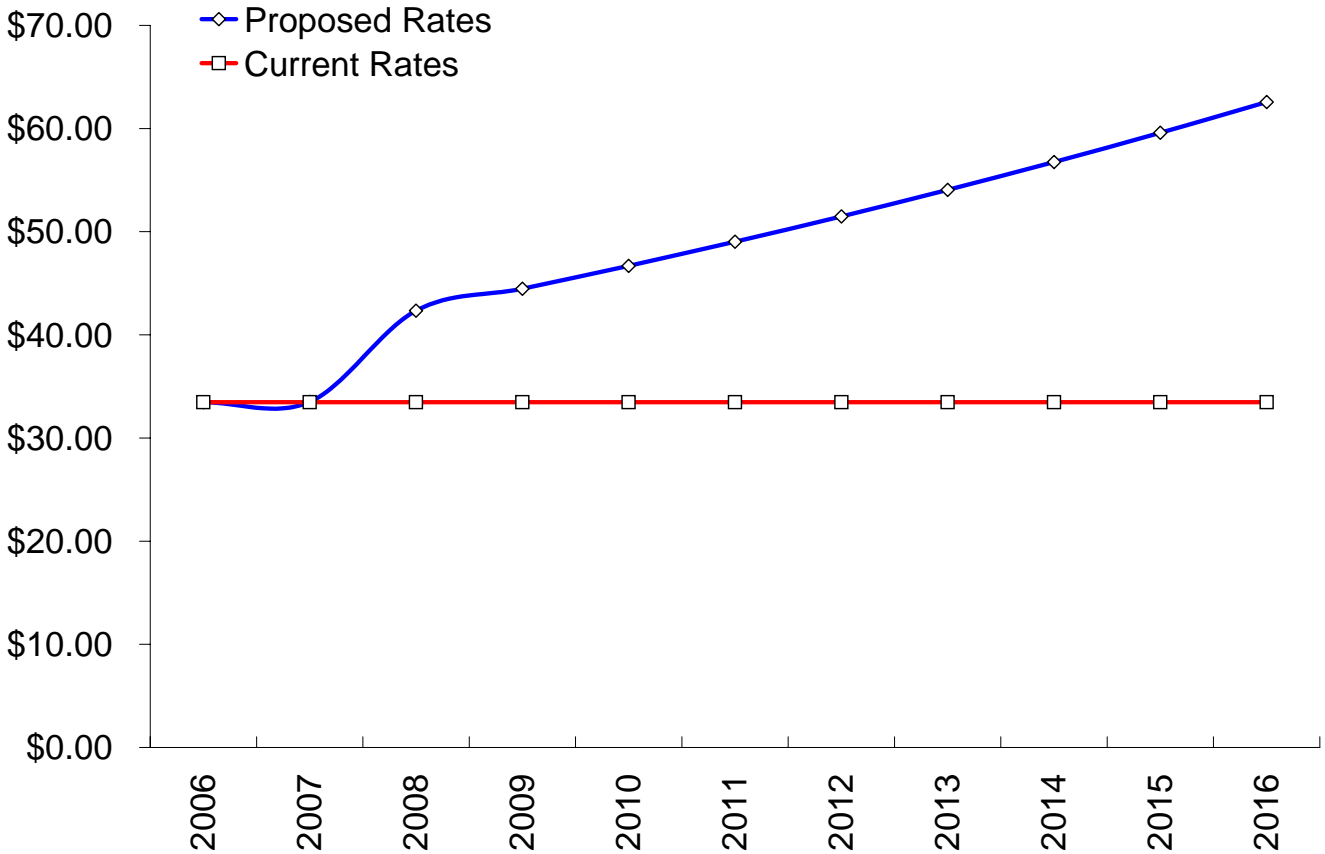


Chart 7 - Use & Revenues

Cherryvale, KS

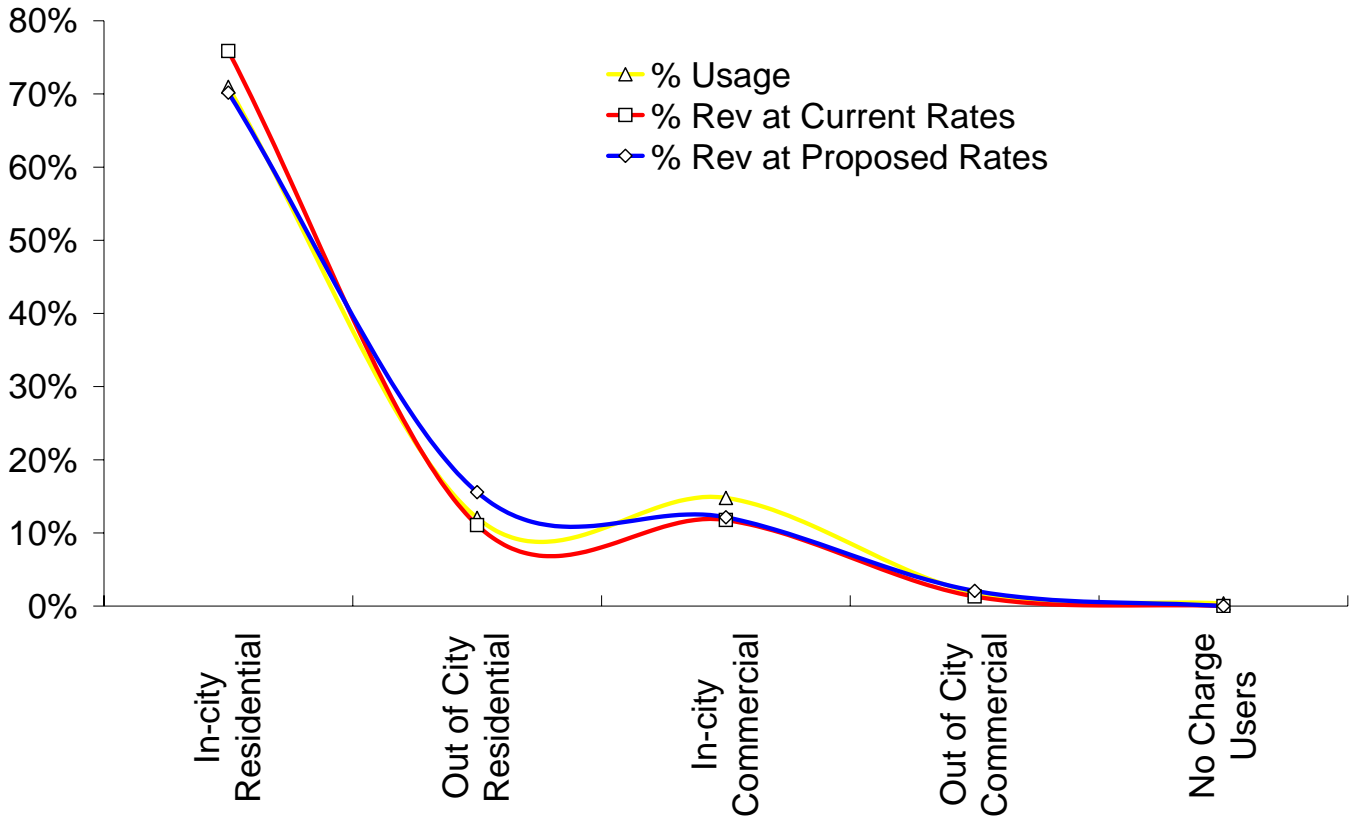


Chart 8 - Coverage Ratio

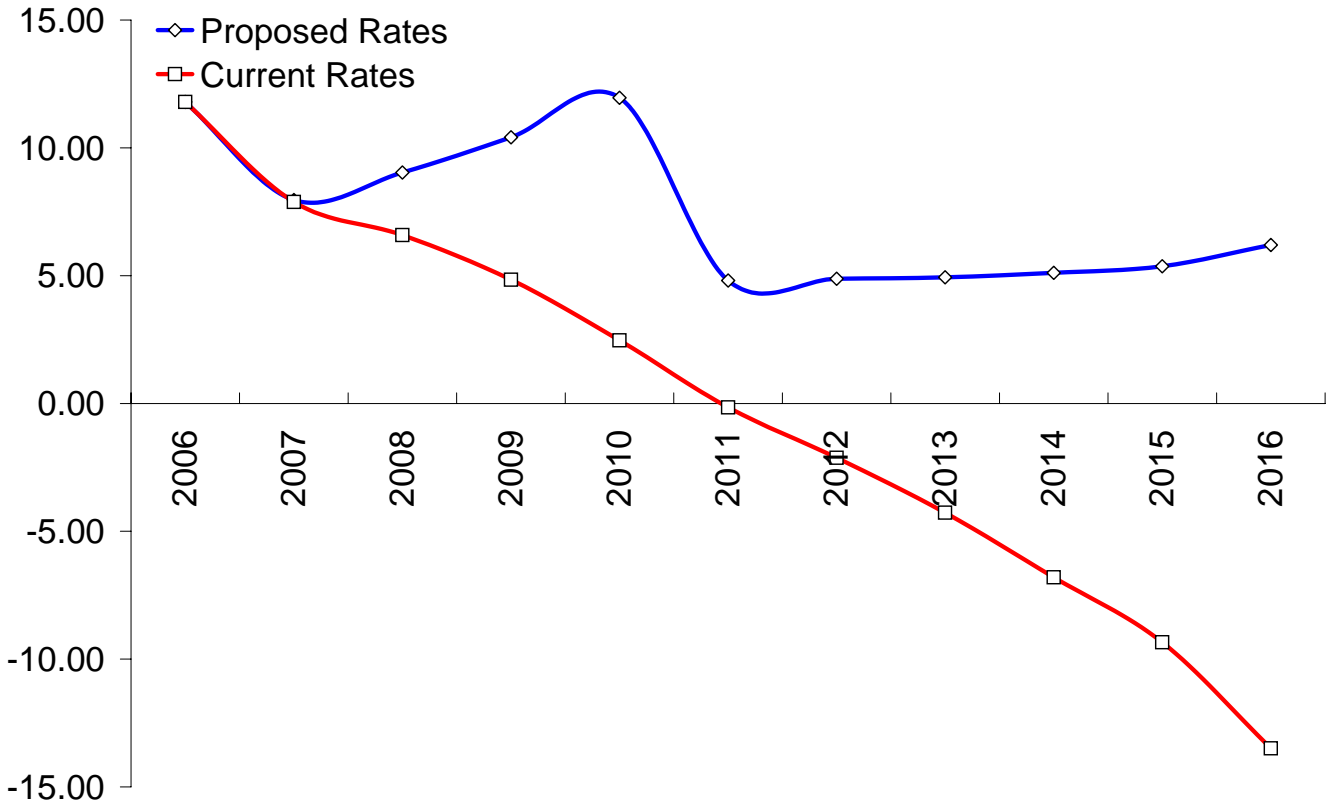


Chart 9 - Working Capital

Cherryvale, KS

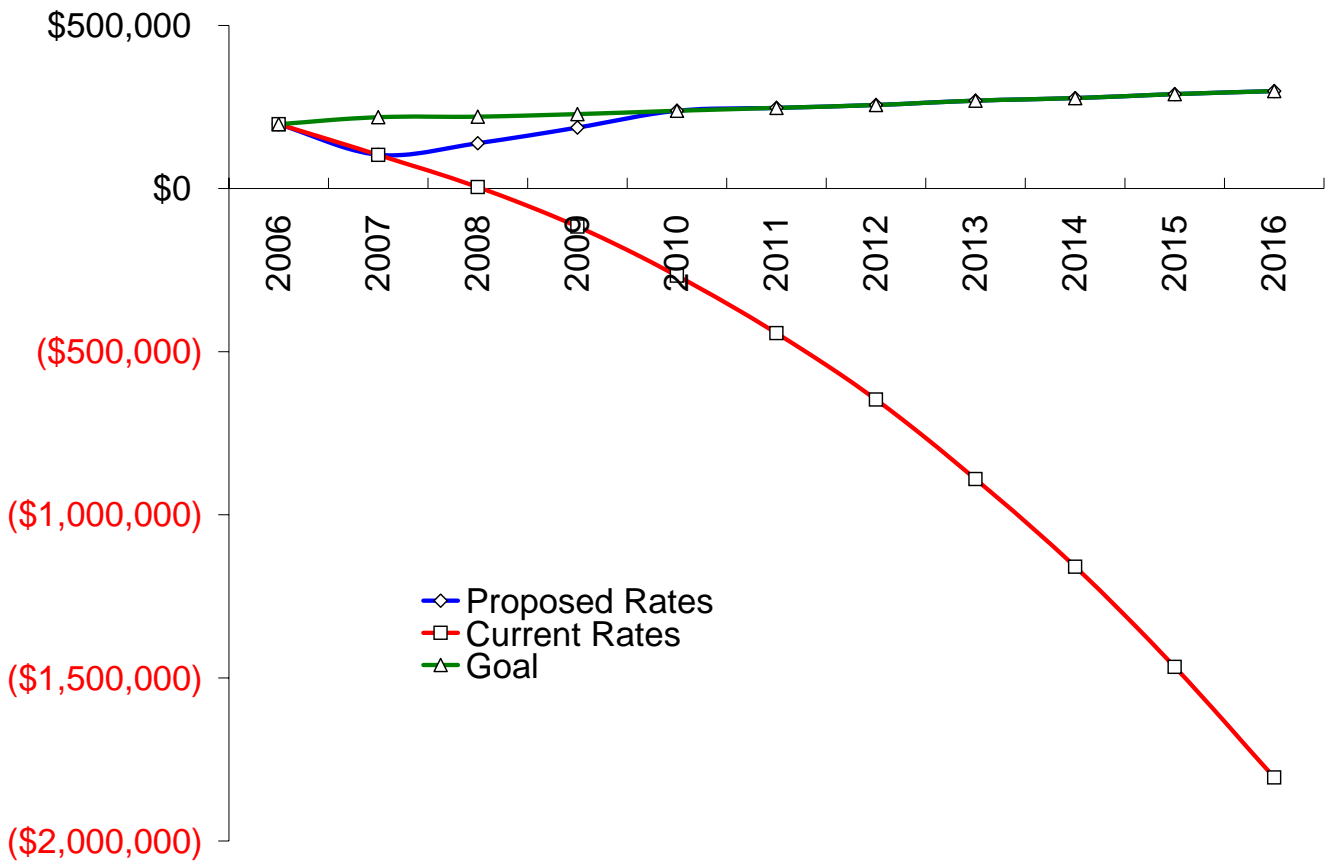


Chart 10 - Current Position

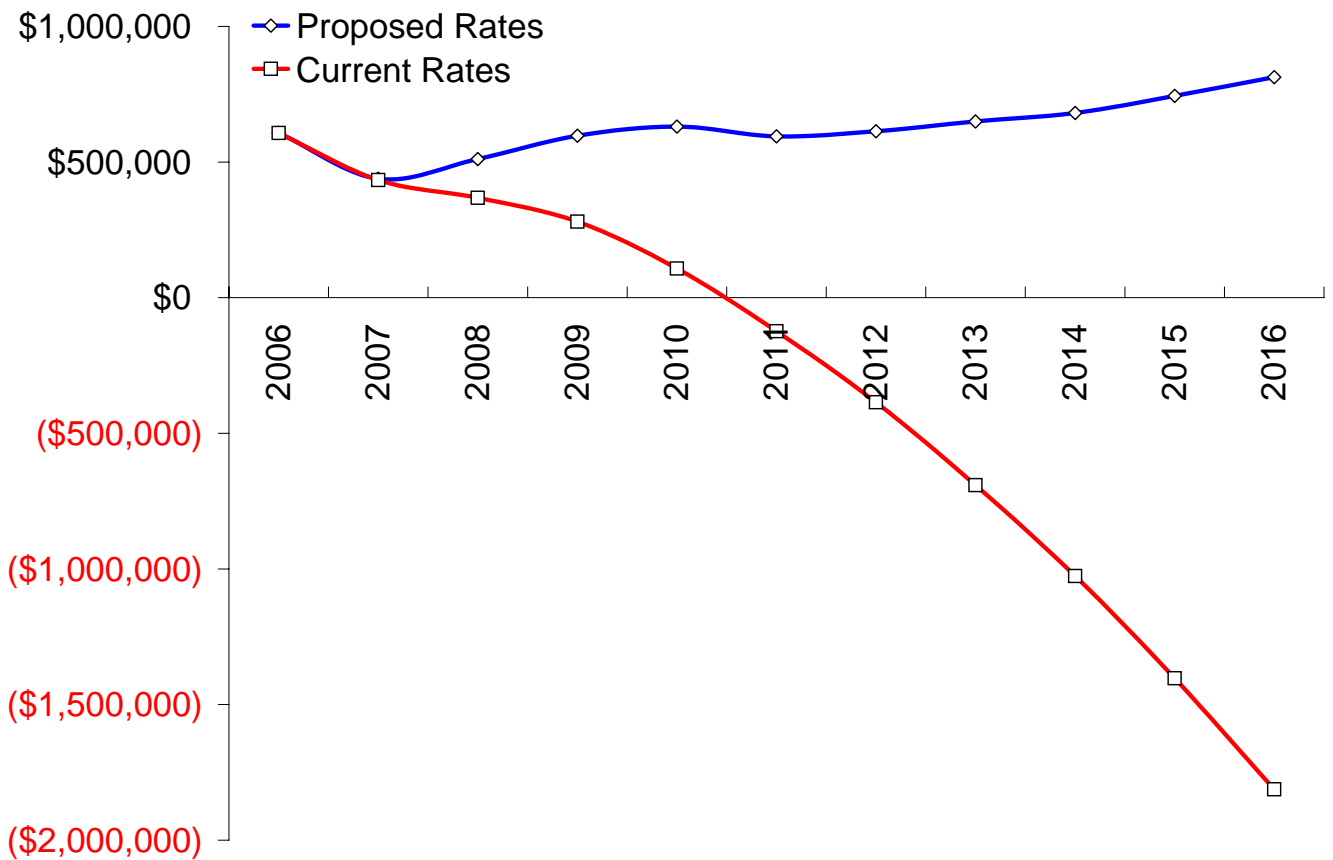
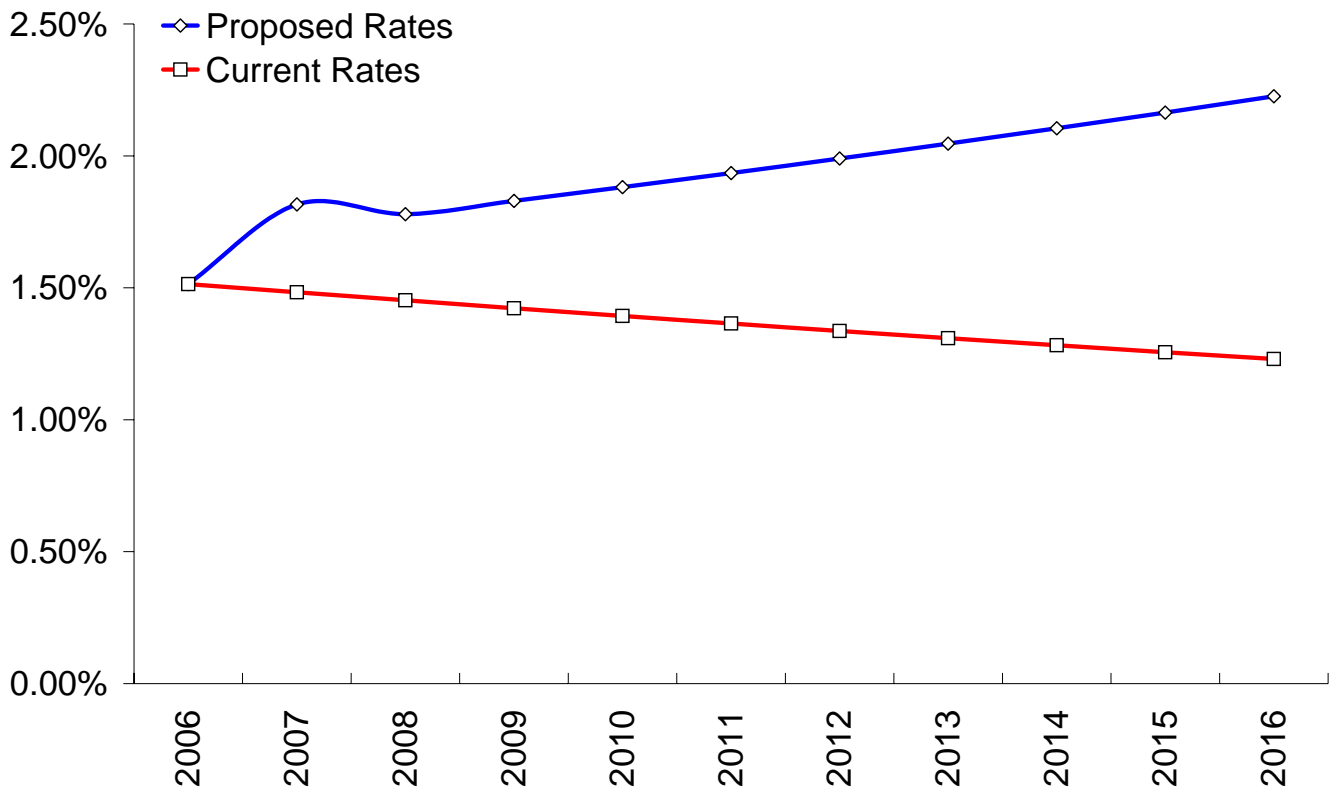


Chart 11 - Affordability

Cherryvale, KS



Cherryvale, KS, Proposed Water Rates Scenario 4

Chart 12 - Old Rates, New Rates and Changes

CBGreatRates© Version 3.6

These charts compare current and proposed rates.

Class Bottom	Class Top	Average or Median use in Thousands	Current Average Monthly Bill	Proposed Average Monthly Bill Starting on 12/31/07	Bill Increase or (Decrease) After Rate Adjustment
General Customer Class (use per Billing Cycle in Gallons)					
0	999	0.5	\$17.50	\$13.31	(\$4.19)
1,000	1,999	1.5	\$20.00	\$20.55	\$0.55
2,000	2,999	2.5	\$24.99	\$27.80	\$2.80
3,000	3,999	3.5	\$29.99	\$35.04	\$5.05
4,000	4,999	4.5	\$34.98	\$42.28	\$7.30
5,000	5,999	5.5	\$39.98	\$49.52	\$9.55
6,000	6,999	6.5	\$44.97	\$56.77	\$11.79
7,000	7,999	7.5	\$49.97	\$64.01	\$14.04
8,000	8,999	8.5	\$54.96	\$71.25	\$16.29
9,000	9,999	9.5	\$59.96	\$78.49	\$18.54
10,000	14,999	12.5	\$74.95	\$100.24	\$25.28
15,000	19,999	17.5	\$99.95	\$136.48	\$36.53
20,000	29,999	25.0	\$137.44	\$190.85	\$53.41
30,000	39,999	35.0	\$187.44	\$263.34	\$75.90
40,000	49,999	45.0	\$237.43	\$335.83	\$98.40
50,000	59,999	55.0	\$287.43	\$408.33	\$120.90
60,000	69,999	65.0	\$337.42	\$480.82	\$143.40
70,000	79,999	75.0	\$387.42	\$553.31	\$165.89
80,000	89,999	85.0	\$437.41	\$625.80	\$188.39
90,000	99,999	95.0	\$487.41	\$698.30	\$210.89
100,000	999,999	550.0	\$2,762.40	\$3,997.04	\$1,234.64
Special Customer Classes					
	In-city Residential	3.5	\$29.96	\$35.01	\$5.05
	Out of City Residential	6.6	\$48.29	\$85.84	\$37.56
	In-city Commercial	9.0	\$57.56	\$75.02	\$17.46
	Out of City Commercial	20.2	\$116.58	\$234.39	\$117.81
	No Charge Users	4.5	\$0.00	\$0.00	\$0.00

Cherryvale, KS, Proposed Water Rates Scenario 4

Chart 12B - Rate Changes in Percent

CBGreatRates© Version 3.6

Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
General Customer Class (use per Billing Cycle in Gallons)		
0	999	-24%
1,000	1,999	3%
2,000	2,999	11%
3,000	3,999	17%
4,000	4,999	21%
5,000	5,999	24%
6,000	6,999	26%
7,000	7,999	28%
8,000	8,999	30%
9,000	9,999	31%
10,000	14,999	34%
15,000	19,999	37%
20,000	29,999	39%
30,000	39,999	40%
40,000	49,999	41%
50,000	59,999	42%
60,000	69,999	42%
70,000	79,999	43%
80,000	89,999	43%
90,000	99,999	43%
100,000	999,999	45%
Special Customer Classes		
	In-city Residential	17%
	Out of City Residential	78%
	In-city Commercial	30%
	Out of City Commercial	101%
	No Charge Users	#DIV/0!

Cherryvale, KS Proposed Rate Chart

Derived from the Cherryvale, KS, Proposed Water Rates Scenario 4

All users connected to the municipal system shall pay fees and charges according to the following schedule.

Class Bottom	Class Top	Average or Median use in Thousands	Minimum Charge per Billing Cycle	Minimum Charge Usage Allowance in Thousands	Unit Charge per 1000 Gallons for use Within Each Class
General Customer Class (use per Billing Cycle in Gallons)					
0	999	0.5	\$9.69	0.0	\$7.25
1,000	1,999	1.5	\$9.69	0.0	\$7.25
2,000	2,999	2.5	\$9.69	0.0	\$7.25
3,000	3,999	3.5	\$9.69	0.0	\$7.25
4,000	4,999	4.5	\$9.69	0.0	\$7.25
5,000	5,999	5.5	\$9.69	0.0	\$7.25
6,000	6,999	6.5	\$9.69	0.0	\$7.25
7,000	7,999	7.5	\$9.69	0.0	\$7.25
8,000	8,999	8.5	\$9.69	0.0	\$7.25
9,000	9,999	9.5	\$9.69	0.0	\$7.25
10,000	14,999	12.5	\$9.69	0.0	\$7.25
15,000	19,999	17.5	\$9.69	0.0	\$7.25
20,000	29,999	25.0	\$9.69	0.0	\$7.25
30,000	39,999	35.0	\$9.69	0.0	\$7.25
40,000	49,999	45.0	\$9.69	0.0	\$7.25
50,000	59,999	55.0	\$9.69	0.0	\$7.25
60,000	69,999	65.0	\$9.69	0.0	\$7.25
70,000	79,999	75.0	\$9.69	0.0	\$7.25
80,000	89,999	85.0	\$9.69	0.0	\$7.25
90,000	99,999	95.0	\$9.69	0.0	\$7.25
100,000	999,999	550.0	\$9.69	0.0	\$7.25
Special Customer Classes					
	In-city Residential	3.5	\$9.69	0.0	\$7.25
	Out of City Residential	6.6	\$14.53	0.0	\$10.88
	In-city Commercial	9.0	\$9.69	0.0	\$7.25
	Out of City Commercial	20.2	\$14.53	0.0	\$10.88
	No Charge Users	4.5	\$0.00	0.0	\$0.00

Cherryvale, KS

Chart 14A - Rates During Test Year

CBGreatRates© Version 3.6

These charts show current rates, starting reserve balances and incomes for the test year.

Class Bottom	Class Top	Average or Median use in Thousands	Minimum Charge	Minimum Allowance in Thousands	Minimum Charge Usage	Unit Charge per 1000 Gallons for use Within This Class
	In-city Residential	3.492	\$17.50		1.0	\$5.00
	Out of City Residential	6.557	\$20.50		1.0	\$5.00
	In-city Commercial	9.012	\$17.50		1.0	\$5.00
	Out of City Commercial	20.217	\$20.50		1.0	\$5.00
	No Charge Users	4.482	\$0.00		0.0	\$0.00

Chart 14B - Reserves and Incomes

CBGreatRates© Version 3.6

Reserve Starting Balances as of 1/1/06 (Carryover From Prior Year)

- \$588,418 Working Capital
- \$0 Capital Improvement
- \$0 New and Existing Debt
- \$0 Contingency Expenses Reserve
- \$0 Replacement

Incomes 1/1/06 Through 12/31/06

- \$588,418 Working Capital Starting Balance
- \$501,281 User Fees Actually Collected
- \$0 Surcharges

The recorded rates and usage predict billable user fees at:
\$534,147

8 New Customer Connections (Taps)

125 Average Tap Fee

- \$1,000 Tap & Impact Fees Devoted to Operating Costs
- \$10,281 Other Charges (Late Payment Penalties, etc.)
- \$18,374 Interest Earned on Deposits

Tap & impact fees dedicated to future capital improvements:
\$0

- \$37,887 Other Income Compensating Use Tax
- \$4,295 Other Income Meter Resets/Reconnects
- \$7,135 Other Income Connection Service Fees
- \$150 Other Income Insufficient Checks
- \$2,059 Other Income Water Protection Fee

\$1,170,880 Sum of Incomes and Working Capital Starting Balance

Annual Median Household Income (AMHI)

\$29,703 AMHI for Cherryvale, KS for the year 2007, projected

2.1% Rate of growth in AMHI (assumed)

Cherryvale, KS

Chart 15 - Replacement Schedule

CBGreatRates© Version 3.6

This chart depicts equipment replacements and major maintenance work for the next 20 years.

- 4.00% Average Inflation Rate for the Following Water System Equipment for the Term of This Replacement Schedule
- 4.00% Average Interest Rate on Balances Invested for the Term of This Replacement Schedule
- 4.00% Average Interest Rate on Amounts Borrowed for the Term of This Replacement Schedule

Year Beginning	Item Description	Amount in Today's Dollars	Yearly Total in Future Dollars	End of Year Balance	Minimum Desired End of Year Balance
1/1/07	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$27,614	\$21,036	\$32,614
1/1/08	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$28,718	\$41,808	\$33,918
1/1/09	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$29,867	\$62,263	\$35,275
1/1/10	Replacements at 5.7% of annual operating costs, not including admin expenses and water tower repaint	\$77,614	\$87,305	\$26,099	\$36,686
1/1/11	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$32,304	\$43,488	\$38,153
1/1/12	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$33,596	\$60,281	\$39,680
1/1/13	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$34,940	\$76,401	\$41,267
1/1/14	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$36,338	\$91,769	\$42,917
1/1/15	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$37,791	\$106,298	\$44,634
1/1/16	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$39,303	\$119,896	\$46,420
1/1/17	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$40,875	\$132,467	\$48,276
1/1/18	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$42,510	\$143,905	\$50,207
1/1/19	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$44,210	\$154,100	\$52,216
1/1/20	Replacements at 5.7% of annual operating costs, not including admin expenses and water tower repaint	\$77,614	\$129,233	\$79,681	\$54,304
1/1/21	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$47,818	\$83,700	\$56,476
1/1/22	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$49,731	\$85,966	\$58,736
1/1/23	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$51,720	\$86,335	\$61,085
1/1/24	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$53,789	\$84,649	\$63,528
1/1/25	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$55,940	\$80,744	\$66,069
1/1/26	Replacements at 5.7% of annual operating costs, not including admin expenses	\$27,614	\$58,178	\$74,445	\$68,712
Notes: Minimum desired balance set at the average of replacement costs. Those costs are assumed at 5.7% of annual operating costs not including administration and debt costs, plus water tower repaints. This brings your deposit to the amount you are now setting aside for replacements.		Starting Account Balance		\$0	\$32,614
		Present Worth less Starting Account Balance		\$627,187	Minimum Desired Balance in Today's Dollars
		Minimum Annual Annuity		\$46,150	
		Discretionary Annuity		\$2,500	

Required Annual Deposit to Replacement Account \$48,650

Chart 16 - Operating Costs During Test Year

This chart depicts operating costs for the test year and distributes those costs to fixed and variable categories.

Item	Amount	% of This Cost That is Fixed	Total Costs After Adjustment for Special Costs Below	Fixed Costs After Adjustment for Special Costs Below	Variable Costs After Adjustment for Special Costs Below
Salaries, Benefits, Training for Administration Staff	\$49,449	100%	\$49,449	\$49,449	\$0
Billing, Office Operation, Rent & Other Overhead	\$11,694	100%	\$11,694	\$11,694	\$0
Insurance & Bonding	\$4,860	100%	\$4,860	\$4,860	\$0
Accounting, Legal, Engineering, Medical, etc.	\$916	100%	\$916	\$916	\$0
Bond and Interest	\$56,220	50%	\$56,220	\$28,110	\$28,110
Existing Debt Reserve Payments	\$0	50%	\$0	\$0	\$0
Contingency Expenses Reserve	\$0	50%	\$0	\$0	\$0
Salaries, Benefits, Training for Operations Staff	\$42,124	0%	\$42,124	\$0	\$42,124
Electricity & Utilities for Operations	\$1,739	0%	\$1,739	\$0	\$1,739
Gas - Filter Plant, Neosho Shop	\$1,851	0%	\$1,851	\$0	\$1,851
Supplies	\$12,867	0%	\$12,867	\$0	\$12,867
Chemicals	\$0	0%	\$0	\$0	\$0
Contract Labor	\$894	0%	\$894	\$0	\$894
Auto & Other Rolling Stock	\$6,374	0%	\$6,374	\$0	\$6,374
General Fund-Overhead	\$0	100%	\$0	\$0	\$0
Permits, Taxes and Fees	\$8,101	100%	\$8,101	\$8,101	\$0
Payment to Replacement Account	\$48,650	0%	\$48,650	\$0	\$48,650
Surchargeable Water Services (Adjustment)	N.A.	0%	\$0	\$0	\$0
Unaccounted-for Water (Adjustment)	N.A.	0%	\$0	\$0	\$0
Treated Water Purchase	\$275,864	0%	\$275,864	\$0	\$275,864
Special Highway	\$75,000	50%	\$75,000	\$37,500	\$37,500
Equipment	\$0	0%	\$0	\$0	\$0
Training, Uniforms and Physicals	\$2,955	50%	\$2,955	\$1,478	\$1,478
Building Improvements and Capital Outlay	\$9,041	50%	\$9,041	\$4,521	\$4,521
Building & Grounds	\$1,819	50%	\$1,819	\$909	\$909
Water Meters, Testing, Reimbursement & Misc	\$2,184	50%	\$2,184	\$1,092	\$1,092
Total Costs:	\$612,602		\$612,602	\$148,630	\$463,972

Special Cost Calculations

Fixed Cost/User/Month = \$9.31
Variable Costs/Unit Sold = \$6.97
Total Cost to Produce each Unit Sold = \$9.20

Surchargeable water services are estimated at	\$0
Unaccounted-for water is estimated at	23%
The relative cost to produce unaccounted-for water is	100%
Cost to produce unaccounted-for water is estimated at	\$136,550
Percentage of unaccounted-for water to allocate to fixed costs is	0%

Annual Flow Metered Through Customer Meters	66,560,000 gallons/year
Gallons/Billing Cycle Used by Average General Customer	#DIV/0!
Gallons/Billing Cycle Used by Average Special Customer	4,171
+ Unaccounted-for water	19,589,000 gallons/year
= Total Annual Flow	86,149,000 gallons/year