

Note: This rate analysis was done to resolve a wholesale pricing dispute between my client; a water district, and their wholesale customer, a small city. The wholesale price hinged upon assessment of the capital expenses incurred by the district to serve the city. Therefore, this analysis is particularly relevant to the methodology needed for calculating capital cost-based impact fees and for calculating wholesale prices on a cost to serve basis. The materials included in this package are only the final submittal made after some revisions requested by the city were incorporated. Those revisions supported my original wholesale price calculations within 1.5 percent.

November 21, 2008

The Honorable David Allen, Chairman
Rural Water District #3 of Jackson County, Kansas
411 New York Avenue
Holton, KS 66436

Subject: Water User Charge Analysis Results

Dear Mr. Allen:

I want you and the board to know that I have thoroughly enjoyed working with Brenda Adkins. (I'm sure other staff have given support in this project, as well.) I have especially enjoyed working with your attorney, Terelle Mock. Terelle has been a wonderful collaborator and coordinator on the rate analysis and I'm sure she serves you well in her regular capacity as your attorney.

Enclosed is my analysis, updated to reflect additional detail requested by the city of Mayetta's accountant. To avoid confusion please discard or at least set aside all submittals dated earlier than this package.

My previous analysis was based upon my experience in how asset values for water systems generally break out into distribution, transportation and production categories. Mayetta's accountant requested me to review the District's audited financial statements to see if it includes a breakout of asset values. If so, he wanted the analysis based on that breakout. Brenda Adkins relayed the audited financial statements to me and, actually to my surprise, they include such a breakout. You can find this information in the 2005 Income and Expense Statement, Note 2.

I recalculated the rates based on the actual asset value data in the statements. I am pleased to report that the detailed breakout supported my experience very closely. Rather than the wholesale unit charge rate of \$5.50/1,000 gallons that I derived from my previous analysis, the detailed breakout supports a rate of \$5.58. I only underestimated the rate that the District should charge wholesale customers by 1.5 percent. This slight increase in wholesale rates enabled a slightly lower increase to the District's residential customers to achieve the same current position. The analysis and report reflect these minor changes.

I believe you can now move forward to get your rates reset properly and to correct the ambiguities in the wholesale supply agreements.

While this submittal marks the completion of the most complex part of the analysis project for me, you may have questions as you review this information, finalize your rates, consider capital improvement issues and the like. If you do, call me. My goal is not to simply complete your analysis on paper, get paid and leave you. It is to make you successful at funding your system and services properly for a long time while enabling you to charge your ratepayers fair rates. That will require some follow-up assistance. I'm ready when you need help.

I hope you are now able to proceed to rate resetting on your own. However, if you desire to have me help you in one or more meetings to go over the analysis and get your rates reset, or to help you redraft supply agreement rate language, I will be glad to do so.

Best regards,
Carl Brown Consulting, LLC



Carl E. Brown
President

Enclosures

Rate Analysis Report

Rural Water District #3

Jackson County, Kansas

Prepared November 21, 2008

by Carl Brown, President
Carl Brown Consulting, LLC

Purpose

This report and the accompanying analysis were requested expressly to determine the costs of providing service to the District's wholesale customers. This report and analysis does that. A section in this report details how the wholesale rates were derived.

Wholesale rates cannot be considered in a vacuum, therefore, this analysis includes residential and general rates, too.

This package is intended to help District staff prepare proposed rate and fee revisions and to help the board to better understand the District's situation and what should be done about it.

This report is part of a package that includes the following

- A cover letter,
- This narrative report that details the findings and recommendations, and
- The analysis itself which depicts what will happen if you adjust rates in the ways described.

Summary

Analysis determined that your water system has reserves that are strong now but, without an initial increase and future increases, they will dwindle after 2010. The District's current position is projected to go negative by 2018 without rate increases. Do not be alarmed by this description; it fits most systems. However, do prepare to make rate increases on a regular basis to maintain a strong financial position. The recommended rates are structured to charge wholesale customers on a cost-to-serve basis and to be fairer to residential and general ratepayers than the current rates. This report will tell you how the proposed rates will address rate adequacy and structure. And, it will detail what you need to do to effectuate all needed rate and policy changes.

Principles

I use several guiding principles when I help systems set their utility rates, fees and policies. As you read this report and the analysis, keep in mind that my recommendations to you have been weighed against these principles.

1. Water, sewer and all other utilities are businesses, regardless of who owns them. Businesses must cash flow properly.
2. In addition to functioning in a business-like manner, a utility has a responsibility to its customers to nearly guarantee its long-term prosperity for their benefit. The customers expect the service to be there whenever they want to use it. Thus, a utility must err on the conservative side by maintaining strong reserves that will enable it to weather financial storms.
3. If a service costs the utility money, the utility should recover that cost from the most logical 'person' if that makes good business and community administration sense. For example, generally 'growth should pay for growth.' Developers should fairly pay for their consumption of utility capacity.
4. If adjusting a rate, fee or policy will turn currently 'good' customers into 'bad' customers, consider the necessity of the change carefully before making it. For example, while it may be warranted, raising the minimum charge markedly to your residential customers may make it very difficult for fixed, low-income customers to pay their water bills. That may cause more of them to pay late or not pay at all. That may trigger the District's processes of having the District's attorney write threatening letters to those customers and eventually require shutoff of service. Thus, in the attempt to generate more net revenue by raising rates, net revenues may actually go down.

Action Items

(Use the following as a checklist of rate setting 'to-do' tasks)

The following actions are required to achieve the results predicted by the analysis.

1. The minimum charge will continue to include no usage allowance.
2. Effective January 1, 2009:
 - a. The average benefit unit fee should be raised to \$4,500 (it is now \$4,000). If other benefit unit fee rates are charged they should be raised by this same proportion.
 - b. Set the minimum charge for all Native American residential and general customers at \$15.05/monthly bill. For non-Native American customers add \$6.00 to cover debt service. Wholesale customers will pay no minimum charge.
 - c. Set the unit charge for all residential and general customers at \$6.01/1,000 gallons for all volume used.
 - d. Set the unit charge for all wholesale customers at \$5.58/1,000 gallons for all volume used.
3. Assuming financial performance was well predicted by the analysis, effective January 1, 2010 and every year thereafter until a new analysis determines otherwise, raise all rates and fees by 4.0 percent.

Discussion of the Analysis Regarding Wholesale Customer Rates

Wholesale rates were calculated on a cost-to-serve, "backwards looking" basis averaged across all wholesale customers. Backwards refers to the fact that only known past costs or costs that were calculated from past known costs were used in the cost-to-serve rate calculation. That means that no cost for contributions to reserves, profit or any other cost was considered in this rate calculation.

Averaging rates across all wholesale customers is almost always preferred. That is because systems rarely track their operating and capital costs for each wholesale customer. Thus, individual rates would require gross estimates of these costs. The District does not track operating costs by individual customer and it does not separate capital costs by customer class. However, because Note 2 in the 2005 audited financial statements delineates the asset values to various types, almost all asset values can be assigned to user classes. Considering all of these issues, average wholesale rates are most appropriate in this case.

As demonstrated in Charts 17 and 18, I made calculations of how costs should be broken down for the wholesale class and by asset type. The following discussion will cover issues as they are presented in these charts.

Chart 17

Service cannot be provided without using capital equipment. Therefore, the value of the capital equipment used in providing the service must be incorporated into a cost-to-serve rate. Chart 17 calculates the value of capital equipment required to provide service to the wholesale customers and converts that value to an annual expense, called "annualized value" in the analysis.

Wholesale customers use the production and transportation components of the system but not the distribution component. (I also created an "Other" category for those assets where the type is not known. These asset values are not assigned to the wholesale customer class.)

The breakdown from the financial statement for each of the assets aligns very well with my own experience of 17 years working with water systems and their rates and finances as well as monitoring what water research and trade publications report. Industry sources indicate that the cost to build most water systems is composed of 75 to 80 percent transportation and distribution. The balance is for production and treatment.

The “Cost Applicable to Wholesale Customers” amounts are those costs classified as “transportation” or “production” costs. The “Useful Life in Years” figures are the useful life figures from the financial statement. All appear reasonable to me. “Pmt at 4.5% for Useful Life” is the equivalent loan payment at 4.5 percent over the useful life of each asset that is applicable to the wholesale class. These loan lengths are reasonable estimates of the useful lives of the system components and the interest rate is a reasonable average interest rate available to an entity such as most of the cities that will be charged using the wholesale rates. The basic idea is this. The majority of the system’s capital assets will last 30 to 50 years so continually paying a 30 to 50-year note for these assets is a good estimate of the system’s annual capital cost.

The “Usage Rate of Wholesale Users” amounts to 15.08 percent. That is the percentage of the system’s flow that was consumed by the wholesale user class. This percentage of each cost was assigned to the wholesale class. Those amounts are shown in the right-most column of the chart. Finally, the total of these amounts is the annualized capital asset value the wholesale user class is responsible to pay for in its wholesale rates. The annualized value is one of the operating costs in the next chart.

Chart 18

This chart lists the operating costs of the system as a whole, assigns a portion of those costs to the wholesale users based upon the benefit they derive from each cost and then calculates the unit charges required to pay all identified costs.

Chart 18 starts with the operating costs the District experienced during the test year, disregarding debt service and substituting the annualized value amount calculated in Chart 17. These amounts are shown in the “Total System Cost” column. The “% of This Cost That is Fixed” is the same as appears in Chart 16, which is the operating cost basis for the system as a whole during the test year. The next two columns split costs between fixed and variable cost categories. These also are the same as in Chart 16.

The next column, the “Benefit Wholesale Customers Derive From This Item Compared to Average User” assesses the degree by which wholesale customers benefit from each cost item compared to general customers on a percentage basis. In other words, a 100 percent benefit rate means that a wholesale customer benefits, on a dollar basis, exactly as much from that item as a general customer does. A 50 percent rate means a wholesale customer benefits only half as much, on a dollar basis, as a general customer, generally because the wholesale customer uses more water volume and enjoys greater economy of scale for that cost item.

The next two columns result from multiplying the benefit percentage column by the fixed and variable cost columns.

The last column, the “Total Costs Attributable to Wholesale Customers,” is the sum of the two previous dollar amount columns. This is the total dollar cost attributable to wholesale customers for each cost item.

At the bottom of this chart is the calculation of the cost-to-serve rate, on a unit charge basis only, for all wholesale customers based upon the total costs they caused the system to incur and the total volume of water used by all wholesale customers. This is the rate that was subsequently used in Chart 3A for all wholesale customers to calculate the rate revenues the system will generate using the new rates.

Wholesale Pricing Issues

Many if not most water wholesalers add a 'profit' margin to their costs to arrive at their final pricing. As in any other business, when a water system serves out of service area customers it is to the benefit of the in service area customers that wholesale sales cover their costs and make a reasonable profit. In my experience wholesalers generally end up charging a profit margin of five to 10 percent over wholesale costs incurred. For comparison, across the country most utility corporation commissions (the state agency that regulates for-profit utilities) allow a return on capital investment of approximately 10 percent per year. This is only a cost-of-service analysis; therefore, I did not include a profit margin or contribution to reserves in the rate calculation.

Cost-of-service calculations are complex. It is my recommendation that the District not perform such calculations every time it needs to raise user rates to keep pace with inflation and to cover other ministerial revenue increase needs (which should be done annually). Instead, when the District has need of such minor rate increases it should raise wholesale rates by the same percentage as it does its residential and general customers. My analysis found that a four percent annual increase should be sufficient for several years. The action items at the beginning of this report included increasing all user rates, including wholesale rates, by four percent during years following the initial rate restructuring until a new analysis is performed, which probably should happen in three to five years.

The previous comments conclude the discussion of the wholesale cost-of-service rate analysis.

The following comments concern all other rate related issues.

Basic and Policy Action Items

(Use the following as a checklist of 'to-do' tasks)

1. If your current late payment penalties are not at least \$10.00 or 10 percent of the outstanding balance each month, whichever is greater, set them at these rates to give late payers more incentive to pay on time.
2. Before you officially propose or adopt new rate language, you may mail or e-mail the rate chart, ordinance or agreement to me and, as a part of this project, I will verify that your language will effectuate the intended rate adjustments.
3. Determine how long, on average, it takes to perform the various services you provide in the field, such as after-hours service, meter disconnects and reconnects, special meter readings, etc. Be sure to include all the time you actually pay staff for performing these services. Then determine how much it costs the District per hour, on average, to have staff perform these services. This includes benefits, taxes, use of District vehicles, tools and minor equipment, etc. It should also include a fair amount to cover the time that office staff devotes to working on these services to track them, bill for them, etc. This should be the hourly rate you will charge for these services. In addition, set a minimum that you will charge for showing up, whether the service takes an hour to perform or 10 minutes. In essence, set your fees in the same way plumbers and similar technicians do – a set fee for showing up, which buys the customer a set amount of time, usually one hour, and an hourly rate if the job takes longer than the show up charge will cover. While accounting for time and other investments in the various functions is important, do not

make the process burdensome. For many functions you likely can just estimate your time occasionally.

4. District staff performs services for developers and others. This may include review and approval of water system expansion plans and connection applications. For all such services you should determine their full costs and set fees and charges to fully recover those costs. Those funds should be deposited into the general system fund and used to pay the personnel and other expenses incurred by the utility for providing these services.
5. Retain required funds in interest bearing debt service and debt reserve accounts when required by your lender(s). Endeavor to build the balances shown as "Capital Improvement Fund Balance" at the bottom of Chart 2, or the amounts your lender requires, whichever is greater.
6. You have no formal equipment replacement schedule. Therefore, you should flesh this schedule out as soon as practical. You should maintain and improve this schedule through time so you will have good projections of what items will need replacement at what estimated costs during which years. Bear in mind, just because an item is listed for replacement in a certain year does not mean it will actually be replaced then. If the item is serving well it can be left in service and monitored. However, when items need replacement, the reserve funds saved to fund the schedule should be adequate to pay for all replacements when needed.
7. You do not have a formal equipment replacement account and you should start one. Then, set aside replacement reserves in the amounts specified to pay for those expenses and use those reserves only for those purposes. The analysis includes the document, "Chart 15, Replacement Schedule" that shows total estimated amounts to be paid into and paid from this account during the next 20 years on an estimated basis. You may 'bank' these reserves in a replacement account held separate from all other funds or mingle these funds with others. Just be sure to track them separately. You might find my equipment replacement schedule useful for replacement scheduling. Visit <http://carlbrownconsulting.com/resources/toolshed.asp> and register for the Tool Shed to download this schedule in Microsoft Excel.
8. Have me conduct a full rate analysis when your actual financial performance and my projections diverge significantly, but not longer than four years from now to make sure your rates remain adequate for the system and fair to your ratepayers. In addition, before embarking on capital improvements and funding acquisition, have me study your options in depth so you can maximize your funding success and minimize your costs.

General Background

I made several assumptions and estimates where necessary for the analysis. Using sensitivity tests and my experience in performing over 140 rate analyses, I am confident these assumptions are adequate for your rate setting purposes at this time.

Notable assumptions and issues include these:

- The analysis uses the test year of January 1, 2007 through December 31, 2007. This is the one-year period from which actual cost, revenue, usage and other data were gathered. The test year is the starting point for the analysis. Costs, revenues and all other data will change in future years based upon inflation, growth, the proposed rates and fees and many other things. Essentially the analysis seeks 'best fit' rates to satisfy many issues facing the system. Therefore, you cannot look at the analysis charts several years out and view financial predictions like they are accounting records. Future costs, revenues and other data are predictions and estimates only.
- I assumed that you will continue to bill on a monthly basis.

- I assumed that your growth rate (top of Chart 1A) will average about 0.8 percent; slightly less than the test year growth rate. This is a fairly strong growth rate that may be affected by the recent slump in housing construction. However, the revenues you receive from new connections is not a large percentage of your total revenues so an over-estimate on this item should have little affect on your bottom line.
- I assumed that future operating costs will rise at varying inflation rates, as shown in Chart 1B. Some costs, like electricity, will rise due to inflation and due to additional use caused by customer growth. Some expenses like electricity and fuel will rise markedly due to recent oil price increases.
- Because the District has been growing, the number of user connections changes throughout each year. The number of customers shown at the top of Chart 1A for the test year is the average for that year based upon your billing data. For future years this average increases based upon your estimated rate of growth for each year.
- I set the working capital goal for your system at 50 percent. To guard against serious financial upset, I recommend you maintain at least this reserve level to help you make it through unusual times without having to take drastic rate or operating cost measures. Your test year reserves exceeded this level; thus, this is not an issue now but you should guard against falling into a weaker position in the future.
- The District is anticipating doing several capital improvements during several of the next 10 years. Some are needed due to growth in customers or growth in use by existing customers (Chart 2). I modeled one early project to be paid with debt and future projects to be paid with cash reserves. If capital improvement needs increase markedly or if other expenses escalate more than anticipated the District can fund additional projects with debt to keep rates at a more comfortable level.
- All future capital improvement costs shown in Chart 2 have been inflated by five percent per year to account for inflation.
- Estimated water loss, at 23 percent, is fairly high. Large losses should be located and fixed assuming that the return on investment for doing so will be strongly positive.

Discussion of the Analysis Regarding Residential and General Customer Rates

Charts 1A and 1B cover projected incomes and costs at a fair level of detail. Rates and fees have been modeled at levels that will maintain strong working capital reserves.

Chart 1C depicts your future capital improvements and operating costs and the net fund balance for growth-related costs based upon the growth costs you expect to incur during the next 10 years and the benefit unit fees you expect to collect. While you may not actually set these funds aside, it is instructive to understand their contribution to your reserves. I recommend you at least account for these funds and their expenditure separate from general operating funds to assure that the system does not fund future operating costs with connection charge revenues.

Chart 2 covers capital improvement projects, new debt service and the like. At the bottom of this chart is the running balance for this reserve. Due to additional capital improvement needs, capital improvement reserves will rise and fall markedly over the next 10 years but they will remain strong.

Chart 2B shows growth-related capital improvement costs in detail. Amounts in this chart feed into Chart 1C.

Chart 3 covers rate adjustments. It shows the proposed rates and benefit unit fees as well as the revenues to be generated by the \$6.00/month debt service fee assessed to non-Native Americans. The residential and general customer rates were set so as to make up the difference in funds needed after applying the wholesale rates that were calculated in Chart 17.

Chart 4 covers financial indicators and fund balances. (Find definitions for these accounts in the document called, "Terms Used in This Report...") Note that near the bottom of the chart there are several fund balances shown. Working capital, capital improvement and current position balances will vary, sometimes markedly, from year to year but remain strong during the 10-year modeling period. The last line on this chart shows the inflation-adjusted purchasing power of your reserves, not including equipment replacement reserves. This is the most important balance for you to track. I set your initial rate adjustments and future inflationary adjustments so the resulting "Working Capital + CIP Balances Discounted for Inflation" amount in the last year will be slightly stronger than your current amount. In other words, my goal was to give you about the same purchasing power in 10 years as what you have now.

The line graph charts 5 through 11 depict financial health indicators under the proposed rates and make it easier to spot trends. (See the definitions page to learn what each of the indicators tells you.) In particular, Chart 11 depicts the affordability of your current and the "proposed" rates. Your current affordability index is modest at about 0.63 percent. (The national average is around 1.0 percent.) This index will rise slightly when the new rates are adopted and slightly more each year after that, but remain affordable. Please note, for the analysis I used the 2005 estimated median household income. On a current income basis your rates will be more affordable than the analysis shows.

Chart 12 depicts your rates before and after the adjustments. This chart depicts the more important changes brought about by rate adjustments. If you copy only one chart as a handout for the public attending your rate setting meeting, this is the most useful chart for them to view.

In addition, charts 17 and 18 will be very useful to the wholesale customers.

Action Items not Related to the Results of the Analysis (Use the following as a checklist of general 'to-do' tasks)

Consider these recommendations regardless of how you may adjust your rates:

1. Water is used in the home and business construction process and in the process of constructing water lines. Such water provided by the District should be metered if practical and paid for at the same or higher rates paid by others. Metering will enable utility staff to better track water use and water leakage. If such water is given away for no charge or little charge, the costs of that water are simply transferred to existing customers. In essence, those customers are then required to subsidize growth.
2. Start adopting management strategies that are included in what is most commonly called, 'advanced asset management.' These strategies can yield better service and reduced costs for water and sewer systems, especially those looking to build new facilities or replace existing facilities soon as, is your case. Visit my Web site at <http://carlbrownconsulting.com/> for more information on asset management or call me to discuss how the District might move into asset management.
3. Benefit unit fees should fully pay the costs of assuring proper connection to the system and the costs of 'signing up' new customers. In addition to recovering these costs the base benefit unit fee should be set to recover some percentage (that percentage is up to you) of the system's capital costs of providing service capacity for the various customer classes. In essence, when you tap on a new customer you are committing a certain capacity to deliver service to that customer. That commitment of capacity cost money to purchase. Thus, the customer should pay for that capacity. There is no one right way to do this; how you do it depends on your situation. It appears your current benefit unit fee is close to paying the full costs of building capacity for residential customers but not higher volume customers.

4. Consider 'paying' developers to install over-sized lines and other equipment when such installations would facilitate future development more economically. To illustrate, you may have a developer who would need to install a four inch distribution line to serve the needs of their development. However, other properties in the area that would use that same line when developed later may require it to be six inches in diameter. In that case you and the initial developer would determine the additional cost of installing the six inch line and the District would reimburse the developer for that portion of the cost. That reimbursement may be in the form of a discount on the developer's connection fees. Later, when other developments use the six inch line you would charge those developer(s) their proportionate share of the cost to make that line available for their use. In addition, you may charge some additional amount or percentage to serve as reimbursement for the District's expenses to finance the upsizing and to cover risk. These costs are substantial. In that way, lines and other systems would be built in the most economical fashion possible. Plus, the District could recoup its investment in up-sized lines and facilities, and cover its risks of loss. However, be careful about how this may affect your cash flow. I strongly suggest you set up a separate fund to which you will deposit connection and developer fees and from which you will pay for system upsizing. Manage this fund so it will fully cash flow itself and maintain a reserve over expected disbursements of at least 50 percent.
5. Continue to track your volume usage, incomes and expenses on a regular basis so the data and information you generate will continue to support future rate adjustments as well as they did this one. When planning new capital improvements, consider delineating the costs of those improvements between the distribution, transportation and production/treatment cost categories, to make future rate setting easier. If you do this you should also do time and cost accounting so you can better estimate the costs to serve each customer class.
6. Consider reformatting your financial statements so they include calculations for operating and coverage ratios. This will make it very easy for decision-makers to quickly gauge the financial health of the system. You may want to use the financial statements template available at <http://carlbrownconsulting.com/resources/toolshed.asp>. There are other tools and resources at this link you may find useful, as well.
7. Check with your attorney for language and legality of all charges and issues discussed.

Discussion of Capital Improvement Funding Alternatives

The District needs to build several system upgrades. Some will be expensive. One is in process now. I modeled rates that will be high enough to pay for several projects with cash reserves but several more are just beyond the 10-year modeling period. If the District is faced with the situation of having to wait until cash reserves accumulate high enough to fund a needed project, you should probably loan finance it instead. In the current inflation environment for water system construction costs, the inflation rate is higher than even the market bond financing rate. In other words, you would save money by loan financing a needed improvement early as compared to cash funding it later after inflation pushes its cost higher. The analysis considered this issue only generally.

In addition, while construction inflation has been high for several years, with the current near halt of housing construction, water system construction costs may actually go down for the next year or two. You should keep track of system construction costs in the near term and if construction costs and/or interest rates drop substantially, consider building some improvements ahead of schedule to save money over the long term.

When you are ready to consider when and how to fund future capital improvement projects, give me a call to discuss your options and their costs.

Closing

Your current residential rates are projected to keep the water system solvent for several years. However, after 2011 your current position will begin to decline without rate increases. In addition, your rates are not as fair as they should be. Thus, your rates need to be raised slightly and restructured. Rates should also be increased annually in the future to maintain adequate reserves.

You now should do those things listed in the Action Items sections above.

Jackson Co, KS RWD #3, Water Rate Analysis

This analysis assumes capital improvements would be done with 100% SRF loans, maintenance of adequate reserves and adequate equipment replacement.

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.

- Billing will continue on a monthly basis.
- The residential minimum charge will be set at \$15.05, not including the additional \$6/month debt surcharge for non-Native customers. The minimum charge will include no usage allowance. The minimum charge does not apply to wholesale customers.
- The residential unit charge will be set at \$6.01/1,000 gallons for all residential customers.
- The wholesale unit charge will be set at \$5.58/1,000 gallons.
- All rates and fees will be initially adjusted on or near January 1, 2009.
- Starting on or near January 1, 2010 and each year thereafter, all rates and fees will be subsequently increased by 4 percent.

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

November 21, 2008

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Terms Used in This Report and for Rate Setting Generally

CBGreatRates© Version 3.9

Affordability Index	The monthly charge for (typically) 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 for 5,000 gallons of service, is generally considered affordable.
Capacity Charge, also commonly called an 'Impact Fee' or 'Availability Charge'	A charge that buys a new customer system capacity. This is a charge levied on a new customer that recovers all or part of the capital costs to build capacity to be able to serve that customer's actual or potential demand. This charge may be a few thousand dollars for a residential customer to many thousands of dollars for a large industrial customer.
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 dedicated to funding the CIP
Comprehensive Rate Analysis	A thorough examination of a system's operating, capital improvement, equipment replacement and all other costs, revenues, current rates, number of users and their use of the system, growth rates and all other issues surrounding the system. This examination will determine how rates and fees should be set in the future to cash-flow the system properly, to build appropriate reserves and to be fair the ratepayers. It also will determine how policies should be adjusted to enable the system to operate well now, operate well in the medium-range future (about 10 years) and prepare for expected and expectable events such as capital improvements and equipment replacement.
Connection Charge	A charge that buys a new customer connection to the system. This charge is levied on a new customer to recover all or part of the costs a system incurs in the course of connecting the new customer to the system. This may include labor costs for staff or others on-site; equipment sold by the system to the new customer for making the connection; equipment, tools and supplies used by system staff for making the connection; and the like. This charge may be a few hundred dollars for a residential customer to thousands of dollars for a large industrial customer.
Conservation (Inclining) Rates	Unit charges that go up as the volume used goes up
Cost to Produce	There are several ways to define cost to produce. Each is acceptable for different purposes. Generally, cost to produce is the total of all variable costs required to get service to a utility's customers during one year divided by the total units of service delivered during that year. In a proportional to use rate structure, this will be the unit charge.
Cost to Serve Rates	Rates where fixed and variable costs generated by each user class are paid by that class with minimum and unit charges, respectively.
Coverage Ratio (CR)	Incomes and reserves available to pay debt divided 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 undedicated reserves minus all current financial obligations for that year. Future obligations (next year's loan payments) and depreciation are not included. Current position is a good measure of overall financial health.

Declining Rates	Rates where unit charges go down as the volume used goes up
Flat Rates	Rates where all users pay exactly the same fee regardless of the volume of service they use
Incremental Rate Adjustments	Rate increases done during years between comprehensive rate analyses. The goal of these rate increases is to keep the system's income and reserve levels on track with the system's financial needs. Such increases are usually small, in the two to five percent per year range.
Infrastructure	Hard assets, such as water towers, treatment plants and lines needed to provide service to customers connected to the system
Life-cycle Cost	The total cost to design, build, operate, maintain and eventually dispose of an asset. One asset may cost less to build but be more expensive to operate and maintain, yielding a higher life-cycle cost.
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.
Potential Demand	The volume of service that a user could demand for a short period of time at full volume use
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, also called a 'Hook up Fee'	A charge that gives a new customer the <u>right</u> to connect to the system. This fee may include the costs of administering the connection program, such as staff time to 'sign up' new customers, get them into the system's billing program, do an inspection of the service connection to assure that it meets the system's standards and the like. This charge is usually minimal for a residential customer and maybe a few thousand dollars for a large industrial customer. Capacity and connection fees are commonly added to tap fees and the total fee is just called a 'tap' fee.
Test Year	The one year period from which data was gathered to be the basis of the rate analysis
User Fee, User Charge	Fees assessed to customers for use of the system. Does not include tap, capacity or connection 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.

Jackson Co, KS RWD #3, Water Rate Analysis

Executive Summary

CBGreatRates© Version 3.9

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.

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		
	12/31/08	12/31/09	12/31/13
Rate revenues collected	\$1,239,183	\$1,319,834	\$1,595,861
Sum of incomes	\$1,631,053	\$1,721,261	\$2,018,526
Sum of operating costs	\$1,112,139	\$1,356,452	\$1,491,278
Net income (loss)	\$518,913	\$364,808	\$527,248
Capital improvement reserves	\$536,993	\$632,961	\$251,333
Replacement reserves	\$315,296	\$403,926	\$708,210
Current position*	\$1,415,210	\$1,726,016	\$1,737,234
*All current incomes plus reserves minus all current obligations			
Increase (decrease) in current position due to this analysis	\$0	(\$26,966)	\$511,024

Return on Investment

Return on Investment due to This Analysis	0%	-324%	6141%
Return rate is based upon the following investments:			
	Fees to Carl Brown Consulting		\$7,822
	Estimated value of city staff time and incidentals to assemble needed information		\$500
	Total Investment		\$8,322

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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Jackson Co, KS RWD #3, Water Rate Analysis

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 1/1/07	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	Year Starting 1/1/17
Average Customers for the Year		1757	1772	1787	1802	1817	1832	1847	1862	1877	1892	1907
Customers (Taps) Added During the Year		18	15	15	15	15	15	15	15	15	15	15
New Taps Growth Rate		1.0%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%
Average Effective Rate Increases in Future Years			5.6%	0.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%

Operating Incomes

Actual and Estimated User Fee Collections	NA	\$1,256,275	\$1,239,183	\$1,319,834	\$1,384,149	\$1,451,498	\$1,522,020	\$1,595,861	\$1,673,175	\$1,754,119	\$1,838,863	\$1,927,579
Monthly Debt Charges (Non-tribal users)	NA	\$112,104	\$180,600	\$182,400	\$184,200	\$186,000	\$187,800	\$189,600	\$191,400	\$193,200	\$195,000	\$196,800
Working Capital Interest Earned (or Paid)	NA	\$27,326	\$8,064	\$8,341	\$10,173	\$10,409	\$10,725	\$10,914	\$11,185	\$11,544	\$11,764	\$12,075
Benefit Unit Revenues	% Above	\$72,000	\$60,020	\$67,500	\$70,200	\$73,008	\$75,928	\$78,965	\$82,124	\$85,409	\$88,825	\$92,378
Penalties	NA	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398	\$25,398
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	\$2,986	\$2,986	\$2,986	\$2,986	\$2,986	\$2,986	\$2,986	\$2,986	\$2,986	\$2,986
Transfers From Other Reserves	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Incomes	NA	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344	\$36,344
New Service/Line Extension Fees	NA	\$130,475	\$65,238	\$65,238	\$65,238	\$65,238	\$65,238	\$65,238	\$65,238	\$65,238	\$65,238	\$65,238
Additional Benefit Unit Fees	NA	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220	\$13,220
Total Regular Income		\$1,673,142	\$1,631,053	\$1,721,261	\$1,791,908	\$1,864,101	\$1,939,658	\$2,018,526	\$2,101,069	\$2,187,458	\$2,277,638	\$2,372,018

Jackson Co, KS RWD #3, Water Rate Analysis

Chart 1B - Operating 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 1/1/07	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	Year Starting 1/1/17
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%	\$86,036	\$88,617	\$91,276	\$94,014	\$96,834	\$99,739	\$102,731	\$105,813	\$108,988	\$112,257	\$115,625
Billing, Office Operation, Rent & Other Overhead	5.0%	\$27,433	\$28,805	\$30,245	\$31,757	\$33,345	\$35,012	\$36,763	\$38,601	\$40,531	\$42,558	\$44,685
Accounting and Professional Fees	5.0%	\$22,153	\$23,261	\$24,424	\$25,645	\$26,927	\$28,273	\$29,687	\$31,171	\$32,730	\$34,367	\$36,085
Engineering Fees	3.0%	\$34,997	\$36,047	\$37,128	\$38,242	\$39,389	\$40,571	\$41,788	\$43,042	\$44,333	\$45,663	\$47,033
Insurance	5.0%	\$18,343	\$19,260	\$20,223	\$21,234	\$22,296	\$23,411	\$24,581	\$25,810	\$27,101	\$28,456	\$29,879
Telephone	5.0%	\$6,126	\$6,487	\$6,868	\$7,272	\$7,698	\$8,149	\$8,626	\$9,131	\$9,664	\$10,227	\$10,823
Dues, Subscriptions, Education, Travel	5.0%	\$4,119	\$4,362	\$4,618	\$4,889	\$5,176	\$5,480	\$5,800	\$6,139	\$6,498	\$6,877	\$7,277
Purchase of Inventory	5.0%	-\$5,712	-\$6,048	-\$6,404	-\$6,780	-\$7,178	-\$7,599	-\$8,043	-\$8,514	-\$9,011	-\$9,536	-\$10,092
Chemicals and Analysis	5.0%	\$8,483	\$8,907	\$9,353	\$9,820	\$10,311	\$10,827	\$11,368	\$11,936	\$12,533	\$13,160	\$13,818
Repairs and Maintenance	5.0%	\$241,052	\$253,105	\$265,760	\$279,048	\$293,000	\$307,650	\$323,033	\$339,184	\$356,144	\$373,951	\$392,648
Taxes and Fees	5.0%	\$8,548	\$8,975	\$9,424	\$9,895	\$10,390	\$10,910	\$11,455	\$12,028	\$12,629	\$13,261	\$13,924
Utilities	3.0%	\$36,809	\$37,913	\$39,051	\$40,222	\$41,429	\$42,672	\$43,952	\$45,270	\$46,629	\$48,027	\$49,468
Water Purchases	0.0%	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239	\$439,239
Payment to Replacement Account	0.0%	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615	\$222,615
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
Gas and Fuel	5.0%	\$16,025	\$16,826	\$17,668	\$18,551	\$19,478	\$20,452	\$21,475	\$22,549	\$23,676	\$24,860	\$26,103
Miscellaneous	5.0%	\$2,434	\$2,556	\$2,683	\$2,818	\$2,959	\$3,106	\$3,262	\$3,425	\$3,596	\$3,776	\$3,965
Salaries, Benefits, Training for Operations Staff	5.0%	\$129,054	\$135,507	\$142,282	\$149,396	\$156,866	\$164,709	\$172,945	\$181,592	\$190,672	\$200,205	\$210,215
Adjustment for Replacements Done From Op Acct	0.0%	-\$222,615	-\$222,615	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
User Charge Analysis Services & Staff Time	5.0%	\$0	\$8,322	\$0	\$0	\$9,175	\$0	\$0	\$10,115	\$0	\$0	\$11,152
Total Operating Costs		\$1,075,139	\$1,112,139	\$1,356,452	\$1,387,878	\$1,429,951	\$1,455,218	\$1,491,278	\$1,539,149	\$1,568,567	\$1,609,963	\$1,664,464
Net Income (or Loss)		\$598,003	\$518,913	\$364,808	\$404,031	\$434,150	\$484,441	\$527,248	\$561,920	\$618,891	\$667,675	\$707,554
Working Capital Goal 50%		In Dollars, That is: \$537,570	\$556,070	\$678,226	\$693,939	\$714,975	\$727,609	\$745,639	\$769,575	\$784,283	\$804,981	\$832,232

Jackson Co, KS RWD #3, Water Rate Analysis

Chart 1C - New Connections Cost Recovery

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(First year figures are actual, subsequent years are projected.)

	Infla./De- flation (-) Factor	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	Year Starting 1/1/17
Connection Fee Revenues												
Customers (Taps) Added During the Year		18	15	15	15	15	15	15	15	15	15	15
Average Total Fee/Connection	0.0%	\$4,000	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500	\$4,500
Total Connection Fee Revenues	NA	\$72,000	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500	\$67,500

Operating Costs Associated With Making New Connections

Field Costs	5.0%	\$900	\$788	\$827	\$868	\$912	\$957	\$1,005	\$1,055	\$1,108	\$1,163	\$1,222
Administration Costs	3.0%	\$900	\$773	\$796	\$820	\$844	\$869	\$896	\$922	\$950	\$979	\$1,008
Total Direct Costs for New Connections		\$1,800	\$1,560	\$1,623	\$1,688	\$1,756	\$1,827	\$1,901	\$1,978	\$2,058	\$2,142	\$2,230
Revenues Net of Operating Costs		\$70,200	\$65,940	\$65,877	\$65,812	\$65,744	\$65,673	\$65,599	\$65,522	\$65,442	\$65,358	\$65,270
Cum Rev Net of Operating Costs		\$70,200	\$136,140	\$202,017	\$267,830	\$333,574	\$399,247	\$464,847	\$530,369	\$595,811	\$661,169	\$726,439

Note: Connection charges should almost always cover at least the operating costs to make connections. Thus, cumulative revenues net of operating costs should be positive.

Capital Costs (Debt Service and Cash-paid Capital Improvements Attributable to Growth)

	% of CIP Due to Growth	Costs to Satisfy Growth											
Debt Paid for Growth Upgrades	0.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cash Paid for Growth Upgrades	39.3%	\$0	\$0	\$0	\$0	\$0	\$268,019	\$0	\$0	\$0	\$0	\$0	\$436,055
Sum of Capital Costs for Growth	13.3%	\$0	\$0	\$0	\$0	\$0	\$268,019	\$0	\$0	\$0	\$0	\$0	\$436,055
Cumulative Capital Costs for Growth		\$0	\$0	\$0	\$0	\$0	\$268,019	\$268,019	\$268,019	\$268,019	\$268,019	\$268,019	\$704,074

Cum Rev Net of All Growth Costs \$70,200 \$136,140 \$202,017 \$267,830 \$333,574 \$131,228 \$196,828 \$262,350 \$327,792 \$393,150 \$22,365

Note: Ideally, connection charges should cover all growth related system expansion and operating costs. Thus, cumulative revenues net of all growth costs should be positive. To the extent that they do not cover these costs, they will be transferred to all ratepayers, many of whom are not responsible for current growth demands.

Jackson Co, KS RWD #3, Water Rate Analysis

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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	This Year	Next Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	
CIP Spending Plan	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	Year Starting 1/1/17
Capital Improvements to be Paid With Debt											
SRF Funded Project	\$0	\$895,792	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Improvements to be Paid With Debt	\$0	\$895,792	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Improvements to be Paid With Cash											
Capital Improvements Paid With Cash	\$185,619	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4" Line Y to Anderson Table 5.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" Line N to K-79 Table 5.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" Line I to J Table 5.3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" J to K Table 5.4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" J to K Table 5.5	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" M to O Table 5.6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" K-16 to W Table 5.7	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" T to W Table 5.8	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" Denison to 182nd Table 5.9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" 190th to 166th Table 5.10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4" 190th to K-16 Table 5.11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6" N to P Table 5.12	\$0	\$0	\$0	\$0	\$0	\$155,068	\$0	\$0	\$0	\$0	\$0
6" 198th to Denison Table 5.13	\$0	\$0	\$0	\$0	\$0	\$45,180	\$0	\$0	\$0	\$0	\$0
6" T to U Table 5.14	\$0	\$0	\$0	\$0	\$0	\$67,771	\$0	\$0	\$0	\$0	\$0
4" T to V Table 5.15	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$145,297
8" 214th to K-16 Table 5.16	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$290,758
6" V to Y Table 5.17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4" V to W Table 5.18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8" 254th to 270th Table 5.19	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8" 254th to K-16 Table 5.20	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8" P to Q Table 5.21	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8" Spring to 214th Table 5.22	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
100,000 Gal Tank Table 5.23	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Various Annual System Improvement Projects	\$0	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Total Cap Imprvmts to be Paid With Cash	\$185,619	\$0	\$100,000	\$100,000	\$100,000	\$368,019	\$100,000	\$100,000	\$100,000	\$100,000	\$536,055
Total CIP Planned Spending	\$185,619	\$895,792	\$100,000	\$100,000	\$100,000	\$368,019	\$100,000	\$100,000	\$100,000	\$100,000	\$536,055

CIP Funding Plan

CIP Account Carryover Plus Transfers in	\$609,585	\$782,675	\$1,037,406	\$875,613	\$862,366	\$869,146	\$666,060	\$760,552	\$885,521	\$1,079,575	\$1,320,260
CIP Account Interest Earned (or Paid)	\$0	\$5,193	\$16,110	\$18,989	\$14,221	\$13,681	\$5,828	\$7,540	\$10,426	\$14,262	\$20,198
Benefit Unit Fees Devoted to Capital Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan This Year	\$0	\$995,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total CIP Fund Sources	\$609,585	\$1,783,192	\$1,053,515	\$894,602	\$876,587	\$882,827	\$671,888	\$768,092	\$895,948	\$1,093,837	\$1,340,458
New Debt Payment Plan	Payments assume 100 percent financing for projects, term of: 20 years and 2.00% interest										
Payments to Debt Reserves for Subsequent Borrowings	\$0	\$99,532	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Bond Payments From Test Year Borrowing	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875	\$250,875
Payment Schedule on Loan This Year	\$0	\$0	\$69,679	\$69,679	\$69,679	\$69,679	\$69,679	\$69,679	\$69,679	\$69,679	\$69,679
Total Debt Obligations	\$250,875	\$350,407	\$320,554	\$320,554	\$320,554	\$320,554	\$320,554	\$320,554	\$320,554	\$320,554	\$320,554
Total CIP Spending Plus Debt Repayment	\$436,494	\$1,246,199	\$420,554	\$420,554	\$420,554	\$688,574	\$420,554	\$420,554	\$420,554	\$420,554	\$856,610
Capital Improvement Fund Balance	\$173,091	\$536,993	\$632,961	\$474,047	\$456,033	\$194,253	\$251,333	\$347,537	\$475,393	\$673,283	\$483,849

Notes: There are many system expansion and improvement needs that will come due after the period that is modeled. Of those that will be needed within the next 10 years, this plan assumes that the largest, highest priority projects will be debt funded with SRF loans at the maximum interest rate of 2% for low-income communities. Smaller projects, which tend to be more system maintenance oriented, will be cash funded.

Jackson Co, KS RWD #3, Water Rate Analysis

Chart 2B - Percent of CIP Project Costs Attributable to Growth

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% of CIP Due to Growth		Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	
		1/1/07	1/1/08	1/1/09	1/1/10	1/1/11	1/1/12	1/1/13	1/1/14	1/1/15	1/1/16	1/1/17
Growth Projects to be Paid With Cash												
100%	6" N to P Table 5.12	\$0	\$0	\$0	\$0	\$0	\$155,068	\$0	\$0	\$0	\$0	\$0
100%	6" 198th to Denison Table 5.13	\$0	\$0	\$0	\$0	\$0	\$45,180	\$0	\$0	\$0	\$0	\$0
100%	6" T to U Table 5.14	\$0	\$0	\$0	\$0	\$0	\$67,771	\$0	\$0	\$0	\$0	\$0
100%	4" T to V Table 5.15	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$145,297
100%	8" 214th to K-16 Table 5.16	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$290,758
	Total Growth Projects to be Paid With Cash	\$0	\$0	\$0	\$0	\$0	\$268,019	\$0	\$0	\$0	\$0	\$436,055
Loan Payments Attributable to Growth												
	Total Loan Payments Attributable to Growth	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Total Annual Growth Project CIP Costs	\$0	\$0	\$0	\$0	\$0	\$268,019	\$0	\$0	\$0	\$0	\$436,055

Jackson Co, KS RWD #3, Water Rate Analysis

Chart 3A - Rate Adjustments and Incomes for the Year

1/1/08 Through 12/31/08

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

\$4,000	This is the current average benefit unit fee	Incremental increase for conservation rates	\$0.00
\$4,500	Proposed average benefit unit fee		
\$0	The part of the proposed average benefit unit fee, above, that will be devoted to future capital improvements		
\$180,600	Monthly Debt Charges (Non-tribal users)		

12/31/08 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 \$18.21 and the unit charge is \$6.01 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 Charge 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
General Customer Class (use per Billing Cycle in Gallons)							
0	999	\$50,282	\$15.05	0.0	\$6.01	\$148	\$50,431
1,000	1,999	\$32,283	\$15.05	0.0	\$6.01	\$95	\$32,378
2,000	2,999	\$76,096	\$15.05	0.0	\$6.01	\$222	\$76,318
3,000	3,999	\$106,217	\$15.05	0.0	\$6.01	\$310	\$106,527
4,000	4,999	\$105,993	\$15.05	0.0	\$6.01	\$308	\$106,301
5,000	5,999	\$92,320	\$15.05	0.0	\$6.01	\$268	\$92,588
6,000	6,999	\$90,719	\$15.05	0.0	\$6.01	\$263	\$90,983
7,000	7,999	\$60,955	\$15.05	0.0	\$6.01	\$177	\$61,132
8,000	8,999	\$43,847	\$15.05	0.0	\$6.01	\$127	\$43,974
9,000	9,999	\$40,332	\$15.05	0.0	\$6.01	\$117	\$40,449
10,000	14,999	\$87,539	\$15.05	0.0	\$6.01	\$254	\$87,793
15,000	19,999	\$30,348	\$15.05	0.0	\$6.01	\$88	\$30,436
20,000	24,999	\$18,824	\$15.05	0.0	\$6.01	\$54	\$18,879
25,000	29,999	\$18,558	\$15.05	0.0	\$6.01	\$54	\$18,612
30,000	39,999	\$23,111	\$15.05	0.0	\$6.01	\$67	\$23,178
40,000	49,999	\$12,527	\$15.05	0.0	\$6.01	\$36	\$12,563
50,000	59,999	\$0	\$15.05	0.0	\$6.01	\$0	\$0
60,000	69,999	\$4,847	\$15.05	0.0	\$6.01	\$14	\$4,861
70,000	79,999	\$5,525	\$15.05	0.0	\$6.01	\$16	\$5,541
80,000	89,999	\$0	\$15.05	0.0	\$6.01	\$0	\$0
90,000	99,999	\$0	\$15.05	0.0	\$6.01	\$0	\$0
100,000	9,999,999	\$199,384	\$15.05	0.0	\$6.01	\$575	\$199,959
Special Customer Classes							
	City of Soldier	\$14,607	\$0.00	0.0	\$5.58	\$41	\$14,648
	City of Circleville	\$21,421	\$0.00	0.0	\$5.58	\$60	\$21,481
	City of Netawaka	\$24,537	\$0.00	0.0	\$5.58	\$69	\$24,606
	City of Denison	\$24,326	\$0.00	0.0	\$5.58	\$69	\$24,395
	City of Mayetta	\$48,466	\$0.00	0.0	\$5.58	\$137	\$48,603
	City of Whiting	\$2,542	\$0.00	0.0	\$5.58	\$7	\$2,549
Rate Revenues at Current Rates		\$1,235,607	Rate Revenues at Adjusted Rates			\$3,576	
			Total Blended Rate Revenues for the Year ²				\$1,239,183

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 1/1/08 through 12/31/08 assume the following: 0.0 months collected at the new user charge rates and 12.0 months at the old rates.

Jackson Co, KS RWD #3, Water Rate Analysis

Chart 3B - Rate Statistics

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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 6,642 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)

Class Bottom	Class Top	% Rev at			
		% Users % Usage	Current Rates Proposed Rates		
0	999	15.5%	0.4%	4.1%	4.2%
1,000	1,999	6.7%	1.3%	2.6%	2.6%
2,000	2,999	12.6%	4.1%	6.2%	6.2%
3,000	3,999	14.7%	6.6%	8.6%	8.7%
4,000	4,999	12.6%	7.3%	8.6%	8.6%
5,000	5,999	9.6%	6.7%	7.5%	7.5%
6,000	6,999	8.4%	7.0%	7.3%	7.4%
7,000	7,999	5.1%	4.9%	4.9%	4.9%
8,000	8,999	3.3%	3.6%	3.5%	3.6%
9,000	9,999	2.8%	3.4%	3.3%	3.3%
10,000	14,999	5.0%	7.7%	7.1%	7.1%
15,000	19,999	1.3%	2.8%	2.5%	2.5%
20,000	24,999	0.6%	1.8%	1.5%	1.5%
25,000	29,999	0.5%	1.8%	1.5%	1.5%
30,000	39,999	0.5%	2.3%	1.9%	1.9%
40,000	49,999	0.2%	1.3%	1.0%	1.0%
50,000	59,999	0.0%	0.0%	0.0%	0.0%
60,000	69,999	0.1%	0.5%	0.4%	0.4%
70,000	79,999	0.1%	0.6%	0.4%	0.4%
80,000	89,999	0.0%	0.0%	0.0%	0.0%
90,000	99,999	0.0%	0.0%	0.0%	0.0%
100,000	9,999,999	0.1%	21.0%	16.1%	16.1%

Special Customer Classes

City of Soldier	0.1%	1.6%	1.2%	1.2%
City of Circleville	0.1%	2.4%	1.7%	1.7%
City of Netawaka	0.1%	2.7%	2.0%	1.9%
City of Denison	0.1%	2.7%	2.0%	1.9%
City of Mayetta	0.1%	5.4%	3.9%	3.8%
City of Whiting	0.1%	0.3%	0.2%	0.2%
Totals	100.0%	100.0%	100.0%	100.0%

Jackson Co, KS RWD #3, Water Rate Analysis

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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	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	Year Starting 1/1/17
Capacity Indicators											
Equivalent Final Monthly Bill for Average Residential Customer	\$52.48	\$55.62	\$56.08	\$56.55	\$57.02	\$57.49	\$57.95	\$58.42	\$58.89	\$59.35	\$59.82
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$22.59	\$24.05	\$24.05	\$25.01	\$26.01	\$27.05	\$28.14	\$29.26	\$30.43	\$31.65	\$32.91
Annual Median Household Income (AMHI)	\$42,737	\$43,220	\$43,709	\$44,203	\$44,702	\$45,207	\$45,718	\$46,235	\$46,758	\$47,286	\$47,821
Affordability Index - Proposed Rates	0.63%	0.67%	0.66%	0.68%	0.70%	0.72%	0.74%	0.76%	0.78%	0.80%	0.83%
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.											
Estimated Operating Ratio - Proposed Rates	1.56	1.47	1.27	1.29	1.30	1.33	1.35	1.37	1.39	1.41	1.43
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.											
Estimated Coverage Ratio - Proposed Rates	3.83	5.04	6.38	6.21	6.49	5.96	6.42	7.00	7.64	8.49	8.12
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
Reserves											
	Balance Ending on 12/31/07	Balance Ending on 12/31/08	Balance Ending on 12/31/09	Balance Ending on 12/31/10	Balance Ending on 12/31/11	Balance Ending on 12/31/12	Balance Ending on 12/31/13	Balance Ending on 12/31/14	Balance Ending on 12/31/15	Balance Ending on 12/31/16	Balance Ending on 12/31/17
Operating Fund	\$537,570	\$556,070	\$678,226	\$693,939	\$714,975	\$727,609	\$745,639	\$769,575	\$784,283	\$804,981	\$832,232
Capital Improvement	\$173,091	\$536,993	\$632,961	\$474,047	\$456,033	\$194,253	\$251,333	\$347,537	\$475,393	\$673,283	\$483,849
Bond Debt Service	\$0	\$99,532	\$99,532	\$99,532	\$99,532	\$99,532	\$99,532	\$99,532	\$99,532	\$99,532	\$99,532
Other Reserves	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement	\$0	\$222,615	\$315,296	\$403,926	\$488,044	\$567,154	\$640,730	\$708,210	\$768,997	\$822,454	\$867,904
Current Position (sum of all Reserves)	\$710,660	\$1,415,210	\$1,726,016	\$1,671,445	\$1,758,584	\$1,588,548	\$1,737,234	\$1,924,854	\$2,128,206	\$2,400,251	\$2,283,517
Working Capital + CIP	\$710,660	\$1,093,062	\$1,311,187	\$1,167,986	\$1,171,008	\$921,862	\$996,972	\$1,117,112	\$1,259,676	\$1,478,264	\$1,316,081
Working Capital + CIP Balances Discounted for Inflation	\$710,660	\$1,093,062	\$1,245,628	\$1,054,108	\$1,003,993	\$750,862	\$771,438	\$821,180	\$879,679	\$980,711	\$829,459

Chart 5 - Operating Ratio

Jackson Co, KS RWD #3

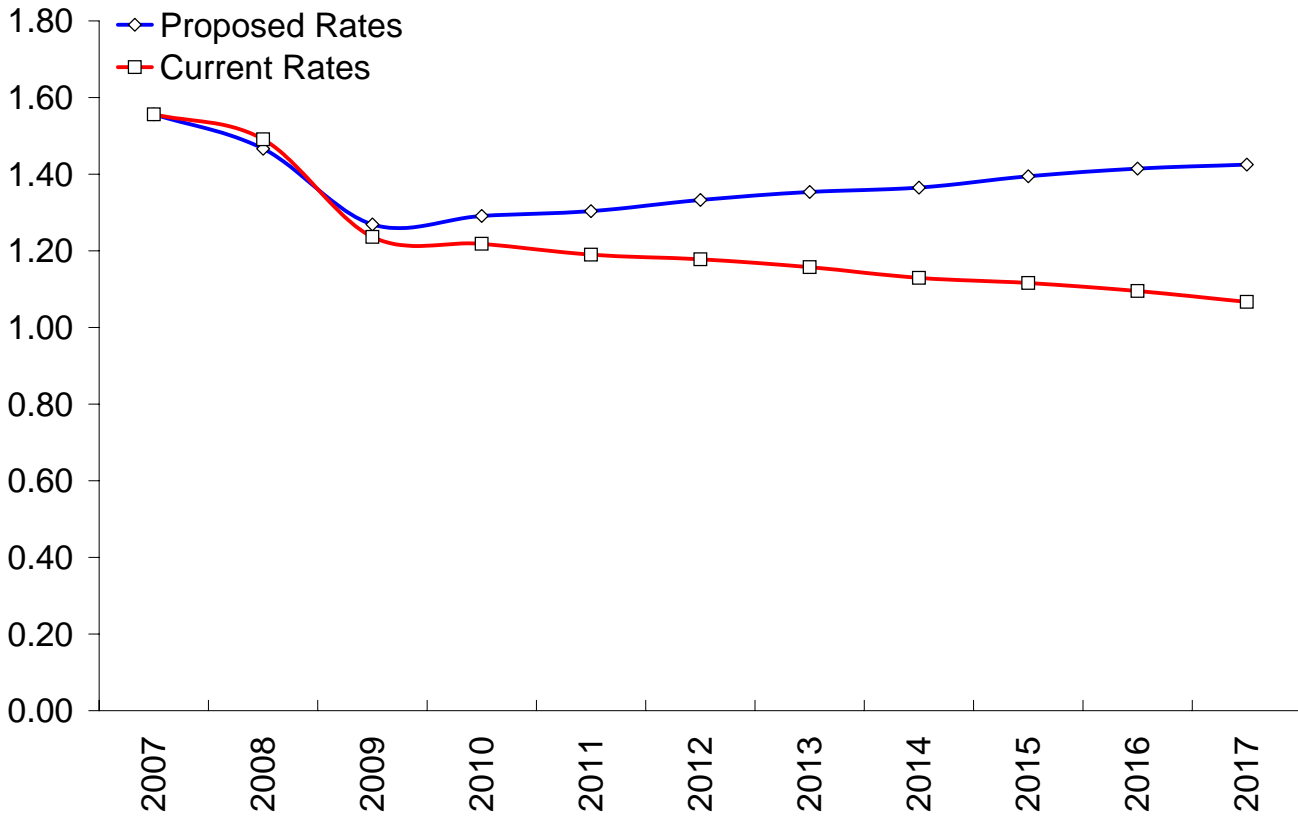


Chart 6 - Average Residential User's Bill

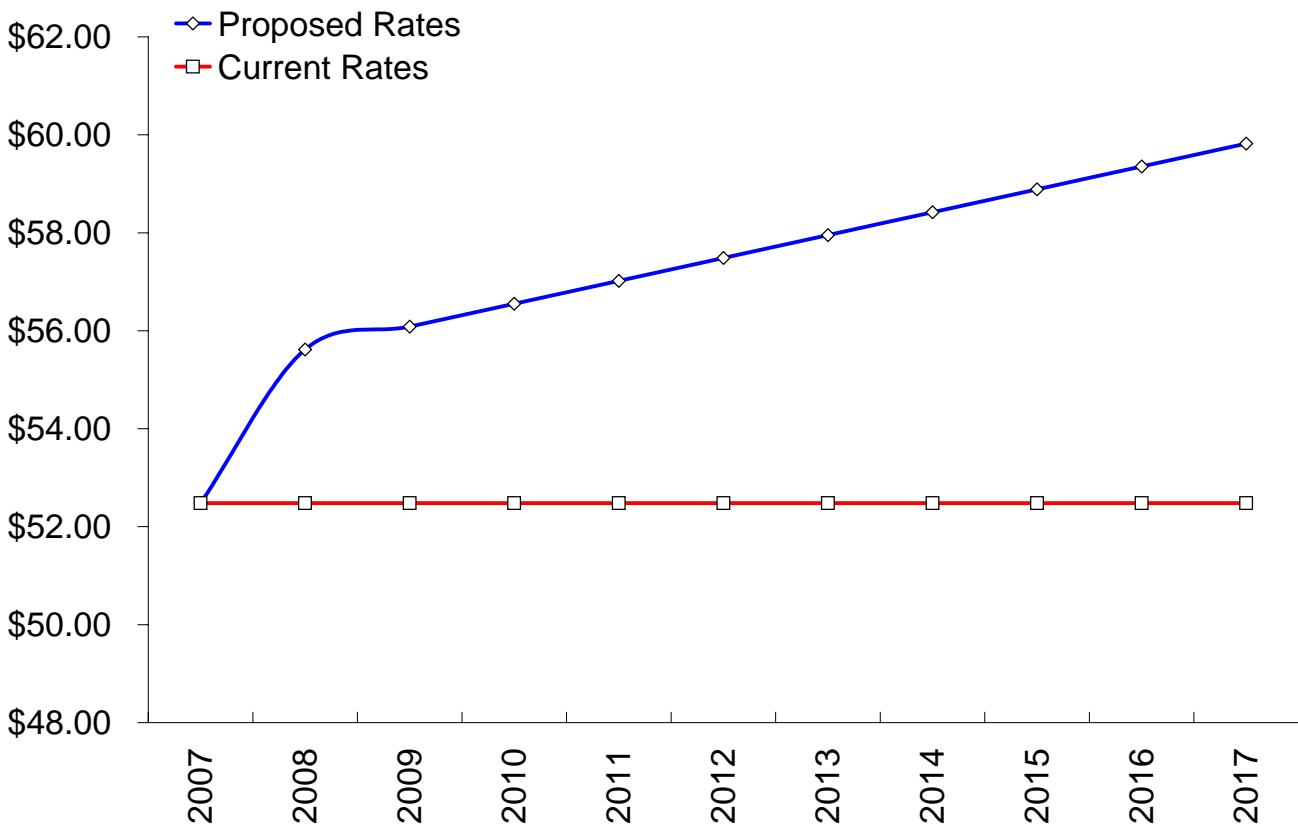


Chart 7 - Use & Revenues

Jackson Co, KS RWD #3

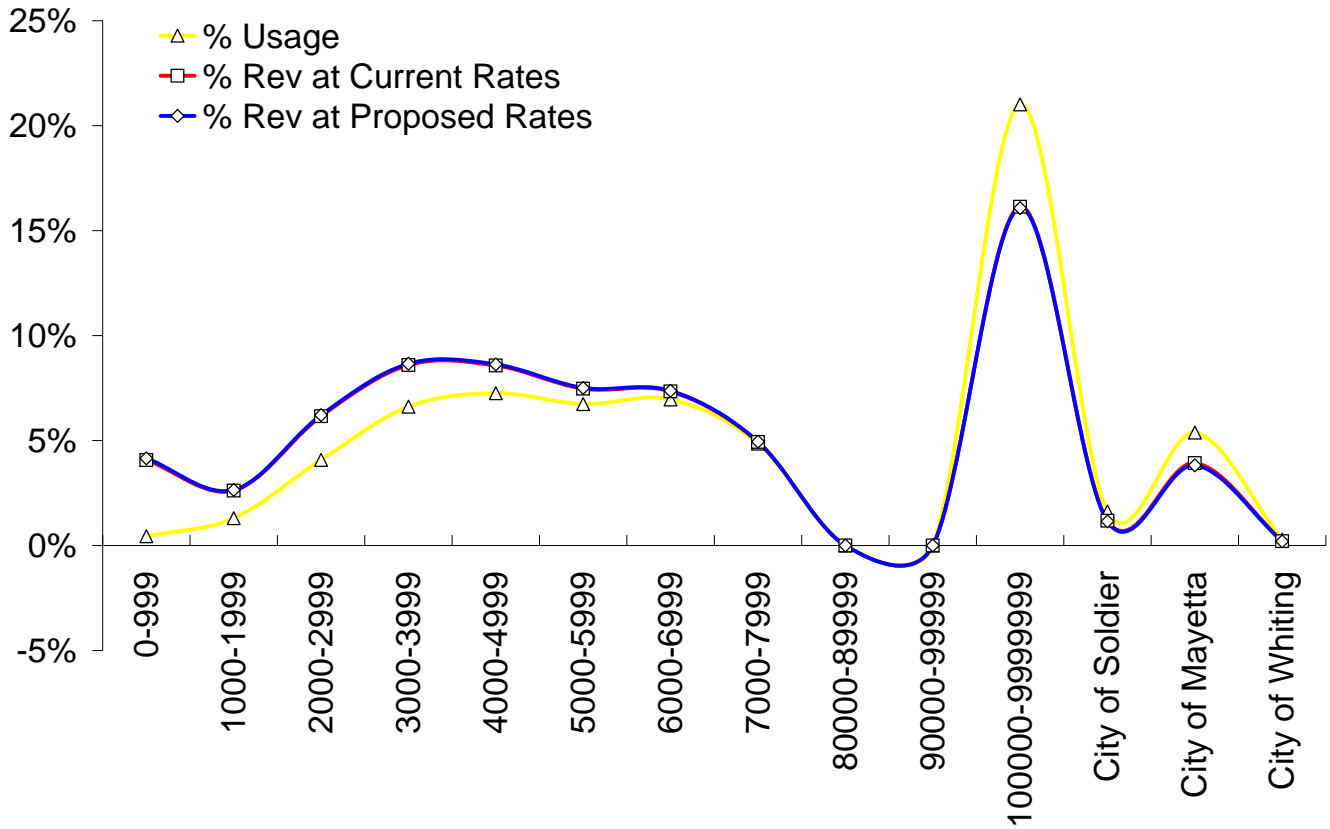


Chart 8 - Coverage Ratio

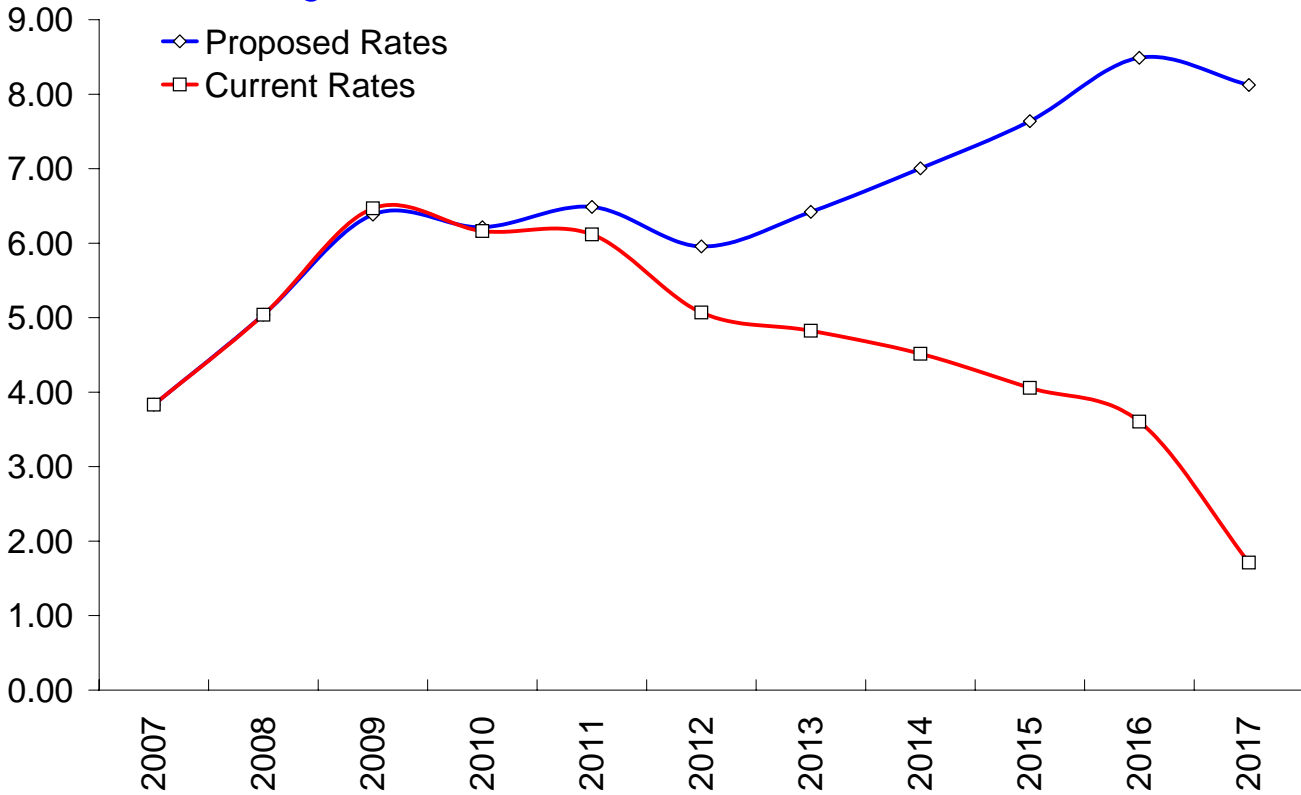


Chart 9 - Working Capital

Jackson Co, KS RWD #3

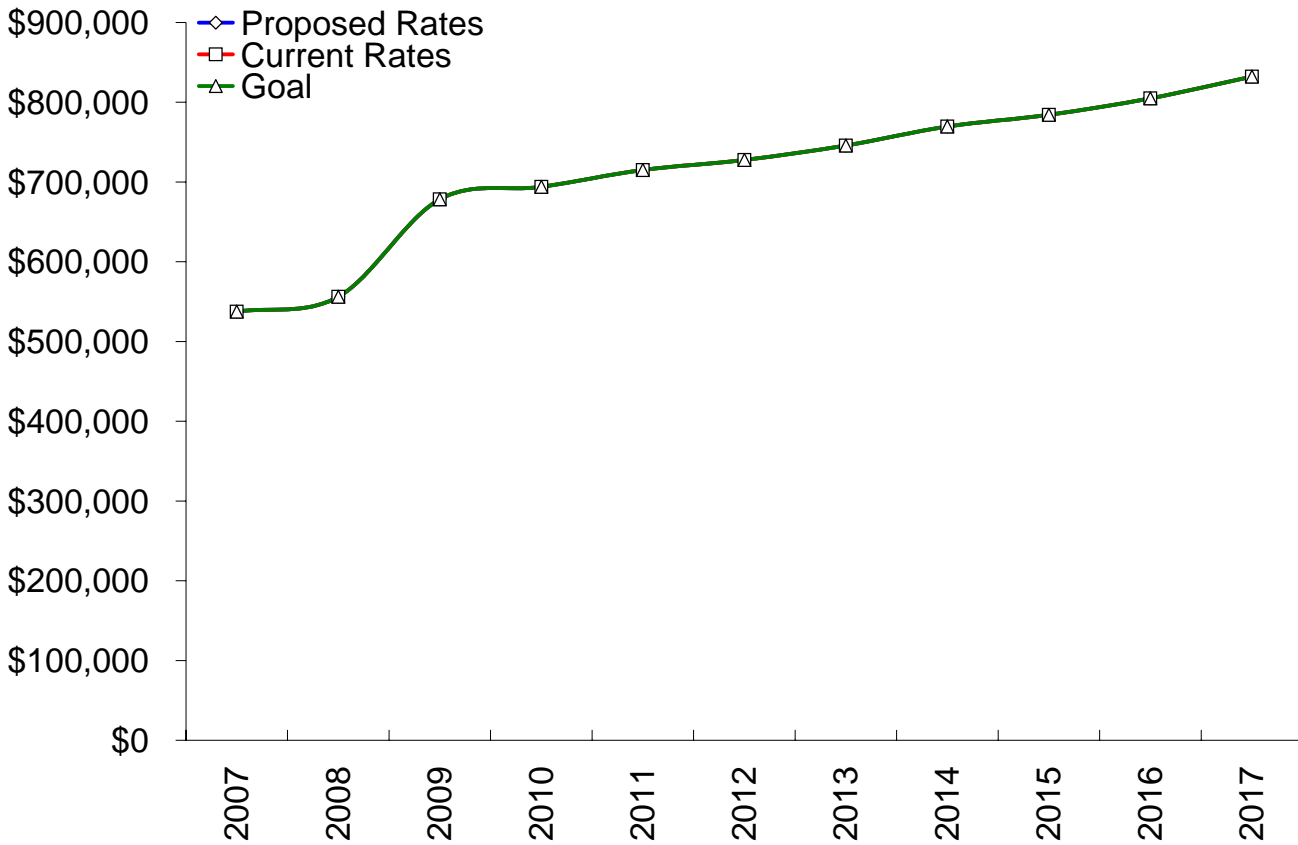


Chart 10 - Current Position

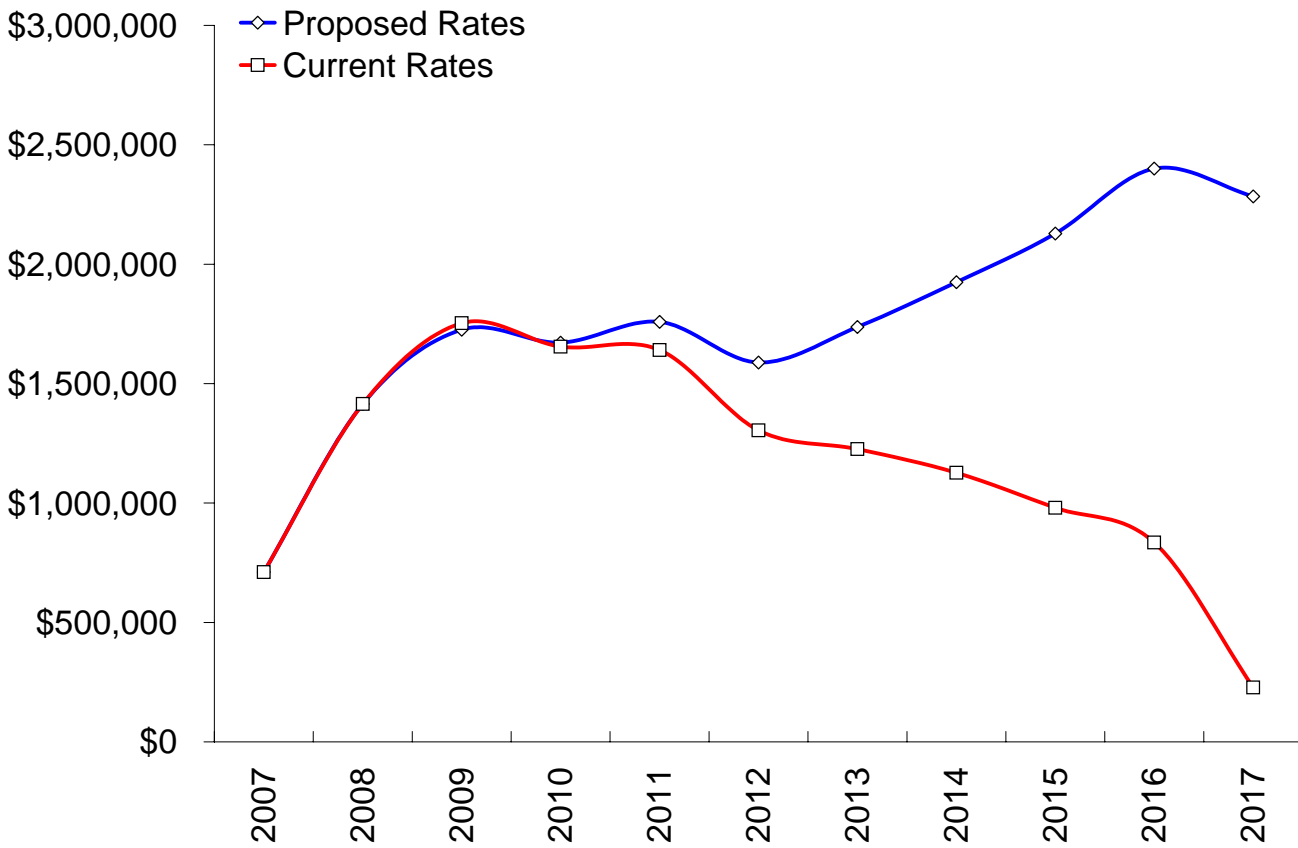
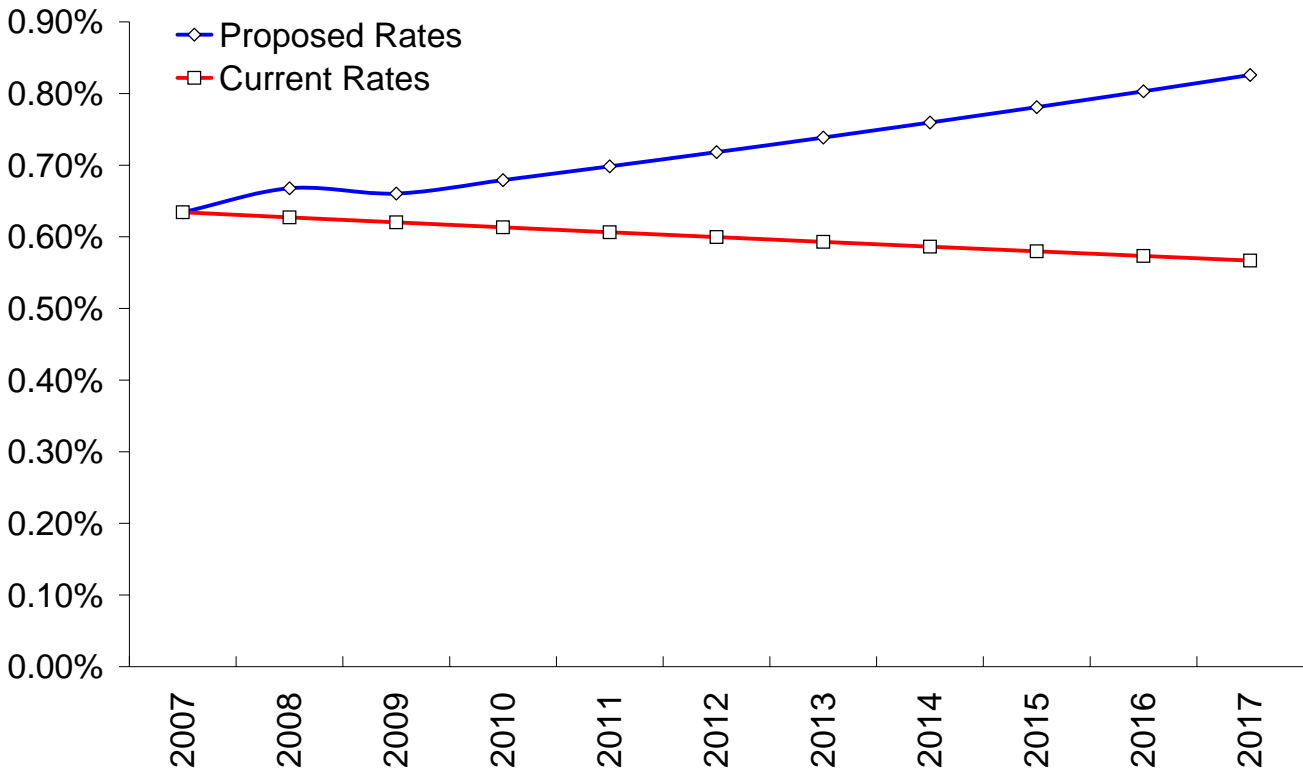


Chart 11 - Affordability

Jackson Co, KS RWD #3



Jackson Co, KS RWD #3, Water Rate Analysis

Chart 12 - Old Rates, New Rates and Changes

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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 12/31/08	Bill Increase or (Decrease) After Rate Adjustment
General Customer Class (use per Billing Cycle in Gallons)					
0	999	0.2	\$15.26	\$16.37	\$1.11
1,000	1,999	1.5	\$22.67	\$24.14	\$1.47
2,000	2,999	2.5	\$28.40	\$30.14	\$1.74
3,000	3,999	3.5	\$34.11	\$36.13	\$2.02
4,000	4,999	4.5	\$39.74	\$42.02	\$2.29
5,000	5,999	5.5	\$45.26	\$47.81	\$2.55
6,000	6,999	6.5	\$51.13	\$53.97	\$2.83
7,000	7,999	7.5	\$56.75	\$59.85	\$3.10
8,000	8,999	8.5	\$62.64	\$66.02	\$3.39
9,000	9,999	9.5	\$68.20	\$71.85	\$3.65
10,000	14,999	12.1	\$83.37	\$87.75	\$4.38
15,000	19,999	16.6	\$109.33	\$114.95	\$5.63
20,000	24,999	22.3	\$141.79	\$148.97	\$7.19
25,000	29,999	27.4	\$170.84	\$179.42	\$8.58
30,000	39,999	34.7	\$212.76	\$223.35	\$10.59
40,000	49,999	42.9	\$259.47	\$272.31	\$12.83
50,000	59,999	55.0	\$329.06	\$345.23	\$16.17
60,000	69,999	67.7	\$401.62	\$421.28	\$19.66
70,000	79,999	77.5	\$457.76	\$480.11	\$22.35
80,000	89,999	85.0	\$500.94	\$525.36	\$24.42
90,000	99,999	95.0	\$558.23	\$585.41	\$27.17
100,000	9,999,999	1,439.1	\$8,259.87	\$8,656.72	\$396.85
Special Customer Classes					
	City of Soldier	222.1	\$1,210.22	\$1,239.06	\$28.84
	City of Circleville	325.7	\$1,774.81	\$1,817.10	\$42.29
	City of Netawaka	373.0	\$2,032.95	\$2,081.39	\$48.44
	City of Denison	369.8	\$2,015.51	\$2,063.54	\$48.03
	City of Mayetta	736.8	\$4,015.61	\$4,111.29	\$95.69
	City of Whiting	38.6	\$210.61	\$215.62	\$5.02

Jackson Co, KS RWD #3, Water Rate Analysis

Chart 12B - Rate Changes in Percent

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Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
General Customer Class (use per Billing Cycle in Gallons)		
0	999	7%
1,000	1,999	6%
2,000	2,999	6%
3,000	3,999	6%
4,000	4,999	6%
5,000	5,999	6%
6,000	6,999	6%
7,000	7,999	5%
8,000	8,999	5%
9,000	9,999	5%
10,000	14,999	5%
15,000	19,999	5%
20,000	24,999	5%
25,000	29,999	5%
30,000	39,999	5%
40,000	49,999	5%
50,000	59,999	5%
60,000	69,999	5%
70,000	79,999	5%
80,000	89,999	5%
90,000	99,999	5%
100,000	9,999,999	5%
Special Customer Classes		
	City of Soldier	2%
	City of Circleville	2%
	City of Netawaka	2%
	City of Denison	2%
	City of Mayetta	2%
	City of Whiting	2%

Jackson Co, KS RWD #3 Proposed Rate Chart

Derived from the Jackson Co, KS RWD #3, Water Rate Analysis

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	0.2	\$15.05	0.0	\$6.01
1,000	1,999	1.5	\$15.05	0.0	\$6.01
2,000	2,999	2.5	\$15.05	0.0	\$6.01
3,000	3,999	3.5	\$15.05	0.0	\$6.01
4,000	4,999	4.5	\$15.05	0.0	\$6.01
5,000	5,999	5.5	\$15.05	0.0	\$6.01
6,000	6,999	6.5	\$15.05	0.0	\$6.01
7,000	7,999	7.5	\$15.05	0.0	\$6.01
8,000	8,999	8.5	\$15.05	0.0	\$6.01
9,000	9,999	9.5	\$15.05	0.0	\$6.01
10,000	14,999	12.1	\$15.05	0.0	\$6.01
15,000	19,999	16.6	\$15.05	0.0	\$6.01
20,000	24,999	22.3	\$15.05	0.0	\$6.01
25,000	29,999	27.4	\$15.05	0.0	\$6.01
30,000	39,999	34.7	\$15.05	0.0	\$6.01
40,000	49,999	42.9	\$15.05	0.0	\$6.01
50,000	59,999	55.0	\$15.05	0.0	\$6.01
60,000	69,999	67.7	\$15.05	0.0	\$6.01
70,000	79,999	77.5	\$15.05	0.0	\$6.01
80,000	89,999	85.0	\$15.05	0.0	\$6.01
90,000	99,999	95.0	\$15.05	0.0	\$6.01
100,000	9,999,999	1,439.1	\$15.05	0.0	\$6.01
Special Customer Classes					
	City of Soldier	222.1	\$0.00	0.0	\$5.58
	City of Circleville	325.7	\$0.00	0.0	\$5.58
	City of Netawaka	373.0	\$0.00	0.0	\$5.58
	City of Denison	369.8	\$0.00	0.0	\$5.58
	City of Mayetta	736.8	\$0.00	0.0	\$5.58
	City of Whiting	38.6	\$0.00	0.0	\$5.58

Jackson Co, KS RWD #3

Chart 14A - Rates During Test Year

CBGreatRates© Version 3.9

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

Class Bottom	Class Top	Average or Median use in Thousands	Average Minimum Charge	Minimum Charge Usage Allowance in Thousands	Unit Charge per 1000 Gallons for use Within This Class
General Customer Class (use per Billing Cycle in Gallons)					
0	999	0.2	\$14.00	0.0	\$5.73
1,000	1,999	1.5	\$14.00	0.0	\$5.73
2,000	2,999	2.5	\$14.00	0.0	\$5.73
3,000	3,999	3.5	\$14.00	0.0	\$5.73
4,000	4,999	4.5	\$14.00	0.0	\$5.73
5,000	5,999	5.5	\$14.00	0.0	\$5.73
6,000	6,999	6.5	\$14.00	0.0	\$5.73
7,000	7,999	7.5	\$14.00	0.0	\$5.73
8,000	8,999	8.5	\$14.00	0.0	\$5.73
9,000	9,999	9.5	\$14.00	0.0	\$5.73
10,000	14,999	12.1	\$14.00	0.0	\$5.73
15,000	19,999	16.6	\$14.00	0.0	\$5.73
20,000	24,999	22.3	\$14.00	0.0	\$5.73
25,000	29,999	27.4	\$14.00	0.0	\$5.73
30,000	39,999	34.7	\$14.00	0.0	\$5.73
40,000	49,999	42.9	\$14.00	0.0	\$5.73
50,000	59,999	55.0	\$14.00	0.0	\$5.73
60,000	69,999	67.7	\$14.00	0.0	\$5.73
70,000	79,999	77.5	\$14.00	0.0	\$5.73
80,000	89,999	85.0	\$14.00	0.0	\$5.73
90,000	99,999	95.0	\$14.00	0.0	\$5.73
100,000	9,999,999	1,439.1	\$14.00	0.0	\$5.73
Special Customer Classes					
	City of Soldier	222.1	\$0.00	0.0	\$5.45
	City of Circleville	325.7	\$0.00	0.0	\$5.45
	City of Netawaka	373.0	\$0.00	0.0	\$5.45
	City of Denison	369.8	\$0.00	0.0	\$5.45
	City of Mayetta	736.8	\$0.00	0.0	\$5.45
	City of Whiting	38.6	\$0.00	0.0	\$5.45

Jackson Co, KS RWD #3

Chart 14B - Reserves and Incomes

CBGreatRates© Version 3.9

Reserve Starting Balances as of 1/1/07 (Carryover From Prior Year)

	\$549,151 Operating Fund		
	\$0 Capital Improvement		
	\$0 Bond Debt Service		
	\$0 Other Reserves		
	\$0 Replacement		
Incomes	1/1/07	Through	12/31/07
	\$1,256,275 Water Sales		
	\$112,104 Monthly Debt Charges (Non-tribal users)		
	18 Benefit Units		
	\$4,000 Average Benefit Unit Fee		
	\$72,000 Benefit Unit Revenues		
	\$25,398 Penalties		
	\$27,326 Interest Earned on Deposits		
	Transfers From Capital Improvement Reserves		
	\$36,344 Other Income	Other Incomes	
	\$130,475 Other Income	New Service/Line Extension Fees	
	\$13,220 Other Income	Additional Benefit Unit Fees	
	<hr/>		
	\$1,673,142 Total Regular Income		

The recorded rates and usage predict billable user fees at:
\$1,228,496

Benefit unit fees dedicated to future capital improvements:
\$0

Annual Median Household Income (AMHI)

\$42,737 AMHI for Jackson Co, KS RWD #3 for the year 2005, by Census estimate
1.1% Rate of growth in AMHI (assumed)

Jackson Co, KS RWD #3

Chart 15 - Replacement Schedule

CBGreatRates© Version 3.9

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

5.00% Average Inflation Rate for the Following Water System Equipment for the Term of This Replacement Schedule

3.00% Average Interest Rate on Balances Invested for the Term of This Replacement Schedule

5.00% 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 handled in operating budget this year	\$0	\$0	\$0	\$247,204
1/1/08	Replacements handled in operating budget this year	\$0	\$0	\$222,615	\$247,204
1/1/09	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$136,613	\$315,296	\$259,565
1/1/10	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$143,444	\$403,926	\$272,543
1/1/11	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$150,616	\$488,044	\$286,170
1/1/12	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$158,147	\$567,154	\$300,479
1/1/13	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$166,054	\$640,730	\$315,502
1/1/14	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$174,357	\$708,210	\$331,278
1/1/15	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$183,074	\$768,997	\$347,841
1/1/16	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$192,228	\$822,454	\$365,234
1/1/17	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$201,840	\$867,904	\$383,495
1/1/18	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$211,932	\$904,624	\$402,670
1/1/19	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$222,528	\$931,850	\$422,803
1/1/20	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$233,655	\$948,766	\$443,944
1/1/21	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$245,337	\$954,507	\$466,141
1/1/22	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$257,604	\$948,154	\$489,448
1/1/23	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$270,484	\$928,729	\$513,920
1/1/24	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$284,009	\$895,198	\$539,616
1/1/25	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$298,209	\$846,460	\$566,597
1/1/26	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$313,119	\$781,349	\$594,927
1/1/27	Replacements assumed at 15% of operating costs not including administration	\$130,108	\$328,775	\$698,630	\$624,673

Notes: Replacement costs are assumed at 15% of operational costs. The minimum desired balance was set at two times the expected average annual replacement cost.

Starting Account Balance	\$0	\$247,204
Present Worth less Starting Account Balance	\$2,925,138	Minimum Desired Balance in Today's Dollars
Minimum Annual Annuity	\$196,615	
Discretionary Annuity	\$26,000	

Required Annual Deposit to Replacement Account \$222,615

Jackson Co, KS RWD #3

Chart 16 - Test Year Costs

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

Operating Costs

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	\$86,036	100%	\$86,036	\$86,036	\$0
Billing, Office Operation, Rent & Other Overhead	\$27,433	100%	\$27,433	\$27,433	\$0
Accounting and Professional Fees	\$22,153	100%	\$22,153	\$22,153	\$0
Engineering Fees	\$34,997	100%	\$34,997	\$34,997	\$0
Insurance	\$18,343	100%	\$18,343	\$18,343	\$0
Telephone	\$6,126	50%	\$6,126	\$3,063	\$3,063
Dues, Subscriptions, Education, Travel	\$4,119	100%	\$4,119	\$4,119	\$0
Purchase of Inventory	-\$5,712	0%	-\$5,712	\$0	-\$5,712
Chemicals and Analysis	\$8,483	0%	\$8,483	\$0	\$8,483
Repairs and Maintenance	\$241,052	25%	\$241,052	\$60,263	\$180,789
Taxes and Fees	\$8,548	100%	\$8,548	\$8,548	\$0
Utilities	\$36,809	0%	\$36,809	\$0	\$36,809
Water Purchases	\$439,239	0%	\$439,239	\$0	\$439,239
Payment to Replacement Account	\$222,615	0%	\$222,615	\$0	\$222,615
Surchargeable Water Services (Adjustment)	\$0	0%	\$0	\$0	\$0
Unaccounted-for Water (Adjustment)	N.A.	100%	\$0	\$0	\$0
Gas and Fuel	\$16,025	0%	\$16,025	\$0	\$16,025
Miscellaneous	\$2,434	100%	\$2,434	\$2,434	\$0
Salaries, Benefits, Training for Operations Staff	\$129,054	0%	\$129,054	\$0	\$129,054
Total Operating Costs:	\$1,297,754		\$1,297,754	\$267,389	\$1,030,365

Capital Improvement (CIP), Debt Costs and Reserve Transfers for the Test Year Only

Bond Payments	\$250,875	50%	\$250,875	\$125,438	\$125,438
Capital Improvements Paid With Cash	\$185,619	50%	\$185,619	\$92,810	\$92,810
Total CIP and Reserve Costs	\$436,494		\$436,494	\$218,247	\$218,247
Grand Total All Costs	\$1,734,248		\$1,734,248	\$485,636	\$1,248,612

Special Cost Calculations

Fixed Cost/User/Month = \$23.03
 Variable Costs/Unit Sold = \$7.60
 Total Cost to Produce each Unit Sold = \$10.55

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 \$374,614

Percentage of unaccounted-for water to allocate to fixed costs is 100%

Annual Flow Metered Through Customer Meters	164,355,870 gallons/year
Gallons/Billing Cycle Used by Average General Customer	6,642
Gallons/Billing Cycle Used by Average Special Customer	344,333
+ Unaccounted-for water	49,310,730 gallons/year
= Total Annual Flow	213,666,600 gallons/year

Jackson Co, KS RWD #3 Cost of Service Analysis

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Chart 17 - Wholesale Customers' Share of Capital Costs

Asset	Asset Type and Value				Cost Appli- cable to Wholesale Customers	Useful Life in Years	Pmt at 4.5% for Useful Life	Usage Rate of Wholesale Users*	Resulting Wholesale Share of Asset Values
	Distribution	Transpor- tation	Production	Other					
Land			\$71,898		\$71,898	N.A.	\$0	15.08%	\$0
Wells			\$288,016		\$288,016	30	\$17,682	15.08%	\$2,666
Plant			\$1,317,466		\$1,317,466	50	\$66,667	15.08%	\$10,053
Standpipe		\$58,395			\$58,395	30	\$3,585	15.08%	\$541
Whiting Annex		\$775,620			\$775,620	30	\$47,617	15.08%	\$7,181
Line Extensions	\$4,114,615				\$0	30	\$0	15.08%	\$0
Reservation Construction	\$338,958				\$0	30	\$0	15.08%	\$0
Office Equip				\$9,585	\$0	10	\$0	15.08%	\$0
Tank		\$752,820			\$752,820	30	\$46,217	15.08%	\$6,969
Telemetry				\$144,343	\$0	30	\$0	15.08%	\$0
Equipment				\$51,766	\$0	10	\$0	15.08%	\$0
Dam Construction			\$373,000		\$373,000	50	\$18,875	15.08%	\$2,846
Filtration Plant			\$533,072		\$533,072	50	\$26,975	15.08%	\$4,068
Construction in Progress (Wholesale Line)		\$870,328			\$870,328	30	\$53,431	15.08%	\$8,057
				Sums	\$5,040,615		\$281,047		

Wholesale Customers' Share of Annualized Value of Property, Plant and Equipment at 4.5% for the Applicable Useful Lives \$42,382

*Usage rate is the percentage of the total system flow consumed by the wholesale user class

Jackson Co, KS RWD #3 Cost of Service Analysis

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Chart 18 - Wholesale Customers' Share of Costs

Item	Total System Cost	% of This Cost That is Fixed	Total System Fixed Costs	Total System Variable Costs	Benefit Wholesale Customers Derive From This Item Compared to Average User	Wholesale Fixed Costs	Wholesale Variable Costs	Total Costs Attributable to Wholesale Customers
Salaries, Benefits, Training for Administration Staff	\$86,036	100%	\$86,036	\$0	100%	\$48.97	\$0.00	\$48.97
Billing, Office Operation, Rent & Other Overhead	\$27,433	100%	\$27,433	\$0	100%	\$15.61	\$0.00	\$15.61
Accounting and Professional Fees	\$22,153	100%	\$22,153	\$0	100%	\$12.61	\$0.00	\$12.61
Engineering Fees	\$34,997	100%	\$34,997	\$0	25%	\$4.98	\$0.00	\$4.98
Insurance	\$18,343	100%	\$18,343	\$0	25%	\$2.61	\$0.00	\$2.61
Telephone	\$6,126	50%	\$3,063	\$3,063	25%	\$0.44	\$115.51	\$115.94
Dues, Subscriptions, Education, Travel	\$4,119	100%	\$4,119	\$0	100%	\$2.34	\$0.00	\$2.34
Purchase of Inventory	-\$5,712	0%	\$0	-\$5,712	25%	\$0.00	-\$215.40	-\$215.40
Chemicals and Analysis	\$8,483	0%	\$0	\$8,483	100%	\$0.00	\$1,279.60	\$1,279.60
Repairs and Maintenance	\$241,052	25%	\$60,263	\$180,789	33%	\$11.32	\$8,999.37	\$9,010.69
Taxes and Fees	\$8,548	100%	\$8,548	\$0	25%	\$1.22	\$0.00	\$1.22
Utilities	\$36,809	0%	\$0	\$36,809	100%	\$0.00	\$5,552.39	\$5,552.39
Water Purchases	\$439,239	0%	\$0	\$439,239	100%	\$0.00	\$66,256.28	\$66,256.28
Payment to Replacement Account	\$222,615	0%	\$0	\$222,615	25%	\$0.00	\$8,395.01	\$8,395.01
Gas and Fuel	\$16,025	0%	\$0	\$16,025	25%	\$0.00	\$604.32	\$604.32
Miscellaneous	\$2,434	100%	\$2,434	\$0	25%	\$0.35	\$0.00	\$0.35
Salaries, Benefits, Training for Operations Staff	\$129,054	0%	\$0	\$129,054	25%	\$0.00	\$4,866.73	\$4,866.73
Total Operating Costs:	\$1,297,754		\$267,389	\$1,030,365		\$100.44	\$95,853.81	\$95,954.25
Property, Plant and Equipment at 4.5% for the Applicable Useful Lives	\$42,382	100%	\$42,382	\$0	100%	\$42,381.82	\$0.00	\$42,381.82
Grand Total All Costs	\$1,340,136		\$309,771	\$1,030,365		\$42,482.26	\$95,853.81	\$138,336.07

Wholesale Monthly Operating & Annualized Value on a Unit Cost Basis

Gallons Used by Wholesale Customers =	24,791,990
Costs Incurred =	\$138,336.07
Unit Cost per 1,000 Gallons =	\$5.58