

# Proposal for Water, Sewer and Trash Collection Rate Studies

## City of Moorcroft, Wyoming

### **Table of Contents**

Purpose and Need .....	1
Firm Revenues, Qualifications and References.....	2
Form of Agreement .....	2
Guarantee .....	2
Scope of Services That you may Select or Decline, at Your Option.....	2
Use of Electronic Technology.....	3
Approach and General Timeline .....	3
Expected Results .....	5
Work Coordination.....	5
Timing .....	5
Investment.....	5
Proposal Acceptance .....	6

### **Purpose and Need**

This proposal is long and detailed for this reason. If you desire, this proposal, along with your acceptance of service packages in it, will serve as our “contract” and project description. That will make the project take off as quickly as you choose while costing nothing additional to initiate.

This proposal describes the need, responsibilities, timing, investment and other issues for rate studies (later referred to as “studies” or “analyses”) of the water, sewer and trash collection services. These studies will be performed by Carl Brown Consulting, LLC (later referred to as “I”) for the City of Moorcroft, Wyoming (later referred to as “you”). To adequately fund current operation of your systems and services, build and maintain reserves, fund capital improvements and establish rates that are fair to all ratepayers, you need to analyze your rates and fees, set them appropriately and periodically reset them. The services proposed are intended to support you as you satisfy those needs.

## **Firm Revenues, Qualifications and References**

Firm revenues, qualifications and references are detailed in the document, "Background for Carl Brown Consulting," attached. The reference list includes all rate study clients since 2006. Call any you care to but I suggest you call the most recent clients, which are listed first. They will recall their project and my services to them better than less recent clients will.

Carl Brown Consulting has one office in Jefferson City, Missouri but we operate nation-wide. Our work focuses almost exclusively on rate analysis and rate setting. Carl Brown, President will conduct these analyses in their entirety. He has been doing rate analysis work for approximately 17 years. For most of that time he has also been teaching practitioners all over the U.S. on rate analysis and rate setting, writing a rate setting book and designing rate analysis software.

You may expect your analysis results package to look much like the attached Sundance, WY rate study report package.

For conflict of interest purposes, Carl Brown Consulting has never had any ties to the City of Moorcroft.

## **Form of Agreement**

This proposal and your acceptance (probably by e-mail message) of one or more service packages is all the agreement I need. If you wish to prepare a formal contract you may do so but it is not necessary and that will take extra time. My business model is a throwback – I operate on handshakes and the modern-day electronic equivalents. Basically, if I were to walk away from your project (I have yet to do that) you would owe me nothing. If you walk away from the project for any or no reason you would owe me nothing. This arrangement may seem one sided but it has worked very well for me so far because my service to clients is based upon my satisfying their real needs. It is not based upon satisfying stipulations in a contract that may or may not satisfy their real needs.

## **Guarantee**

In the unlikely event you feel I am not fulfilling the commitments in this proposal, simply tell me what you feel the problem is. I will do my best to make it right by you. If I still am not able to satisfy you, notify me by mail or e-mail. I will cease the services in question at that point, you will owe me nothing for those services and I will refund any payments you may have already made for those services. This has been my guarantee policy from the day the company was formed. No client has invoked this guarantee to date and I don't plan to have you be the first.

## **Scope of Services That you may Select or Decline, at Your Option**

The following service packages are intended to satisfy your rate study and rate setting needs.

- Service package 1 is analysis of your water system's usage and other fee adjustment needs<sup>1</sup>.
- Service package 2 is the same as service package 1 except it is for your sewer system.
- Service package 3 is the same as service package 1 except it is for your trash collection service.
- Service package 4 is for on-site visits<sup>2</sup>. Each visit will be one instance of this service package. If I travel to your area only to visit Moorcroft, your fee will be that shown later for service package 4A. If I travel to your area to visit at least one other client besides Moorcroft on the same trip, your fee will be that shown later for service package 4B. In this way you would share the common travel costs with the other client.

You may add or drop service packages at any time so long as you engage me to do at least service package 1, 2 or 3.

### **Use of Electronic Technology**

I do almost all analysis work electronically. I strongly prefer, whenever possible, to receive all data and information electronically, generally transferring it by e-mail attachment. I prefer to receive volume usage, income and expense and other numerical data in a spreadsheet format and textual material in a word processor format. When I return material to you that you need to manipulate further, such as a revised ordinance, I will return it electronically in a format you can conveniently use. You will receive my analysis reports, the studies and my recommendations electronically as PDFs.

### **Approach and General Timeline**

I intend to produce the majority of the user charge analysis output using my proprietary software called CBGreatRates<sup>©</sup>.

Rate analysis is an iterative, non-linear process. However, it can be broken down into several groupings of work as follows:

1. I will call your contact person, probably the day after being notified that I will be doing the analyses, to discuss data needs and get them started on initial data retrieval.
2. Your staff will assemble and send to me usage data, financial statements, capital improvement plans, equipment replacement and refurbishment plans and schedules, supply agreements and other information concerning your systems and services. I will guide your staff through the entire process. Where

---

<sup>1</sup> This analysis will include output from modeling of your current financial situation and several proposed rate scenarios that depict rate structures and other variables you may want to consider. All reasonable scenarios that you or I conceive will be modeled and reported to you.

<sup>2</sup> I generally recommend one on-site visit to present the completed studies and recommendations and to answer questions at a public council meeting. You may choose as many on-site visits as you desire and change your mind as your needs become clearer.

data is missing I will help you create estimates. Initial data retrieval will be accomplished early on but some data will be acquired throughout the project. My preference is to begin with the water system first and follow some weeks later with the sewer system. That is because sewer rate setting depends upon water usage data. I also like to use the model created for the water system as the template for the sewer system so both analyses will be in nearly the same format. The trash collection service can be modeled before, during or after the water and sewer system modeling.

3. I will analyze this information and build your rate analysis models, coordinating periodically with your contact person. Jointly, we will arrive at a set of financial goals for your systems and services. Key model building will be complete about two months after starting. Some modeling will continue through nearly the end of the project. Once the model has been built, unlimited “what-if” scenarios can be run to find the optimum mix of rate and fee levels and structures, funding options, reserve levels, etc. to suit your needs.
4. During the last half of the project I will examine as many scenarios of your possible future as it makes sense. I will share with you all that are potentially useful.
5. You will likely choose to consider adopting rates and funding levels from perhaps the two most promising scenarios for each service. Final output will include a cover letter, a report of my analysis and recommendations, which is largely a step by step action plan, and copies of the studies.
6. If you choose service package 4, I will present my final analysis results and recommendations to your council in person. Otherwise, and assuming there are not issues that require in-person discussion, I will be glad to participate in a council meeting to discuss my recommended rates and fees by speaker phone at no additional cost.
7. As you draft proposed amendments to your ordinances and budgets to effectuate the rate, fee and other changes, at your request I will review those changes to assure that they accomplish what you intend to accomplish.
8. The council will consider and pass ordinance amendments to effectuate new rates, fees, budget revisions and other changes. Note: Councils often like to “take it slow” at this point. If necessary I will point out to the city the revenues that will be lost each day the city postpones adjusting rates in order to encourage the city to move forward promptly.
9. As needed during later weeks and even years I will check in with you to see that you are on track and doing well and give you guidance if needed.

## **Expected Results**

With the completion of the studies:

1. You will be able to successfully settle upon desired financial performance levels for your systems and services.
2. You will arrive at new user charge rates and fees that will adequately fund the systems and services for a substantial period of time. The studies will project your rates, fees, operating costs, capital improvements and all other important costs and revenues, plus important financial performance indicators 10 years into the future. Equipment replacement and refurbishment plans will be projected 20 years into the future.
3. You will be able to set rates, fees and other charges that are fair to your ratepayers.
4. You will be able to inform and promote to your council and to your ratepayers and property owners the need to adjust rates and fees now and to keep them current.
5. You will be able to acquire needed funding for capital improvement and equipment replacement projects depicted in the analyses and/or fund improvements from system revenues and reserves.
6. Being well funded you will successfully comply with your permit to dispense water, NPDES permit and other requirements from the regulatory agencies.

## **Work Coordination**

I will communicate primarily with your designated contact person and with others, as you see fit, to do the analysis work.

## **Timing**

My part of this project will probably consume about four weeks and much of that will occur at the same time that you are gathering data for the analyses or making decisions. Your part of this project will take longer. If we initiate the project quickly, you gather data quickly and it takes you three months to consider and adopt new rates, we can complete this project in five to six months.

## **Investment**

These are your complete investments for my services, materials and travel costs, based upon the service descriptions above:

- Service package 1, water user charge analysis – \$3,648
- Service package 2, sewer user charge analysis – \$3,264
- Service package 3, trash service user charge analysis – \$1,824
- Service package 4A, landfill user charge analysis with no travel cost sharing – \$1,887
- Service package 4B, landfill user charge analysis with travel cost sharing – \$1,166

**If you choose service packages 1, 2, 3 and 4A, the most likely group of services for you to choose, the total investment will be \$10,623.** Once the project gets started you may add or drop service packages as your needs become clearer.

### **Proposal Acceptance**

This proposal is effective through July 1, 2011 if you choose at least service package 1, 2 or 3 by July 30, 2010. If my part of the project has not been completed by July 30, 2011, all fees for service packages not yet completed will escalate by 25 percent. (Aside from lagging performance on your part there is no reason this project will not be completed in a few months. I escalate fees only for this reason. If the analysis is drawn out for a full year I will end up having to gather updated data and reanalyzing, increasing my work markedly and more importantly, increasing your rate revenue losses dramatically. I don't want that to happen for me or for you so the escalation is intended to get and keep you focused on project completion.) Once you tell me what service packages you desire and you provide data to work with, I will immediately start to produce the analyses.

**Action item: If you accept this proposal call me to tell me what services you desire, or give me the same information in writing by e-mail message.**

### **Payment**

I will first invoice you for the total project amount upon your acceptance of this proposal. **If you pay this initial invoice within 30 days of the invoice date you may deduct five percent from the invoice amount.** Otherwise, I will re-invoice you for one-half of the project dollar amount after 90 days from proposal acceptance and the balance when I submit the final report set. You shall promptly pay the full amounts of those invoices. If you request and pay for services but later cancel those services, I will refund those fees to you. If I cancel any services in this proposal (I have yet to do such a thing), you will owe me no fees for those services and I will refund any fees you have already paid for those services.

### **In Closing**

I am looking forward to the opportunity to conduct your rate studies so you can get your rates and finances set on a good course.

Best regards,  
Carl Brown Consulting, LLC



Carl E. Brown  
President

March 3, 2011

The Honorable Rosalee Brimmer  
Mayor of Moorcroft  
P O Box 70  
Moorcroft, WY 82721

Subject: User Charge Analysis Results

Dear Ms. Brimmer:

Enclosed please find the results of the utility user charge analyses.

Addressing you and the council directly for a moment, I want to compliment your Clerk Stephanie Noyse and Operations Officer Dan Blakeman. Both were very helpful to me in producing these analyses. They understood and produced the data and information I asked for and gave me great guidance and background about the town's situation and needs. The council also gave me very good input at the council workshop on February 16. I'm sure that others behind the scenes assisted as well so I simply want to tell the council, you are on the right track yourselves and you have good support staff behind you.

The report and analyses are long, detailed and technical. You, the council and others should read through them but do not obsess over the details. If you have any questions, feel free to give me a call. It will be much easier for me to talk you through issues than it would be to study the charts to find the answers on your own.

I especially want to draw your attention to three features of the report.

- Immediately after the narrative report are several tables. One set of tables depict water rates proposed at two different levels along with "over-borrowing" depicted at two different levels. These four tables were designed at the request of Dan Blakeman. They should make it quicker and easier to compare important features of each scenario.
- Two other tables depict combined water and sewer bills at the higher water rate levels and at the lower water rate levels.

- The first analysis model includes all of the charts but duplicative charts have been left out of subsequent analysis models to make the report smaller.

With this submittal my “official” engagement with the town is complete. However, I want you and your staff to feel free to just give me a call anytime you have a question about the analysis, my recommendations or even things that may not be related to the analysis at all. A year from now you may need to call me, and that is just fine. If I can help you simply on the phone or by e-mail, I will do so. There will be no charge because that is just part of my service to get your rates set where they need to be. If the issue of concern requires substantial analysis we can then talk about if and how you would like me or someone else to help you.

Finally, I am sure you know of other cities, villages and districts that need rate setting assistance. I hope you will tell them about me. I get almost all of my business by referrals from past clients and I hope to be able to trace several future clients back to my work with Moorcroft.

Best regards,  
Carl Brown Consulting, LLC



Carl E. Brown  
President

Enclosures

# Water, Sewer and Garbage Collection Services Rate Analysis Report

## Town of Moorcroft, Wyoming

Prepared March 3, 2011

Carl Brown, President  
Carl Brown Consulting, LLC

## Table of Contents

Purpose .....	3
Principles .....	3
Discussion of Significant Issues.....	4
Future Reserves .....	4
Capital Improvements .....	5
Assumed Growth Rate .....	5
Administration Expenses and Time Accounting .....	6
Depreciation.....	6
Equipment Replacement .....	7
Rate Affordability.....	7
Basic and Policy Action Items.....	8
Action Items not Related to the Results of the Analyses .....	9
General Background.....	10
Combined Water and Sewer Bills .....	11
Water System.....	11
Summary .....	11
Action Items .....	11
Proposed Rate Structure.....	12
Rate Affordability.....	13
Water Loss.....	13
Growth Rate and Tap-on Fees.....	13
Capital Improvements .....	13
Closing.....	14
Sewer System.....	14
Summary .....	14
Action Items .....	14
Proposed Rate Structure.....	15
Rate Affordability.....	15
Inflow and Infiltration (I&I).....	15
Growth Rate and Tap-on Fees.....	16
High-strength Wastewater .....	16
Winter Average Billing.....	16
Capital Improvements .....	17
Closing.....	17
Garbage Collection Service .....	18
Summary .....	18
Action Items .....	18
Proposed Rate Structure.....	19
Tipping Fees.....	19
Rate Affordability.....	19
Fee Collection Losses .....	19
“Snowbird” Billing .....	20
Contractual Collection Services.....	20
Capital Improvements .....	20
Closing.....	21
Analysis Models.....	Attachments

## Purpose

This report and the accompanying analyses are intended to:

1. Help the council and staff to understand the rates, fees and policies that are needed to set the utilities on good financial courses, and
2. Help staff to execute revisions and actions the council may call for.

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 analyses themselves which depict what will happen if you adjust rates and fees in the ways described.

Because this report covers several utilities and many issues are common to all of them, the report starts with general recommendations and observations. (Where a generality does not apply to a particular system that issue will be discussed in the section pertaining to that system.) The remainder of the report covers analysis results and recommendations for each of the utilities.

As you set and later reset your rates I suggest you follow the guidance I give in my book, "How to Get Great Rates." I sent a copy to Operations Officer Dan Blakeman. I suggest you also download the "Replacement Scheduler©" spreadsheet, at no charge, from <http://www.gettinggreatrates.com/ggrn/store/products.asp?cat=13> and use it for future equipment replacement scheduling for each of your utilities and services. You may also find the article "Decisions, Decisions" and the spreadsheet "DecisionMaker5©" to be useful tools as you make various decisions. These are available for free download at <http://www.gettinggreatrates.com/>.

## Principles

I use several guiding principles when I help systems set their utility rates, fees and policies. As you read this report and the analyses, 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. Likewise, service users should pay for their use. Each user or class of users should pay their fair share of service costs.

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 water 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 Town’s processes of having the Town’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.

## Discussion of Significant Issues

### Future Reserves

The analysis models depict reserves for each utility separate from the others. That is generally how reserves should be handled. However, the utilities are markedly under-funded right now as a whole and without “over-borrowing<sup>1</sup>,” they will run negative total reserves for a few years. The major culprit in this situation is water system improvement annual debt service which will go from the current level of about \$18,000 to \$193,000 in about three years. The sewer system is also currently under-funded by about \$40,000 per year and over the next five years it will add about \$20,000 to its annual debt load.

Tables following this narrative report depict the total reserve levels that will result from setting higher or lower water rates and “over-borrowing” either \$400,000 or \$600,000, as described here:

- Higher rates and lower borrowing are modeled in ...Water Rates Scenario 2A. This option results in reserves that will exceed the desired levels slightly and rates that are slightly higher than the lower rate option. This option is like borrowing a small amount on a credit card and paying it off promptly.
- Lower rates and lower borrowing are modeled in ...Water Rates Scenario 2B. This option results in reserves that will come up slightly short of the desired levels, but they will be adequate. This option is like borrowing a small amount on a credit card and paying it off slowly.
- Higher rates and higher borrowing are modeled in ...Water Rates Scenario 3A. This option results in very strong reserves, perhaps excessively so. This option is like borrowing a large amount on a credit card and paying it off promptly.
- Lower rates and higher borrowing are modeled in ...Water Rates Scenario 3B. This option results in reserves like those in ...Water Rates Scenario 2A. However, the early additional reserves are due to the higher amount borrowed. Because of the higher resulting debt service this option will result in diminishing reserves and the need for ever higher rates in the future. This option is like borrowing a large amount on a credit card and paying it off slowly.

---

<sup>1</sup> This “over-borrowing” will pay the Town back for improvements already paid for from reserves. The reserve created by this borrowing should be used to “loan” to the utilities, as needed, to maintain adequate reserves for the next few years until each of the funds recovers to its goal reserve level.

I consider either of the lower borrowing options to be better than the higher borrowing options. ...**Water Rates Scenario 2A, “over-borrowing” by \$400,000 and charging the higher rates, appears to give the best mix of additional reserves over the next 10 years, with reserve growth sustained into future years, while keeping debt service down.**

If over-borrowing from SRF is not possible it is likely the Town will need to transfer funds from other reserves, if they are available. If that is not possible the Town may need to secure a line of credit loan to maintain adequate reserves for a few years until rate revenues catch up with costs.

If the Town has \$400,000 in reserves that it could use to self-fund these cash-flow needs, that would be a better option assuming that the interest forgone on those reserves would not be greater than the interest rate paid on borrowed funds.

## Capital Improvements

Core system components are generally funded as capital improvements, paid for initially with loan and perhaps grant proceeds, with loans retired in subsequent years by debt payments. This process works well because it generally has users pay for facilities dedicated to them during the time they get benefit from them. Paying for such components over time also generally works well because rarely do such components unexpectedly break down and need immediate replacement. Core components and other capital improvements to be paid for with each of your system's rates and fees have been scheduled in capital improvement plans, which are a part of each analysis.

Each capital improvement plan (CIP Fund) includes a running balance. At the end of each year you should endeavor to retain in this fund the balance shown near the bottom of Chart 5 that is called, “CIP Fund” assuming that you actually incurred CIP expenses like those shown in Chart 3. If you do not set this up as a separate fund, you should at least account for this amount as part of your general system fund.

Several improvements are needed for each system. These will add to the debt load of each system, increasing future rate needs. The water and sewer improvements will be funded primarily with Special Purpose Tax funds, grants and State Revolving Fund (SRF) loan funds. The funding mix in the analyses was set to use all Special Purpose Tax funds available, grants to the extent possible and SRF loans to make up the balance needed.

The Town needs improvements to the Town hall and to build a maintenance shop. Because each utility benefits to different degrees by the Town hall and shop improvements, each utility's share of these costs will also add to the rate increase needs. It is anticipated that Town hall improvements will be 25 percent funded with a JPA loan for 20 years at 4.98 percent interest and the balance funded by grants.

## Assumed Growth Rate

The Town has grown by about one percent per year recently, even though the State placed a new connections ban on the Town until system improvements were done. The Madison well project will fulfill the ban restriction requirements. Staff has told me that it is likely development could resume at a strong pace once the ban is lifted. If growth rebounds, that will markedly increase rate revenues and new connection fees. That would reduce the amount by which future

rates would need to be increased, which is now projected at five percent each year for all three utilities.

## Administration Expenses and Time Accounting

Currently, administration expenses; primarily the time spent by office staff as well as the office and equipment used by administration staff for the benefit of each utility, is not fully attributed to each utility. That means that some of these costs are borne by the general fund. That lowers utility rates artificially by transferring expenses to general fund sources, primarily property taxes.

It is most proper and fair to the ratepayers to charge off the value of administration to each utility in proportion to the expenses incurred for the benefit of each utility. To do that the Town should at least estimate the percentage of time each staff member spends "working for" each of the utilities. Calculate the dollar value of staff time, insurance and other benefits spent "working for" each utility and assign that value to the utility. While you could do formal, year-long time accounting to accomplish this, it is not necessary. You can simply sample each staff person's time or have each staff person estimate during a typical month the time they spend working for each utility and use that sample to assign administration time expenses. Based upon the percentages of staff time assigned to each utility you can then assign those same percentages of general office expense, like the mortgage payment, heating fuel, electricity, etc. to each utility.

The cost of the billing program and perhaps the computer it is located on should be attributed to the utilities, too. That might be done on the basis described above. Or, it could most simply and logically be done on a percentage of revenues basis. Total up all fees and charges billed for all the utilities. Divide the fees and charges of each utility by this total to get the percentage of total fees and charges that each utility should pay. Then multiply those percentages by the cost of the computer and software systems to get the dollar amount you should recover from each utility.

For these analyses your clerk and I made reasonable estimates of these percentages and amounts. The analyses then assume that starting with the next rate adjustment you will begin paying administration staff for time worked for each utility from utility funds. This will relieve the general fund of a fairly significant expense.

Finally, you actually need to transfer funds in the amounts shown in each utility analysis to the fund that you pay administration staff from so the balances in all the funds will work out. Once the balances for each utility are adequate, these transfers can just be done once each year to simplify administration.

## Depreciation

Depreciation is a real event. Built facilities wear out with use and age with time, reducing and eventually eliminating their value and function. However, that wear out and aging process does not occur in a straight line as most depreciation schedules depict. Facilities usually function well for the first 75 percent or more of their useful lives and then they start a rapid decline. In addition, depreciation is "backwards looking" in that it considers the value of the system when it was initially built rather than considering the future cost to build a new system that would serve users as they desire in the future plus satisfy additional functions required by tighter environmental and health standards and customer desires.

Water utilities are made up of core components such as wells, treatment plants, towers and lines. These components wear and age slowly. Their useful lives define the maximum useful life of the utility as a whole.

Water utilities are also made up of secondary components that age and especially wear out with use more rapidly. These include pumps, motors and other mechanical parts that move. All of these parts are replaceable or can be refurbished to extend the useful life of the system as a whole. A garbage collection system is primarily rolling stock with many moving parts that wear out and operating costs largely based upon mileage. A large part of a garbage collection system's operating cost is the tipping fee for landfilling.

Depreciation financially models the aging and breakdown process. It is a useful concept and it is even required to adhere to generally accepted accounting principles. However, almost never is depreciation actually funded by placing those funds into an account to be available to pay for a new system when it is needed. Thus, it has limited value for municipal system rate setting.

## Equipment Replacement

Secondary components wear out. That process is fairly predictable generally but it is not so predictable for individual equipment items. Pumps, motors, rolling stock and other moving parts can fail one to several years earlier than expected and require immediate replacement to keep the system functioning. Problems may result if the system does not have reserves to pay for replacements. For this reason it is prudent to schedule equipment replacements, refurbishments and the like and set aside funds ahead of time to pay for these expenses when they occur.

To make each utility financially sound you should dedicate the amounts shown in Chart 17 of each analysis for replacement and refurbishment of each utility's equipment. This will enable you to handle equipment replacements when they are needed without disrupting each utility's general budget or "borrowing" reserves from another utility, causing future problems when that utility needs its reserves.

The replacement fund includes a running balance. At the end of each year you should endeavor to retain in this fund the balance shown near the bottom of Chart 5 that is called, "Replacement Fund" assuming that you actually incurred replacement expenses like those shown in Chart 17A. If you do not set this up as a separate fund, you should at least account for this amount as part of your general system fund.

## Rate Affordability

Ratepayers are going to think that their utility rates are going up drastically. While that is the case from their perspective the proper way to view the overall situation is this. The current rates are drastically too low to properly fund the systems. Without setting rates at the appropriate levels the systems will soon run out of money and cease to run. Or, the Town will subsidize the systems with funds (taxes primarily) collected on a basis that does not relate to the volume of utility service each ratepayer uses. This is a fundamentally unfair way to fund a utility and needs to be corrected by adopting proper utility rates.

## Basic and Policy Action Items

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

1. In my review of your ordinances I found your current late payment penalties. These penalties are fairly reasonable. However, I recommend you strengthen them so the penalty for late payment of any service fee is at least \$10.00 or 10 percent of the outstanding balance each month for each fee, whichever is greater. This will give late payers more incentive to pay on time. And, that is and should be the intent of penalties – to encourage on-time payment.
2. Reword your non-payment shut-off policy for the water and sewer services so that any payment received will be applied to the sewer bill first and the water bill last. In this way, if someone does not pay enough to cover the entire bill, they will be subject to water shut-off, which is much easier to do than sewer shut-off.
3. Before you officially propose or adopt new rate language, you may mail or e-mail the rate charts, ordinances or agreements to me and, as a part of this project, I will verify that your language will effectuate the intended rate and policy adjustments.
4. 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 Town per hour, on average, to have staff perform these services. This includes benefits, taxes, use of Town 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, 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 and charge fees based upon those estimates.
5. Town staff performs services for developers and others. This may include review and approval of water and sewer 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 fund you use to pay the personnel and other expenses incurred by the utility for providing these services.
6. 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 “CIP Fund” at the bottom of Chart 5, or the amounts your lender requires, whichever is greater.
7. It makes sense to do equipment replacement and capital improvement planning comprehensively. However, the two types of expenses will usually be funded differently. Equipment replacement should generally be funded from operating revenues on a “saved ahead of time” basis. Capital improvements are usually paid for with grant and loan proceeds and then paid for over time after the improvements have been built. Therefore, you should plan for each type of expense using separate schedules as soon as practical. Use charts 3, 17A and 17 as models for these tasks. As mentioned before, you can also

download my equipment replacement schedule to make replacement scheduling relatively easy.

8. Have me conduct full rate analyses when your actual financial performance and my projections diverge significantly, but not longer than five years from now to make sure your rates remain adequate for the systems 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.

## Action Items not Related to the Results of the Analyses

(Use the following as a checklist of general “to-do” tasks)

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

1. 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 utilities, especially those looking to build new facilities or replace existing facilities soon. Visit my Web site at <http://carlbrownconsulting.com/> for more information on asset management or call me to discuss how the Town might move into asset management.
2. If you do not already do so, consider “paying” developers to install over-sized water and sewer 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 two inch water 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 four inches in diameter. In that case you and the initial developer would determine the additional cost of installing the four inch line and the Town would reimburse the developer for that portion of the cost. (The incrementally higher cost of installing a larger line is small but the value of having that line in place and ready for use when needed is very large.) That reimbursement may be in the form of a discount on the developer’s connection fees.
  - Later, when other developments use the four 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, and I suggest that you do, charge an additional amount or percentage to serve as reimbursement for the Town’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 Town could recoup its investment in up-sized lines and facilities, and cover its risks of loss.
  - Be careful about how this cost sharing 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.

3. Continue (or begin) 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. This is especially important for the garbage collection service. This statement is not intended as a slight – such records were not needed in the past. But, now that you will be paying the costs of landfilling and garbage collection from different funds, good volume data will be very useful to future operations and rate setting.
4. 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 systems. You may want to use the financial statements template called, “GettingGreatRatesLater©,” available at <http://www.gettinggreatrates.com/ggrn/store/products.asp>. There are other tools and resources at this link you may find useful, as well.
5. Check with your attorney for language and legality of all charges and issues discussed.

## General Background

I made assumptions and estimates where necessary for the analyses. Using sensitivity tests and my experience in performing over 160 rate analyses, I am confident these assumptions are adequate for your rate setting purposes at this time.

Notable assumptions and issues include these:

- The analyses use the test year of July 1, 2009 through June 30, 2010. 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 analyses. 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 analyses seek “best fit” rates to satisfy many issues facing the systems. 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 future operating costs will rise at varying inflation rates, as shown in Chart 1B. Some costs, like electricity for water and sewer, will rise due to inflation and due to additional use caused by customer growth.
- Because the Town has been growing modestly, the number of user connections and customers changes each year for water, sewer and garbage collection services. 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 these averages increase based upon your estimated rate of growth for each year.
- The working capital goal for each of your systems is shown at the bottom of Chart 1B. 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.

## Combined Water and Sewer Bills

As a result of the proposed rates all customer's combined water and sewer bills will go up, some more than others. Customers can get a good idea of how the proposed rates will affect their combined water and sewer bill by reviewing the attachments called "Combined Water & Sewer Bills Using the Higher Water Rates Scenario Rates" and "Combined Water & Sewer Bills Using the Lower Water Rates Scenario Rates."

Note: if a customer irrigates their lawn or otherwise uses water that is not returned to the sewer system, their sewer use will be lower than their water use by that amount so their actual (average) combined bill will be somewhat lower than what is shown in this chart. And, if a customer cuts back on water use, their water and sewer bills will go down commensurately.

## Water System

### Summary

Analysis determined that your water system has reserves that are mildly positive and trending to negative very soon under the current rates. The system will need to make substantial capital improvements fairly soon and inflation will continue to increase future costs. Therefore, rates need to be increased moderately now and in the future to keep track with rising costs. Do not be alarmed by this description, it fits most systems. However, do prepare to make a significant increase to your rates and fees now and moderate increases on a regular basis to maintain a strong financial position.

As important as generating more revenue is, you need to make the rate structure fairer. The proposed rates model those changes primarily by reducing the usage allowance and increasing the unit charge. User rates, surcharges and tap-on fees were all analyzed comprehensively. The results of those analyses are integrated and will be discussed as one consolidated whole.

The models called "Moorcroft, WY Proposed Water Rates Scenario 2A" and "Moorcroft, WY Proposed Water Rates Scenario 2B" assume "over-borrowing" by \$400,000 to build reserves. The models called "Moorcroft, WY Proposed Water Rates Scenario 3A" and "Moorcroft, WY Proposed Water Rates Scenario 3B" assume \$600,000 in over-borrowing. My analyses show that \$400,000 is more than adequate so I recommend you borrow no more than this amount. For this reason the following narrative focuses on "...Scenario 2A" but you can read the results of the other options in the analysis models attached.

***If you copy only two charts as handouts for the public attending your rate setting meeting, Chart 14 and the chart called "Combined Water & Sewer Bills" are the most useful charts for them to view.***

### 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 model called "Moorcroft, WY Proposed Water Rates Scenario 2A" and "Moorcroft, WY Proposed Water Rates Scenario 3A," the higher rate models.

Effective on or near June 30, 2011, or before if possible:

1. Set the minimum charge for all customers at \$47.32. Include a 4,000 gallon usage allowance with the minimum charge.
2. Set the unit charge for all customers at \$5.50/1,000 gallons for all volume used in excess of the usage allowance each month of the year.
3. Do not change the current connection fees but consider doing so if development recovers strongly.
4. Assuming financial performance was well predicted by the analysis, effective on the one-year anniversary of the initial rate adjustments, and every year thereafter until a new analysis determines otherwise, raise all rates and fees by 5.0 percent. This rate of increase is shown near the top of Chart 2A. Otherwise, use the technique described in Chapter 9 of the book, "How to Get Great Rates" to determine future inflationary increases.

\*\*\*\*\*

The following actions are required to achieve the results predicted by the analysis model called "Moorcroft, WY Proposed Water Rates Scenario 2B" and "Moorcroft, WY Proposed Water Rates Scenario 3B," the lower rate models.

Effective on or near June 30, 2011, or before if possible:

1. Set the minimum charge for all customers at \$45.60. Include a 4,000 gallon usage allowance with the minimum charge.
2. Set the unit charge for all customers at \$5.30/1,000 gallons for all volume used in excess of the usage allowance each month of the year.
3. For all other issues, use the recommendations made for "Moorcroft, WY Proposed Water Rates Scenario 2A."

## Proposed Rate Structure

The proposed rates are in the form of "proportional to use" rates (see definitions in the model) with two exceptions:

1. A usage allowance will be continued. The allowance will be 4,000 gallons/month instead of the current 8,000 gallons/month to reduce the shock of rate adjustments that would occur were the allowance to be completely eliminated.
2. Also to reduce the rate shock, the minimum charge includes the unit charge value of the 4,000 gallon allowance.

In the future when the Town analyzes rates again it should reduce the usage allowance again and perhaps even eliminate it.

## Rate Affordability

As shown in Chart 9, the current rates have an affordability index of slightly less than 0.9 percent. That means that a residential household that uses 5,000 gallons of water per month (the national standard for affordability) pays 0.9 percent of its income to pay its water bill. The national average is around 1.0 percent so your rates are slightly less than the national average on this basis. The proposed rates will go up to just below 1.0 percent initially and then decline slowly after that. This means that, while the proposed rates will not be as affordable as your current rates, they will still be affordable plus they will fund the utility adequately. Your current rates will not do that.

## Water Loss

Estimated water loss, shown near the bottom of Chart 18 at 40 percent, is high. Part of this volume is probably line flushing and other system maintenance use but the real water loss rate is still going to be high. Generally water loss should not exceed 15 percent for systems with your cost to produce. This high loss rate is probably one of the reasons the Town is starting a line replacement program. You should continue to locate water leaks and repair at least those that will yield a payback period of five years or less. In other words, the savings in the cost of lost water will pay for the repairs within five years. More on how to do this calculation is included in "How to Get Great Rates."

## Growth Rate and Tap-on Fees

Water connections in the Town grew rather robustly during the test year. That is good considering the recent "mortgage meltdown" being experienced in most of the country. Even at that, the Town connects only a handful of new customers each year so this growth has little effect on use of your facilities and revenues generated from connection fees. For these reasons you should keep your connection and tap-on fees where they are. While these fees are lower than they should be to capture the costs related to making new connections, your rate of growth simply does not make getting these fees all the way up to where they should be a high priority. If growth goes up to a rapid rate, you should revisit connection fees then.

## Capital Improvements

The Town needs to build the Madison well project, begin replacing several water lines very soon, build a new maintenance shop and complete Town hall improvements in a few more years. These improvements are shown in Chart 3.

The Madison project was recently bid. The plan for the water lines is to bid and replace lines in stages, funding this work largely with Special Purpose Tax funds, and the remainder at a rate of 25 percent with loans and 75 percent with grants.

The Town hall improvements will be "costed out" to each utility and service that benefits from these facilities, including the water system. As with the line replacements, part of these improvements are expected to be paid with loan proceeds and the remainder with grant proceeds.

The proposed rates take the new debt service for these projects into account.

## Closing

Your current rates are projected to keep the water system solvent for only a short time without rate increases. In addition, your rates are not as fair as they should be. Thus, your rates need to be raised significantly and restructured moderately. Your tap-on fees should be left as they are and be re-examined when you analyze rates again. User rates should be increased annually in the future to maintain adequate reserves.

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

## Sewer System

### Summary

The utility has a negative current position, meaning it owes more for current expenses than it has in its cash and cash equivalent reserves. The utility is losing money right now and the situation will get worse without aggressive rate increases. Issues addressed in this analysis include:

- The rate structure needs to be changed only modestly to make it fair. Unfortunately, everyone's rates need to go up markedly.
- In a few years new debt will be incurred and that will change the cost structure. When that happens fixed costs will be higher and that means the minimum charge will need to go up more relative to the unit charges. Fortunately, it will be time to analyze rates again at about the same time that significant new debt will be considered so you will be able to restructure rates based upon a new analysis then.
- The Town will soon begin making fairly substantial sewer system improvements, build a new maintenance shop and make improvements to the Town hall. This analysis assumed those improvements will be paid largely with Special Purpose Tax funds and grants and then loans to make up the difference.

Chart 11 may be the most telling chart for the sewer system. This chart depicts the trend in your operating and capital improvement reserves adjusted for inflation. These reserves are negative now and they will fall without rate increases. Even with the proposed rate increases these reserves will not become positive until about 2014. The Town will need to cut expenses more than is depicted in the model and/or "lend" the sewer system money, probably from "over-borrowing" from the SRF program until cash flows turn positive.

***If you copy only two charts as handouts for the public attending your rate setting meeting, Chart 14 and the chart called "Combined Water & Sewer Bills" are the most useful charts for them to view.***

### 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 model called "Moorcroft, WY Proposed Sewer Rates Scenario 2."

1. Effective on or near June 30, 2011, or before if possible:

2. Set the minimum charge for all customers at \$8.88. Include no usage allowance with the minimum charge.
3. Set the unit charge for all customers at \$3.12/1,000 gallons for the average volume used during several winter months. This is called “winter average” billing and will be discussed later.
4. Do not change the current connection fees but consider doing so if development recovers strongly.
5. Assuming financial performance was well predicted by the analysis, effective on the one-year anniversary of the initial rate adjustments, and every year thereafter until a new analysis determines otherwise, raise all rates and fees by 5.0 percent. This rate of increase is shown near the top of Chart 2A. Otherwise, use the technique described in Chapter 9 of the book, “How to Get Great Rates” to determine future inflationary increases.

## Proposed Rate Structure

The proposed rates are in a structure that is most commonly called “proportional to use.” This rate structure is generally considered to be the fairest of the simple rate structures. It is also required by the Clean Water Act for recipients of the Clean Water State Revolving Fund (SRF) program and its predecessor, the EPA Construction Grants Program. Almost all public sewer systems received funding from one of these programs and, therefore, are required to have rates that comply with this structure.

## Rate Affordability

As shown in Chart 9, the current rates have an affordability index of 0.24 percent. That means that a residential household that uses 5,000 gallons of sewer service per month (the national standard for affordability) pays 0.24 percent of its income to pay its sewer bill. The national average is around 1.0 percent so your rates must be considered cheap on this basis. The proposed rates will go up to about 0.50 percent initially and then go down just slightly in the years after that. This means that, while the proposed rates will not be as affordable as your current rates, they still must be considered cheap. The proposed rates will also fund the improvements needed by the system. Your current rates will not do that.

## Inflow and Infiltration (I&I)

I&I in a sewer system is the reverse of water loss in a water system. Instead of water leaking out of pipes, it leaks in, causing extra costs for transportation and treatment. Based upon estimated flows into your treatment system the I&I rate appears to be fairly reasonable at 15 percent. Your current system is also cheap to operate so the cost of I&I is not significant overall. However, as you are able to identify line reaches that are especially leaky and other sources of excessive I&I you should fix those trouble spots. Make such decisions on the same basis as described for water loss.

## Growth Rate and Tap-on Fees

Sewer connections in the Town did not grow during the test year but they normally would grow at about the same pace as water connections. As with the water system, connection and tap-op fees will not be a significant source of revenue unless growth goes up markedly so you should leave these fees where they are until you analyze rates again or until growth recovers markedly.

## High-strength Wastewater

Some sewer customers, especially restaurants that fry food, contribute high-strength, hard to collect and treat wastewater. Such customers should be surcharged for the extra costs they cause the system to incur. How you do that is up to you. Typically such wastewater is 50 percent or so more expensive to collect and treat. In systems where there are many high-strength wastewater contributors, it is worthwhile to sample the wastewater of each and calculate their rates separately.

In the case of Moorcroft, I believe your primary high-strength contributors will be only a few restaurants and other establishments. Flows from these customers probably do not warrant the extra sampling and calculations needed to assess individual surcharges. If you feel that is the case, I suggest you simply charge restaurants that have fryers and other businesses that contribute markedly higher strength wastewater than residential waste a unit charge that is 25 percent higher than the residential rate. That will almost certainly undercharge such users somewhat in exchange for not having to go through the extra water testing and calculations to substantiate higher surcharges.

If you surcharge high-strength contributors, your rate revenues should be slightly higher than projected, perhaps five percent or so.

## Winter Average Billing

I modeled your sewer user fees to be billed based upon winter average use for residential customers and all-year use for commercial customers. The following will tell you how to do winter averaging and help you decide if that is how you want to bill. While the following procedure may sound like lots of work, by exporting usage data from your billing program into a spreadsheet, you can automate the calculations and then import the resulting bills back into your billing program.

Note: If you decide not to do winter average billing and you adopt the rates as proposed, your rate revenue generation will almost certainly be higher than modeled here. That is because your residential winter average use is lower than your year-round residential average use. Therefore, year-round billing for sewer use would probably generate 5 to 15 percent higher revenues than projected in this analysis.

Winter averaging is just what it sounds like. For each customer you will tally up their winter use for several billing periods, divide that by the number of billing periods you added and that is the average billing period use for that customer. Then, you will calculate the total user charge for that volume of use according to your rate chart and that will be what you charge that customer EVERY billing period. Do this for every customer, or preferably your residential customers only

and you've got your rates set. You also can now calculate pretty exactly the total sewer revenue you can expect during the next year from your winter averaged customers. You simply add up all their billing period bills and multiply that by the number of billing periods in a year. This will keep your budgeting simple.

As with all things that seem too simple to be true, winter averaging is not appropriate for some kinds of users. Seasonal users that use more water in the summer than winter, such as hotels and restaurants that cater to summer trade and may even shut down during the winter, should not be winter average billed. Such customers should be billed for sewer based upon full-year water usage through the meter the Town uses for water billing. Alternatively, they can be billed for water used in-doors only as opposed to that used outside (consumptive use, generally for irrigation), as determined by a separate water meter installed by the customer and approved by the Town to measure outside water use.

"Snow-birds" should be billed based upon the average use during several other months when they are in the home or they should be billed for full-year water usage or the average rate for residential users of the system, as the Town desires.

If the Town has any businesses that see higher than average sewer use during the winter, those customers should also not be winter averaged in the interest of fairness because their bills would be artificially high during the off-season. For example, a restaurant that has high winter volume or a Christmas-oriented gift shop will over-pay on rates if winter averaged. Therefore, you need to consider whether winter averaging is reasonable for each customer and make allowances for those where it is not. If Moorcroft has any such users there will not be many.

While it is a bit more work to set up winter averaged bills, once they are set you will not need to change them until your next general rate adjustment. At that time you will probably only pull the latest volume figures for those you are winter averaging and apply the new unit charge rate to all based upon those new volumes.

## Capital Improvements

As with the water system, the sewer system needs to begin replacing several lines very soon and share in the costs of building a new maintenance shop and Town hall improvements. These improvements are shown in Chart 3. Funding for these improvements on the sewer side were calculated on the same basis as on the water side.

## Closing

The sewer system's current position is negative and it will get worse with time. Even at the proposed rates you will still run a deficit for a few years but will climb out of that condition around 2014. Your current rates are close to being structured fairly but they are very inadequate. Rates and fees should also be increased annually in the future to maintain adequate reserves. Rates in the more distant future will need to be restructured again because substantial future capital improvement costs will change your cost structure.

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

## Garbage Collection Service

### Summary

The Town operates a sanitary landfill. The Town recently switched from using a contract hauler in-town to a garbage collection service using Town staff. The landfill accepts waste from the Town and from outside haulers, charging tipping fees on the outside haulers but not on in-town garbage. The finances of both of these services are currently accounted for together. Finally, this fee analysis project is only to cover the garbage collection service. All of these factors make analysis of the garbage collection fees difficult. However, with the help of Town staff I feel we have made reasonable splits between the two services and projections of the collection service's costs so the garbage collection fee analysis should be quite accurate.

The garbage collection service fee analysis starts with the tipping fees that were recently calculated for Sundance, WY. It then reduces this fee by 50 percent to account for the fact that Sundance also must build and operate a transfer station. The in-town tipping fees were reduced again by 25 percent to reflect the fact that Moorcroft bears the responsibility and risk of the landfill and its in-town customers should, therefore, be compensated for those risks and responsibilities. While this reduction will reduce the tipping fees to the landfill, in fact the landfill is currently collecting no tipping fees for in-town garbage so tipping fee revenues will increase slightly for the landfill. I recommend you analyze tipping fee needs to keep the landfill financially sound, too.

Considering the fact that the garbage collection service is not paying tipping fees to the landfill right now, collection service reserves are weak. However, with modest rate increases initially and in the future this problem will be fixed.

***If you copy only one chart as handouts for the public attending your rate setting meeting, Chart 14 is the most useful chart for them to view.***

### 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 model called "Moorcroft, WY Proposed Garbage Rates Scenario 2."

Effective on or near June 30, 2011, or before if possible:

1. Set the fee for each can size and pick up combination as shown in "Chart 1 – Proposed Rate Chart" in the column called "Total Bill for This User Class."
2. Begin paying tipping fees to the landfill service that are the same as those charged to outside haulers except with a 75 percent discount.
3. Assuming financial performance was well predicted by the analysis, effective on the one-year anniversary of the initial rate adjustments, and every year thereafter until a new analysis determines otherwise, raise all rates and fees by 5.0 percent. This rate of increase is shown near the top of Chart 2A. Otherwise, use the technique described in Chapter 9 of the book, "How to Get Great Rates" to determine future inflationary increases.

## Proposed Rate Structure

The Town allows two can sizes; 95 gallons and 300 gallons. The Town's standard pick up frequency is once per week but it will pick up as frequently as five times per week as requested by customers. The Town will also pick up as many as five cans as requested by customers. These variations require various fees so the fee structure will be fair. In that vein, the proposed rates are based upon the following assumptions about relative costs of pick up:

- A 300-gallon can holds 2.16 times the volume of a 95 gallon can.
- Multiple cans picked up at the same customer location are assumed to cost only 50 percent as much as the first can picked up due to a net savings on costs.
- Multiple pick-ups per week at the same customer location are assumed to cost 20 percent more than a single pick up because the truck must make a detour or run an additional route to pick up such customers off-route.
- Out-of-town customers are assumed to cost more than in-town customers so they will be charged 25 percent more than in-town customers.

## Tipping Fees

The Town currently pays no tipping fees to the landfill service. Each service must pay its own way so as soon as the collection fees are adjusted the collection service should start paying landfill tipping fees at 75 percent of the rate charged to outside haulers.

## Rate Affordability

As shown in Chart 9, the current fee for a 95 gallon can with one pick up per week, which includes almost all residential customers, has an affordability index of 0.30 percent. That means that a residential household pays 0.30 percent of its income to pay its garbage collection bill. The proposed fee for such a customer will go up to 0.39 percent initially and then go up slightly in the years after that. The proposed rates will not be quite as cheap as the current rates but they will fund the improvements needed by the system in the future. The current rates will not do that.

Generally fees to other customer classes will not go up as much or they will go down slightly. There are currently only two other customer classes/pick up schedules being serviced and rates for each of those will only go up by two percent.

## Fee Collection Losses

It may only be due to poor income and/or customer data but it appears the Town collected only 69 percent of the fees that it could have billed last year. The Town should be diligent in collecting all fees that it bills so these losses will not be passed along to those customers who do pay in the form of higher fees.

## “Snowbird” Billing

The Town continues to experience some kinds of costs regardless of whether a customer is actually contributing volume during a given month or not. Therefore, the Town should charge those who temporarily discontinue collection service a minimum fee per month just so it can continue to make the service available. Such customers include those that are commonly called “snowbirds.”

The minimum charge that should be charged to such customers is \$7.68 per month that a customer temporarily discontinues service. This is the total of the basic fixed costs the system incurs for each customer just to make the service available. This fee is shown at the top of the column called “New Minimum Charge” in Chart 4 of the analysis model.

## Contractual Collection Services

The Town recently switched from having a contractor collect garbage to having Town employees provide this service. Therefore, the analysis model shows a cost item called “Contractual Collection Services” during the test year and this year but that amount was cut in half for all following years. That was because it may be necessary to retain the contractor for services should they be needed.

Higher up in that same chart is a cost item called “Operations Staff Salaries, Benefits & Related Items.” This is the cost of having Town staff perform the collection service. These costs transition from a low level to their eventual level as they largely replace the contractual services.

As soon as the Town is secure in its ability to provide collection services with Town staff, I recommend you further pare or even eliminate the stand-by contracted service. If you have a truck breakdown or other reason to use contractual pick up, you can probably do that much more cheaply on a spot service basis, even paying a premium, than it will cost to keep a service on retainer. If you do this you will probably be able to eliminate or drastically reduce future inflationary fee increases that are assumed by the analysis model.

## Capital Improvements

All equipment needs of the garbage collection service should be paid for from savings set aside to fund the equipment replacement schedule, charts 17 and 17A in the analysis model. Thus, the garbage collection service will experience no capital improvement costs, per se. However, as with the water system, the garbage collection service needs to share in the costs of building a new maintenance shop and Town hall improvements. These improvements are shown in Chart 3. Funding for these improvements on the garbage collection side were calculated on the same basis as on the water utility side.

## Closing

The garbage collection service's reserves are weaker than they should be and they will go below break even in 2011 or 2012. Your current fees are close to being structured fairly. Thus, fees need to be restructured mildly and raised modestly. Fees 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.

# Moorcroft, WY, Water Rates Scenario 2A

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$47.32	4.000	\$5.50
1,000	1,999	\$47.32	4.000	\$5.50
2,000	2,999	\$47.32	4.000	\$5.50
3,000	3,999	\$47.32	4.000	\$5.50
4,000	4,999	\$47.32	4.000	\$5.50
5,000	5,999	\$47.32	4.000	\$5.50
6,000	6,999	\$47.32	4.000	\$5.50
7,000	7,999	\$47.32	4.000	\$5.50
8,000	8,999	\$47.32	4.000	\$5.50
9,000	9,999	\$47.32	4.000	\$5.50
10,000	14,999	\$47.32	4.000	\$5.50
15,000	19,999	\$47.32	4.000	\$5.50
20,000	24,999	\$47.32	4.000	\$5.50
25,000	29,999	\$47.32	4.000	\$5.50
30,000	34,999	\$47.32	4.000	\$5.50
35,000	39,999	\$47.32	4.000	\$5.50
40,000	44,999	\$47.32	4.000	\$5.50
45,000	49,999	\$47.32	4.000	\$5.50
50,000	54,999	\$47.32	4.000	\$5.50
55,000	59,999	\$47.32	4.000	\$5.50
60,000	64,999	\$47.32	4.000	\$5.50
65,000	69,999	\$47.32	4.000	\$5.50
70,000	74,999	\$47.32	4.000	\$5.50
75,000	79,999	\$47.32	4.000	\$5.50
80,000	84,999	\$47.32	4.000	\$5.50
85,000	89,999	\$47.32	4.000	\$5.50
90,000	999,999	\$47.32	4.000	\$5.50

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$400,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,468	\$379,422	\$266,095	\$191,174	\$140,695
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$190,385	\$267,793	\$388,069	\$542,376	\$638,088
Ending Combined Balance Goal:				\$510,000

# Moorcroft, WY, Water Rates Scenario 2B

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$45.60	4.000	\$5.30
1,000	1,999	\$45.60	4.000	\$5.30
2,000	2,999	\$45.60	4.000	\$5.30
3,000	3,999	\$45.60	4.000	\$5.30
4,000	4,999	\$45.60	4.000	\$5.30
5,000	5,999	\$45.60	4.000	\$5.30
6,000	6,999	\$45.60	4.000	\$5.30
7,000	7,999	\$45.60	4.000	\$5.30
8,000	8,999	\$45.60	4.000	\$5.30
9,000	9,999	\$45.60	4.000	\$5.30
10,000	14,999	\$45.60	4.000	\$5.30
15,000	19,999	\$45.60	4.000	\$5.30
20,000	24,999	\$45.60	4.000	\$5.30
25,000	29,999	\$45.60	4.000	\$5.30
30,000	34,999	\$45.60	4.000	\$5.30
35,000	39,999	\$45.60	4.000	\$5.30
40,000	44,999	\$45.60	4.000	\$5.30
45,000	49,999	\$45.60	4.000	\$5.30
50,000	54,999	\$45.60	4.000	\$5.30
55,000	59,999	\$45.60	4.000	\$5.30
60,000	64,999	\$45.60	4.000	\$5.30
65,000	69,999	\$45.60	4.000	\$5.30
70,000	74,999	\$45.60	4.000	\$5.30
75,000	79,999	\$45.60	4.000	\$5.30
80,000	84,999	\$45.60	4.000	\$5.30
85,000	89,999	\$45.60	4.000	\$5.30
90,000	999,999	\$45.60	4.000	\$5.30

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$400,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,501	\$367,981	\$242,235	\$152,136	\$84,922
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$116,206	\$173,407	\$271,532	\$401,595	\$470,808
		Ending Combined Balance Goal:		\$510,000

# Moorcroft, WY, Water Rates Scenario 3A

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$47.32	4.000	\$5.50
1,000	1,999	\$47.32	4.000	\$5.50
2,000	2,999	\$47.32	4.000	\$5.50
3,000	3,999	\$47.32	4.000	\$5.50
4,000	4,999	\$47.32	4.000	\$5.50
5,000	5,999	\$47.32	4.000	\$5.50
6,000	6,999	\$47.32	4.000	\$5.50
7,000	7,999	\$47.32	4.000	\$5.50
8,000	8,999	\$47.32	4.000	\$5.50
9,000	9,999	\$47.32	4.000	\$5.50
10,000	14,999	\$47.32	4.000	\$5.50
15,000	19,999	\$47.32	4.000	\$5.50
20,000	24,999	\$47.32	4.000	\$5.50
25,000	29,999	\$47.32	4.000	\$5.50
30,000	34,999	\$47.32	4.000	\$5.50
35,000	39,999	\$47.32	4.000	\$5.50
40,000	44,999	\$47.32	4.000	\$5.50
45,000	49,999	\$47.32	4.000	\$5.50
50,000	54,999	\$47.32	4.000	\$5.50
55,000	59,999	\$47.32	4.000	\$5.50
60,000	64,999	\$47.32	4.000	\$5.50
65,000	69,999	\$47.32	4.000	\$5.50
70,000	74,999	\$47.32	4.000	\$5.50
75,000	79,999	\$47.32	4.000	\$5.50
80,000	84,999	\$47.32	4.000	\$5.50
85,000	89,999	\$47.32	4.000	\$5.50
90,000	999,999	\$47.32	4.000	\$5.50

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$600,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,468	\$579,422	\$462,266	\$383,343	\$328,682
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$374,002	\$446,844	\$562,347	\$711,667	\$802,168
Ending Combined Balance Goal:				\$510,000

# Moorcroft, WY, Water Rates Scenario 3B

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$45.60	4.000	\$5.30
1,000	1,999	\$45.60	4.000	\$5.30
2,000	2,999	\$45.60	4.000	\$5.30
3,000	3,999	\$45.60	4.000	\$5.30
4,000	4,999	\$45.60	4.000	\$5.30
5,000	5,999	\$45.60	4.000	\$5.30
6,000	6,999	\$45.60	4.000	\$5.30
7,000	7,999	\$45.60	4.000	\$5.30
8,000	8,999	\$45.60	4.000	\$5.30
9,000	9,999	\$45.60	4.000	\$5.30
10,000	14,999	\$45.60	4.000	\$5.30
15,000	19,999	\$45.60	4.000	\$5.30
20,000	24,999	\$45.60	4.000	\$5.30
25,000	29,999	\$45.60	4.000	\$5.30
30,000	34,999	\$45.60	4.000	\$5.30
35,000	39,999	\$45.60	4.000	\$5.30
40,000	44,999	\$45.60	4.000	\$5.30
45,000	49,999	\$45.60	4.000	\$5.30
50,000	54,999	\$45.60	4.000	\$5.30
55,000	59,999	\$45.60	4.000	\$5.30
60,000	64,999	\$45.60	4.000	\$5.30
65,000	69,999	\$45.60	4.000	\$5.30
70,000	74,999	\$45.60	4.000	\$5.30
75,000	79,999	\$45.60	4.000	\$5.30
80,000	84,999	\$45.60	4.000	\$5.30
85,000	89,999	\$45.60	4.000	\$5.30
90,000	999,999	\$45.60	4.000	\$5.30

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$600,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,501	\$567,981	\$438,405	\$344,305	\$272,909
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$299,823	\$352,457	\$445,810	\$570,887	\$634,888
Ending Combined Balance Goal:				\$510,000

## Combined Water & Sewer Bills Using the Higher Water Rates Scenario Rates

This chart compares current and proposed combined water and sewer bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Combined Water & Sewer Bill	Proposed Combined Water and Sewer Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users				
0	999	0.261	\$45.10	\$56.98	\$11.88	26%
1,000	1,999	1.466	\$45.10	\$60.78	\$15.68	35%
2,000	2,999	2.461	\$46.71	\$63.91	\$17.20	37%
3,000	3,999	3.438	\$48.30	\$66.91	\$18.61	39%
4,000	4,999	4.463	\$49.99	\$72.63	\$22.63	45%
5,000	5,999	5.407	\$51.54	\$80.78	\$29.24	57%
6,000	6,999	6.365	\$53.08	\$89.07	\$35.99	68%
7,000	7,999	7.389	\$54.78	\$97.86	\$43.08	79%
8,000	8,999	8.301	\$57.35	\$105.65	\$48.30	84%
9,000	9,999	9.429	\$63.17	\$115.38	\$52.21	83%
10,000	14,999	11.997	\$76.49	\$137.61	\$61.13	80%
15,000	19,999	17.118	\$102.88	\$181.75	\$78.87	77%
20,000	24,999	22.076	\$128.48	\$224.53	\$96.05	75%
25,000	29,999	27.655	\$156.89	\$272.17	\$115.28	73%
30,000	34,999	32.601	\$182.13	\$314.48	\$132.35	73%
35,000	39,999	38.121	\$210.11	\$361.45	\$151.34	72%
40,000	44,999	42.131	\$231.54	\$396.98	\$165.44	71%
45,000	49,999	48.537	\$264.50	\$452.12	\$187.62	71%
50,000	54,999	51.113	\$279.67	\$476.75	\$197.08	70%
55,000	59,999	57.592	\$310.90	\$529.81	\$218.91	70%
60,000	64,999	62.750	\$335.96	\$572.30	\$236.35	70%
65,000	69,999	66.167	\$355.80	\$604.61	\$248.82	70%
70,000	74,999	73.227	\$393.01	\$666.52	\$273.51	70%
75,000	79,999	78.400	\$418.30	\$709.33	\$291.04	70%
80,000	84,999	83.083	\$443.49	\$751.05	\$307.56	69%
85,000	89,999	87.500	\$465.15	\$787.70	\$322.55	69%
90,000	999,999	116.637	\$601.67	\$1,021.29	\$419.61	70%

## Combined Water & Sewer Bills Using the Lower Water Rates Scenario Rates

This chart compares current and proposed combined water and sewer bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Combined Water & Sewer Bill	Proposed Combined Water and Sewer Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users				
0	999	0.261	\$45.10	\$55.26	\$10.16	23%
1,000	1,999	1.466	\$45.10	\$59.06	\$13.96	31%
2,000	2,999	2.461	\$46.71	\$62.19	\$15.48	33%
3,000	3,999	3.438	\$48.30	\$65.19	\$16.89	35%
4,000	4,999	4.463	\$49.99	\$70.82	\$20.83	42%
5,000	5,999	5.407	\$51.54	\$78.78	\$27.24	53%
6,000	6,999	6.365	\$53.08	\$86.87	\$33.79	64%
7,000	7,999	7.389	\$54.78	\$95.47	\$40.68	74%
8,000	8,999	8.301	\$57.35	\$103.08	\$45.73	80%
9,000	9,999	9.429	\$63.17	\$112.58	\$49.41	78%
10,000	14,999	11.997	\$76.49	\$134.29	\$57.80	76%
15,000	19,999	17.118	\$102.88	\$177.40	\$74.52	72%
20,000	24,999	22.076	\$128.48	\$219.19	\$90.71	71%
25,000	29,999	27.655	\$156.89	\$265.75	\$108.86	69%
30,000	34,999	32.601	\$182.13	\$307.10	\$124.96	69%
35,000	39,999	38.121	\$210.11	\$353.01	\$142.90	68%
40,000	44,999	42.131	\$231.54	\$387.66	\$156.12	67%
45,000	49,999	48.537	\$264.50	\$441.52	\$177.02	67%
50,000	54,999	51.113	\$279.67	\$465.44	\$185.77	66%
55,000	59,999	57.592	\$310.90	\$517.44	\$206.53	66%
60,000	64,999	62.750	\$335.96	\$559.06	\$223.10	66%
65,000	69,999	66.167	\$355.80	\$590.44	\$234.65	66%
70,000	74,999	73.227	\$393.01	\$650.85	\$257.84	66%
75,000	79,999	78.400	\$418.30	\$692.78	\$274.48	66%
80,000	84,999	83.083	\$443.49	\$733.44	\$289.95	65%
85,000	89,999	87.500	\$465.15	\$769.33	\$304.18	65%
90,000	999,999	116.637	\$601.67	\$998.56	\$396.89	66%

# Moorcroft, WY, Water Rates Scenario 2A

## Rate Analysis Modeling Results

"Higher Rates, Lower Borrowing" aptly describes this scenario.

Chart 1 shows the rates proposed in this scenario. At the bottom of this chart are combined reserves that would result if the amount stated there is borrowed.

This model assumes initial rate adjustments as reflected in Chart 1. Annually thereafter rates will be increased as shown near the top of Chart 2A. The model compares the system's financial outlook under the proposed rates with the outlook if no adjustments are made to make it easy to understand the outcome of the proposed changes.

For most, the best way to read and understand what this model means is this. Scan the "Index of Charts and Pages" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder charts 1 and 6-14. These will show you how the proposed rate adjustments will affect ratepayers and the system. If you need more detail than that, review the entire model. Finally, rate setting involves much more than just rates so you need to read the accompanying narrative report to understand what you need to do and why.

March 3, 2011

This rate analysis scenario was produced by  
Carl E. Brown, Carl Brown Consulting, LLC  
1014 Carousel Drive, Jefferson City, Missouri 65101  
(573) 619-3411

[www.carlbrownconsulting.com](http://www.carlbrownconsulting.com)  
[carl@carlbrownconsulting.com](mailto:carl@carlbrownconsulting.com)

CBGreatRates© Version 5.1

## Moorcroft, WY, Water Rates Scenario 2A

### Index of Charts and Other Results

Name	What Each is or Does
Definitions	The meaning of terms used in this report and in rate setting generally
Financial Highlights	A summary of financial outcomes produced by the proposed rates
Chart 1 - Proposed Rate Chart	User rates proposed in this model for each user class
Chart 2A - User Base and Operating Incomes	Basic user base and user rate statistics and operating revenues projected for next 10 years
Chart 2B - Operating Costs and Net Income	Operating costs projected for next 10 years, excluding debt service
Chart 3 - Capital Improvement Program	Capital improvements and how they will be paid over next 10 years, including debt service
Chart 4A - Rate Adjustments and Incomes for the Modeling Year	Current rates, proposed rates and the blended revenues they will produce during the year rates are adjusted
Chart 4B - Rate Statistics	Effects of proposed rates on user classes and special users
Chart 5 - Indicators	Financial results that proposed rates and projected operating and capital costs will cause
Chart 6 - Operating Ratio	Graph of operating ratio for next 10 years
Chart 7 - Coverage Ratio	Graph of coverage ratio for next 10 years
Chart 8 - 5,000 Gallon Residential User's Bill	Graph of bill for a 5,000 gallon per month residential user for next 10 years (used in grant and loan eligibility determinations)
Chart 9 - Affordability Index	Graph of affordability index of residential user's bill for next 10 years (used in grant and loan eligibility determinations)
Chart 10 - Working Capital	Graph of working capital for next 10 years
Chart 11 - Working Capital and CIP Reserves Discounted for Inflation	Graph of working capital and CIP (capital improvement program) reserves adjusted for inflation for next 10 years
Chart 12 - Use and Revenues	Graph of usage vs. revenues for next 10 years
Chart 13 - Current Position	Graph of current position for next 10 years
Chart 13B - Tap Fee Reserve Balance	Balance of tap fees reserved for CIP for next 10 years, if applicable
Chart 14 - Old Rates, New Rates and Changes	Illustrates effects of proposed user rates on ratepayers (increases or decreases) on a dollar basis
Chart 14B - Rate Changes in Percent	Illustrates effects of proposed user rates on ratepayers (increases or decreases) on a percentage basis, if applicable
Chart 15 - Test Year Usage	Volume of service used by customers during the test year
Chart 16A - Rates During Test Year	The test year (current) user rate chart
Chart 16B - Reserves, AMHI	Reserves available at the start of the test year and incomes received during the test year
Chart 17A - Equipment Replacement Details Chart	Detailed schedule of equipment replacements for next 20 years
Chart 17 - Replacement Schedule	Calculation of the annual annuity (yearly savings amount) needed to pay for all equipment replacements as they come due
Chart 18 - All-in Test Year Costs and Rate Structure Calculations	Sumation of test year system costs and calculation of "proportional to use" cost recovery rates for fixed cost and variable cost (cost to produce)
Chart 18B - Test Year Extra Service Unit Costs	Cost of providing service to units such as apartments and mobile homes when not billed separately, if applicable

# Definitions

CBGreatRates© Version 5.1

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. Affordability index is a primary factor in determining grant and loan eligibility and grant amount.
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)	A listing of 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 variable cost. See "Cost Calculations" at the bottom of Chart 18.
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
Equivalent Dwelling Unit (EDU)	Based upon number of water using fixtures, average flow, potential flow or similar criteria, the service consumption rate of the average single family home is rated at one EDU. All other types of customers are then compared on this measuring basis and the EDUs are calculated. Generally the purpose of this exercise is to calculate fees that each EDU must pay.
Extra Service Unit	A refinement of the EDU system used to assess a surcharge for each living or business unit within a multiple unit facility; apartments in an apartment complex, shops in a strip mall or a motel rooms in a
Extra Service Unit Costs	Incremental costs incurred, importantly including debt service, to provide service to extra service units. In systems with few extra service units or little debt service, these costs are usually negligible.

Incremental Rate Adjustments	Rate increases done following the initial rate adjustment that was a result of a comprehensive rate analysis. 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.
Inflow & Infiltration (I&I)	In a sewer system, water that gets into the collection system by way of illicit connections (inflow) such as gutter downspouts and leaks in manholes and sewer lines (infiltration)
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 Costs	Definitions vary. For rate setting purposes operating costs are costs incurred because a system is owned and operated. Such costs are generally recovered through user fees.
Operating Revenues	Revenues generated by user fees
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.
Payback Period	Time required for the investment made to get this analysis to return that investment through increased user and other fees
Potential Demand	The volume of service that a user could demand for a short period of time at full volume use. The potential demand limiting factor is usually the size of the customer's meter or service line.
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
Return on Investment	The dollar amount or percentage of revenue gain enabled by this analysis
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
Usage Allowance	The volume, if any, that is "given away" with the minimum charge. Most systems give away no volume. Those that give away an unlimited volume have what are called "flat rates."
User Fee, User Charge, User Rates	Fees assessed to customers for use of the system. Does not include tap, capacity or connection fees, late payment penalties or other types of charges.
Water Loss	Measured by volume or percent, the part of a water system's net water production that does not get to customers. This loss also includes billable volume lost due to under-registering customer meters.
Working Capital or 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 but the goal for each system should be based upon the needs of that system.

# Moorcroft, WY, Water Rates Scenario 2A

## Financial Highlights

CBGreatRates© Version 5.1

This analysis package examines a "proposed rates scenario" that depicts what will happen under the adjusted rates and other changes recommended for the system. The results of this scenario are compared to the results you can expect if you do not adjust rates at all during the 10 years following the test year.

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 the model. The second is the year following the test year - the year during which initial rate adjustments (typically) go into effect. The last two columns are the fifth and tenth years following the test year.

	Results for Years Ending on			
	6/30/10	6/30/11	6/30/15	6/30/20
Rate revenues collected	\$232,079	\$234,829	\$417,270	\$561,723
Sum of incomes	\$278,037	\$264,158	\$449,338	\$595,662
Sum of operating costs	\$267,201	\$280,115	\$329,947	\$398,074
Net income gain or loss ( - )	\$10,835	-\$15,957	\$119,391	\$197,587
Capital improvement reserves	\$5,868	\$12,038	\$264,540	\$142,266
Replacement reserves	\$0	\$15,988	-\$84,531	-\$10,981
Current position*	\$40,358	\$24,401	\$115,482	\$139,326
*All current incomes plus reserves minus all current obligations				
Increase or decrease ( - ) in current position due to this analysis	\$0	\$255	\$279,917	\$772,147

## Return on Investment and Payback Period Calculations

Return on investment due to this analysis, projected one and five years into the future	N.A.	5%	5858%
---	------	----	-------

Payback period, in days, made possible by this analysis	28
---	----

Return rate and payback period are based upon the following investments:

Fees to Carl Brown Consulting	\$4,278
Estimated value of city staff time and incidentals to assemble needed information	\$500
<b>Total Investment</b>	<b>\$4,778</b>

With the exception of tables that depict test year data, all other tables and charts depict the financial performance made possible by the modeled rate changes. The easiest way to grasp the financial future of the system is to view the line graphs. Another table shows the bills your users are paying now compared to the bills they would pay under the proposed rates scenario.

This analysis was produced using the program [CBGreatRates](#), copyright 2010. You are encouraged to distribute this report so long as credit is ascribed to the author, Carl E. Brown of Carl Brown Consulting, LLC.

# Moorcroft, WY, Water Rates Scenario 2A

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$47.32	4.000	\$5.50
1,000	1,999	\$47.32	4.000	\$5.50
2,000	2,999	\$47.32	4.000	\$5.50
3,000	3,999	\$47.32	4.000	\$5.50
4,000	4,999	\$47.32	4.000	\$5.50
5,000	5,999	\$47.32	4.000	\$5.50
6,000	6,999	\$47.32	4.000	\$5.50
7,000	7,999	\$47.32	4.000	\$5.50
8,000	8,999	\$47.32	4.000	\$5.50
9,000	9,999	\$47.32	4.000	\$5.50
10,000	14,999	\$47.32	4.000	\$5.50
15,000	19,999	\$47.32	4.000	\$5.50
20,000	24,999	\$47.32	4.000	\$5.50
25,000	29,999	\$47.32	4.000	\$5.50
30,000	34,999	\$47.32	4.000	\$5.50
35,000	39,999	\$47.32	4.000	\$5.50
40,000	44,999	\$47.32	4.000	\$5.50
45,000	49,999	\$47.32	4.000	\$5.50
50,000	54,999	\$47.32	4.000	\$5.50
55,000	59,999	\$47.32	4.000	\$5.50
60,000	64,999	\$47.32	4.000	\$5.50
65,000	69,999	\$47.32	4.000	\$5.50
70,000	74,999	\$47.32	4.000	\$5.50
75,000	79,999	\$47.32	4.000	\$5.50
80,000	84,999	\$47.32	4.000	\$5.50
85,000	89,999	\$47.32	4.000	\$5.50
90,000	999,999	\$47.32	4.000	\$5.50

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$400,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,468	\$379,422	\$266,095	\$191,174	\$140,695
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$190,385	\$267,793	\$388,069	\$542,376	\$638,088
Ending Combined Balance Goal:				\$510,000

Moorcroft, WY, Water Rates Scenario 2A  
 Chart 2A - User Base and Operating Incomes

These charts depict starting balances, incomes and expenses during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>User Base</b>												
Average Users for the Year	NA	466	471	476	481	487	492	497	502	508	513	519
Users Added/Lost During the Year	NA	5	5	5	5	5	5	5	5	5	6	6
User Growth/Loss Rate	NA	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%
Rate Increases Initiated in Future Years	NA	NA	40.3%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Adjusted, Then Annually Readjusted Minimum Charge/Billing Period for Uniform Rates Only	NA	NA	\$47.32	\$49.68	\$52.17	\$54.78	\$57.51	\$60.39	\$63.41	\$66.58	\$69.91	\$73.40
Adjusted, Then Annually Readjusted Unit Charge/Billable Volume Unit for Uniform Rates Only	NA	NA	\$5.50	\$5.77	\$6.06	\$6.36	\$6.68	\$7.01	\$7.36	\$7.73	\$8.12	\$8.52
<b>Operating Incomes</b>												
User Charge Fees	NA	\$232,079	\$234,829	\$349,104	\$370,489	\$393,185	\$417,270	\$442,832	\$469,959	\$498,747	\$529,300	\$561,723
Late Charges, Penalties	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tap Fees % Above		\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Interest	NA	\$17,803	\$908	\$549	\$2,335	\$2,505	\$2,550	\$2,598	\$2,688	\$2,823	\$2,880	\$2,982
Bulk Water Sales	NA	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264
Water Investment Fees	NA	\$24,890	\$25,157	\$25,427	\$25,699	\$25,975	\$26,253	\$26,535	\$26,819	\$27,107	\$27,398	\$27,691
Tap Fees Trans to CIP Fund	NA	-\$3,500	-\$3,538	-\$3,754	-\$3,984	-\$4,228	-\$4,487	-\$4,762	-\$5,054	-\$5,363	-\$5,692	-\$6,041
Total Regular Income		\$278,037	\$264,158	\$378,344	\$401,789	\$424,929	\$449,338	\$475,229	\$502,730	\$531,942	\$562,842	\$595,662

Moorcroft, WY, Water Rates Scenario 2A  
 Chart 2B - Operating Costs and Net Income

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

Infla./De-  
 flation (-)  
 Factor

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19	
(Note: Some future costs will experience inflation. Those costs that go up as use goes up are also increased by the growth rate in users and the percentage by which that cost is variable as reported in Chart 4.)													
Administration Salaries, Benefits, etc. Allocation	3.0%	\$33,325	\$34,324	\$35,354	\$36,415	\$37,507	\$38,633	\$39,791	\$40,985	\$42,215	\$43,481	\$44,786	
Operations Staff Salaries, Benefits & Related Items	5.0%	\$99,974	\$104,973	\$110,222	\$115,733	\$121,519	\$127,595	\$133,975	\$140,674	\$147,707	\$155,093	\$162,848	
Office Supplies	5.0%	\$832	\$874	\$917	\$963	\$1,011	\$1,062	\$1,115	\$1,171	\$1,229	\$1,291	\$1,355	
Repair/Maint Supplies	3.0%	\$14,600	\$15,038	\$15,489	\$15,954	\$16,432	\$16,925	\$17,433	\$17,956	\$18,495	\$19,050	\$19,621	
Small Tools	5.0%	\$994	\$1,044	\$1,096	\$1,151	\$1,208	\$1,269	\$1,332	\$1,399	\$1,469	\$1,542	\$1,619	
Equipment Repairs	3.0%	\$2,518	\$2,594	\$2,671	\$2,751	\$2,834	\$2,919	\$3,007	\$3,097	\$3,190	\$3,285	\$3,384	
Chemicals	5.0%	\$4,235	\$4,447	\$4,669	\$4,903	\$5,148	\$5,405	\$5,675	\$5,959	\$6,257	\$6,570	\$6,898	
Postage	5.0%	\$835	\$877	\$921	\$967	\$1,015	\$1,066	\$1,119	\$1,175	\$1,234	\$1,295	\$1,360	
Travel and Training	3.0%	\$3,642	\$3,751	\$3,864	\$3,980	\$4,099	\$4,222	\$4,349	\$4,479	\$4,614	\$4,752	\$4,895	
Gas/Lube/Oil	5.0%	\$3,191	\$3,351	\$3,518	\$3,694	\$3,879	\$4,073	\$4,276	\$4,490	\$4,715	\$4,950	\$5,198	
Locates	3.0%	\$57	\$59	\$60	\$62	\$64	\$66	\$68	\$70	\$72	\$74	\$77	
Liability Insurance	3.0%	\$710	\$731	\$753	\$776	\$799	\$823	\$848	\$873	\$899	\$926	\$954	
Property Insurance	3.0%	\$732	\$754	\$777	\$800	\$824	\$849	\$874	\$900	\$927	\$955	\$984	
Water Testing	5.0%	\$240	\$252	\$265	\$278	\$292	\$306	\$322	\$338	\$355	\$372	\$391	
Electricity	5.0%	\$23,893	\$25,088	\$26,342	\$27,659	\$29,042	\$30,494	\$32,019	\$33,620	\$35,301	\$37,066	\$38,919	
Easement	5.0%	\$1,028	\$1,079	\$1,133	\$1,190	\$1,250	\$1,312	\$1,378	\$1,446	\$1,519	\$1,595	\$1,675	
Contractual Services	1.0%	\$20,717	\$20,924	\$21,133	\$21,345	\$21,558	\$21,774	\$21,992	\$22,211	\$22,434	\$22,658	\$22,884	
Miscellaneous	0.0%	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	
Invest. Fees Transfers to CIP Fund	0.0%	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	
Annual Payment to Replacement Fund	0.0%	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	
User Charge Analysis Services	5.0%	\$0	\$4,278	\$0	\$0	\$4,716	\$0	\$0	\$5,200	\$0	\$0	\$5,733	
Loan Payment	0.0%	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	
Rev Loss From 10% Marginal Water Conservation	0.0%	\$0	\$0	\$11,703	\$13,566	\$4,408	\$4,678	\$4,965	\$5,269	\$5,592	\$5,934	\$6,298	
Madison Well Operating Costs From Annualized Cost	3.0%	\$0	\$0	\$0	\$10,178	\$10,484	\$10,798	\$11,122	\$11,456	\$11,800	\$12,154	\$12,518	
Total Operating Costs		\$267,201	\$280,115	\$296,566	\$318,042	\$323,769	\$329,947	\$341,338	\$358,447	\$365,700	\$378,722	\$398,074	
Net Income (or Loss)		\$10,835	-\$15,957	\$81,778	\$83,746	\$101,160	\$119,391	\$133,892	\$144,284	\$166,242	\$184,119	\$197,587	
Working Capital Goal: 35%		In Dollars, That is:	\$93,521	\$98,040	\$103,798	\$111,315	\$113,319	\$115,482	\$119,468	\$125,456	\$127,995	\$132,553	\$139,326

Moorcroft, WY, Water Rates Scenario 2A  
Chart 3 - Capital Improvement Program

CBGreatRates© Version 5.1

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

	Year Starting 7/1/09	This Year Year Starting 7/1/10	Next Year Year Starting 7/1/11	3rd Year Year Starting 7/1/12	4th Year Year Starting 7/1/13	5th Year Year Starting 7/1/14	6th Year Year Starting 7/1/15	7th Year Year Starting 7/1/16	8th Year Year Starting 7/1/17	9th Year Year Starting 7/1/18	10th Year Year Starting 7/1/19
<b>CIP Spending Plan</b>											
Capital Improvements to be Paid With Debt											
Water Tank & Well Replacements, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$148,461	\$0	\$0	\$0	\$0
Madison Project, Devel Comm Loan	\$0	\$0	\$2,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, SLIB Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$99,563	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$178,037	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), SRF	\$0	\$0	\$18,482	\$19,129	\$19,799	\$20,491	\$21,209	\$21,951	\$22,719	\$0	\$0
<b>Total Capital Improvements to be Paid With Debt</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,268,482</b>	<b>\$19,129</b>	<b>\$19,799</b>	<b>\$20,491</b>	<b>\$447,270</b>	<b>\$21,951</b>	<b>\$22,719</b>	<b>\$0</b>	<b>\$0</b>
Capital Improvements to be Paid With Cash											
Water Tank & Well Replacements, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$445,382	\$0	\$0	\$0	\$0
Madison Project, 1st Special Purpose Tax	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Madison Project, 2nd Special Purpose Tax	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$33,188	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$59,346	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), Grant	\$0	\$0	\$55,446	\$57,387	\$59,396	\$61,474	\$63,626	\$65,853	\$68,158	\$0	\$0
<b>Total Cap Imprvmts to be Paid With Cash</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,805,446</b>	<b>\$57,387</b>	<b>\$59,396</b>	<b>\$61,474</b>	<b>\$601,542</b>	<b>\$65,853</b>	<b>\$68,158</b>	<b>\$0</b>	<b>\$0</b>
<b>Total CIP Planned Spending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,073,929</b>	<b>\$76,516</b>	<b>\$79,194</b>	<b>\$81,966</b>	<b>\$1,048,811</b>	<b>\$87,804</b>	<b>\$90,877</b>	<b>\$0</b>	<b>\$0</b>
<b>CIP Funding Plan</b>											
CIP Fund Carryover Plus Transfers in	\$0	\$5,868	\$14,419	\$497,312	\$450,594	\$417,831	\$394,445	\$376,788	\$352,126	\$339,970	\$336,678
CIP Fund Interest Earned (or Paid)	\$0	\$264	\$542	\$18,949	\$15,815	\$13,527	\$11,904	\$10,732	\$8,479	\$7,218	\$6,564
Tap Fees Transferred From Operating Fund to CIP Fund	\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Invest. Fees Transfers to CIP Fund	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091
Grants	\$0	\$0	\$1,805,446	\$57,387	\$59,396	\$61,474	\$601,542	\$65,853	\$68,158	\$0	\$0
Loan Originated Next Year + Over-borrowing			\$2,668,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 3rd Year				\$19,129	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 4th Year					\$19,799	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 5th Year						\$20,491	\$0	\$0	\$0	\$0	\$0
Loan Originated in 6th Year							\$447,270	\$0	\$0	\$0	\$0
Loan Originated in 7th Year								\$21,951	\$0	\$0	\$0
Loan Originated in 8th Year									\$22,719	\$0	\$0
<b>Total CIP Fund Sources</b>	<b>\$23,591</b>	<b>\$29,761</b>	<b>\$4,512,735</b>	<b>\$616,852</b>	<b>\$569,922</b>	<b>\$537,902</b>	<b>\$1,480,014</b>	<b>\$500,469</b>	<b>\$476,937</b>	<b>\$372,972</b>	<b>\$369,373</b>
<b>New Debt Payment Plan</b>											
Payments for future loans assume 100 percent financing for projects, term of:						20	years and	2.50%	interest		
Loan(s) Originated Before Test Year	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723
Loan Originated Next Year + Over-borrowing				\$171,175	\$171,175	\$171,175	\$171,175	\$171,175	\$171,175	\$171,175	\$171,175
Loan Originated in 3rd Year					\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227
Loan Originated in 4th Year						\$1,270	\$1,270	\$1,270	\$1,270	\$1,270	\$1,270
Loan Originated in 5th Year							\$1,314	\$1,314	\$1,314	\$1,314	\$1,314
Loan Originated in 6th Year								\$31,532	\$31,532	\$31,532	\$31,532
Loan Originated in 7th Year									\$1,408	\$1,408	\$1,408
Loan Originated in 8th Year										\$1,457	\$1,457
<b>Total Debt Obligations</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$188,898</b>	<b>\$190,126</b>	<b>\$191,396</b>	<b>\$192,710</b>	<b>\$224,242</b>	<b>\$225,651</b>	<b>\$227,108</b>	<b>\$227,108</b>
<b>Total CIP Spending Plus Debt Repayment</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$4,091,652</b>	<b>\$265,415</b>	<b>\$269,320</b>	<b>\$273,361</b>	<b>\$1,241,521</b>	<b>\$312,046</b>	<b>\$316,528</b>	<b>\$227,108</b>	<b>\$227,108</b>
CIP Fund Balance	\$5,868	\$12,038	\$421,083	\$351,438	\$300,602	\$264,540	\$238,493	\$188,423	\$160,409	\$145,864	\$142,266

Notes: The Madison well project is the key improvement being undertaken. Several other capital improvements will be partially paid by JPA loans at 4.98% interest rate and 20 years. Grants are anticipated for most of the balance (75%) of the major project costs. Maintenance shop and town hall remodel costs have been split between the utilities based upon the percentage that each utility's budget is of the town's total budget. "Over-borrowing" refers to taking an additional loan amount in order to repay the system for improvements temporarily funded with system reserves.

Chart 4A - Rate Adjustments and Incomes for the Modeling Year 7/1/10 Through 6/30/11

These charts depict how rates will be adjusted and the outcomes from those adjustments made during the analysis modeling year.

\$700	This is the current average connection fee	1st rate block conservation rates multiplier	100%
\$700	Proposed average connection fee	2nd rate block conservation rates multiplier	100%
\$700	The part of the proposed average connection fee, above, that will be devoted to future capital improvements	3rd rate block conservation rates multiplier	100%
\$0	Surcharge Fees		

6/30/11 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 \$25.34 and the unit charge is \$5.50 per 1,000 Gallons  
After rate adjustments are made, general customers will be billed monthly.

Proposed User Rates and Blended User Rate Revenues for the Modeling Year

Class Bottom	Class Top	Revenues at Test Year Rates	New Minimum Charge Base Rates <sup>1</sup>	New Usage Allowance (1,000 Gallons)	New Unit Charge This Class per 1,000 Gallons	Revenues at Proposed Rates	Total Blended Revenues Projected for Modeling Year
All Users							
Use per Billing Cycle in Gallons							
0	999	\$35,279	\$47.32	4.000	\$5.50	\$115	\$35,394
1,000	1,999	\$30,320	\$47.32	4.000	\$5.50	\$99	\$30,419
2,000	2,999	\$27,417	\$47.32	4.000	\$5.50	\$90	\$27,506
3,000	3,999	\$24,191	\$47.32	4.000	\$5.50	\$79	\$24,270
4,000	4,999	\$21,087	\$47.32	4.000	\$5.50	\$73	\$21,159
5,000	5,999	\$15,805	\$47.32	4.000	\$5.50	\$60	\$15,865
6,000	6,999	\$10,765	\$47.32	4.000	\$5.50	\$45	\$10,810
7,000	7,999	\$9,757	\$47.32	4.000	\$5.50	\$44	\$9,802
8,000	8,999	\$8,851	\$47.32	4.000	\$5.50	\$42	\$8,894
9,000	9,999	\$6,306	\$47.32	4.000	\$5.50	\$30	\$6,335
10,000	14,999	\$22,442	\$47.32	4.000	\$5.50	\$105	\$22,547
15,000	19,999	\$15,343	\$47.32	4.000	\$5.50	\$70	\$15,413
20,000	24,999	\$7,858	\$47.32	4.000	\$5.50	\$36	\$7,894
25,000	29,999	\$6,783	\$47.32	4.000	\$5.50	\$31	\$6,814
30,000	34,999	\$5,563	\$47.32	4.000	\$5.50	\$25	\$5,588
35,000	39,999	\$3,336	\$47.32	4.000	\$5.50	\$15	\$3,351
40,000	44,999	\$2,410	\$47.32	4.000	\$5.50	\$11	\$2,421
45,000	49,999	\$2,932	\$47.32	4.000	\$5.50	\$13	\$2,945
50,000	54,999	\$1,372	\$47.32	4.000	\$5.50	\$6	\$1,378
55,000	59,999	\$2,792	\$47.32	4.000	\$5.50	\$12	\$2,804
60,000	64,999	\$690	\$47.32	4.000	\$5.50	\$3	\$693
65,000	69,999	\$739	\$47.32	4.000	\$5.50	\$3	\$743
70,000	74,999	\$1,092	\$47.32	4.000	\$5.50	\$5	\$1,097
75,000	79,999	\$289	\$47.32	4.000	\$5.50	\$1	\$290
80,000	84,999	\$922	\$47.32	4.000	\$5.50	\$4	\$926
85,000	89,999	\$0	\$47.32	4.000	\$5.50	\$0	\$0
90,000	999,999	\$3,579	\$47.32	4.000	\$5.50	\$16	\$3,595
Rate Revenues at Current Rates		\$267,919	Rate Revenues at Adjusted Rates			\$1,032	
						Total Blended Rate Revenues for the Year <sup>2</sup>	\$268,951

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 12.0 months at the old user charge rates 7/1/10 and 0.0 months at the new user charge rates through 6/30/11 assume the following:

Moorcroft, WY, Water Rates Scenario 2A  
 Chart 4B - Rate Statistics

CBGreatRates© Version 5.1

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/month (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 6,276 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.

Class Bottom	Class Top	% Users	% Usage	% Rev at	
				Current Rates	Proposed Rates
Use per Billing Cycle in Gallons					
All Users					
0	999	15.6%	0.7%	13.2%	11.2%
1,000	1,999	13.4%	3.1%	11.3%	9.6%
2,000	2,999	12.2%	4.7%	10.2%	8.7%
3,000	3,999	10.7%	5.9%	9.0%	7.7%
4,000	4,999	9.3%	6.6%	7.9%	7.0%
5,000	5,999	7.0%	6.0%	5.9%	5.8%
6,000	6,999	4.8%	4.9%	4.0%	4.4%
7,000	7,999	4.3%	5.1%	3.6%	4.3%
8,000	8,999	3.8%	5.1%	3.3%	4.1%
9,000	9,999	2.5%	3.7%	2.4%	2.9%
10,000	14,999	7.3%	14.1%	8.4%	10.1%
15,000	19,999	3.8%	10.3%	5.7%	6.8%
20,000	24,999	1.6%	5.5%	2.9%	3.5%
25,000	29,999	1.1%	4.9%	2.5%	3.0%
30,000	34,999	0.8%	4.1%	2.1%	2.4%
35,000	39,999	0.4%	2.5%	1.2%	1.4%
40,000	44,999	0.3%	1.8%	0.9%	1.0%
45,000	49,999	0.3%	2.2%	1.1%	1.3%
50,000	54,999	0.1%	1.0%	0.5%	0.6%
55,000	59,999	0.2%	2.1%	1.0%	1.2%
60,000	64,999	0.1%	0.5%	0.3%	0.3%
65,000	69,999	0.1%	0.6%	0.3%	0.3%
70,000	74,999	0.1%	0.8%	0.4%	0.5%
75,000	79,999	0.0%	0.2%	0.1%	0.1%
80,000	84,999	0.1%	0.7%	0.3%	0.4%
85,000	89,999	0.0%	0.0%	0.0%	0.0%
90,000	999,999	0.2%	2.8%	1.3%	1.5%
Totals		100.0%	100.0%	100.0%	100.0%

## Moorcroft, WY, Water Rates Scenario 2A

### Chart 5 - Indicators

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

CBGreatRates© Version 5.1

	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>Capacity Indicators</b>											
Equivalent Average Monthly Bill Actually Paid by All Customers Throughout the Year	\$41.47	\$41.52	\$61.07	\$64.12	\$67.33	\$70.69	\$74.23	\$77.94	\$81.84	\$85.93	\$90.23
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$40.00	\$52.81	\$55.45	\$58.23	\$61.14	\$64.19	\$67.40	\$70.77	\$74.31	\$78.03	\$81.93
Annual Median Household Income (AMHI)	\$54,222	\$57,389	\$60,742	\$64,290	\$68,046	\$72,021	\$76,228	\$80,681	\$85,393	\$90,382	\$95,661
Affordability Index for Proposed Rates	0.89%	1.10%	1.10%	1.09%	1.08%	1.07%	1.06%	1.05%	1.04%	1.04%	1.03%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%.											
Estimated Operating Ratio for Proposed Rates	1.15	1.09	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems.											
Estimated Coverage Ratio for Proposed Rates	1.33	1.68	24.76	2.86	2.58	2.38	2.24	1.84	1.71	1.64	1.63
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
<b>Reserves</b>											
	Balance Ending on 6/30/10	Balance Ending on 6/30/11	Balance Ending on 6/30/12	Balance Ending on 6/30/13	Balance Ending on 6/30/14	Balance Ending on 6/30/15	Balance Ending on 6/30/16	Balance Ending on 6/30/17	Balance Ending on 6/30/18	Balance Ending on 6/30/19	Balance Ending on 6/30/20
Operating Fund	\$40,358	\$24,401	\$103,798	\$111,315	\$113,319	\$115,482	\$119,468	\$125,456	\$127,995	\$132,553	\$139,326
CIP Fund	\$5,868	\$12,038	\$421,083	\$351,438	\$300,602	\$264,540	\$238,493	\$188,423	\$160,409	\$145,864	\$142,266
Debt Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Utility Trust (Meter Deposits)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Fund	\$0	\$15,988	-\$2,890	-\$37,404	-\$59,448	-\$84,531	-\$90,071	-\$73,522	-\$56,641	-\$39,428	-\$10,981
Current Position (Unobligated Cash and Cash Equivalents)	\$40,358	\$24,401	\$103,798	\$111,315	\$113,319	\$115,482	\$119,468	\$125,456	\$127,995	\$132,553	\$139,326
Operating Fund + CIP Fund	\$46,226	\$36,439	\$524,881	\$462,753	\$413,921	\$380,022	\$357,961	\$313,879	\$288,404	\$278,417	\$281,592
Operating Fund + CIP Fund Balances Discounted for Inflation (Future Purchasing Power)	\$46,226	\$36,439	\$506,510	\$430,927	\$371,963	\$329,547	\$299,552	\$253,470	\$224,746	\$209,370	\$204,346

Chart 6 - Operating Ratio

Moorcroft, WY

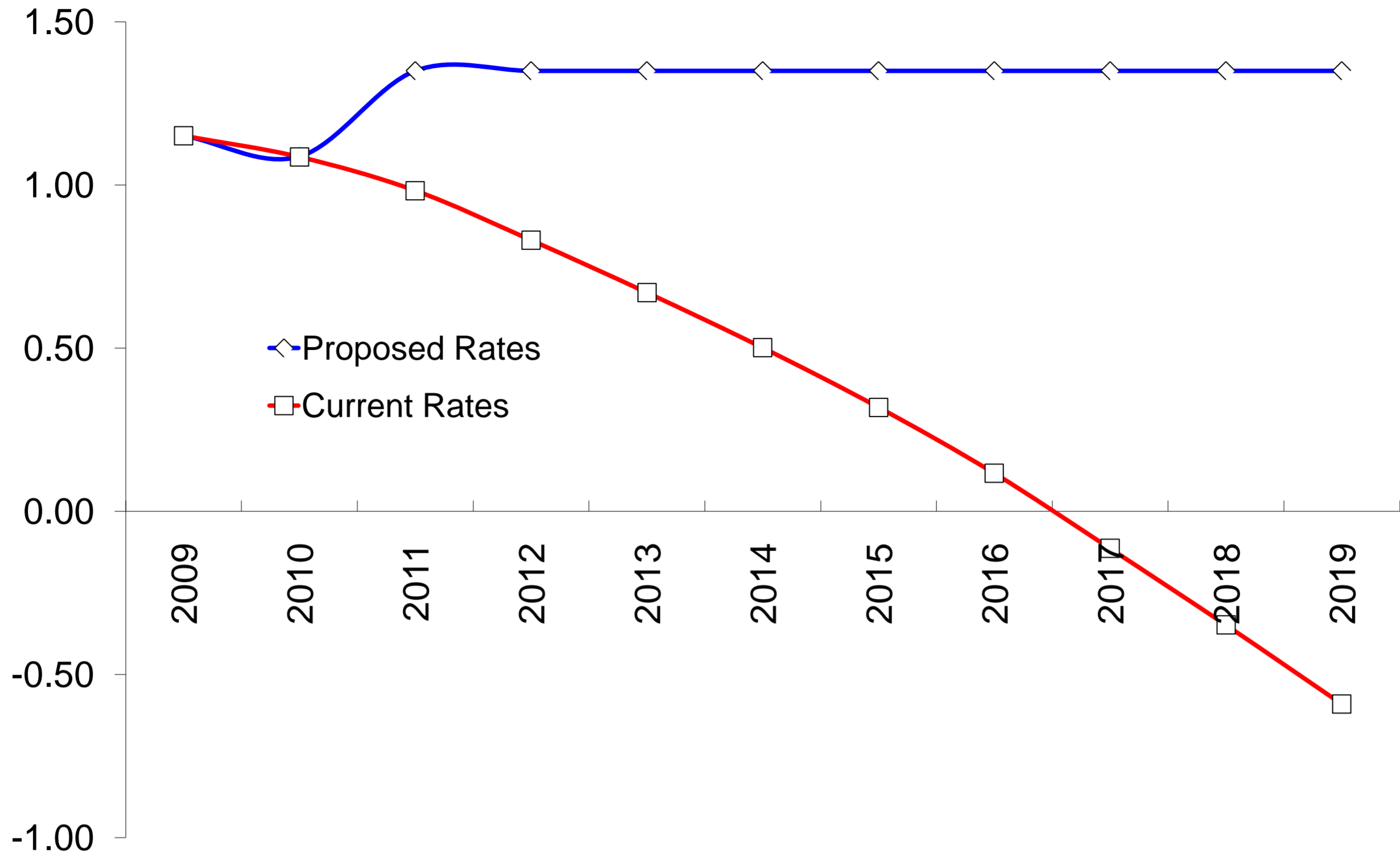


Chart 7 - Coverage Ratio

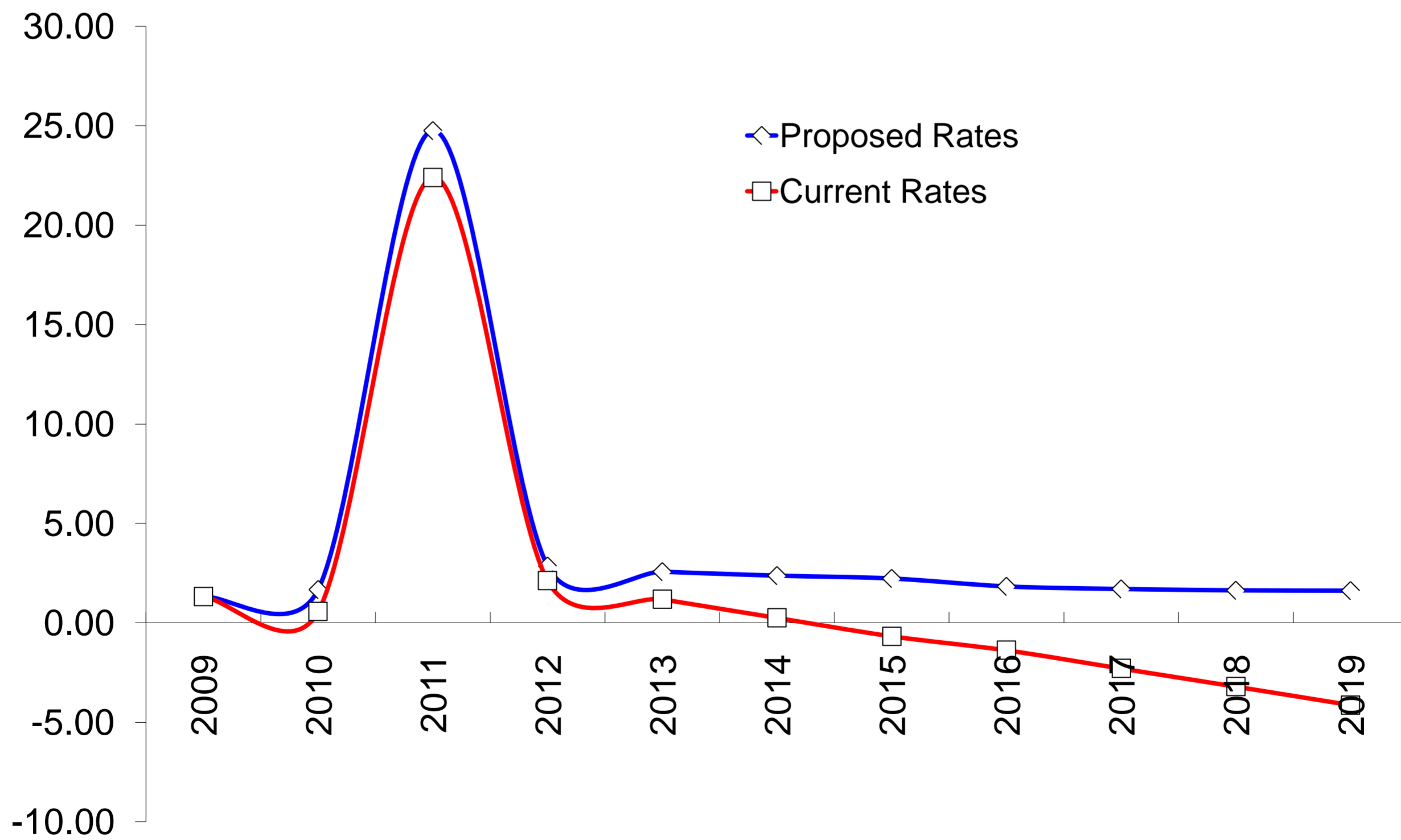


Chart 8 - 5,000 Gal Residential User's Bill

Moorcroft, WY

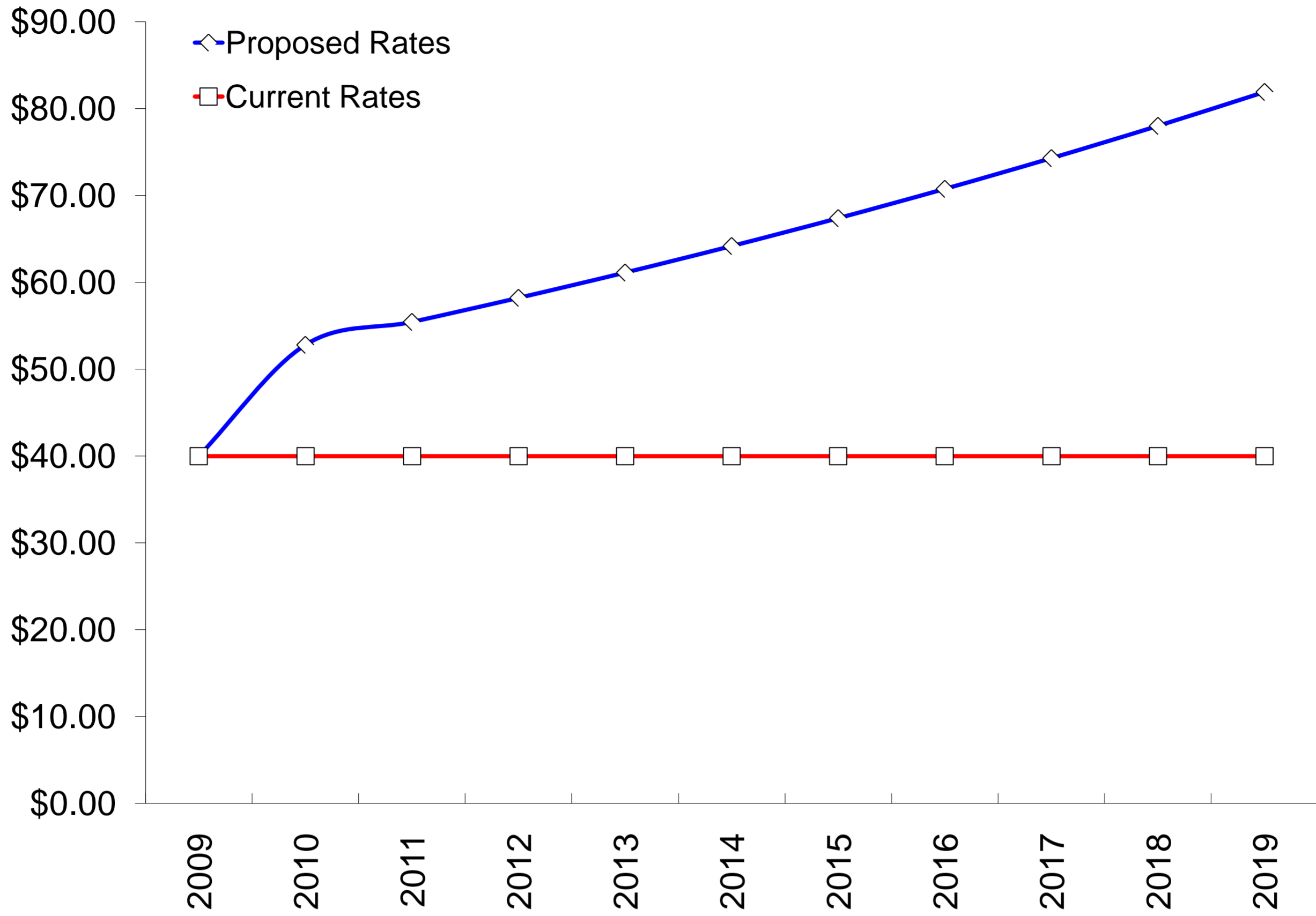


Chart 9 - Affordability Index

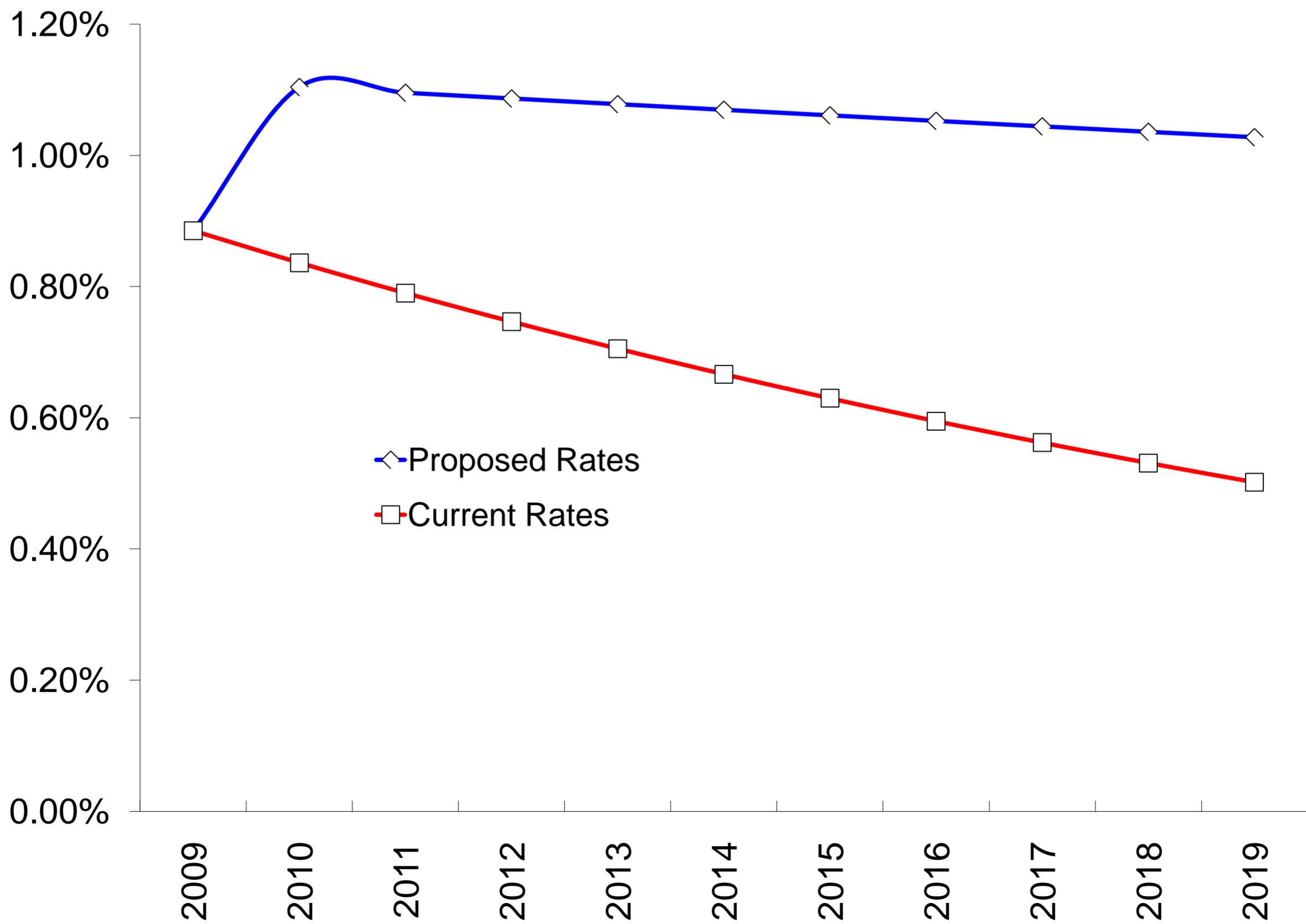


Chart 10 - Working Capital

Moorcroft, WY

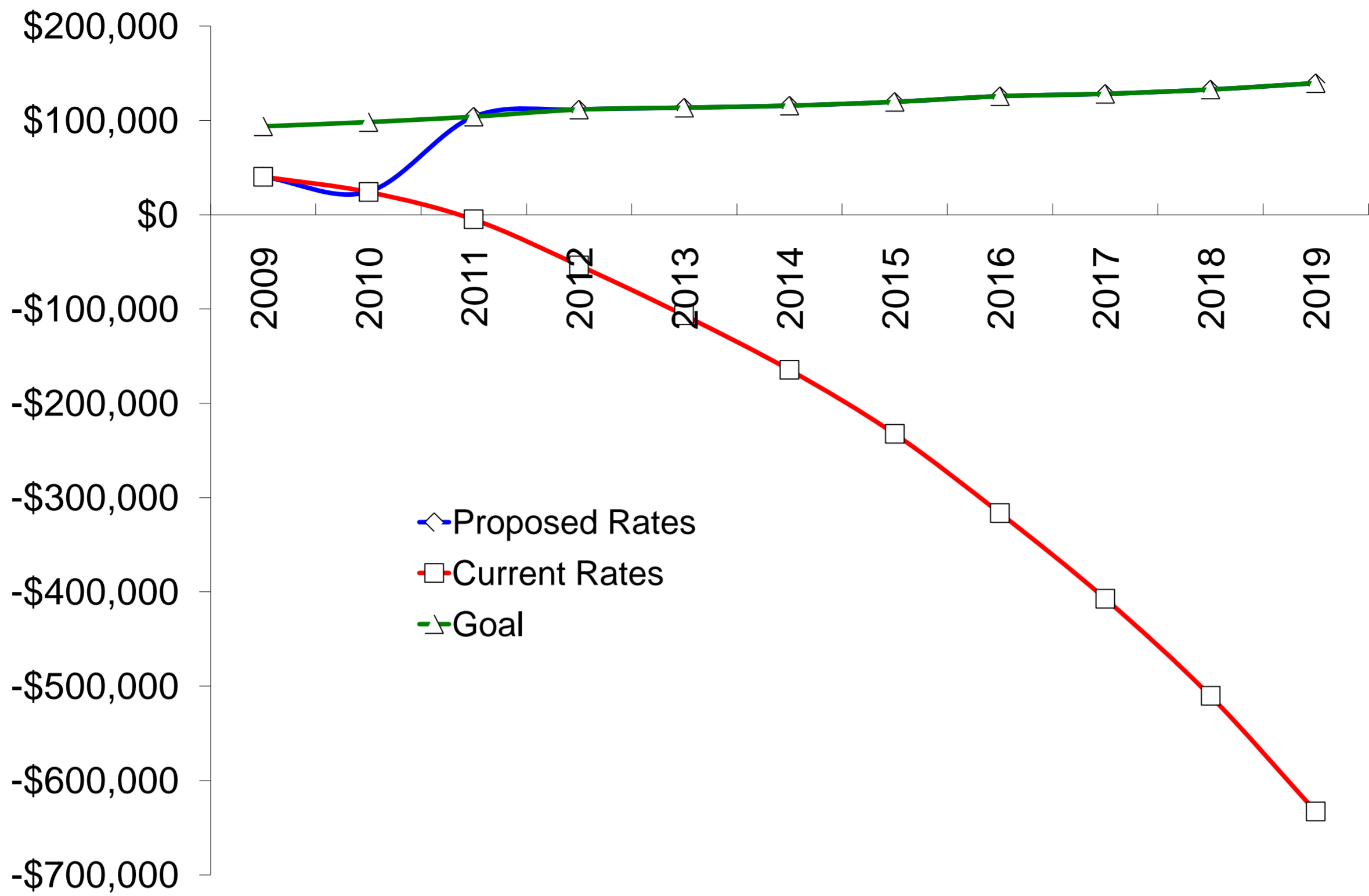


Chart 11 - Working Capital and CIP Reserves Discounted for Inflation

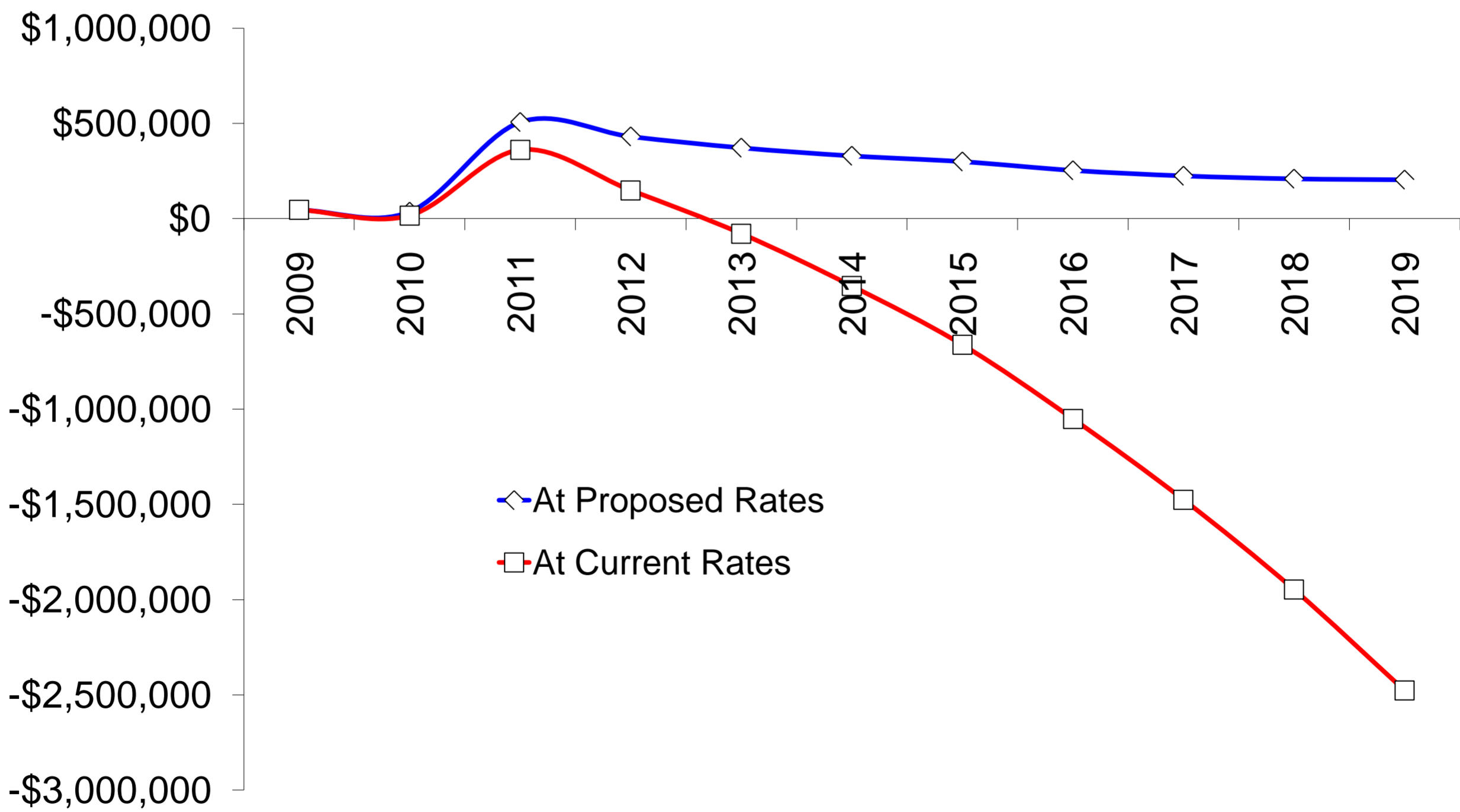


Chart 12 - Use & Revenues

Moorcroft, WY

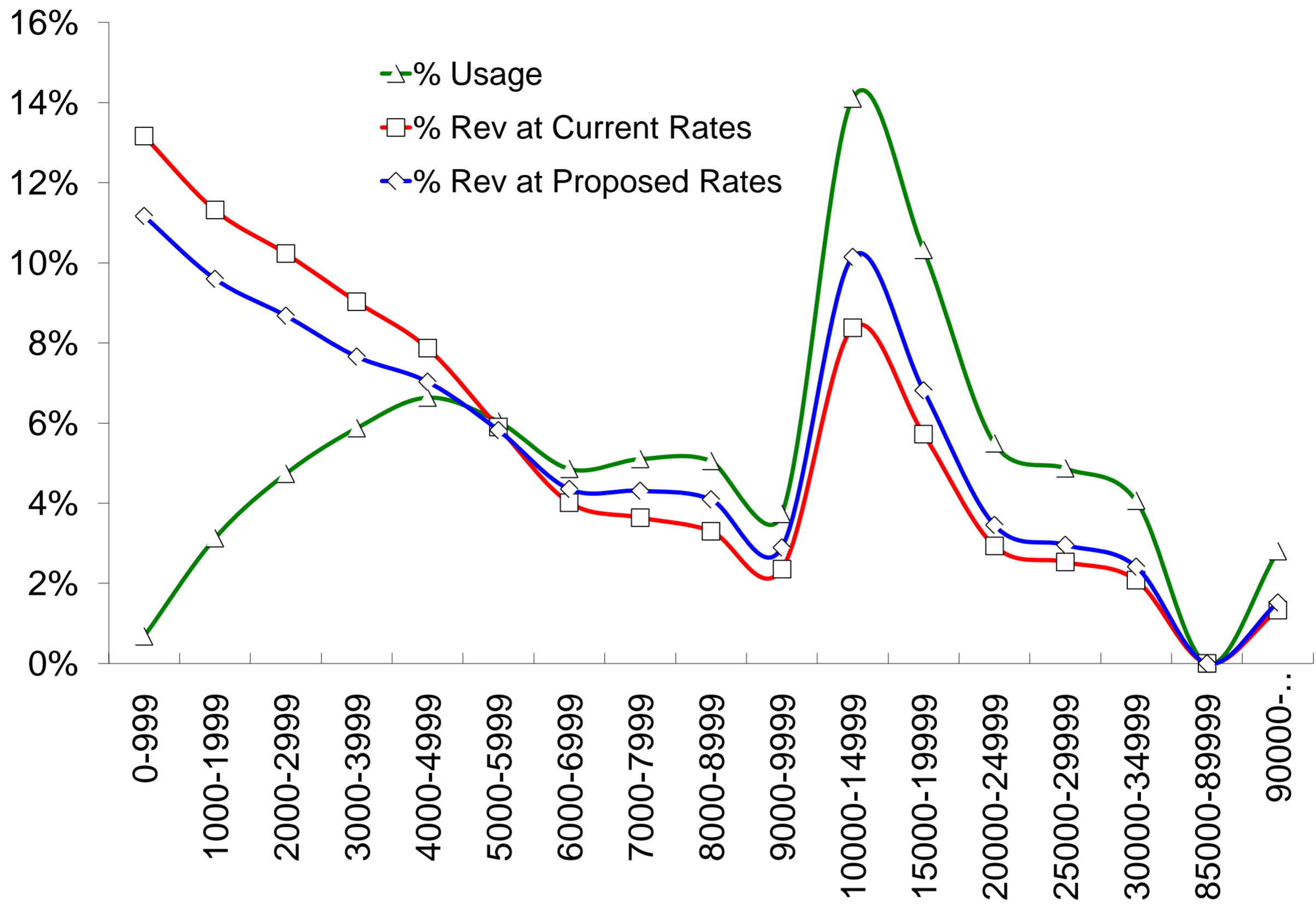
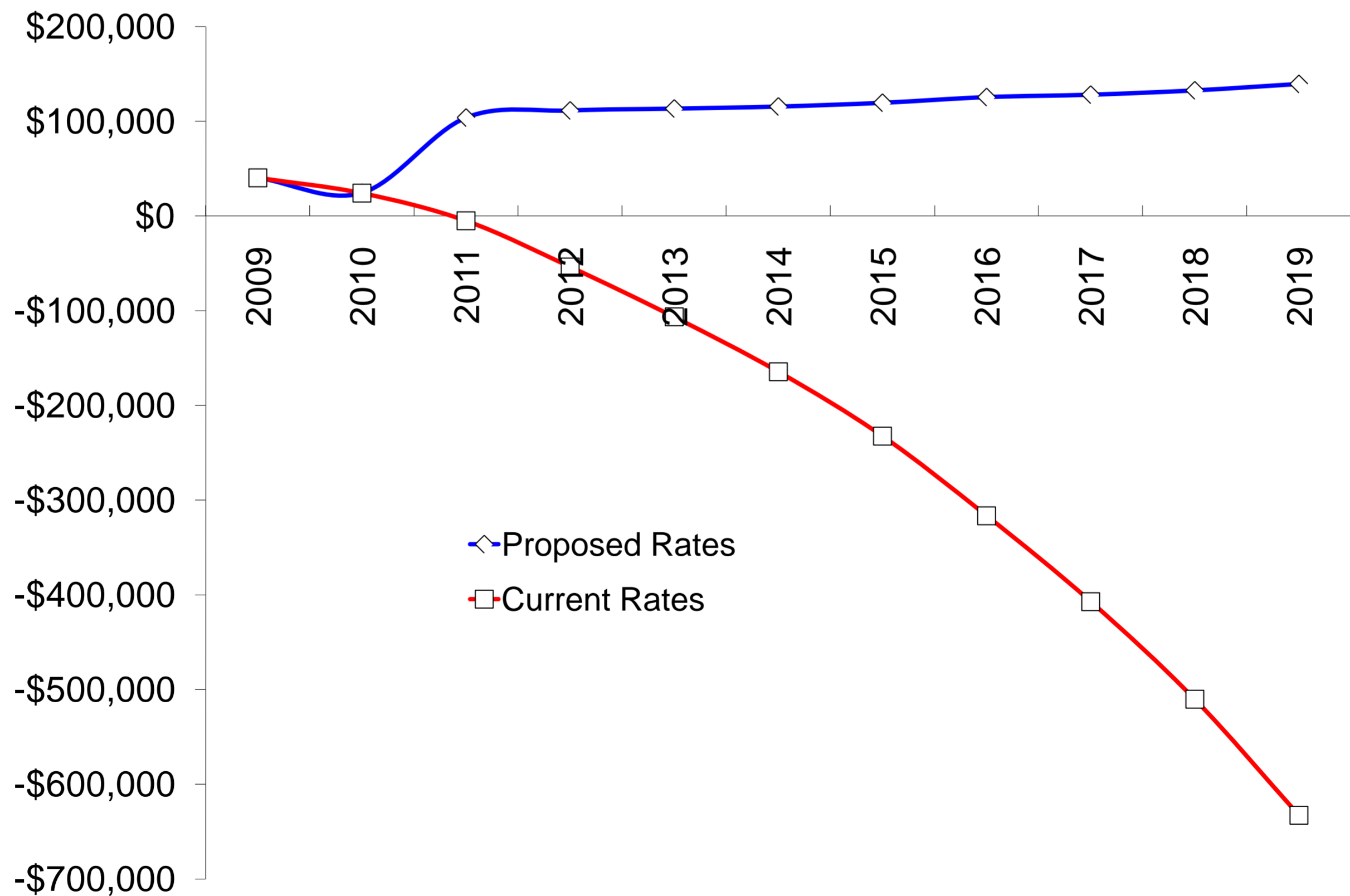


Chart 13 - Current Position



# Moorcroft, WY, Water Rates Scenario 2A

## Chart 14 - Old Rates, New Rates and Changes

This chart compares current and proposed bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Average Bill	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users			
0	999	0.270	\$40.00	\$47.32	\$7.32
1,000	1,999	1.460	\$40.00	\$47.32	\$7.32
2,000	2,999	2.445	\$40.00	\$47.32	\$7.32
3,000	3,999	3.438	\$40.00	\$47.32	\$7.32
4,000	4,999	4.457	\$40.00	\$49.83	\$9.83
5,000	5,999	5.411	\$40.00	\$55.06	\$15.06
6,000	6,999	6.389	\$40.00	\$60.43	\$20.43
7,000	7,999	7.406	\$40.00	\$66.02	\$26.02
8,000	8,999	8.296	\$41.03	\$70.90	\$29.87
9,000	9,999	9.431	\$45.00	\$77.13	\$32.13
10,000	14,999	12.051	\$54.17	\$91.53	\$37.35
15,000	19,999	17.186	\$72.14	\$119.73	\$47.60
20,000	24,999	22.179	\$89.61	\$147.17	\$57.55
25,000	29,999	27.589	\$108.54	\$176.89	\$68.34
30,000	34,999	32.414	\$125.43	\$203.40	\$77.97
35,000	39,999	37.695	\$143.91	\$232.41	\$88.50
40,000	44,999	42.128	\$159.42	\$256.76	\$97.34
45,000	49,999	48.519	\$181.78	\$291.88	\$110.09
50,000	54,999	52.127	\$194.41	\$311.70	\$117.29
55,000	59,999	57.455	\$213.05	\$340.97	\$127.92
60,000	64,999	61.800	\$228.26	\$364.84	\$136.58
65,000	69,999	66.433	\$244.47	\$390.30	\$145.82
70,000	74,999	73.955	\$270.79	\$431.62	\$160.83
75,000	79,999	78.400	\$286.35	\$456.04	\$169.69
80,000	84,999	83.666	\$304.77	\$484.97	\$180.20
85,000	89,999	87.500	\$318.19	\$506.03	\$187.84
90,000	999,999	109.325	\$394.57	\$625.96	\$231.38

# Moorcroft, WY, Water Rates Scenario 2A

## Chart 14B - Rate Changes in Percent

This chart shows percentage increases and decreases.

CBGreatRates© Version 5.1

Effective New All-in Rate/1,000 Gallons	Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
	Use per Billing Cycle in Gallons		All Users
N.A.	0	999	18%
\$32.42	1,000	1,999	18%
\$19.35	2,000	2,999	18%
\$13.76	3,000	3,999	18%
\$11.18	4,000	4,999	25%
\$10.18	5,000	5,999	38%
\$9.46	6,000	6,999	51%
\$8.91	7,000	7,999	65%
\$8.55	8,000	8,999	73%
\$8.18	9,000	9,999	71%
\$7.59	10,000	14,999	69%
\$6.97	15,000	19,999	66%
\$6.64	20,000	24,999	64%
\$6.41	25,000	29,999	63%
\$6.27	30,000	34,999	62%
\$6.17	35,000	39,999	61%
\$6.09	40,000	44,999	61%
\$6.02	45,000	49,999	61%
\$5.98	50,000	54,999	60%
\$5.93	55,000	59,999	60%
\$5.90	60,000	64,999	60%
\$5.87	65,000	69,999	60%
\$5.84	70,000	74,999	59%
\$5.82	75,000	79,999	59%
\$5.80	80,000	84,999	59%
\$5.78	85,000	89,999	59%
\$5.73	90,000	999,999	59%



# Moorcroft, WY

## Chart 16A - Rates During Test Year

CBGreatRates© Version 5.1

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

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Base Minimum Charge (1,000 Gallons)	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons					
0	999	0.270	\$40.00	8.0	\$3.50
1,000	1,999	1.460	\$40.00	8.0	\$3.50
2,000	2,999	2.445	\$40.00	8.0	\$3.50
3,000	3,999	3.438	\$40.00	8.0	\$3.50
4,000	4,999	4.457	\$40.00	8.0	\$3.50
5,000	5,999	5.411	\$40.00	8.0	\$3.50
6,000	6,999	6.389	\$40.00	8.0	\$3.50
7,000	7,999	7.406	\$40.00	8.0	\$3.50
8,000	8,999	8.296	\$40.00	8.0	\$3.50
9,000	9,999	9.431	\$40.00	8.0	\$3.50
10,000	14,999	12.051	\$40.00	8.0	\$3.50
15,000	19,999	17.186	\$40.00	8.0	\$3.50
20,000	24,999	22.179	\$40.00	8.0	\$3.50
25,000	29,999	27.589	\$40.00	8.0	\$3.50
30,000	34,999	32.414	\$40.00	8.0	\$3.50
35,000	39,999	37.695	\$40.00	8.0	\$3.50
40,000	44,999	42.128	\$40.00	8.0	\$3.50
45,000	49,999	48.519	\$40.00	8.0	\$3.50
50,000	54,999	52.127	\$40.00	8.0	\$3.50
55,000	59,999	57.455	\$40.00	8.0	\$3.50
60,000	64,999	61.800	\$40.00	8.0	\$3.50
65,000	69,999	66.433	\$40.00	8.0	\$3.50
70,000	74,999	73.955	\$40.00	8.0	\$3.50
75,000	79,999	78.400	\$40.00	8.0	\$3.50
80,000	84,999	83.666	\$40.00	8.0	\$3.50
85,000	89,999	87.500	\$40.00	8.0	\$3.50
90,000	999,999	109.325	\$40.00	8.0	\$3.50

# Moorcroft, WY

## Chart 16B - Reserves, AMHI

CBGreatRates© Version 5.1

Reserve Starting Balances as of 7/1/09 and Debits and Credits\*

Starting Balances	\$29,523 Operating Fund	\$0 Replacement Fund
Starting Balances	\$0 CIP Fund	

### Annual Median Household Income (AMHI)

\$54,222 AMHI for Moorcroft, WY for the year 2008, by Census estimate  
5.8% Rate of growth in AMHI (assumed)

## Chart 16C - Incomes

Incomes for 7/1/09 Through 6/30/10

\$232,079 User Charge Fees  
\$0 Late Charges, Penalties  
5 Number of New Taps  
\$700 Average Tap Fee  
\$3,500 Tap Fees  
\$17,803 Interest  
\$0 Surcharge Fees  
\$3,264 Bulk Water Sales  
\$0 Water Sales Taxes  
\$24,890 Water Investment Fees

Predicted billable user fees: \$265,801
--

Tap Fees dedicated to capital improvements: \$3,500
--

---

\$281,537 Total All Incomes

# Moorcroft, WY, Water Rates Scenario 2A

## Chart 17A - Equipment Replacement Details Chart

This schedule depicts detailed equipment replacement and refurbishment during the next 20 years.

CBGreatRates© Version 5.1, Replacement Scheduler© Version 1.4

Year Beginning	Transfer Pumps, 3 Every 10 Years	Clean Water Tanks, 1 per Year	Replace Well Pumps, 1 per Year	Refurbish Wells, 1 per Year	Loader (1/3rd shares water, sewer, trash)	2002 Ford F350 Service Bed (50% water, 50% sewer)	2008 Ford F450 Dump Truck w/ Plow (1/3rd shares)	2005 Ford F250 Truck (50% water, 50% sewer)	Hydrovac Truck (30% water, 70% sewer)	2009 John Deere Backhoe (50% water, 50% sewer)	Total Annual Replacement Costs
7/1/09	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,200	\$0	\$19,200
7/1/11	\$3,000	\$3,500	\$6,000	\$2,000	\$9,333	\$0	\$0	\$2,600	\$19,200	\$7,300	\$52,933
7/1/12	\$0	\$3,500	\$6,000	\$2,000	\$9,333	\$15,000	\$0	\$2,600	\$19,200	\$7,300	\$64,933
7/1/13	\$0	\$3,500	\$6,000	\$2,000	\$9,333	\$0	\$0	\$2,600	\$19,200	\$7,300	\$49,933
7/1/14	\$0	\$3,500	\$6,000	\$2,000	\$9,333	\$0	\$0	\$2,600	\$19,200	\$7,300	\$49,933
7/1/15	\$0	\$3,500	\$6,000	\$2,000	\$9,333	\$0	\$0	\$2,600	\$0	\$7,300	\$30,733
7/1/16	\$0	\$3,500	\$6,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500
7/1/17	\$0	\$3,500	\$6,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500
7/1/18	\$0	\$3,500	\$6,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500
7/1/19	\$0	\$3,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,500
7/1/20	\$0	\$3,500	\$0	\$0	\$0	\$0	\$12,667	\$0	\$0	\$0	\$16,167
7/1/21	\$0	\$3,500	\$0	\$2,000	\$0	\$0	\$0	\$2,600	\$0	\$0	\$8,100
7/1/22	\$3,000	\$3,500	\$0	\$2,000	\$0	\$15,000	\$0	\$2,600	\$0	\$0	\$26,100
7/1/23	\$0	\$3,500	\$0	\$2,000	\$0	\$0	\$0	\$2,600	\$0	\$0	\$8,100
7/1/24	\$0	\$3,500	\$0	\$2,000	\$0	\$0	\$0	\$2,600	\$0	\$0	\$8,100
7/1/25	\$0	\$3,500	\$0	\$2,000	\$0	\$0	\$0	\$2,600	\$0	\$0	\$8,100
7/1/26	\$0	\$3,500	\$6,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500
7/1/27	\$0	\$3,500	\$6,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500
7/1/28	\$0	\$3,500	\$6,000	\$2,000	\$0	\$0	\$0	\$0	\$0	\$0	\$11,500
7/1/29	\$0	\$3,500	\$6,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9,500
7/1/30	\$0	\$3,500	\$6,000	\$0	\$0	\$0	\$0	\$0	\$19,200	\$0	\$28,700
7/1/31	\$0	\$3,500	\$6,000	\$2,000	\$9,333	\$0	\$0	\$2,600	\$19,200	\$7,300	\$49,933
7/1/32	\$0	\$3,500	\$6,000	\$2,000	\$9,333	\$15,000	\$12,667	\$2,600	\$19,200	\$7,300	\$77,600
7/1/33	\$3,000	\$3,500	\$6,000	\$2,000	\$9,333	\$0	\$0	\$2,600	\$19,200	\$7,300	\$52,933

# Moorcroft, WY, Water Rates Scenario 2A

## Chart 17 - Replacement Schedule

CBGreatRates© Version 5.1, Replacement Scheduler© Version 1.4

This schedule calculates the annual annuity to fund all replacement and refurbishment from the detailed schedule.

3.50% Average Inflation Rate for the Following Water System Equipment for the Term of This Replacement Schedule

4.50% 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	This Year's Costs in Current Dollars	One-time Transfers From Operating Fund	One-time Transfers to Operating Fund	End of Year Balance in Future Dollars	Minimum Desired End of Year Balance in Future Dollars
7/1/09	Test year replacements	\$0	\$0	\$0	\$0	\$84,867
7/1/10	Total of replacements from detailed replacement schedule	\$19,200	\$0	\$0	\$15,988	\$84,867
7/1/11	Total of replacements from detailed replacement schedule	\$52,933	\$0	\$0	-\$2,890	\$87,837
7/1/12	Total of replacements from detailed replacement schedule	\$64,933	\$0	\$0	-\$37,404	\$90,911
7/1/13	Total of replacements from detailed replacement schedule	\$49,933	\$0	\$0	-\$59,448	\$94,093
7/1/14	Total of replacements from detailed replacement schedule	\$49,933	\$0	\$0	-\$84,531	\$97,386
7/1/15	Total of replacements from detailed replacement schedule	\$30,733	\$0	\$0	-\$90,071	\$100,795
7/1/16	Total of replacements from detailed replacement schedule	\$11,500	\$0	\$0	-\$73,522	\$104,323
7/1/17	Total of replacements from detailed replacement schedule	\$11,500	\$0	\$0	-\$56,641	\$107,974
7/1/18	Total of replacements from detailed replacement schedule	\$11,500	\$0	\$0	-\$39,428	\$111,753
7/1/19	Total of replacements from detailed replacement schedule	\$3,500	\$0	\$0	-\$10,981	\$115,665
7/1/20	Total of replacements from detailed replacement schedule	\$16,167	\$0	\$0	\$853	\$119,713
7/1/21	Total of replacements from detailed replacement schedule	\$8,100	\$0	\$0	\$24,255	\$123,903
7/1/22	Total of replacements from detailed replacement schedule	\$26,100	\$0	\$0	\$21,096	\$128,239
7/1/23	Total of replacements from detailed replacement schedule	\$8,100	\$0	\$0	\$44,565	\$132,728
7/1/24	Total of replacements from detailed replacement schedule	\$8,100	\$0	\$0	\$68,648	\$137,373
7/1/25	Total of replacements from detailed replacement schedule	\$8,100	\$0	\$0	\$93,355	\$142,181
7/1/26	Total of replacements from detailed replacement schedule	\$11,500	\$0	\$0	\$112,804	\$147,158
7/1/27	Total of replacements from detailed replacement schedule	\$11,500	\$0	\$0	\$132,429	\$152,308
7/1/28	Total of replacements from detailed replacement schedule	\$11,500	\$0	\$0	\$152,216	\$157,639
7/1/29	Total of replacements from detailed replacement schedule	\$9,500	\$0	\$0	\$175,991	\$163,156

Notes: Replacement needs were drawn from the most recent system budget for 2010 and projected into the future. The minimum desired balance was set so as to build and maintain a balance that will be approximately double the amount of the average annual replacement costs. The required annual deposit was calculated based upon these amounts.

Starting Account Balance	\$0	\$84,867
Minimum Annual Annuity	\$31,788	Minimum Desired Balance in Today's Dollars
Discretionary Annuity	\$3,400	

**Required Annual Deposit to Replacement Account \$35,188**

# Moorcroft, WY

## Chart 18 - All-in Test Year Costs and Rate Structure Calculations

CBGreatRates© Version 5.1

This chart depicts all costs for the test year and distributes those costs to fixed and variable categories for the purpose of calculating the "proportional to use" rate structure (see Definitions).

### 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	Surchargeable Costs
Administration Salaries, Benefits, etc. Allocation	\$33,325	100%	\$33,325	\$33,325	\$0	\$0
Operations Staff Salaries, Benefits & Related Items	\$99,974	0%	\$99,974	\$0	\$99,974	\$0
Office Supplies	\$832	100%	\$832	\$832	\$0	\$0
Repair/Maint Supplies	\$14,600	100%	\$14,600	\$14,600	\$0	\$0
Small Tools	\$994	50%	\$994	\$497	\$497	\$0
Equipment Repairs	\$2,518	50%	\$2,518	\$1,259	\$1,259	\$0
Chemicals	\$4,235	0%	\$4,235	\$0	\$4,235	\$0
Postage	\$835	100%	\$835	\$835	\$0	\$0
Travel and Training	\$3,642	100%	\$3,642	\$3,642	\$0	\$0
Gas/Lube/Oil	\$3,191	50%	\$3,191	\$1,596	\$1,596	\$0
Locates	\$57	100%	\$57	\$57	\$0	\$0
Liability Insurance	\$710	100%	\$710	\$710	\$0	\$0
Property Insurance	\$732	100%	\$732	\$732	\$0	\$0
Water Testing	\$240	100%	\$240	\$240	\$0	\$0
Electricity	\$23,893	10%	\$23,893	\$2,389	\$21,504	\$0
Easement	\$1,028	100%	\$1,028	\$1,028	\$0	\$0
Contractual Services	\$20,717	100%	\$20,717	\$20,717	\$0	\$0
Miscellaneous	\$399	100%	\$399	\$399	\$0	\$0
Invest. Fees Transfers to CIP Fund	\$20,091	100%	\$20,091	\$20,091	\$0	\$0
Surchargeable Water Services	NA	0%	\$0	\$0	\$0	\$0
Water Loss	NA	0%	\$0	\$0	\$0	\$0
One-time Transfer to Replacement Fund	\$0	0%	\$0	\$0	\$0	\$0
Annual Payment to Replacement Fund	\$35,188	0%	\$35,188	\$0	\$35,188	\$0
User Charge Analysis Services	\$0	50%	\$0	\$0	\$0	\$0
Loan Payment	\$17,723	100%	\$17,723	\$17,723	\$0	\$0
<b>Grand Total All Costs</b>	<b>\$284,924</b>		<b>\$284,924</b>	<b>\$120,672</b>	<b>\$164,253</b>	<b>\$0</b>

### Cost Calculations for "Proportional" Rates

Fixed Cost/User/Month =	\$21.56
Variable Costs (Cost to Produce)/1,000 Gallons Sold =	\$4.68

Surchargeable Services are Estimated at	\$0
Water Loss is Estimated at	41%
Percentage of Water Loss to Allocate to Fixed Costs is	0%
As Compared to Service Sold, the Relative Cost of Water Loss is Estimated at	50%
Resulting Cost of Water Loss	\$113,187

Test Year Usage Metered Through Customer Meters		35,122,203 Gallons
Gallons/Billing Cycle Used by Average General Customer =	6,276	+ Test Year Water Loss
Gallons/Billing Cycle Used by Average Special Customer =	NA	= Total Test Year Volume
		24,202,797 Gallons
		59,325,000 Gallons

# Moorcroft, WY, Water Rates Scenario 2B

## Rate Analysis Modeling Results

"Lower Rates, Lower Borrowing" aptly describes this scenario.

Chart 1 shows the rates proposed in this scenario. At the bottom of this chart are combined reserves that would result if the amount stated there is borrowed.

This model assumes initial rate adjustments as reflected in Chart 1. Annually thereafter rates will be increased as shown near the top of Chart 2A. The model compares the system's financial outlook under the proposed rates with the outlook if no adjustments are made to make it easy to understand the outcome of the proposed changes.

For most, the best way to read and understand what this model means is this. Scan the "Index of Charts and Pages" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder charts 1 and 6-14. These will show you how the proposed rate adjustments will affect ratepayers and the system. If you need more detail than that, review the entire model. Finally, rate setting involves much more than just rates so you need to read the accompanying narrative report to understand what you need to do and why.

March 3, 2011

This rate analysis scenario was produced by  
Carl E. Brown, Carl Brown Consulting, LLC  
1014 Carousel Drive, Jefferson City, Missouri 65101  
(573) 619-3411

[www.carlbrownconsulting.com](http://www.carlbrownconsulting.com)  
[carl@carlbrownconsulting.com](mailto:carl@carlbrownconsulting.com)

CBGreatRates© Version 5.1

# Moorcroft, WY, Water Rates Scenario 2B

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$45.60	4.000	\$5.30
1,000	1,999	\$45.60	4.000	\$5.30
2,000	2,999	\$45.60	4.000	\$5.30
3,000	3,999	\$45.60	4.000	\$5.30
4,000	4,999	\$45.60	4.000	\$5.30
5,000	5,999	\$45.60	4.000	\$5.30
6,000	6,999	\$45.60	4.000	\$5.30
7,000	7,999	\$45.60	4.000	\$5.30
8,000	8,999	\$45.60	4.000	\$5.30
9,000	9,999	\$45.60	4.000	\$5.30
10,000	14,999	\$45.60	4.000	\$5.30
15,000	19,999	\$45.60	4.000	\$5.30
20,000	24,999	\$45.60	4.000	\$5.30
25,000	29,999	\$45.60	4.000	\$5.30
30,000	34,999	\$45.60	4.000	\$5.30
35,000	39,999	\$45.60	4.000	\$5.30
40,000	44,999	\$45.60	4.000	\$5.30
45,000	49,999	\$45.60	4.000	\$5.30
50,000	54,999	\$45.60	4.000	\$5.30
55,000	59,999	\$45.60	4.000	\$5.30
60,000	64,999	\$45.60	4.000	\$5.30
65,000	69,999	\$45.60	4.000	\$5.30
70,000	74,999	\$45.60	4.000	\$5.30
75,000	79,999	\$45.60	4.000	\$5.30
80,000	84,999	\$45.60	4.000	\$5.30
85,000	89,999	\$45.60	4.000	\$5.30
90,000	999,999	\$45.60	4.000	\$5.30

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$400,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,501	\$367,981	\$242,235	\$152,136	\$84,922
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$116,206	\$173,407	\$271,532	\$401,595	\$470,808
Ending Combined Balance Goal:				\$510,000

Moorcroft, WY, Water Rates Scenario 2B  
 Chart 2A - User Base and Operating Incomes

These charts depict starting balances, incomes and expenses during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>User Base</b>												
Average Users for the Year	NA	466	471	476	481	487	492	497	502	508	513	519
Users Added/Lost During the Year	NA	5	5	5	5	5	5	5	5	5	6	6
User Growth/Loss Rate	NA	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%
Rate Increases Initiated in Future Years	NA	NA	35.2%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Adjusted, Then Annually Readjusted Minimum Charge/Billing Period for Uniform Rates Only	NA	NA	\$45.60	\$47.88	\$50.27	\$52.79	\$55.43	\$58.20	\$61.11	\$64.16	\$67.37	\$70.74
Adjusted, Then Annually Readjusted Unit Charge/Billable Volume Unit for Uniform Rates Only	NA	NA	\$5.30	\$5.56	\$5.84	\$6.13	\$6.44	\$6.76	\$7.10	\$7.45	\$7.82	\$8.22
<b>Operating Incomes</b>												
User Charge Fees	NA	\$232,079	\$234,796	\$336,429	\$357,038	\$378,910	\$402,121	\$426,754	\$452,896	\$480,640	\$510,083	\$541,330
Late Charges, Penalties	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tap Fees % Above		\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Interest	NA	\$17,803	\$908	\$548	\$2,132	\$2,494	\$2,548	\$2,597	\$2,687	\$2,821	\$2,878	\$2,981
Bulk Water Sales	NA	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264
Water Investment Fees	NA	\$24,890	\$25,157	\$25,427	\$25,699	\$25,975	\$26,253	\$26,535	\$26,819	\$27,107	\$27,398	\$27,691
Tap Fees Trans to CIP Fund	NA	-\$3,500	-\$3,538	-\$3,754	-\$3,984	-\$4,228	-\$4,487	-\$4,762	-\$5,054	-\$5,363	-\$5,692	-\$6,041
Total Regular Income		\$278,037	\$264,126	\$365,669	\$388,134	\$410,643	\$434,187	\$459,151	\$485,667	\$513,833	\$543,623	\$575,266

Moorcroft, WY, Water Rates Scenario 2B  
 Chart 2B - Operating Costs and Net Income

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

Infla./De-  
 flation (-)  
 Factor

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19	
(Note: Some future costs will experience inflation. Those costs that go up as use goes up are also increased by the growth rate in users and the percentage by which that cost is variable as reported in Chart 4.)													
Administration Salaries, Benefits, etc. Allocation	3.0%	\$33,325	\$34,324	\$35,354	\$36,415	\$37,507	\$38,633	\$39,791	\$40,985	\$42,215	\$43,481	\$44,786	
Operations Staff Salaries, Benefits & Related Items	5.0%	\$99,974	\$104,973	\$110,222	\$115,733	\$121,519	\$127,595	\$133,975	\$140,674	\$147,707	\$155,093	\$162,848	
Office Supplies	5.0%	\$832	\$874	\$917	\$963	\$1,011	\$1,062	\$1,115	\$1,171	\$1,229	\$1,291	\$1,355	
Repair/Maint Supplies	3.0%	\$14,600	\$15,038	\$15,489	\$15,954	\$16,432	\$16,925	\$17,433	\$17,956	\$18,495	\$19,050	\$19,621	
Small Tools	5.0%	\$994	\$1,044	\$1,096	\$1,151	\$1,208	\$1,269	\$1,332	\$1,399	\$1,469	\$1,542	\$1,619	
Equipment Repairs	3.0%	\$2,518	\$2,594	\$2,671	\$2,751	\$2,834	\$2,919	\$3,007	\$3,097	\$3,190	\$3,285	\$3,384	
Chemicals	5.0%	\$4,235	\$4,447	\$4,669	\$4,903	\$5,148	\$5,405	\$5,675	\$5,959	\$6,257	\$6,570	\$6,898	
Postage	5.0%	\$835	\$877	\$921	\$967	\$1,015	\$1,066	\$1,119	\$1,175	\$1,234	\$1,295	\$1,360	
Travel and Training	3.0%	\$3,642	\$3,751	\$3,864	\$3,980	\$4,099	\$4,222	\$4,349	\$4,479	\$4,614	\$4,752	\$4,895	
Gas/Lube/Oil	5.0%	\$3,191	\$3,351	\$3,518	\$3,694	\$3,879	\$4,073	\$4,276	\$4,490	\$4,715	\$4,950	\$5,198	
Locates	3.0%	\$57	\$59	\$60	\$62	\$64	\$66	\$68	\$70	\$72	\$74	\$77	
Liability Insurance	3.0%	\$710	\$731	\$753	\$776	\$799	\$823	\$848	\$873	\$899	\$926	\$954	
Property Insurance	3.0%	\$732	\$754	\$777	\$800	\$824	\$849	\$874	\$900	\$927	\$955	\$984	
Water Testing	5.0%	\$240	\$252	\$265	\$278	\$292	\$306	\$322	\$338	\$355	\$372	\$391	
Electricity	5.0%	\$23,893	\$25,088	\$26,342	\$27,659	\$29,042	\$30,494	\$32,019	\$33,620	\$35,301	\$37,066	\$38,919	
Easement	5.0%	\$1,028	\$1,079	\$1,133	\$1,190	\$1,250	\$1,312	\$1,378	\$1,446	\$1,519	\$1,595	\$1,675	
Contractual Services	1.0%	\$20,717	\$20,924	\$21,133	\$21,345	\$21,558	\$21,774	\$21,992	\$22,211	\$22,434	\$22,658	\$22,884	
Miscellaneous	0.0%	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	
Invest. Fees Transfers to CIP Fund	0.0%	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	
Annual Payment to Replacement Fund	0.0%	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	
User Charge Analysis Services	5.0%	\$0	\$4,278	\$0	\$0	\$4,716	\$0	\$0	\$5,200	\$0	\$0	\$5,733	
Loan Payment	0.0%	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	
Rev Loss From 10% Marginal Water Conservation	0.0%	\$0	\$0	\$10,435	\$12,224	\$4,248	\$4,508	\$4,784	\$5,078	\$5,389	\$5,719	\$6,069	
Madison Well Operating Costs From Annualized Cost	3.0%	\$0	\$0	\$0	\$10,178	\$10,484	\$10,798	\$11,122	\$11,456	\$11,800	\$12,154	\$12,518	
Total Operating Costs		\$267,201	\$280,115	\$295,298	\$316,700	\$323,609	\$329,777	\$341,157	\$358,256	\$365,497	\$378,507	\$397,846	
Net Income (or Loss)		\$10,835	-\$15,990	\$70,371	\$71,433	\$87,035	\$104,410	\$117,993	\$127,411	\$148,336	\$165,116	\$177,420	
Working Capital Goal: 35%		In Dollars, That is:	\$93,521	\$98,040	\$103,354	\$110,845	\$113,263	\$115,422	\$119,405	\$125,389	\$127,924	\$132,477	\$139,246

Moorcroft, WY, Water Rates Scenario 2B  
Chart 3 - 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.

	Year Starting 7/1/09	This Year Year Starting 7/1/10	Next Year Year Starting 7/1/11	3rd Year Year Starting 7/1/12	4th Year Year Starting 7/1/13	5th Year Year Starting 7/1/14	6th Year Year Starting 7/1/15	7th Year Year Starting 7/1/16	8th Year Year Starting 7/1/17	9th Year Year Starting 7/1/18	10th Year Year Starting 7/1/19
<b>CIP Spending Plan</b>											
Capital Improvements to be Paid With Debt											
Water Tank & Well Replacements, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$148,461	\$0	\$0	\$0	\$0
Madison Project, Devel Comm Loan	\$0	\$0	\$2,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, SLIB Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$99,563	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$178,037	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), SRF	\$0	\$0	\$18,482	\$19,129	\$19,799	\$20,491	\$21,209	\$21,951	\$22,719	\$0	\$0
<b>Total Capital Improvements to be Paid With Debt</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,268,482</b>	<b>\$19,129</b>	<b>\$19,799</b>	<b>\$20,491</b>	<b>\$447,270</b>	<b>\$21,951</b>	<b>\$22,719</b>	<b>\$0</b>	<b>\$0</b>
Capital Improvements to be Paid With Cash											
Water Tank & Well Replacements, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$445,382	\$0	\$0	\$0	\$0
Madison Project, 1st Special Purpose Tax	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Madison Project, 2nd Special Purpose Tax	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$33,188	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$59,346	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), Grant	\$0	\$0	\$55,446	\$57,387	\$59,396	\$61,474	\$63,626	\$65,853	\$68,158	\$0	\$0
<b>Total Cap Imprvmts to be Paid With Cash</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,805,446</b>	<b>\$57,387</b>	<b>\$59,396</b>	<b>\$61,474</b>	<b>\$601,542</b>	<b>\$65,853</b>	<b>\$68,158</b>	<b>\$0</b>	<b>\$0</b>
<b>Total CIP Planned Spending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,073,929</b>	<b>\$76,516</b>	<b>\$79,194</b>	<b>\$81,966</b>	<b>\$1,048,811</b>	<b>\$87,804</b>	<b>\$90,877</b>	<b>\$0</b>	<b>\$0</b>
<b>CIP Funding Plan</b>											
CIP Fund Carryover Plus Transfers in	\$0	\$5,868	\$12,038	\$474,029	\$412,664	\$363,871	\$322,837	\$285,804	\$239,905	\$204,506	\$175,810
CIP Fund Interest Earned (or Paid)	\$0	\$264	\$542	\$18,842	\$14,762	\$11,773	\$9,397	\$7,397	\$4,235	\$1,977	\$232
Tap Fees Transferred From Operating Fund to CIP Fund	\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Invest. Fees Transfers to CIP Fund	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091
Grants	\$0	\$0	\$1,805,446	\$57,387	\$59,396	\$61,474	\$601,542	\$65,853	\$68,158	\$0	\$0
Loan Originated Next Year + Over-borrowing			\$2,668,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 3rd Year				\$19,129	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 4th Year					\$19,799	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 5th Year						\$20,491	\$0	\$0	\$0	\$0	\$0
Loan Originated in 6th Year							\$447,270	\$0	\$0	\$0	\$0
Loan Originated in 7th Year								\$21,951	\$0	\$0	\$0
Loan Originated in 8th Year									\$22,719	\$0	\$0
<b>Total CIP Fund Sources</b>	<b>\$23,591</b>	<b>\$29,761</b>	<b>\$4,510,353</b>	<b>\$593,462</b>	<b>\$530,939</b>	<b>\$482,188</b>	<b>\$1,405,898</b>	<b>\$406,150</b>	<b>\$360,471</b>	<b>\$232,267</b>	<b>\$202,174</b>
<b>New Debt Payment Plan</b>											
Payments for future loans assume 100 percent financing for projects, term of:						20	years and	2.50%	interest		
Loan(s) Originated Before Test Year	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723
Loan Originated Next Year + Over-borrowing				\$171,175	\$171,175	\$171,175	\$171,175	\$171,175	\$171,175	\$171,175	\$171,175
Loan Originated in 3rd Year					\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227
Loan Originated in 4th Year						\$1,270	\$1,270	\$1,270	\$1,270	\$1,270	\$1,270
Loan Originated in 5th Year							\$1,314	\$1,314	\$1,314	\$1,314	\$1,314
Loan Originated in 6th Year								\$31,532	\$31,532	\$31,532	\$31,532
Loan Originated in 7th Year									\$1,408	\$1,408	\$1,408
Loan Originated in 8th Year										\$1,457	\$1,457
<b>Total Debt Obligations</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$188,898</b>	<b>\$190,126</b>	<b>\$191,396</b>	<b>\$192,710</b>	<b>\$224,242</b>	<b>\$225,651</b>	<b>\$227,108</b>	<b>\$227,108</b>
<b>Total CIP Spending Plus Debt Repayment</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$4,091,652</b>	<b>\$265,415</b>	<b>\$269,320</b>	<b>\$273,361</b>	<b>\$1,241,521</b>	<b>\$312,046</b>	<b>\$316,528</b>	<b>\$227,108</b>	<b>\$227,108</b>
CIP Fund Balance	\$5,868	\$12,038	\$418,702	\$328,047	\$261,620	\$208,826	\$164,377	\$94,103	\$43,943	\$5,159	-\$24,934

Notes: The Madison well project is the key improvement being undertaken. Several other capital improvements will be partially paid by JPA loans at 4.98% interest rate and 20 years. Grants are anticipated for most of the balance (75%) of the major project costs. Maintenance shop and town hall remodel costs have been split between the utilities based upon the percentage that each utility's budget is of the town's total budget. "Over-borrowing" refers to taking an additional loan amount in order to repay the system for improvements temporarily funded with system reserves.

Chart 4A - Rate Adjustments and Incomes for the Modeling Year 7/1/10 Through 6/30/11

These charts depict how rates will be adjusted and the outcomes from those adjustments made during the analysis modeling year.

\$700	This is the current average connection fee	1st rate block conservation rates multiplier	100%
\$700	Proposed average connection fee	2nd rate block conservation rates multiplier	100%
\$700	The part of the proposed average connection fee, above, that will be devoted to future capital improvements	3rd rate block conservation rates multiplier	100%
\$0	Surcharge Fees		

6/30/11 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 \$24.42 and the unit charge is \$5.30 per 1,000 Gallons  
After rate adjustments are made, general customers will be billed monthly.

Proposed User Rates and Blended User Rate Revenues for the Modeling Year

Class Bottom	Class Top	Revenues at Test Year Rates	New Minimum Charge Base Rates <sup>1</sup>	New Usage Allowance (1,000 Gallons)	New Unit Charge This Class per 1,000 Gallons	Revenues at Proposed Rates	Total Blended Revenues Projected for Modeling Year	
All Users								
Use per Billing Cycle in Gallons								
0	999	\$35,279	\$45.60	4.000	\$5.30	\$111	\$35,390	
1,000	1,999	\$30,320	\$45.60	4.000	\$5.30	\$95	\$30,415	
2,000	2,999	\$27,417	\$45.60	4.000	\$5.30	\$86	\$27,503	
3,000	3,999	\$24,191	\$45.60	4.000	\$5.30	\$76	\$24,267	
4,000	4,999	\$21,087	\$45.60	4.000	\$5.30	\$70	\$21,157	
5,000	5,999	\$15,805	\$45.60	4.000	\$5.30	\$58	\$15,863	
6,000	6,999	\$10,765	\$45.60	4.000	\$5.30	\$43	\$10,808	
7,000	7,999	\$9,757	\$45.60	4.000	\$5.30	\$43	\$9,800	
8,000	8,999	\$8,851	\$45.60	4.000	\$5.30	\$41	\$8,892	
9,000	9,999	\$6,306	\$45.60	4.000	\$5.30	\$29	\$6,334	
10,000	14,999	\$22,442	\$45.60	4.000	\$5.30	\$101	\$22,543	
15,000	19,999	\$15,343	\$45.60	4.000	\$5.30	\$68	\$15,410	
20,000	24,999	\$7,858	\$45.60	4.000	\$5.30	\$34	\$7,893	
25,000	29,999	\$6,783	\$45.60	4.000	\$5.30	\$29	\$6,813	
30,000	34,999	\$5,563	\$45.60	4.000	\$5.30	\$24	\$5,587	
35,000	39,999	\$3,336	\$45.60	4.000	\$5.30	\$14	\$3,351	
40,000	44,999	\$2,410	\$45.60	4.000	\$5.30	\$10	\$2,421	
45,000	49,999	\$2,932	\$45.60	4.000	\$5.30	\$13	\$2,944	
50,000	54,999	\$1,372	\$45.60	4.000	\$5.30	\$6	\$1,378	
55,000	59,999	\$2,792	\$45.60	4.000	\$5.30	\$12	\$2,804	
60,000	64,999	\$690	\$45.60	4.000	\$5.30	\$3	\$693	
65,000	69,999	\$739	\$45.60	4.000	\$5.30	\$3	\$742	
70,000	74,999	\$1,092	\$45.60	4.000	\$5.30	\$5	\$1,096	
75,000	79,999	\$289	\$45.60	4.000	\$5.30	\$1	\$290	
80,000	84,999	\$922	\$45.60	4.000	\$5.30	\$4	\$926	
85,000	89,999	\$0	\$45.60	4.000	\$5.30	\$0	\$0	
90,000	999,999	\$3,579	\$45.60	4.000	\$5.30	\$15	\$3,595	
Rate Revenues at Current Rates		\$267,919	Rate Revenues at Adjusted Rates			\$995		
							Total Blended Rate Revenues for the Year <sup>2</sup>	\$268,914

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 12.0 months at the old user charge rates and 7/1/10 through 6/30/11 assume the following: 0.0 months at the new user charge rates.

## Moorcroft, WY, Water Rates Scenario 2B

### Chart 4B - Rate Statistics

CBGreatRates© Version 5.1

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/month (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 6,276 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.

Class Bottom	Class Top	% Users	% Usage	% Rev at	
				Current Rates	Proposed Rates
Use per Billing Cycle in Gallons					
All Users					
0	999	15.6%	0.7%	13.2%	11.2%
1,000	1,999	13.4%	3.1%	11.3%	9.6%
2,000	2,999	12.2%	4.7%	10.2%	8.7%
3,000	3,999	10.7%	5.9%	9.0%	7.7%
4,000	4,999	9.3%	6.6%	7.9%	7.0%
5,000	5,999	7.0%	6.0%	5.9%	5.8%
6,000	6,999	4.8%	4.9%	4.0%	4.4%
7,000	7,999	4.3%	5.1%	3.6%	4.3%
8,000	8,999	3.8%	5.1%	3.3%	4.1%
9,000	9,999	2.5%	3.7%	2.4%	2.9%
10,000	14,999	7.3%	14.1%	8.4%	10.1%
15,000	19,999	3.8%	10.3%	5.7%	6.8%
20,000	24,999	1.6%	5.5%	2.9%	3.5%
25,000	29,999	1.1%	4.9%	2.5%	3.0%
30,000	34,999	0.8%	4.1%	2.1%	2.4%
35,000	39,999	0.4%	2.5%	1.2%	1.4%
40,000	44,999	0.3%	1.8%	0.9%	1.0%
45,000	49,999	0.3%	2.2%	1.1%	1.3%
50,000	54,999	0.1%	1.0%	0.5%	0.6%
55,000	59,999	0.2%	2.1%	1.0%	1.2%
60,000	64,999	0.1%	0.5%	0.3%	0.3%
65,000	69,999	0.1%	0.6%	0.3%	0.3%
70,000	74,999	0.1%	0.8%	0.4%	0.5%
75,000	79,999	0.0%	0.2%	0.1%	0.1%
80,000	84,999	0.1%	0.7%	0.3%	0.4%
85,000	89,999	0.0%	0.0%	0.0%	0.0%
90,000	999,999	0.2%	2.8%	1.3%	1.5%
Totals		100.0%	100.0%	100.0%	100.0%

## Moorcroft, WY, Water Rates Scenario 2B

### Chart 5 - Indicators

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

CBGreatRates© Version 5.1

	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>Capacity Indicators</b>											
Equivalent Average Monthly Bill Actually Paid by All Customers Throughout the Year	\$41.47	\$41.51	\$58.85	\$61.79	\$64.88	\$68.13	\$71.53	\$75.11	\$78.87	\$82.81	\$86.95
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$40.00	\$50.90	\$53.44	\$56.11	\$58.92	\$61.86	\$64.96	\$68.20	\$71.61	\$75.20	\$78.95
Annual Median Household Income (AMHI)	\$54,222	\$57,389	\$60,742	\$64,290	\$68,046	\$72,021	\$76,228	\$80,681	\$85,393	\$90,382	\$95,661
Affordability Index for Proposed Rates	0.89%	1.06%	1.06%	1.05%	1.04%	1.03%	1.02%	1.01%	1.01%	1.00%	0.99%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%.											
Estimated Operating Ratio for Proposed Rates	1.15	1.09	1.32	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems.											
Estimated Coverage Ratio for Proposed Rates	1.33	1.68	24.62	2.74	2.38	2.09	1.85	1.42	1.19	1.02	0.89
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
<b>Reserves</b>											
	Balance Ending on 6/30/10	Balance Ending on 6/30/11	Balance Ending on 6/30/12	Balance Ending on 6/30/13	Balance Ending on 6/30/14	Balance Ending on 6/30/15	Balance Ending on 6/30/16	Balance Ending on 6/30/17	Balance Ending on 6/30/18	Balance Ending on 6/30/19	Balance Ending on 6/30/20
Operating Fund	\$40,358	\$24,368	\$94,739	\$110,845	\$113,263	\$115,422	\$119,405	\$125,389	\$127,924	\$132,477	\$139,246
CIP Fund	\$5,868	\$12,038	\$418,702	\$328,047	\$261,620	\$208,826	\$164,377	\$94,103	\$43,943	\$5,159	-\$24,934
Debt Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Utility Trust (Meter Deposits)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Fund	\$0	\$15,988	-\$2,890	-\$37,404	-\$59,448	-\$84,531	-\$90,071	-\$73,522	-\$56,641	-\$39,428	-\$10,981
Current Position (Unobligated Cash and Cash Equivalents)	\$40,358	\$24,368	\$94,739	\$110,845	\$113,263	\$115,422	\$119,405	\$125,389	\$127,924	\$132,477	\$139,246
Operating Fund + CIP Fund	\$46,226	\$36,406	\$513,440	\$438,892	\$374,883	\$324,248	\$283,782	\$219,493	\$171,867	\$137,636	\$114,312
Operating Fund + CIP Fund Balances Discounted for Inflation (Future Purchasing Power)	\$46,226	\$36,406	\$495,470	\$408,707	\$336,882	\$281,182	\$237,477	\$177,249	\$133,932	\$103,502	\$82,954

Chart 6 - Operating Ratio

Moorcroft, WY

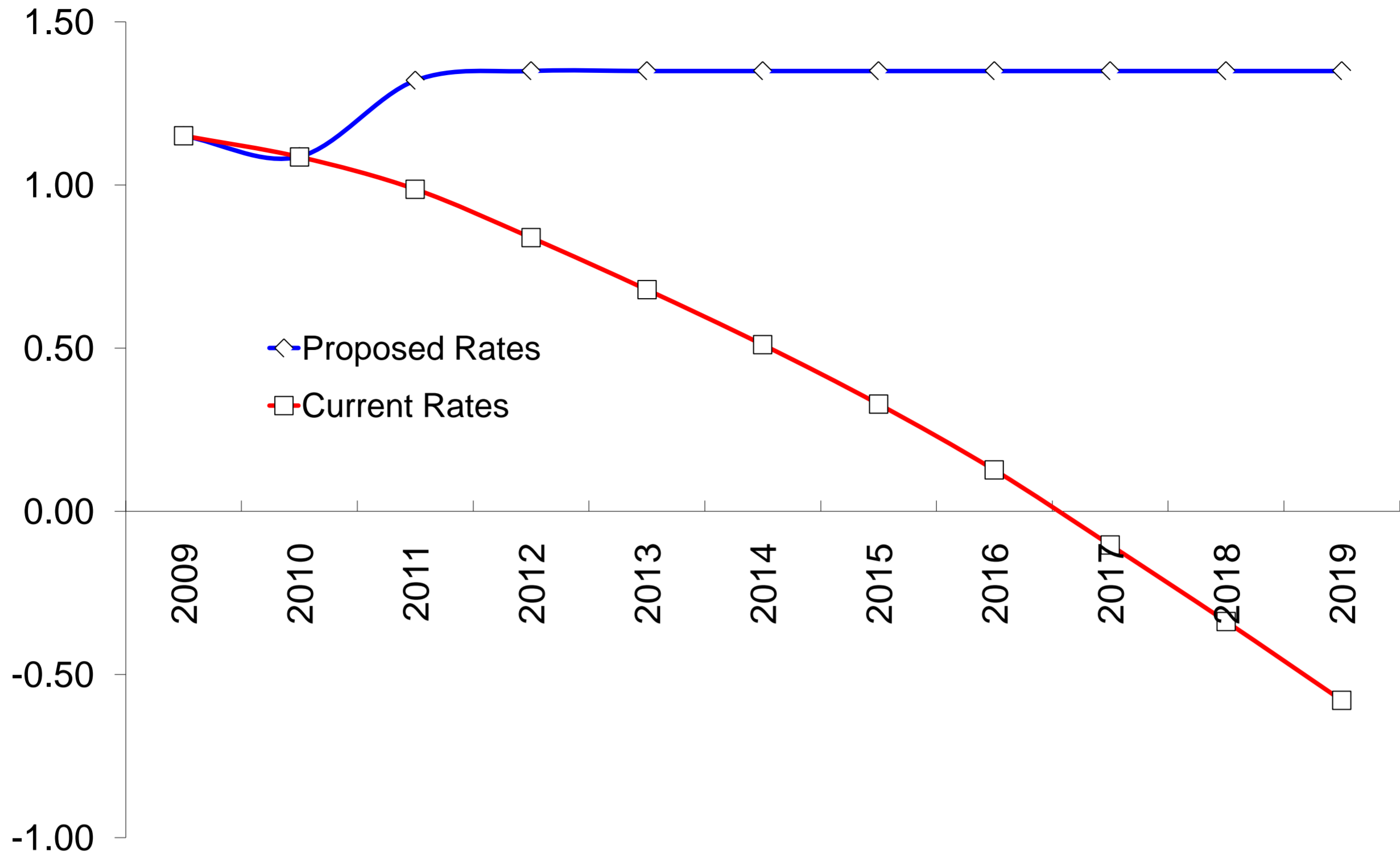


Chart 7 - Coverage Ratio

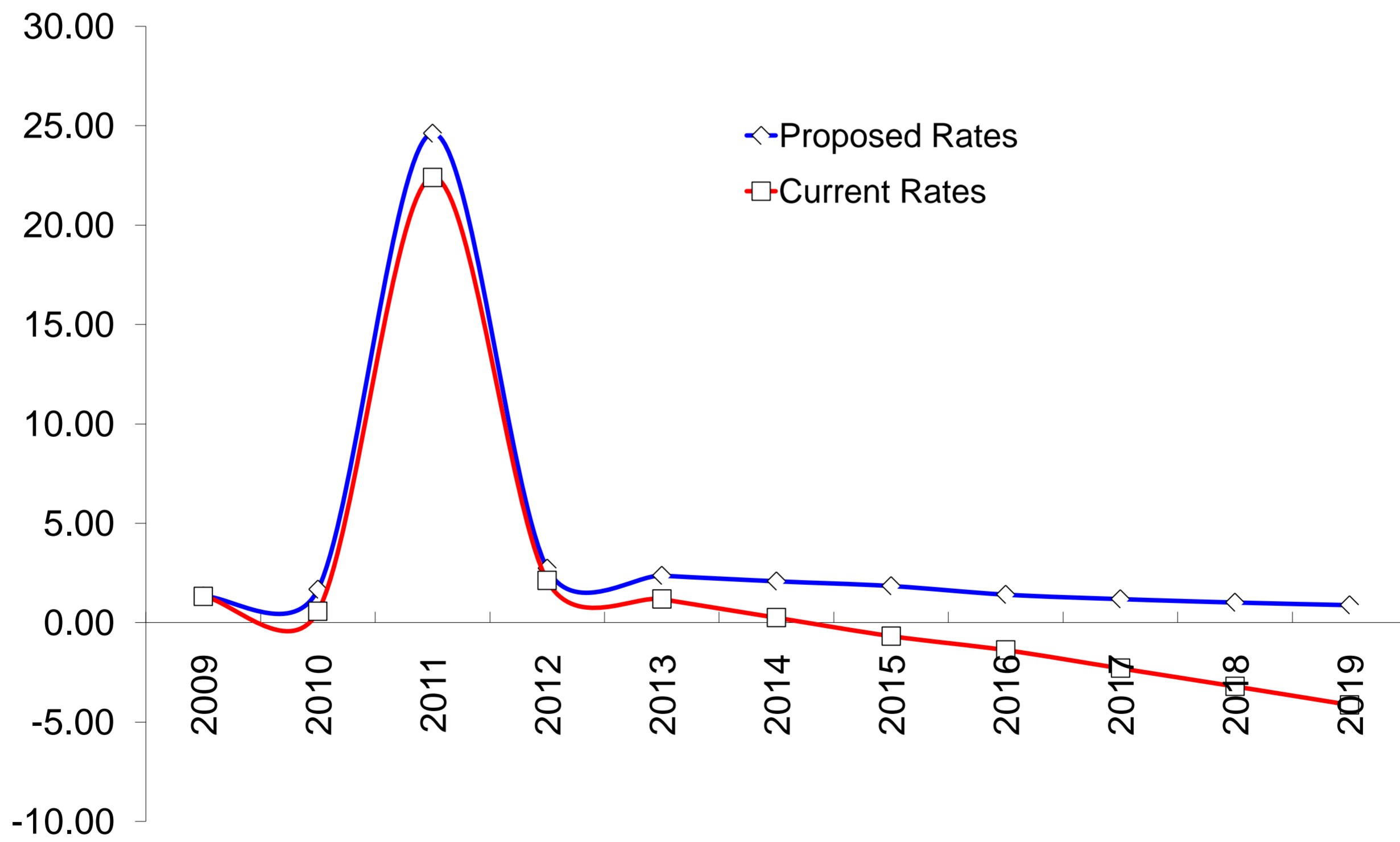


Chart 8 - 5,000 Gal Residential User's Bill

Moorcroft, WY

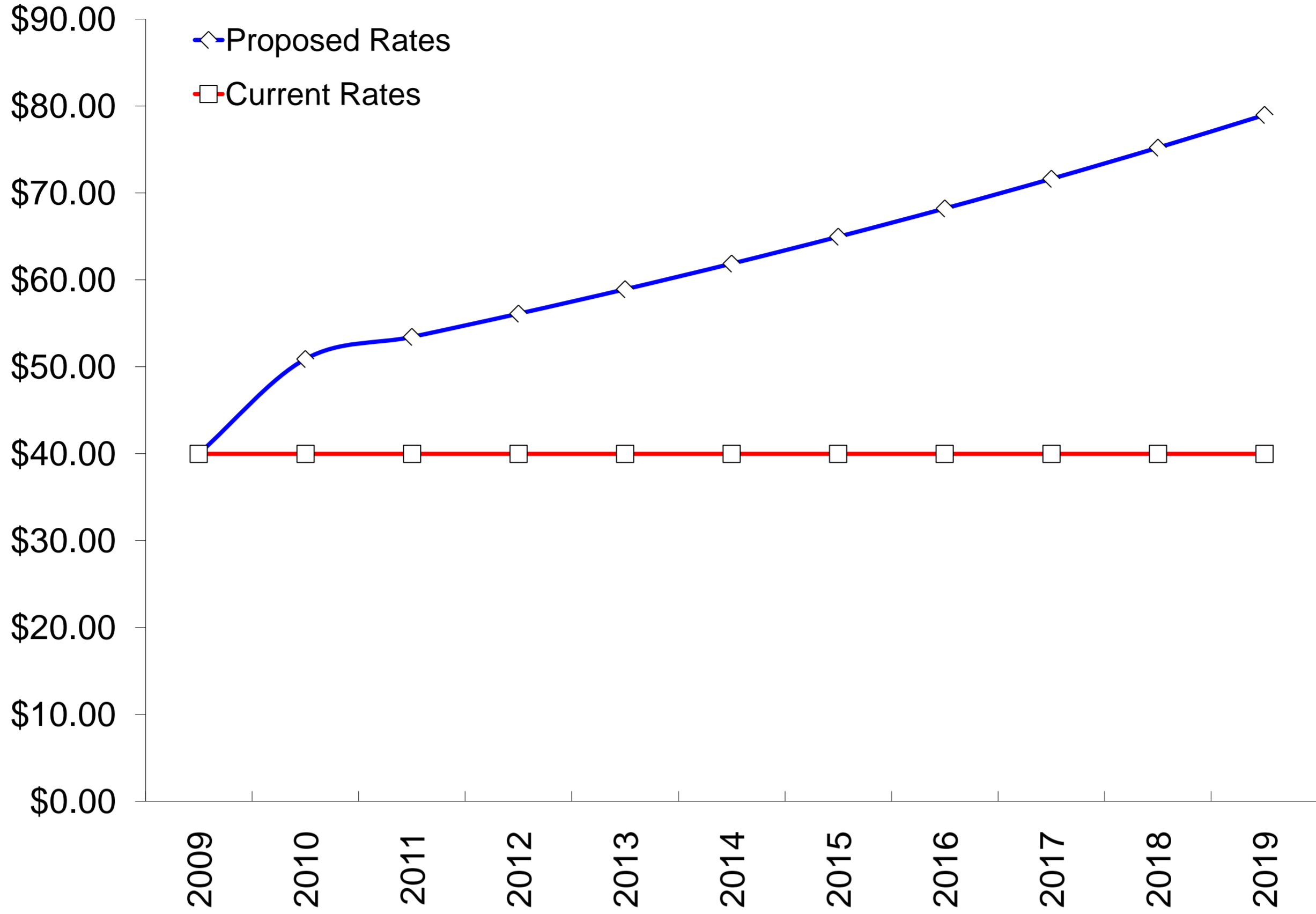


Chart 9 - Affordability Index

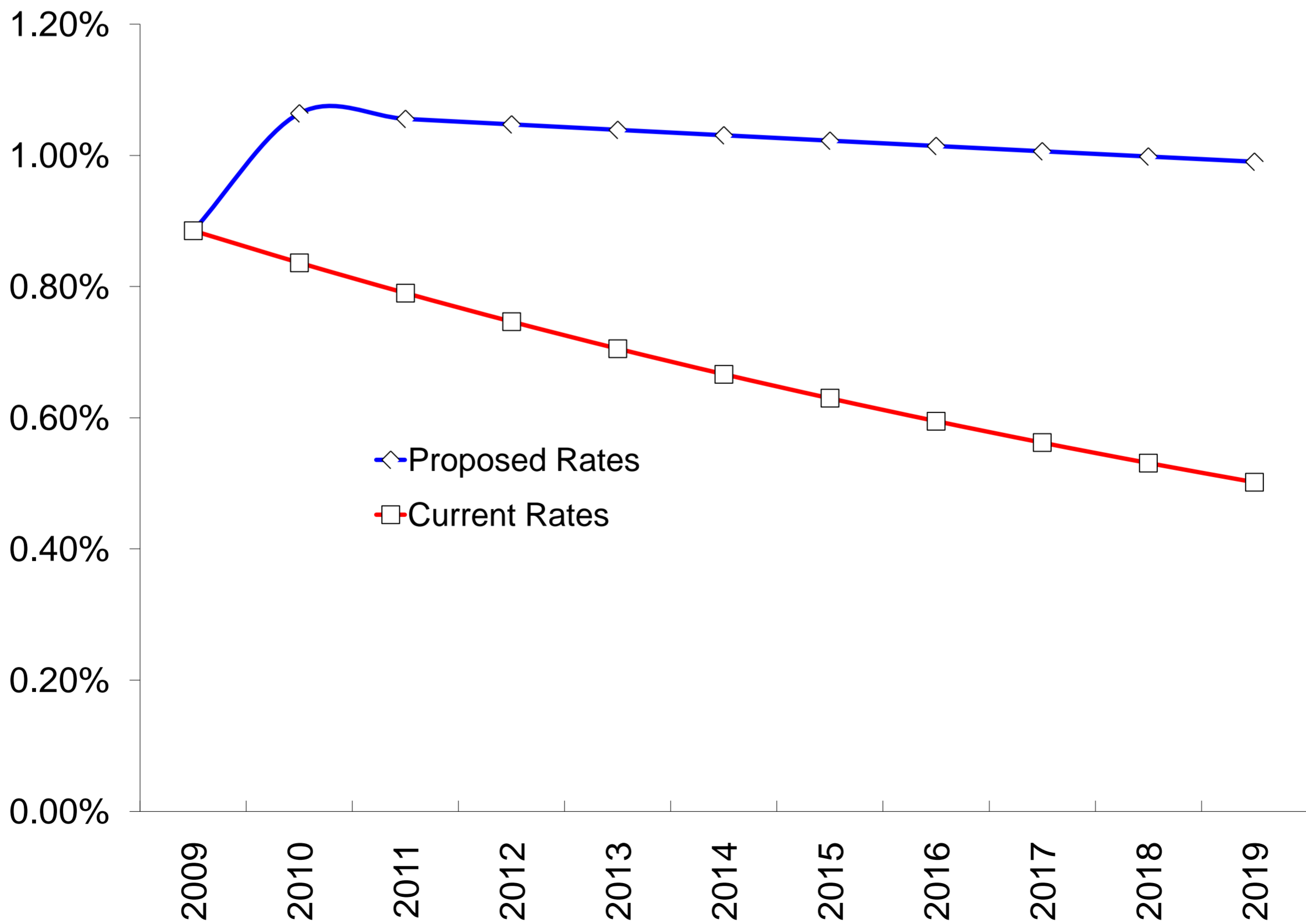


Chart 10 - Working Capital

Moorcroft, WY

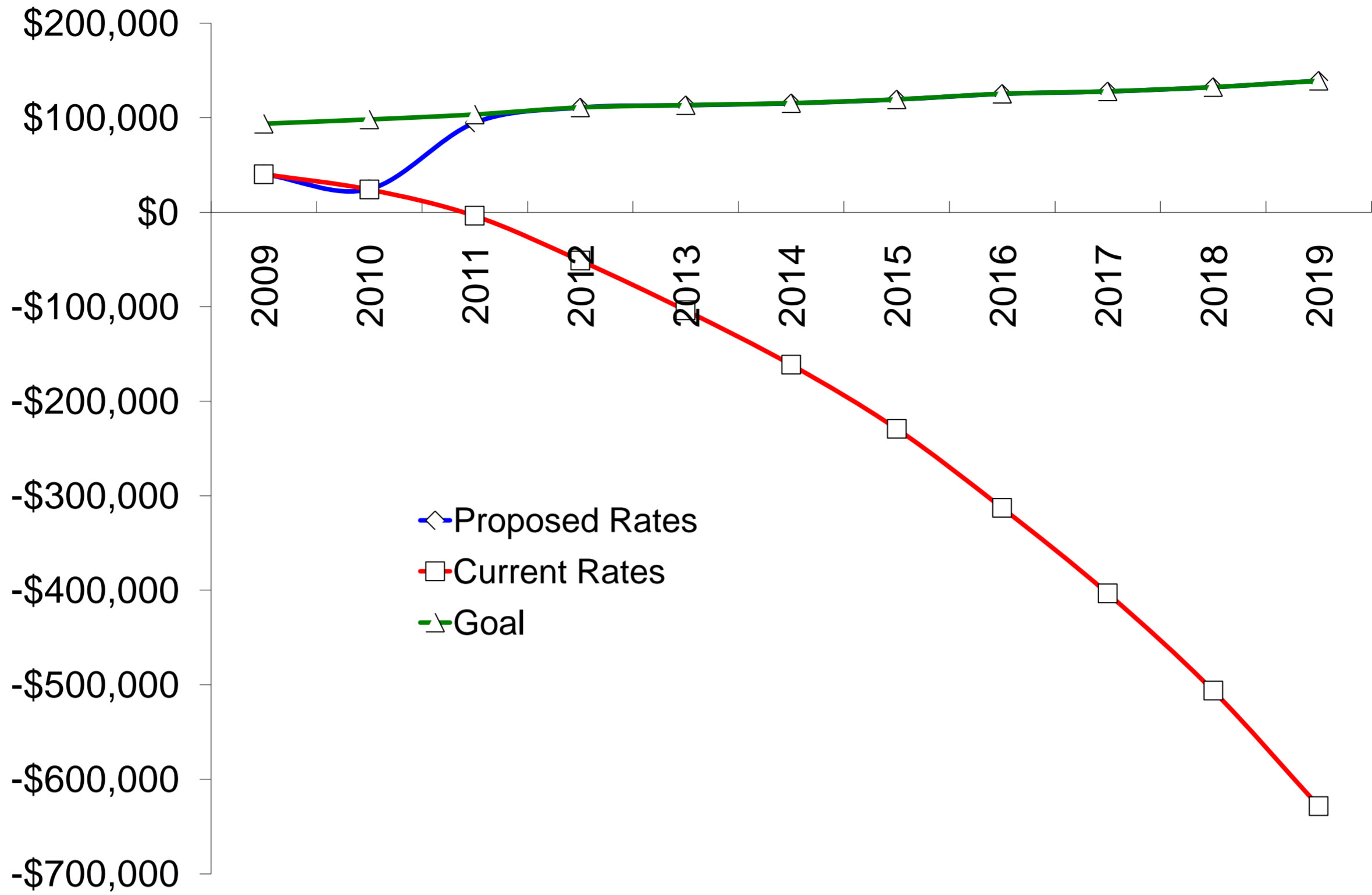


Chart 11 - Working Capital and CIP Reserves Discounted for Inflation

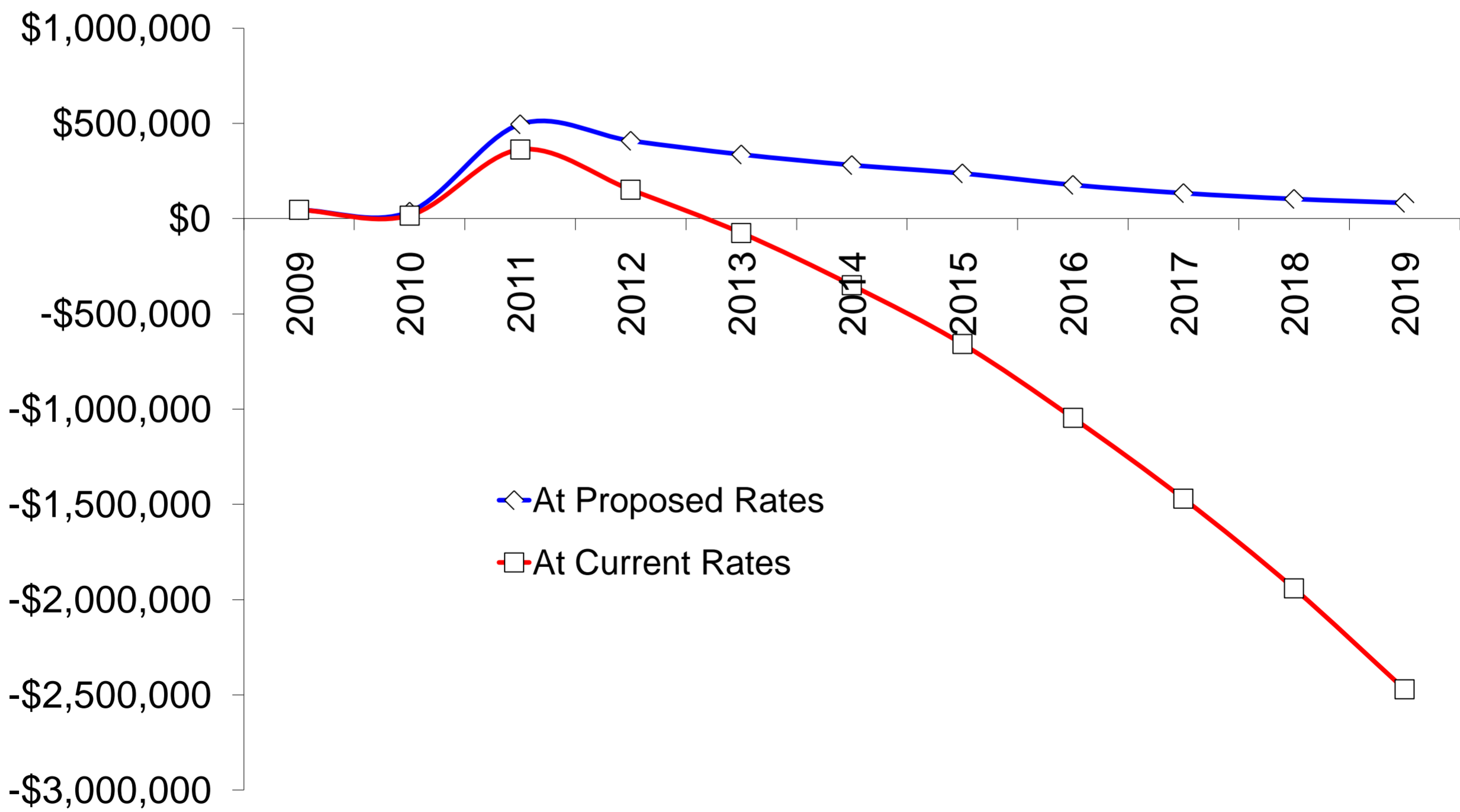


Chart 12 - Use & Revenues

Moorcroft, WY

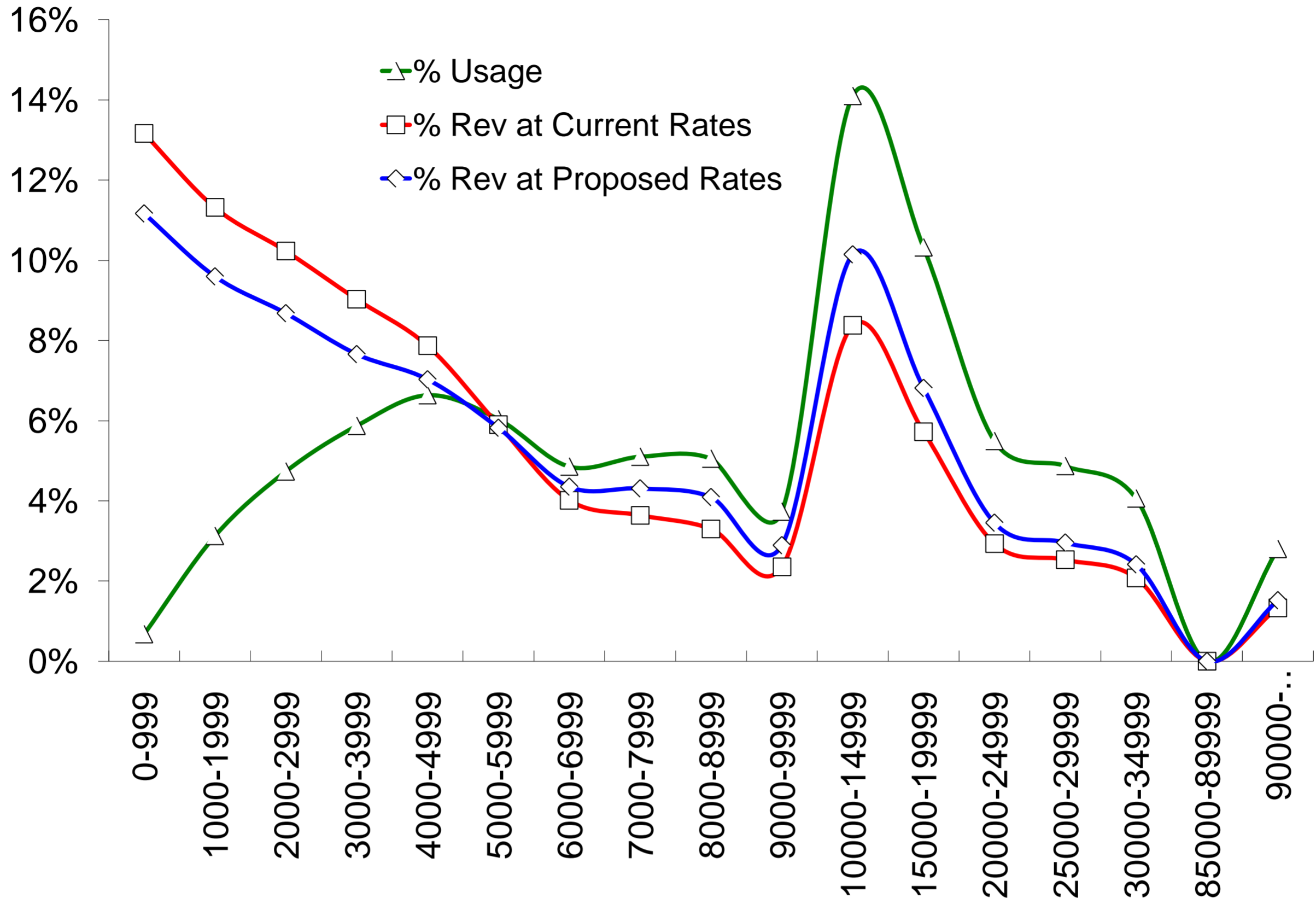
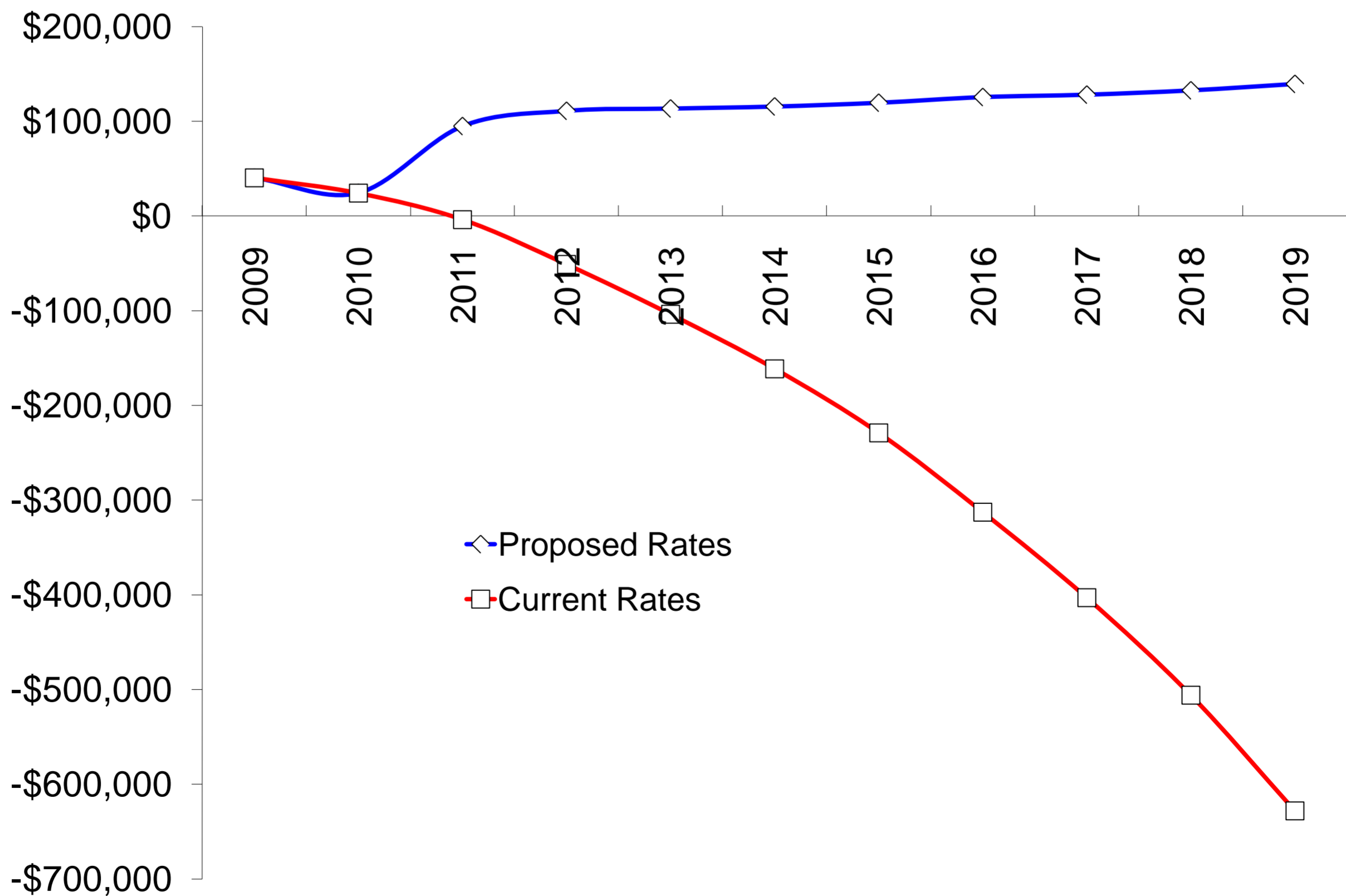


Chart 13 - Current Position



# Moorcroft, WY, Water Rates Scenario 2B

## Chart 14 - Old Rates, New Rates and Changes

This chart compares current and proposed bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Average Bill	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users			
0	999	0.270	\$40.00	\$45.60	\$5.60
1,000	1,999	1.460	\$40.00	\$45.60	\$5.60
2,000	2,999	2.445	\$40.00	\$45.60	\$5.60
3,000	3,999	3.438	\$40.00	\$45.60	\$5.60
4,000	4,999	4.457	\$40.00	\$48.02	\$8.02
5,000	5,999	5.411	\$40.00	\$53.06	\$13.06
6,000	6,999	6.389	\$40.00	\$58.24	\$18.24
7,000	7,999	7.406	\$40.00	\$63.62	\$23.62
8,000	8,999	8.296	\$41.03	\$68.33	\$27.29
9,000	9,999	9.431	\$45.00	\$74.33	\$29.33
10,000	14,999	12.051	\$54.17	\$88.20	\$34.03
15,000	19,999	17.186	\$72.14	\$115.39	\$43.25
20,000	24,999	22.179	\$89.61	\$141.82	\$52.21
25,000	29,999	27.589	\$108.54	\$170.46	\$61.92
30,000	34,999	32.414	\$125.43	\$196.01	\$70.59
35,000	39,999	37.695	\$143.91	\$223.97	\$80.07
40,000	44,999	42.128	\$159.42	\$247.44	\$88.02
45,000	49,999	48.519	\$181.78	\$281.28	\$99.50
50,000	54,999	52.127	\$194.41	\$300.38	\$105.97
55,000	59,999	57.455	\$213.05	\$328.59	\$115.54
60,000	64,999	61.800	\$228.26	\$351.59	\$123.34
65,000	69,999	66.433	\$244.47	\$376.13	\$131.65
70,000	74,999	73.955	\$270.79	\$415.95	\$145.16
75,000	79,999	78.400	\$286.35	\$439.48	\$153.14
80,000	84,999	83.666	\$304.77	\$467.36	\$162.59
85,000	89,999	87.500	\$318.19	\$487.66	\$169.47
90,000	999,999	109.325	\$394.57	\$603.23	\$208.66

# Moorcroft, WY, Water Rates Scenario 2B

## Chart 14B - Rate Changes in Percent

This chart shows percentage increases and decreases.

CBGreatRates© Version 5.1

Effective New All-in Rate/1,000 Gallons	Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
	Use per Billing Cycle in Gallons		All Users
N.A.	0	999	14%
\$31.24	1,000	1,999	14%
\$18.65	2,000	2,999	14%
\$13.26	3,000	3,999	14%
\$10.77	4,000	4,999	20%
\$9.81	5,000	5,999	33%
\$9.12	6,000	6,999	46%
\$8.59	7,000	7,999	59%
\$8.24	8,000	8,999	67%
\$7.88	9,000	9,999	65%
\$7.32	10,000	14,999	63%
\$6.71	15,000	19,999	60%
\$6.39	20,000	24,999	58%
\$6.18	25,000	29,999	57%
\$6.05	30,000	34,999	56%
\$5.94	35,000	39,999	56%
\$5.87	40,000	44,999	55%
\$5.80	45,000	49,999	55%
\$5.76	50,000	54,999	55%
\$5.72	55,000	59,999	54%
\$5.69	60,000	64,999	54%
\$5.66	65,000	69,999	54%
\$5.62	70,000	74,999	54%
\$5.61	75,000	79,999	53%
\$5.59	80,000	84,999	53%
\$5.57	85,000	89,999	53%
\$5.52	90,000	999,999	53%

# Moorcroft, WY, Water Rates Scenario 3A

## Rate Analysis Modeling Results

"Higher Rates, Higher Borrowing" aptly describes this scenario.

Chart 1 shows the rates proposed in this scenario. At the bottom of this chart are combined reserves that would result if the amount stated there is borrowed.

This model assumes initial rate adjustments as reflected in Chart 1. Annually thereafter rates will be increased as shown near the top of Chart 2A. The model compares the system's financial outlook under the proposed rates with the outlook if no adjustments are made to make it easy to understand the outcome of the proposed changes.

For most, the best way to read and understand what this model means is this. Scan the "Index of Charts and Pages" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder charts 1 and 6-14. These will show you how the proposed rate adjustments will affect ratepayers and the system. If you need more detail than that, review the entire model. Finally, rate setting involves much more than just rates so you need to read the accompanying narrative report to understand what you need to do and why.

March 3, 2011

This rate analysis scenario was produced by  
Carl E. Brown, Carl Brown Consulting, LLC  
1014 Carousel Drive, Jefferson City, Missouri 65101  
(573) 619-3411

[www.carlbrownconsulting.com](http://www.carlbrownconsulting.com)  
[carl@carlbrownconsulting.com](mailto:carl@carlbrownconsulting.com)

CBGreatRates© Version 5.1

# Moorcroft, WY, Water Rates Scenario 3A

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$47.32	4.000	\$5.50
1,000	1,999	\$47.32	4.000	\$5.50
2,000	2,999	\$47.32	4.000	\$5.50
3,000	3,999	\$47.32	4.000	\$5.50
4,000	4,999	\$47.32	4.000	\$5.50
5,000	5,999	\$47.32	4.000	\$5.50
6,000	6,999	\$47.32	4.000	\$5.50
7,000	7,999	\$47.32	4.000	\$5.50
8,000	8,999	\$47.32	4.000	\$5.50
9,000	9,999	\$47.32	4.000	\$5.50
10,000	14,999	\$47.32	4.000	\$5.50
15,000	19,999	\$47.32	4.000	\$5.50
20,000	24,999	\$47.32	4.000	\$5.50
25,000	29,999	\$47.32	4.000	\$5.50
30,000	34,999	\$47.32	4.000	\$5.50
35,000	39,999	\$47.32	4.000	\$5.50
40,000	44,999	\$47.32	4.000	\$5.50
45,000	49,999	\$47.32	4.000	\$5.50
50,000	54,999	\$47.32	4.000	\$5.50
55,000	59,999	\$47.32	4.000	\$5.50
60,000	64,999	\$47.32	4.000	\$5.50
65,000	69,999	\$47.32	4.000	\$5.50
70,000	74,999	\$47.32	4.000	\$5.50
75,000	79,999	\$47.32	4.000	\$5.50
80,000	84,999	\$47.32	4.000	\$5.50
85,000	89,999	\$47.32	4.000	\$5.50
90,000	999,999	\$47.32	4.000	\$5.50

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$600,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,468	\$579,422	\$462,266	\$383,343	\$328,682
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$374,002	\$446,844	\$562,347	\$711,667	\$802,168
Ending Combined Balance Goal:				\$510,000

Moorcroft, WY, Water Rates Scenario 3A  
 Chart 2A - User Base and Operating Incomes

These charts depict starting balances, incomes and expenses during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>User Base</b>												
Average Users for the Year	NA	466	471	476	481	487	492	497	502	508	513	519
Users Added/Lost During the Year	NA	5	5	5	5	5	5	5	5	5	6	6
User Growth/Loss Rate	NA	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%
Rate Increases Initiated in Future Years	NA	NA	40.3%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Adjusted, Then Annually Readjusted Minimum Charge/Billing Period for Uniform Rates Only	NA	NA	\$47.32	\$49.68	\$52.17	\$54.78	\$57.51	\$60.39	\$63.41	\$66.58	\$69.91	\$73.40
Adjusted, Then Annually Readjusted Unit Charge/Billable Volume Unit for Uniform Rates Only	NA	NA	\$5.50	\$5.77	\$6.06	\$6.36	\$6.68	\$7.01	\$7.36	\$7.73	\$8.12	\$8.52
<b>Operating Incomes</b>												
User Charge Fees	NA	\$232,079	\$234,829	\$349,104	\$370,489	\$393,185	\$417,270	\$442,832	\$469,959	\$498,747	\$529,300	\$561,723
Late Charges, Penalties	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tap Fees % Above		\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Interest	NA	\$17,803	\$908	\$549	\$2,335	\$2,505	\$2,550	\$2,598	\$2,688	\$2,823	\$2,880	\$2,982
Bulk Water Sales	NA	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264
Water Investment Fees	NA	\$24,890	\$25,157	\$25,427	\$25,699	\$25,975	\$26,253	\$26,535	\$26,819	\$27,107	\$27,398	\$27,691
Tap Fees Trans to CIP Fund	NA	-\$3,500	-\$3,538	-\$3,754	-\$3,984	-\$4,228	-\$4,487	-\$4,762	-\$5,054	-\$5,363	-\$5,692	-\$6,041
Total Regular Income		\$278,037	\$264,158	\$378,344	\$401,789	\$424,929	\$449,338	\$475,229	\$502,730	\$531,942	\$562,842	\$595,662

Moorcroft, WY, Water Rates Scenario 3A  
 Chart 2B - Operating Costs and Net Income

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

Infla./De-  
 flation (-)  
 Factor

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19	
(Note: Some future costs will experience inflation. Those costs that go up as use goes up are also increased by the growth rate in users and the percentage by which that cost is variable as reported in Chart 4.)													
Administration Salaries, Benefits, etc. Allocation	3.0%	\$33,325	\$34,324	\$35,354	\$36,415	\$37,507	\$38,633	\$39,791	\$40,985	\$42,215	\$43,481	\$44,786	
Operations Staff Salaries, Benefits & Related Items	5.0%	\$99,974	\$104,973	\$110,222	\$115,733	\$121,519	\$127,595	\$133,975	\$140,674	\$147,707	\$155,093	\$162,848	
Office Supplies	5.0%	\$832	\$874	\$917	\$963	\$1,011	\$1,062	\$1,115	\$1,171	\$1,229	\$1,291	\$1,355	
Repair/Maint Supplies	3.0%	\$14,600	\$15,038	\$15,489	\$15,954	\$16,432	\$16,925	\$17,433	\$17,956	\$18,495	\$19,050	\$19,621	
Small Tools	5.0%	\$994	\$1,044	\$1,096	\$1,151	\$1,208	\$1,269	\$1,332	\$1,399	\$1,469	\$1,542	\$1,619	
Equipment Repairs	3.0%	\$2,518	\$2,594	\$2,671	\$2,751	\$2,834	\$2,919	\$3,007	\$3,097	\$3,190	\$3,285	\$3,384	
Chemicals	5.0%	\$4,235	\$4,447	\$4,669	\$4,903	\$5,148	\$5,405	\$5,675	\$5,959	\$6,257	\$6,570	\$6,898	
Postage	5.0%	\$835	\$877	\$921	\$967	\$1,015	\$1,066	\$1,119	\$1,175	\$1,234	\$1,295	\$1,360	
Travel and Training	3.0%	\$3,642	\$3,751	\$3,864	\$3,980	\$4,099	\$4,222	\$4,349	\$4,479	\$4,614	\$4,752	\$4,895	
Gas/Lube/Oil	5.0%	\$3,191	\$3,351	\$3,518	\$3,694	\$3,879	\$4,073	\$4,276	\$4,490	\$4,715	\$4,950	\$5,198	
Locates	3.0%	\$57	\$59	\$60	\$62	\$64	\$66	\$68	\$70	\$72	\$74	\$77	
Liability Insurance	3.0%	\$710	\$731	\$753	\$776	\$799	\$823	\$848	\$873	\$899	\$926	\$954	
Property Insurance	3.0%	\$732	\$754	\$777	\$800	\$824	\$849	\$874	\$900	\$927	\$955	\$984	
Water Testing	5.0%	\$240	\$252	\$265	\$278	\$292	\$306	\$322	\$338	\$355	\$372	\$391	
Electricity	5.0%	\$23,893	\$25,088	\$26,342	\$27,659	\$29,042	\$30,494	\$32,019	\$33,620	\$35,301	\$37,066	\$38,919	
Easement	5.0%	\$1,028	\$1,079	\$1,133	\$1,190	\$1,250	\$1,312	\$1,378	\$1,446	\$1,519	\$1,595	\$1,675	
Contractual Services	1.0%	\$20,717	\$20,924	\$21,133	\$21,345	\$21,558	\$21,774	\$21,992	\$22,211	\$22,434	\$22,658	\$22,884	
Miscellaneous	0.0%	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	
Invest. Fees Transfers to CIP Fund	0.0%	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	
Annual Payment to Replacement Fund	0.0%	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	
User Charge Analysis Services	5.0%	\$0	\$4,278	\$0	\$0	\$4,716	\$0	\$0	\$5,200	\$0	\$0	\$5,733	
Loan Payment	0.0%	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	
Rev Loss From 10% Marginal Water Conservation	0.0%	\$0	\$0	\$11,703	\$13,566	\$4,408	\$4,678	\$4,965	\$5,269	\$5,592	\$5,934	\$6,298	
Madison Well Operating Costs From Annualized Cost	3.0%	\$0	\$0	\$0	\$10,178	\$10,484	\$10,798	\$11,122	\$11,456	\$11,800	\$12,154	\$12,518	
Total Operating Costs		\$267,201	\$280,115	\$296,566	\$318,042	\$323,769	\$329,947	\$341,338	\$358,447	\$365,700	\$378,722	\$398,074	
Net Income (or Loss)		\$10,835	-\$15,957	\$81,778	\$83,746	\$101,160	\$119,391	\$133,892	\$144,284	\$166,242	\$184,119	\$197,587	
Working Capital Goal: 35%		In Dollars, That is:	\$93,521	\$98,040	\$103,798	\$111,315	\$113,319	\$115,482	\$119,468	\$125,456	\$127,995	\$132,553	\$139,326

Moorcroft, WY, Water Rates Scenario 3A  
Chart 3 - Capital Improvement Program

CBGreatRates© Version 5.1

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

	Year Starting 7/1/09	This Year Year Starting 7/1/10	Next Year Year Starting 7/1/11	3rd Year Year Starting 7/1/12	4th Year Year Starting 7/1/13	5th Year Year Starting 7/1/14	6th Year Year Starting 7/1/15	7th Year Year Starting 7/1/16	8th Year Year Starting 7/1/17	9th Year Year Starting 7/1/18	10th Year Year Starting 7/1/19
<b>CIP Spending Plan</b>											
Capital Improvements to be Paid With Debt											
Water Tank & Well Replacements, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$148,461	\$0	\$0	\$0	\$0
Madison Project, Devel Comm Loan	\$0	\$0	\$2,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, SLIB Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$99,563	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$178,037	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), SRF	\$0	\$0	\$18,482	\$19,129	\$19,799	\$20,491	\$21,209	\$21,951	\$22,719	\$0	\$0
<b>Total Capital Improvements to be Paid With Debt</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,268,482</b>	<b>\$19,129</b>	<b>\$19,799</b>	<b>\$20,491</b>	<b>\$447,270</b>	<b>\$21,951</b>	<b>\$22,719</b>	<b>\$0</b>	<b>\$0</b>
Capital Improvements to be Paid With Cash											
Water Tank & Well Replacements, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$445,382	\$0	\$0	\$0	\$0
Madison Project, 1st Special Purpose Tax	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Madison Project, 2nd Special Purpose Tax	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$33,188	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$59,346	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), Grant	\$0	\$0	\$55,446	\$57,387	\$59,396	\$61,474	\$63,626	\$65,853	\$68,158	\$0	\$0
<b>Total Cap Imprvmts to be Paid With Cash</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,805,446</b>	<b>\$57,387</b>	<b>\$59,396</b>	<b>\$61,474</b>	<b>\$601,542</b>	<b>\$65,853</b>	<b>\$68,158</b>	<b>\$0</b>	<b>\$0</b>
<b>Total CIP Planned Spending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,073,929</b>	<b>\$76,516</b>	<b>\$79,194</b>	<b>\$81,966</b>	<b>\$1,048,811</b>	<b>\$87,804</b>	<b>\$90,877</b>	<b>\$0</b>	<b>\$0</b>
<b>CIP Funding Plan</b>											
CIP Fund Carryover Plus Transfers in	\$0	\$5,868	\$14,419	\$697,312	\$646,764	\$609,999	\$582,432	\$560,405	\$531,176	\$514,248	\$505,969
CIP Fund Interest Earned (or Paid)	\$0	\$264	\$542	\$27,949	\$24,642	\$22,175	\$20,364	\$18,995	\$16,536	\$15,061	\$14,182
Tap Fees Transferred From Operating Fund to CIP Fund	\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Invest. Fees Transfers to CIP Fund	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091
Grants	\$0	\$0	\$1,805,446	\$57,387	\$59,396	\$61,474	\$601,542	\$65,853	\$68,158	\$0	\$0
Loan Originated Next Year + Over-borrowing			\$2,868,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 3rd Year				\$19,129	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 4th Year					\$19,799	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 5th Year						\$20,491	\$0	\$0	\$0	\$0	\$0
Loan Originated in 6th Year							\$447,270	\$0	\$0	\$0	\$0
Loan Originated in 7th Year								\$21,951	\$0	\$0	\$0
Loan Originated in 8th Year									\$22,719	\$0	\$0
<b>Total CIP Fund Sources</b>	<b>\$23,591</b>	<b>\$29,761</b>	<b>\$4,712,735</b>	<b>\$825,852</b>	<b>\$774,920</b>	<b>\$738,718</b>	<b>\$1,676,461</b>	<b>\$692,349</b>	<b>\$664,044</b>	<b>\$555,092</b>	<b>\$546,283</b>
<b>New Debt Payment Plan</b>											
Payments for future loans assume 100 percent financing for projects, term of:						20	years and	2.50%	interest		
Loan(s) Originated Before Test Year	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723
Loan Originated Next Year + Over-borrowing				\$184,005	\$184,005	\$184,005	\$184,005	\$184,005	\$184,005	\$184,005	\$184,005
Loan Originated in 3rd Year					\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227
Loan Originated in 4th Year						\$1,270	\$1,270	\$1,270	\$1,270	\$1,270	\$1,270
Loan Originated in 5th Year							\$1,314	\$1,314	\$1,314	\$1,314	\$1,314
Loan Originated in 6th Year								\$31,532	\$31,532	\$31,532	\$31,532
Loan Originated in 7th Year									\$1,408	\$1,408	\$1,408
Loan Originated in 8th Year										\$1,457	\$1,457
<b>Total Debt Obligations</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$201,728</b>	<b>\$202,955</b>	<b>\$204,225</b>	<b>\$205,539</b>	<b>\$237,072</b>	<b>\$238,480</b>	<b>\$239,937</b>	<b>\$239,937</b>
<b>Total CIP Spending Plus Debt Repayment</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$4,091,652</b>	<b>\$278,244</b>	<b>\$282,149</b>	<b>\$286,191</b>	<b>\$1,254,351</b>	<b>\$324,876</b>	<b>\$329,357</b>	<b>\$239,937</b>	<b>\$239,937</b>
CIP Fund Balance	\$5,868	\$12,038	\$621,083	\$547,608	\$492,771	\$452,527	\$422,110	\$367,473	\$334,687	\$315,155	\$306,345

Notes: The Madison well project is the key improvement being undertaken. Several other capital improvements will be partially paid by JPA loans at 4.98% interest rate and 20 years. Grants are anticipated for most of the balance (75%) of the major project costs. Maintenance shop and town hall remodel costs have been split between the utilities based upon the percentage that each utility's budget is of the town's total budget. "Over-borrowing" refers to taking an additional loan amount in order to repay the system for improvements temporarily funded with system reserves.

Chart 4A - Rate Adjustments and Incomes for the Modeling Year 7/1/10 Through 6/30/11

These charts depict how rates will be adjusted and the outcomes from those adjustments made during the analysis modeling year.

\$700	This is the current average connection fee	1st rate block conservation rates multiplier	100%
\$700	Proposed average connection fee	2nd rate block conservation rates multiplier	100%
\$700	The part of the proposed average connection fee, above, that will be devoted to future capital improvements	3rd rate block conservation rates multiplier	100%
\$0	Surcharge Fees		

6/30/11 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 \$25.34 and the unit charge is \$5.50 per 1,000 Gallons  
After rate adjustments are made, general customers will be billed monthly.

Proposed User Rates and Blended User Rate Revenues for the Modeling Year

Class Bottom	Class Top	Revenues at Test Year Rates	New Minimum Charge Base Rates <sup>1</sup>	New Usage Allowance (1,000 Gallons)	New Unit Charge This Class per 1,000 Gallons	Revenues at Proposed Rates	Total Blended Revenues Projected for Modeling Year
All Users							
Use per Billing Cycle in Gallons							
0	999	\$35,279	\$47.32	4.000	\$5.50	\$115	\$35,394
1,000	1,999	\$30,320	\$47.32	4.000	\$5.50	\$99	\$30,419
2,000	2,999	\$27,417	\$47.32	4.000	\$5.50	\$90	\$27,506
3,000	3,999	\$24,191	\$47.32	4.000	\$5.50	\$79	\$24,270
4,000	4,999	\$21,087	\$47.32	4.000	\$5.50	\$73	\$21,159
5,000	5,999	\$15,805	\$47.32	4.000	\$5.50	\$60	\$15,865
6,000	6,999	\$10,765	\$47.32	4.000	\$5.50	\$45	\$10,810
7,000	7,999	\$9,757	\$47.32	4.000	\$5.50	\$44	\$9,802
8,000	8,999	\$8,851	\$47.32	4.000	\$5.50	\$42	\$8,894
9,000	9,999	\$6,306	\$47.32	4.000	\$5.50	\$30	\$6,335
10,000	14,999	\$22,442	\$47.32	4.000	\$5.50	\$105	\$22,547
15,000	19,999	\$15,343	\$47.32	4.000	\$5.50	\$70	\$15,413
20,000	24,999	\$7,858	\$47.32	4.000	\$5.50	\$36	\$7,894
25,000	29,999	\$6,783	\$47.32	4.000	\$5.50	\$31	\$6,814
30,000	34,999	\$5,563	\$47.32	4.000	\$5.50	\$25	\$5,588
35,000	39,999	\$3,336	\$47.32	4.000	\$5.50	\$15	\$3,351
40,000	44,999	\$2,410	\$47.32	4.000	\$5.50	\$11	\$2,421
45,000	49,999	\$2,932	\$47.32	4.000	\$5.50	\$13	\$2,945
50,000	54,999	\$1,372	\$47.32	4.000	\$5.50	\$6	\$1,378
55,000	59,999	\$2,792	\$47.32	4.000	\$5.50	\$12	\$2,804
60,000	64,999	\$690	\$47.32	4.000	\$5.50	\$3	\$693
65,000	69,999	\$739	\$47.32	4.000	\$5.50	\$3	\$743
70,000	74,999	\$1,092	\$47.32	4.000	\$5.50	\$5	\$1,097
75,000	79,999	\$289	\$47.32	4.000	\$5.50	\$1	\$290
80,000	84,999	\$922	\$47.32	4.000	\$5.50	\$4	\$926
85,000	89,999	\$0	\$47.32	4.000	\$5.50	\$0	\$0
90,000	999,999	\$3,579	\$47.32	4.000	\$5.50	\$16	\$3,595
Rate Revenues at Current Rates		\$267,919	Rate Revenues at Adjusted Rates			\$1,032	
Total Blended Rate Revenues for the Year <sup>2</sup>							\$268,951

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 12.0 months at the old user charge rates 7/1/10 and 0.0 months at the new user charge rates through 6/30/11 assume the following:

## Moorcroft, WY, Water Rates Scenario 3A

### Chart 4B - Rate Statistics

CBGreatRates© Version 5.1

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/month (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 6,276 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.

Class Bottom	Class Top	% Users	% Usage	% Rev at	
				Current Rates	Proposed Rates
Use per Billing Cycle in Gallons					
All Users					
0	999	15.6%	0.7%	13.2%	11.2%
1,000	1,999	13.4%	3.1%	11.3%	9.6%
2,000	2,999	12.2%	4.7%	10.2%	8.7%
3,000	3,999	10.7%	5.9%	9.0%	7.7%
4,000	4,999	9.3%	6.6%	7.9%	7.0%
5,000	5,999	7.0%	6.0%	5.9%	5.8%
6,000	6,999	4.8%	4.9%	4.0%	4.4%
7,000	7,999	4.3%	5.1%	3.6%	4.3%
8,000	8,999	3.8%	5.1%	3.3%	4.1%
9,000	9,999	2.5%	3.7%	2.4%	2.9%
10,000	14,999	7.3%	14.1%	8.4%	10.1%
15,000	19,999	3.8%	10.3%	5.7%	6.8%
20,000	24,999	1.6%	5.5%	2.9%	3.5%
25,000	29,999	1.1%	4.9%	2.5%	3.0%
30,000	34,999	0.8%	4.1%	2.1%	2.4%
35,000	39,999	0.4%	2.5%	1.2%	1.4%
40,000	44,999	0.3%	1.8%	0.9%	1.0%
45,000	49,999	0.3%	2.2%	1.1%	1.3%
50,000	54,999	0.1%	1.0%	0.5%	0.6%
55,000	59,999	0.2%	2.1%	1.0%	1.2%
60,000	64,999	0.1%	0.5%	0.3%	0.3%
65,000	69,999	0.1%	0.6%	0.3%	0.3%
70,000	74,999	0.1%	0.8%	0.4%	0.5%
75,000	79,999	0.0%	0.2%	0.1%	0.1%
80,000	84,999	0.1%	0.7%	0.3%	0.4%
85,000	89,999	0.0%	0.0%	0.0%	0.0%
90,000	999,999	0.2%	2.8%	1.3%	1.5%
Totals		100.0%	100.0%	100.0%	100.0%

# Moorcroft, WY, Water Rates Scenario 3A

## Chart 5 - Indicators

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

CBGreatRates© Version 5.1

	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>Capacity Indicators</b>											
Equivalent Average Monthly Bill Actually Paid by All Customers Throughout the Year	\$41.47	\$41.52	\$61.07	\$64.12	\$67.33	\$70.69	\$74.23	\$77.94	\$81.84	\$85.93	\$90.23
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$40.00	\$52.81	\$55.45	\$58.23	\$61.14	\$64.19	\$67.40	\$70.77	\$74.31	\$78.03	\$81.93
Annual Median Household Income (AMHI)	\$54,222	\$57,389	\$60,742	\$64,290	\$68,046	\$72,021	\$76,228	\$80,681	\$85,393	\$90,382	\$95,661
Affordability Index for Proposed Rates	0.89%	1.10%	1.10%	1.09%	1.08%	1.07%	1.06%	1.05%	1.04%	1.04%	1.03%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%.											
Estimated Operating Ratio for Proposed Rates	1.15	1.09	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems.											
Estimated Coverage Ratio for Proposed Rates	1.33	1.68	36.04	3.71	3.43	3.22	3.05	2.55	2.40	2.31	2.28
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
<b>Reserves</b>											
	Balance Ending on 6/30/10	Balance Ending on 6/30/11	Balance Ending on 6/30/12	Balance Ending on 6/30/13	Balance Ending on 6/30/14	Balance Ending on 6/30/15	Balance Ending on 6/30/16	Balance Ending on 6/30/17	Balance Ending on 6/30/18	Balance Ending on 6/30/19	Balance Ending on 6/30/20
Operating Fund	\$40,358	\$24,401	\$103,798	\$111,315	\$113,319	\$115,482	\$119,468	\$125,456	\$127,995	\$132,553	\$139,326
CIP Fund	\$5,868	\$12,038	\$621,083	\$547,608	\$492,771	\$452,527	\$422,110	\$367,473	\$334,687	\$315,155	\$306,345
Debt Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Utility Trust (Meter Deposits)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Fund	\$0	\$15,988	-\$2,890	-\$37,404	-\$59,448	-\$84,531	-\$90,071	-\$73,522	-\$56,641	-\$39,428	-\$10,981
Current Position (Unobligated Cash and Cash Equivalents)	\$40,358	\$24,401	\$103,798	\$111,315	\$113,319	\$115,482	\$119,468	\$125,456	\$127,995	\$132,553	\$139,326
Operating Fund + CIP Fund	\$46,226	\$36,439	\$724,881	\$658,923	\$606,090	\$568,009	\$541,578	\$492,930	\$462,682	\$447,708	\$445,671
Operating Fund + CIP Fund Balances Discounted for Inflation (Future Purchasing Power)	\$46,226	\$36,439	\$699,510	\$613,606	\$544,652	\$492,566	\$453,208	\$398,060	\$360,557	\$336,677	\$323,415

Chart 6 - Operating Ratio

Moorcroft, WY

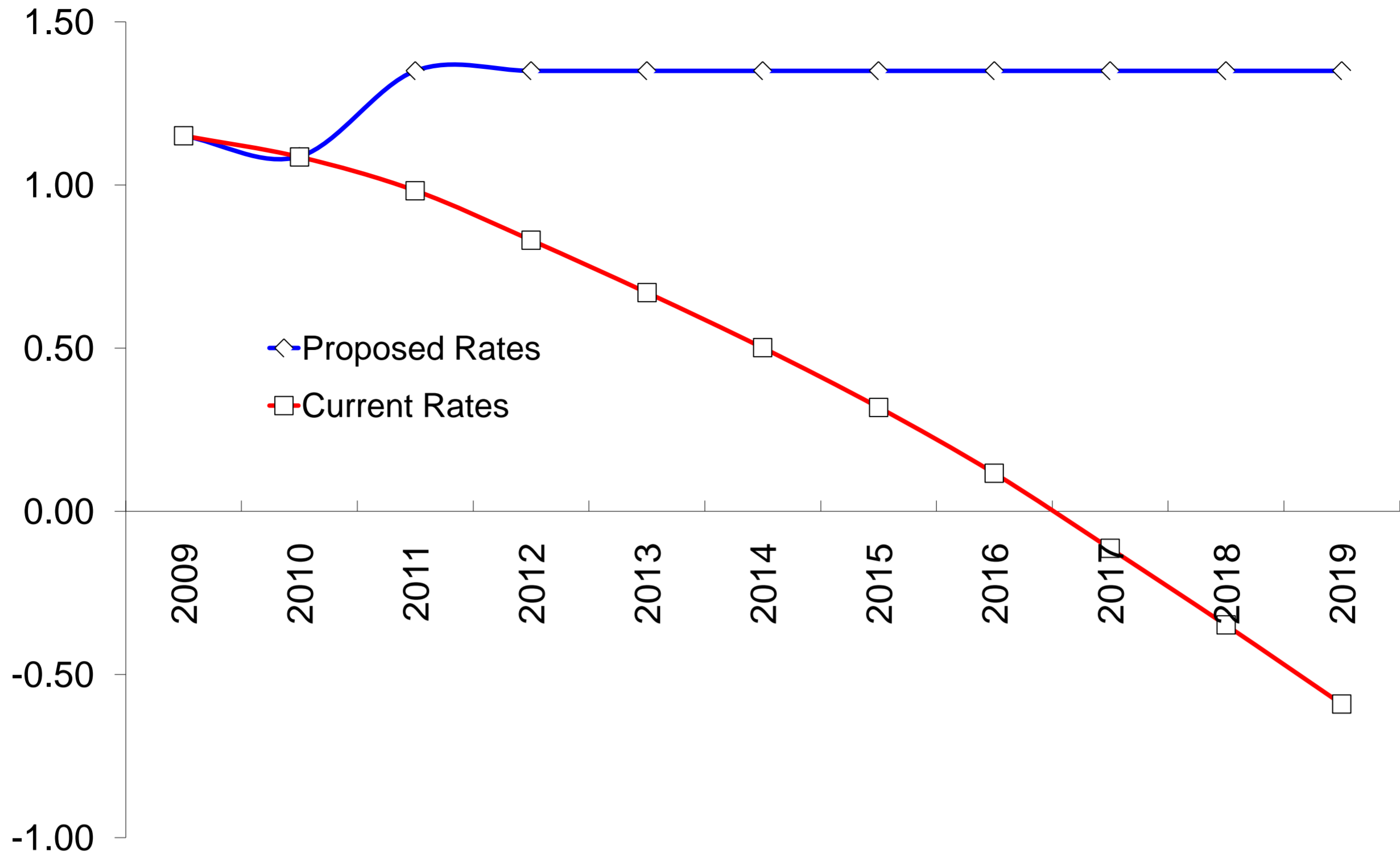


Chart 7 - Coverage Ratio

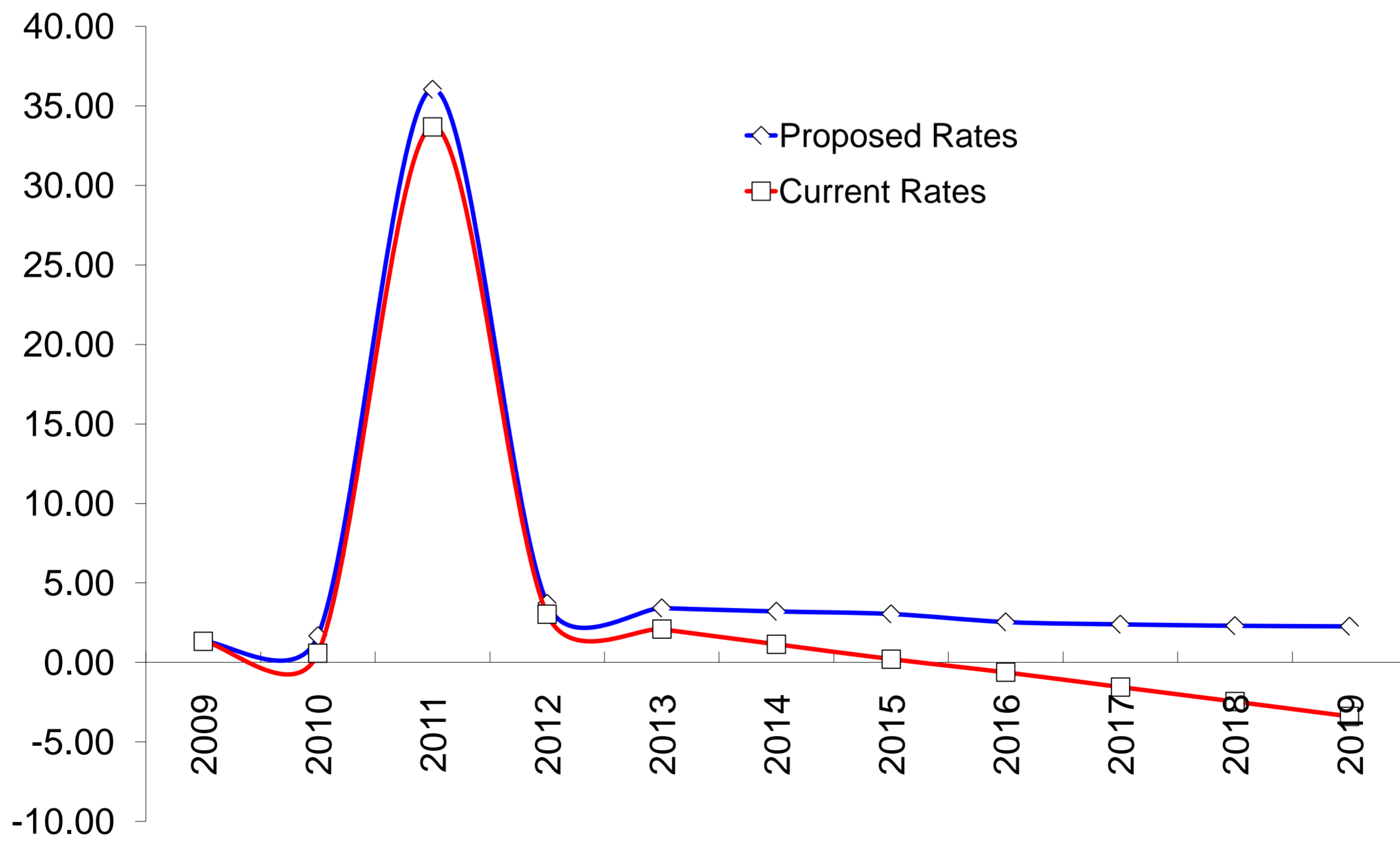


Chart 8 - 5,000 Gal Residential User's Bill

Moorcroft, WY

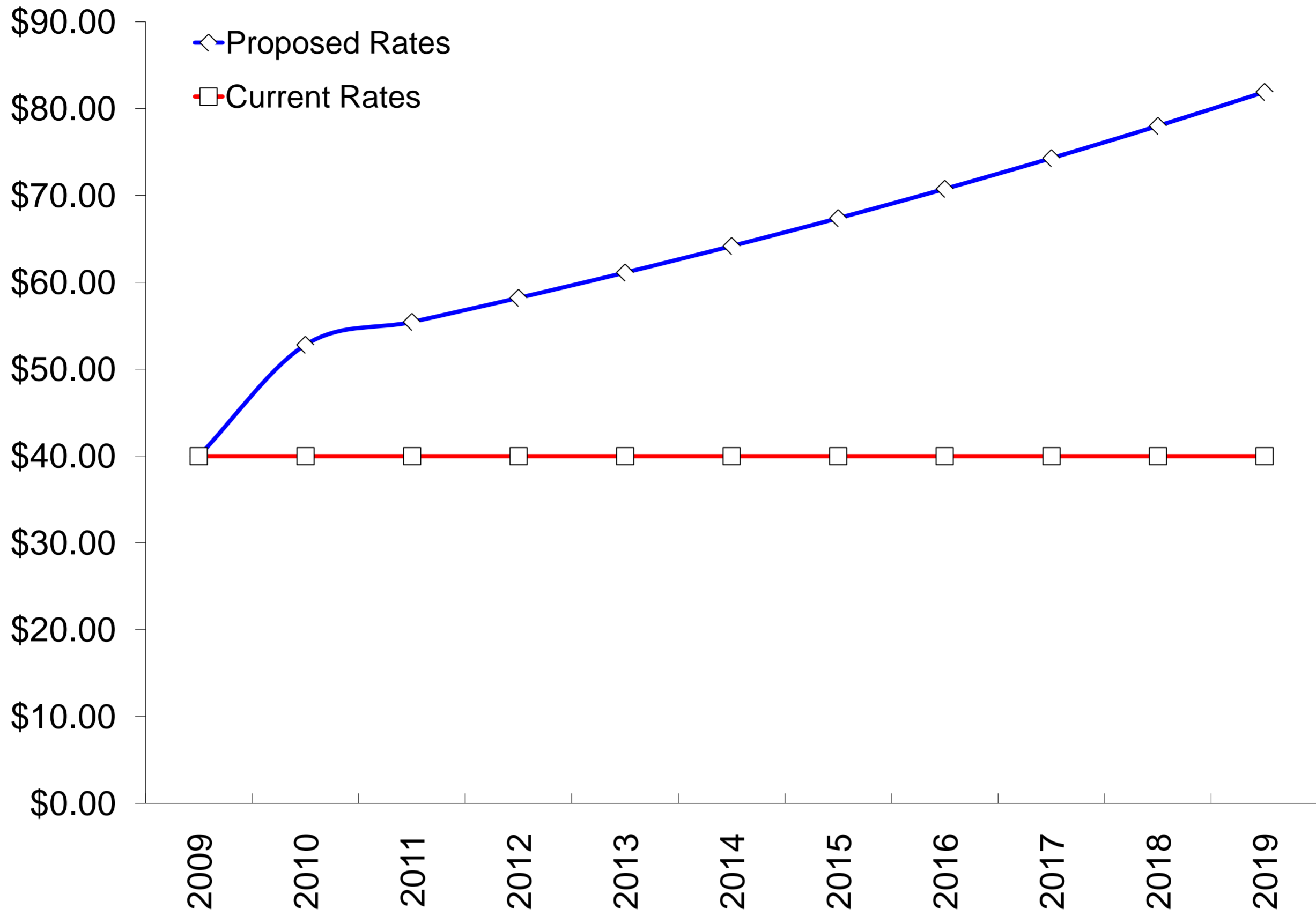


Chart 9 - Affordability Index

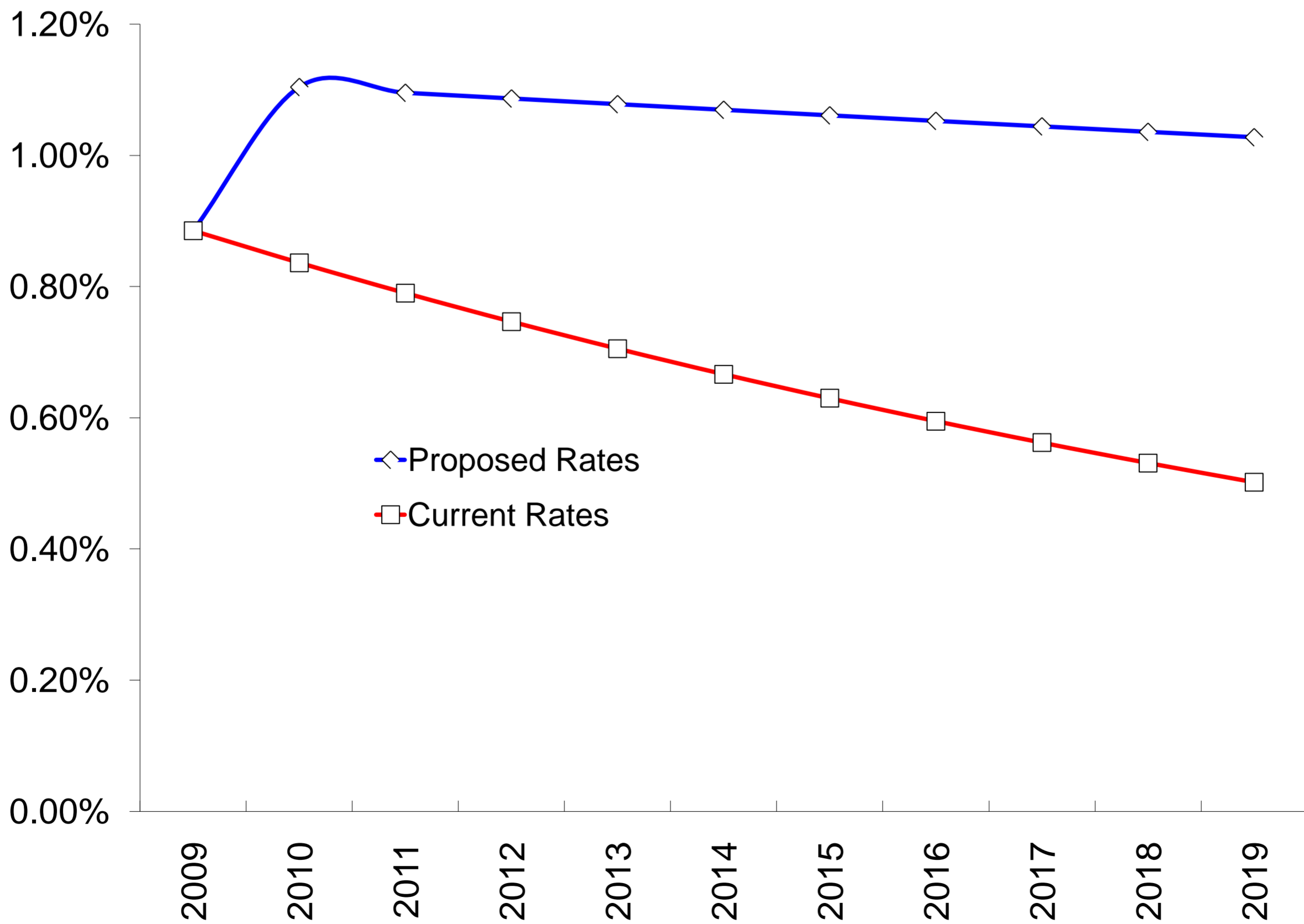


Chart 10 - Working Capital

Moorcroft, WY

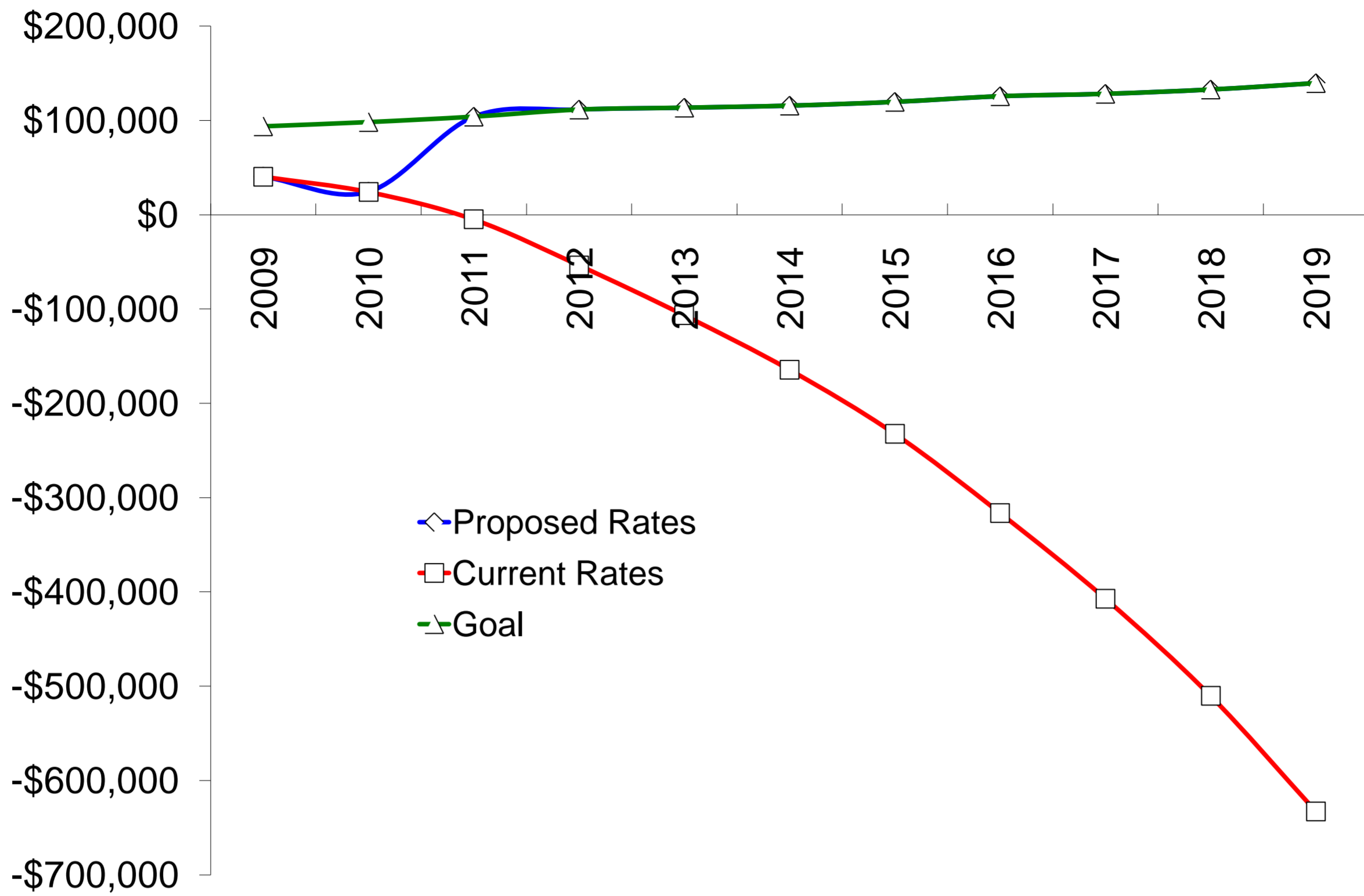


Chart 11 - Working Capital and CIP Reserves Discounted for Inflation

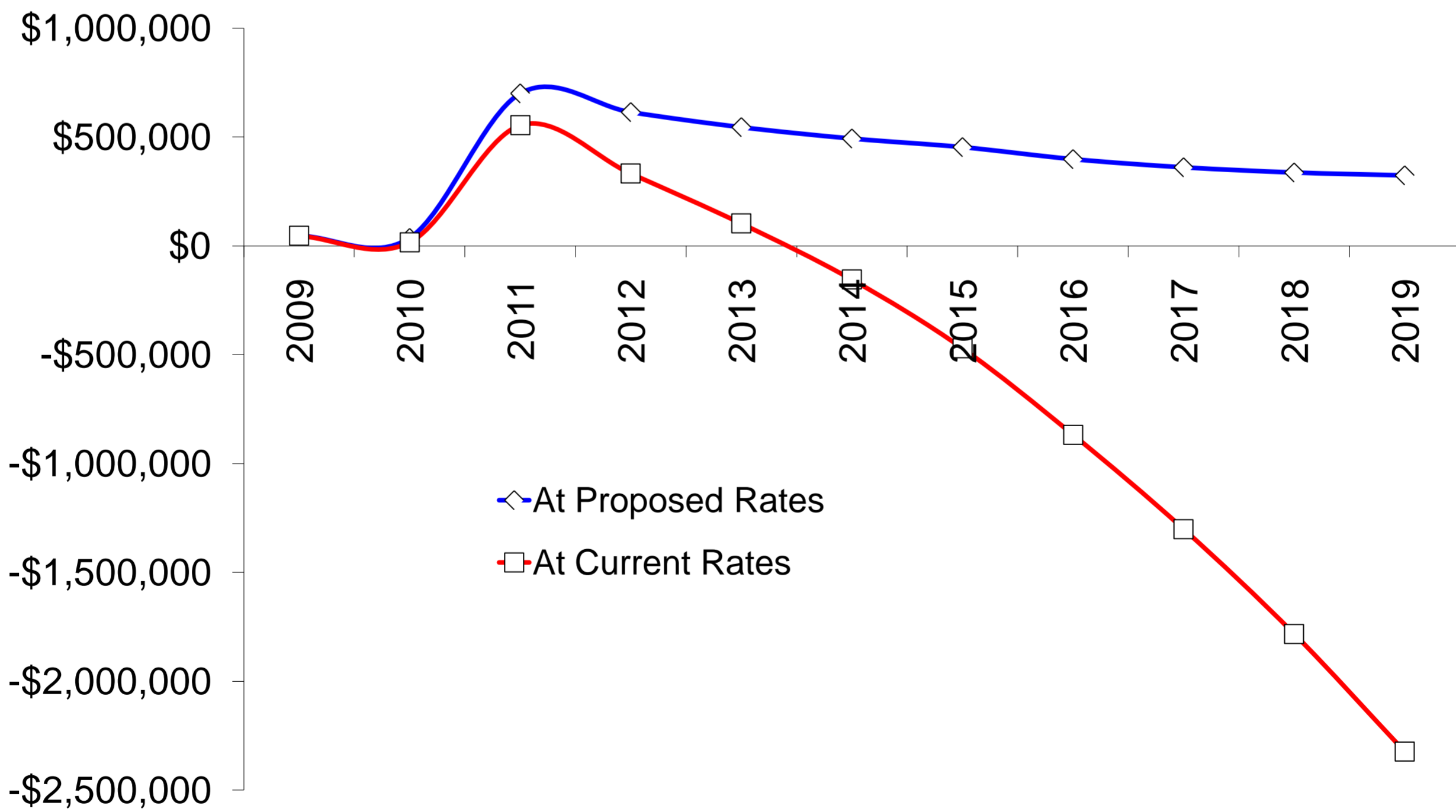


Chart 12 - Use & Revenues

Moorcroft, WY

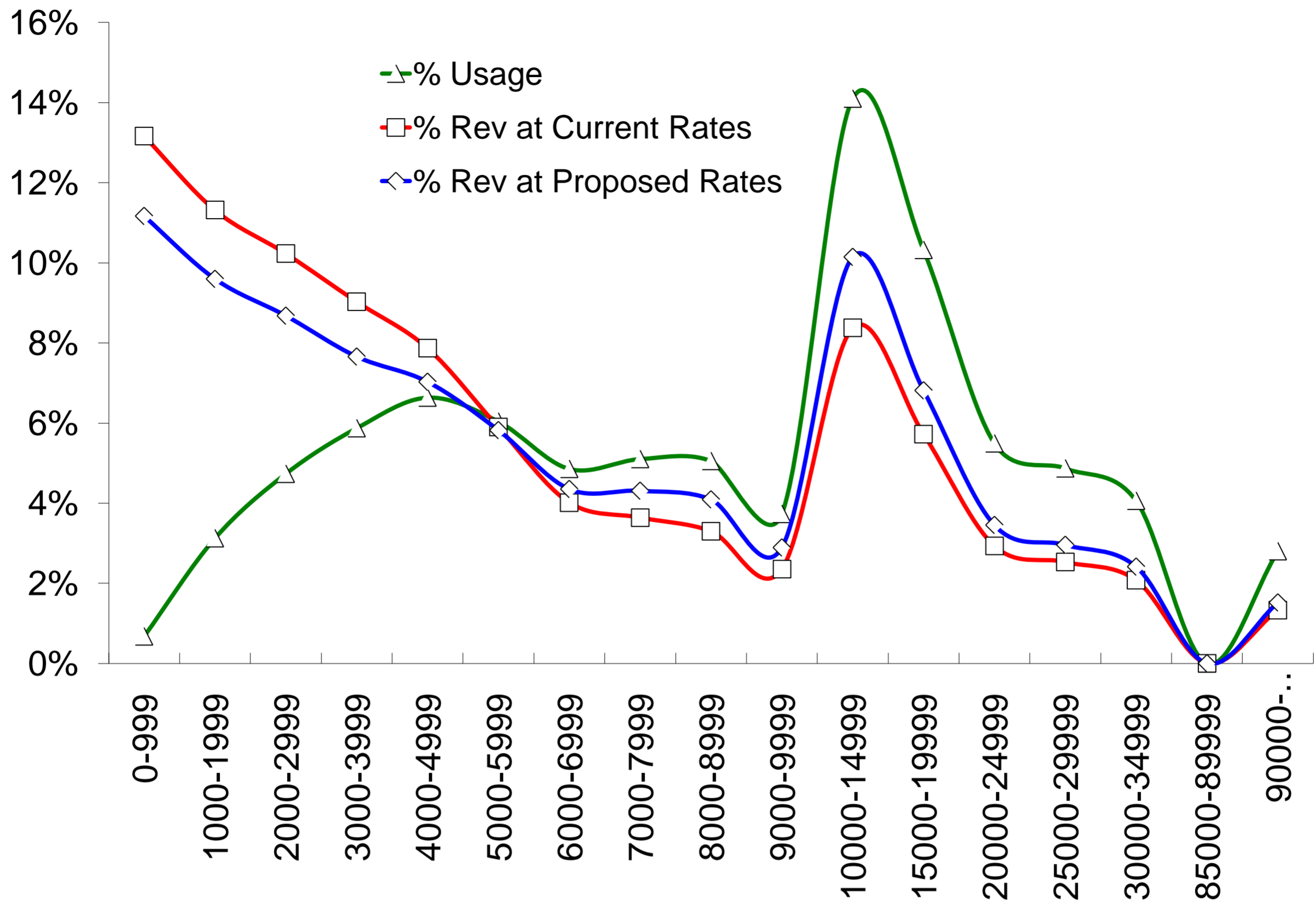
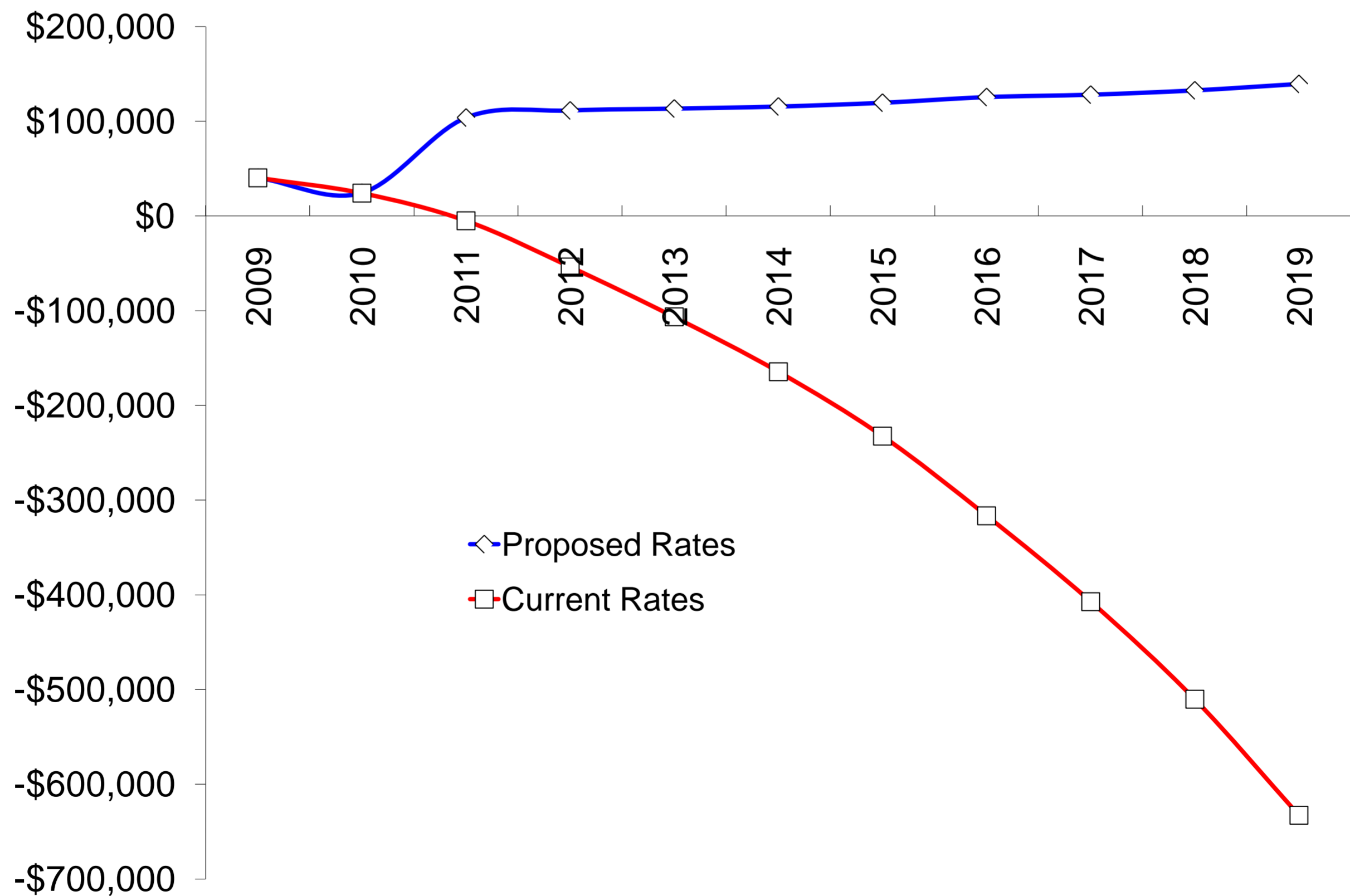


Chart 13 - Current Position



# Moorcroft, WY, Water Rates Scenario 3A

## Chart 14 - Old Rates, New Rates and Changes

This chart compares current and proposed bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Average Bill	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users			
0	999	0.270	\$40.00	\$47.32	\$7.32
1,000	1,999	1.460	\$40.00	\$47.32	\$7.32
2,000	2,999	2.445	\$40.00	\$47.32	\$7.32
3,000	3,999	3.438	\$40.00	\$47.32	\$7.32
4,000	4,999	4.457	\$40.00	\$49.83	\$9.83
5,000	5,999	5.411	\$40.00	\$55.06	\$15.06
6,000	6,999	6.389	\$40.00	\$60.43	\$20.43
7,000	7,999	7.406	\$40.00	\$66.02	\$26.02
8,000	8,999	8.296	\$41.03	\$70.90	\$29.87
9,000	9,999	9.431	\$45.00	\$77.13	\$32.13
10,000	14,999	12.051	\$54.17	\$91.53	\$37.35
15,000	19,999	17.186	\$72.14	\$119.73	\$47.60
20,000	24,999	22.179	\$89.61	\$147.17	\$57.55
25,000	29,999	27.589	\$108.54	\$176.89	\$68.34
30,000	34,999	32.414	\$125.43	\$203.40	\$77.97
35,000	39,999	37.695	\$143.91	\$232.41	\$88.50
40,000	44,999	42.128	\$159.42	\$256.76	\$97.34
45,000	49,999	48.519	\$181.78	\$291.88	\$110.09
50,000	54,999	52.127	\$194.41	\$311.70	\$117.29
55,000	59,999	57.455	\$213.05	\$340.97	\$127.92
60,000	64,999	61.800	\$228.26	\$364.84	\$136.58
65,000	69,999	66.433	\$244.47	\$390.30	\$145.82
70,000	74,999	73.955	\$270.79	\$431.62	\$160.83
75,000	79,999	78.400	\$286.35	\$456.04	\$169.69
80,000	84,999	83.666	\$304.77	\$484.97	\$180.20
85,000	89,999	87.500	\$318.19	\$506.03	\$187.84
90,000	999,999	109.325	\$394.57	\$625.96	\$231.38

# Moorcroft, WY, Water Rates Scenario 3A

## Chart 14B - Rate Changes in Percent

This chart shows percentage increases and decreases.

CBGreatRates© Version 5.1

Effective New All-in Rate/1,000 Gallons	Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
	Use per Billing Cycle in Gallons		All Users
N.A.	0	999	18%
\$32.42	1,000	1,999	18%
\$19.35	2,000	2,999	18%
\$13.76	3,000	3,999	18%
\$11.18	4,000	4,999	25%
\$10.18	5,000	5,999	38%
\$9.46	6,000	6,999	51%
\$8.91	7,000	7,999	65%
\$8.55	8,000	8,999	73%
\$8.18	9,000	9,999	71%
\$7.59	10,000	14,999	69%
\$6.97	15,000	19,999	66%
\$6.64	20,000	24,999	64%
\$6.41	25,000	29,999	63%
\$6.27	30,000	34,999	62%
\$6.17	35,000	39,999	61%
\$6.09	40,000	44,999	61%
\$6.02	45,000	49,999	61%
\$5.98	50,000	54,999	60%
\$5.93	55,000	59,999	60%
\$5.90	60,000	64,999	60%
\$5.87	65,000	69,999	60%
\$5.84	70,000	74,999	59%
\$5.82	75,000	79,999	59%
\$5.80	80,000	84,999	59%
\$5.78	85,000	89,999	59%
\$5.73	90,000	999,999	59%

# Moorcroft, WY, Water Rates Scenario 3B

## Rate Analysis Modeling Results

"Lower Rates, Higher Borrowing" aptly describes this scenario.

Chart 1 shows the rates proposed in this scenario. At the bottom of this chart are combined reserves that would result if the amount stated there is borrowed.

This model assumes initial rate adjustments as reflected in Chart 1. Annually thereafter rates will be increased as shown near the top of Chart 2A. The model compares the system's financial outlook under the proposed rates with the outlook if no adjustments are made to make it easy to understand the outcome of the proposed changes.

For most, the best way to read and understand what this model means is this. Scan the "Index of Charts and Pages" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder charts 1 and 6-14. These will show you how the proposed rate adjustments will affect ratepayers and the system. If you need more detail than that, review the entire model. Finally, rate setting involves much more than just rates so you need to read the accompanying narrative report to understand what you need to do and why.

March 3, 2011

This rate analysis scenario was produced by  
Carl E. Brown, Carl Brown Consulting, LLC  
1014 Carousel Drive, Jefferson City, Missouri 65101  
(573) 619-3411

[www.carlbrownconsulting.com](http://www.carlbrownconsulting.com)  
[carl@carlbrownconsulting.com](mailto:carl@carlbrownconsulting.com)

# Moorcroft, WY, Water Rates Scenario 3B

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$45.60	4.000	\$5.30
1,000	1,999	\$45.60	4.000	\$5.30
2,000	2,999	\$45.60	4.000	\$5.30
3,000	3,999	\$45.60	4.000	\$5.30
4,000	4,999	\$45.60	4.000	\$5.30
5,000	5,999	\$45.60	4.000	\$5.30
6,000	6,999	\$45.60	4.000	\$5.30
7,000	7,999	\$45.60	4.000	\$5.30
8,000	8,999	\$45.60	4.000	\$5.30
9,000	9,999	\$45.60	4.000	\$5.30
10,000	14,999	\$45.60	4.000	\$5.30
15,000	19,999	\$45.60	4.000	\$5.30
20,000	24,999	\$45.60	4.000	\$5.30
25,000	29,999	\$45.60	4.000	\$5.30
30,000	34,999	\$45.60	4.000	\$5.30
35,000	39,999	\$45.60	4.000	\$5.30
40,000	44,999	\$45.60	4.000	\$5.30
45,000	49,999	\$45.60	4.000	\$5.30
50,000	54,999	\$45.60	4.000	\$5.30
55,000	59,999	\$45.60	4.000	\$5.30
60,000	64,999	\$45.60	4.000	\$5.30
65,000	69,999	\$45.60	4.000	\$5.30
70,000	74,999	\$45.60	4.000	\$5.30
75,000	79,999	\$45.60	4.000	\$5.30
80,000	84,999	\$45.60	4.000	\$5.30
85,000	89,999	\$45.60	4.000	\$5.30
90,000	999,999	\$45.60	4.000	\$5.30

Total Combined Water, Sewer and Garbage Reserves That Will Result if These Water Rates, Along With the Proposed Sewer and Garbage Rates are Charged and \$600,000 is "Over-borrowed" for Water Improvements (Top Amounts) Versus the Desired Balances (Bottom Amounts).

Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14
-\$26,501	\$567,981	\$438,405	\$344,305	\$272,909
Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
\$299,823	\$352,457	\$445,810	\$570,887	\$634,888
Ending Combined Balance Goal:				\$510,000

Moorcroft, WY, Water Rates Scenario 3B  
 Chart 2A - User Base and Operating Incomes

These charts depict starting balances, incomes and expenses during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>User Base</b>												
Average Users for the Year	NA	466	471	476	481	487	492	497	502	508	513	519
Users Added/Lost During the Year	NA	5	5	5	5	5	5	5	5	5	6	6
User Growth/Loss Rate	NA	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%	1.07%
Rate Increases Initiated in Future Years	NA	NA	35.2%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Adjusted, Then Annually Readjusted Minimum Charge/Billing Period for Uniform Rates Only	NA	NA	\$45.60	\$47.88	\$50.27	\$52.79	\$55.43	\$58.20	\$61.11	\$64.16	\$67.37	\$70.74
Adjusted, Then Annually Readjusted Unit Charge/Billable Volume Unit for Uniform Rates Only	NA	NA	\$5.30	\$5.56	\$5.84	\$6.13	\$6.44	\$6.76	\$7.10	\$7.45	\$7.82	\$8.22
<b>Operating Incomes</b>												
User Charge Fees	NA	\$232,079	\$234,796	\$336,429	\$357,038	\$378,910	\$402,121	\$426,754	\$452,896	\$480,640	\$510,083	\$541,330
Late Charges, Penalties	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tap Fees % Above		\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Interest	NA	\$17,803	\$908	\$548	\$2,132	\$2,494	\$2,548	\$2,597	\$2,687	\$2,821	\$2,878	\$2,981
Bulk Water Sales	NA	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264	\$3,264
Water Investment Fees	NA	\$24,890	\$25,157	\$25,427	\$25,699	\$25,975	\$26,253	\$26,535	\$26,819	\$27,107	\$27,398	\$27,691
Tap Fees Trans to CIP Fund	NA	-\$3,500	-\$3,538	-\$3,754	-\$3,984	-\$4,228	-\$4,487	-\$4,762	-\$5,054	-\$5,363	-\$5,692	-\$6,041
Total Regular Income		\$278,037	\$264,126	\$365,669	\$388,134	\$410,643	\$434,187	\$459,151	\$485,667	\$513,833	\$543,623	\$575,266

Moorcroft, WY, Water Rates Scenario 3B  
 Chart 2B - Operating Costs and Net Income

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

Infla./De-  
 flation (-)  
 Factor

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19	
(Note: Some future costs will experience inflation. Those costs that go up as use goes up are also increased by the growth rate in users and the percentage by which that cost is variable as reported in Chart 4.)													
Administration Salaries, Benefits, etc. Allocation	3.0%	\$33,325	\$34,324	\$35,354	\$36,415	\$37,507	\$38,633	\$39,791	\$40,985	\$42,215	\$43,481	\$44,786	
Operations Staff Salaries, Benefits & Related Items	5.0%	\$99,974	\$104,973	\$110,222	\$115,733	\$121,519	\$127,595	\$133,975	\$140,674	\$147,707	\$155,093	\$162,848	
Office Supplies	5.0%	\$832	\$874	\$917	\$963	\$1,011	\$1,062	\$1,115	\$1,171	\$1,229	\$1,291	\$1,355	
Repair/Maint Supplies	3.0%	\$14,600	\$15,038	\$15,489	\$15,954	\$16,432	\$16,925	\$17,433	\$17,956	\$18,495	\$19,050	\$19,621	
Small Tools	5.0%	\$994	\$1,044	\$1,096	\$1,151	\$1,208	\$1,269	\$1,332	\$1,399	\$1,469	\$1,542	\$1,619	
Equipment Repairs	3.0%	\$2,518	\$2,594	\$2,671	\$2,751	\$2,834	\$2,919	\$3,007	\$3,097	\$3,190	\$3,285	\$3,384	
Chemicals	5.0%	\$4,235	\$4,447	\$4,669	\$4,903	\$5,148	\$5,405	\$5,675	\$5,959	\$6,257	\$6,570	\$6,898	
Postage	5.0%	\$835	\$877	\$921	\$967	\$1,015	\$1,066	\$1,119	\$1,175	\$1,234	\$1,295	\$1,360	
Travel and Training	3.0%	\$3,642	\$3,751	\$3,864	\$3,980	\$4,099	\$4,222	\$4,349	\$4,479	\$4,614	\$4,752	\$4,895	
Gas/Lube/Oil	5.0%	\$3,191	\$3,351	\$3,518	\$3,694	\$3,879	\$4,073	\$4,276	\$4,490	\$4,715	\$4,950	\$5,198	
Locates	3.0%	\$57	\$59	\$60	\$62	\$64	\$66	\$68	\$70	\$72	\$74	\$77	
Liability Insurance	3.0%	\$710	\$731	\$753	\$776	\$799	\$823	\$848	\$873	\$899	\$926	\$954	
Property Insurance	3.0%	\$732	\$754	\$777	\$800	\$824	\$849	\$874	\$900	\$927	\$955	\$984	
Water Testing	5.0%	\$240	\$252	\$265	\$278	\$292	\$306	\$322	\$338	\$355	\$372	\$391	
Electricity	5.0%	\$23,893	\$25,088	\$26,342	\$27,659	\$29,042	\$30,494	\$32,019	\$33,620	\$35,301	\$37,066	\$38,919	
Easement	5.0%	\$1,028	\$1,079	\$1,133	\$1,190	\$1,250	\$1,312	\$1,378	\$1,446	\$1,519	\$1,595	\$1,675	
Contractual Services	1.0%	\$20,717	\$20,924	\$21,133	\$21,345	\$21,558	\$21,774	\$21,992	\$22,211	\$22,434	\$22,658	\$22,884	
Miscellaneous	0.0%	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	\$399	
Invest. Fees Transfers to CIP Fund	0.0%	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	
Annual Payment to Replacement Fund	0.0%	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	\$35,188	
User Charge Analysis Services	5.0%	\$0	\$4,278	\$0	\$0	\$4,716	\$0	\$0	\$5,200	\$0	\$0	\$5,733	
Loan Payment	0.0%	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	
Rev Loss From 10% Marginal Water Conservation	0.0%	\$0	\$0	\$10,435	\$12,224	\$4,248	\$4,508	\$4,784	\$5,078	\$5,389	\$5,719	\$6,069	
Madison Well Operating Costs From Annualized Cost	3.0%	\$0	\$0	\$0	\$10,178	\$10,484	\$10,798	\$11,122	\$11,456	\$11,800	\$12,154	\$12,518	
Total Operating Costs		\$267,201	\$280,115	\$295,298	\$316,700	\$323,609	\$329,777	\$341,157	\$358,256	\$365,497	\$378,507	\$397,846	
Net Income (or Loss)		\$10,835	-\$15,990	\$70,371	\$71,433	\$87,035	\$104,410	\$117,993	\$127,411	\$148,336	\$165,116	\$177,420	
Working Capital Goal: 35%		In Dollars, That is:	\$93,521	\$98,040	\$103,354	\$110,845	\$113,263	\$115,422	\$119,405	\$125,389	\$127,924	\$132,477	\$139,246

Moorcroft, WY, Water Rates Scenario 3B  
Chart 3 - 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.

	Year Starting 7/1/09	This Year Year Starting 7/1/10	Next Year Year Starting 7/1/11	3rd Year Year Starting 7/1/12	4th Year Year Starting 7/1/13	5th Year Year Starting 7/1/14	6th Year Year Starting 7/1/15	7th Year Year Starting 7/1/16	8th Year Year Starting 7/1/17	9th Year Year Starting 7/1/18	10th Year Year Starting 7/1/19
<b>CIP Spending Plan</b>											
Capital Improvements to be Paid With Debt											
Water Tank & Well Replacements, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$148,461	\$0	\$0	\$0	\$0
Madison Project, Devel Comm Loan	\$0	\$0	\$2,250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, SLIB Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$99,563	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$178,037	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), SRF	\$0	\$0	\$18,482	\$19,129	\$19,799	\$20,491	\$21,209	\$21,951	\$22,719	\$0	\$0
<b>Total Capital Improvements to be Paid With Debt</b>	<b>\$0</b>	<b>\$0</b>	<b>\$2,268,482</b>	<b>\$19,129</b>	<b>\$19,799</b>	<b>\$20,491</b>	<b>\$447,270</b>	<b>\$21,951</b>	<b>\$22,719</b>	<b>\$0</b>	<b>\$0</b>
Capital Improvements to be Paid With Cash											
Water Tank & Well Replacements, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$445,382	\$0	\$0	\$0	\$0
Madison Project, 1st Special Purpose Tax	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Madison Project, 2nd Special Purpose Tax	\$0	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Share of New Public Works Shop, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$33,188	\$0	\$0	\$0	\$0
Share of Town Hall Remodel, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$59,346	\$0	\$0	\$0	\$0
Water Line Replacements (500 ft/yr), Grant	\$0	\$0	\$55,446	\$57,387	\$59,396	\$61,474	\$63,626	\$65,853	\$68,158	\$0	\$0
<b>Total Cap Imprvmts to be Paid With Cash</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,805,446</b>	<b>\$57,387</b>	<b>\$59,396</b>	<b>\$61,474</b>	<b>\$601,542</b>	<b>\$65,853</b>	<b>\$68,158</b>	<b>\$0</b>	<b>\$0</b>
<b>Total CIP Planned Spending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4,073,929</b>	<b>\$76,516</b>	<b>\$79,194</b>	<b>\$81,966</b>	<b>\$1,048,811</b>	<b>\$87,804</b>	<b>\$90,877</b>	<b>\$0</b>	<b>\$0</b>
<b>CIP Funding Plan</b>											
CIP Fund Carryover Plus Transfers in	\$0	\$5,868	\$12,038	\$674,029	\$608,834	\$556,040	\$510,824	\$469,421	\$418,955	\$378,784	\$345,102
CIP Fund Interest Earned (or Paid)	\$0	\$264	\$542	\$27,842	\$23,590	\$20,420	\$17,857	\$15,660	\$12,292	\$9,820	\$7,850
Tap Fees Transferred From Operating Fund to CIP Fund	\$3,500	\$3,538	\$3,754	\$3,984	\$4,228	\$4,487	\$4,762	\$5,054	\$5,363	\$5,692	\$6,041
Invest. Fees Transfers to CIP Fund	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091	\$20,091
Grants	\$0	\$0	\$1,805,446	\$57,387	\$59,396	\$61,474	\$601,542	\$65,853	\$68,158	\$0	\$0
Loan Originated Next Year + Over-borrowing			\$2,868,482	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 3rd Year				\$19,129	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 4th Year					\$19,799	\$0	\$0	\$0	\$0	\$0	\$0
Loan Originated in 5th Year						\$20,491	\$0	\$0	\$0	\$0	\$0
Loan Originated in 6th Year							\$447,270	\$0	\$0	\$0	\$0
Loan Originated in 7th Year								\$21,951	\$0	\$0	\$0
Loan Originated in 8th Year									\$22,719	\$0	\$0
<b>Total CIP Fund Sources</b>	<b>\$23,591</b>	<b>\$29,761</b>	<b>\$4,710,353</b>	<b>\$802,462</b>	<b>\$735,938</b>	<b>\$683,004</b>	<b>\$1,602,345</b>	<b>\$598,029</b>	<b>\$547,578</b>	<b>\$414,387</b>	<b>\$379,084</b>
<b>New Debt Payment Plan</b>											
Payments for future loans assume 100 percent financing for projects, term of:						20	years and	2.50%	interest		
Loan(s) Originated Before Test Year	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723	\$17,723
Loan Originated Next Year + Over-borrowing				\$184,005	\$184,005	\$184,005	\$184,005	\$184,005	\$184,005	\$184,005	\$184,005
Loan Originated in 3rd Year					\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227	\$1,227
Loan Originated in 4th Year						\$1,270	\$1,270	\$1,270	\$1,270	\$1,270	\$1,270
Loan Originated in 5th Year							\$1,314	\$1,314	\$1,314	\$1,314	\$1,314
Loan Originated in 6th Year								\$31,532	\$31,532	\$31,532	\$31,532
Loan Originated in 7th Year									\$1,408	\$1,408	\$1,408
Loan Originated in 8th Year										\$1,457	\$1,457
<b>Total Debt Obligations</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$201,728</b>	<b>\$202,955</b>	<b>\$204,225</b>	<b>\$205,539</b>	<b>\$237,072</b>	<b>\$238,480</b>	<b>\$239,937</b>	<b>\$239,937</b>
<b>Total CIP Spending Plus Debt Repayment</b>	<b>\$17,723</b>	<b>\$17,723</b>	<b>\$4,091,652</b>	<b>\$278,244</b>	<b>\$282,149</b>	<b>\$286,191</b>	<b>\$1,254,351</b>	<b>\$324,876</b>	<b>\$329,357</b>	<b>\$239,937</b>	<b>\$239,937</b>
CIP Fund Balance	\$5,868	\$12,038	\$618,702	\$524,218	\$453,789	\$396,813	\$347,994	\$273,154	\$218,221	\$174,450	\$139,146

Notes: The Madison well project is the key improvement being undertaken. Several other capital improvements will be partially paid by JPA loans at 4.98% interest rate and 20 years. Grants are anticipated for most of the balance (75%) of the major project costs. Maintenance shop and town hall remodel costs have been split between the utilities based upon the percentage that each utility's budget is of the town's total budget. "Over-borrowing" refers to taking an additional loan amount in order to repay the system for improvements temporarily funded with system reserves.

Chart 4A - Rate Adjustments and Incomes for the Modeling Year 7/1/10 Through 6/30/11

These charts depict how rates will be adjusted and the outcomes from those adjustments made during the analysis modeling year.

\$700	This is the current average connection fee	1st rate block conservation rates multiplier	100%
\$700	Proposed average connection fee	2nd rate block conservation rates multiplier	100%
\$700	The part of the proposed average connection fee, above, that will be devoted to future capital improvements	3rd rate block conservation rates multiplier	100%
\$0	Surcharge Fees		

6/30/11 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 \$24.42 and the unit charge is \$5.30 per 1,000 Gallons  
After rate adjustments are made, general customers will be billed monthly.

Proposed User Rates and Blended User Rate Revenues for the Modeling Year

Class Bottom	Class Top	Revenues at Test Year Rates	New Minimum Charge Base Rates <sup>1</sup>	New Usage Allowance (1,000 Gallons)	New Unit Charge This Class per 1,000 Gallons	Revenues at Proposed Rates	Total Blended Revenues Projected for Modeling Year	
All Users								
Use per Billing Cycle in Gallons								
0	999	\$35,279	\$45.60	4.000	\$5.30	\$111	\$35,390	
1,000	1,999	\$30,320	\$45.60	4.000	\$5.30	\$95	\$30,415	
2,000	2,999	\$27,417	\$45.60	4.000	\$5.30	\$86	\$27,503	
3,000	3,999	\$24,191	\$45.60	4.000	\$5.30	\$76	\$24,267	
4,000	4,999	\$21,087	\$45.60	4.000	\$5.30	\$70	\$21,157	
5,000	5,999	\$15,805	\$45.60	4.000	\$5.30	\$58	\$15,863	
6,000	6,999	\$10,765	\$45.60	4.000	\$5.30	\$43	\$10,808	
7,000	7,999	\$9,757	\$45.60	4.000	\$5.30	\$43	\$9,800	
8,000	8,999	\$8,851	\$45.60	4.000	\$5.30	\$41	\$8,892	
9,000	9,999	\$6,306	\$45.60	4.000	\$5.30	\$29	\$6,334	
10,000	14,999	\$22,442	\$45.60	4.000	\$5.30	\$101	\$22,543	
15,000	19,999	\$15,343	\$45.60	4.000	\$5.30	\$68	\$15,410	
20,000	24,999	\$7,858	\$45.60	4.000	\$5.30	\$34	\$7,893	
25,000	29,999	\$6,783	\$45.60	4.000	\$5.30	\$29	\$6,813	
30,000	34,999	\$5,563	\$45.60	4.000	\$5.30	\$24	\$5,587	
35,000	39,999	\$3,336	\$45.60	4.000	\$5.30	\$14	\$3,351	
40,000	44,999	\$2,410	\$45.60	4.000	\$5.30	\$10	\$2,421	
45,000	49,999	\$2,932	\$45.60	4.000	\$5.30	\$13	\$2,944	
50,000	54,999	\$1,372	\$45.60	4.000	\$5.30	\$6	\$1,378	
55,000	59,999	\$2,792	\$45.60	4.000	\$5.30	\$12	\$2,804	
60,000	64,999	\$690	\$45.60	4.000	\$5.30	\$3	\$693	
65,000	69,999	\$739	\$45.60	4.000	\$5.30	\$3	\$742	
70,000	74,999	\$1,092	\$45.60	4.000	\$5.30	\$5	\$1,096	
75,000	79,999	\$289	\$45.60	4.000	\$5.30	\$1	\$290	
80,000	84,999	\$922	\$45.60	4.000	\$5.30	\$4	\$926	
85,000	89,999	\$0	\$45.60	4.000	\$5.30	\$0	\$0	
90,000	999,999	\$3,579	\$45.60	4.000	\$5.30	\$15	\$3,595	
Rate Revenues at Current Rates		\$267,919	Rate Revenues at Adjusted Rates			\$995		
							Total Blended Rate Revenues for the Year <sup>2</sup>	\$268,914

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 12.0 months at the old user charge rates and 7/1/10 through 6/30/11 assume the following: 0.0 months at the new user charge rates.

## Moorcroft, WY, Water Rates Scenario 3B

### Chart 4B - Rate Statistics

CBGreatRates© Version 5.1

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/month (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 6,276 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.

Class Bottom	Class Top	% Users	% Usage	% Rev at	
				Current Rates	Proposed Rates
Use per Billing Cycle in Gallons					
All Users					
0	999	15.6%	0.7%	13.2%	11.2%
1,000	1,999	13.4%	3.1%	11.3%	9.6%
2,000	2,999	12.2%	4.7%	10.2%	8.7%
3,000	3,999	10.7%	5.9%	9.0%	7.7%
4,000	4,999	9.3%	6.6%	7.9%	7.0%
5,000	5,999	7.0%	6.0%	5.9%	5.8%
6,000	6,999	4.8%	4.9%	4.0%	4.4%
7,000	7,999	4.3%	5.1%	3.6%	4.3%
8,000	8,999	3.8%	5.1%	3.3%	4.1%
9,000	9,999	2.5%	3.7%	2.4%	2.9%
10,000	14,999	7.3%	14.1%	8.4%	10.1%
15,000	19,999	3.8%	10.3%	5.7%	6.8%
20,000	24,999	1.6%	5.5%	2.9%	3.5%
25,000	29,999	1.1%	4.9%	2.5%	3.0%
30,000	34,999	0.8%	4.1%	2.1%	2.4%
35,000	39,999	0.4%	2.5%	1.2%	1.4%
40,000	44,999	0.3%	1.8%	0.9%	1.0%
45,000	49,999	0.3%	2.2%	1.1%	1.3%
50,000	54,999	0.1%	1.0%	0.5%	0.6%
55,000	59,999	0.2%	2.1%	1.0%	1.2%
60,000	64,999	0.1%	0.5%	0.3%	0.3%
65,000	69,999	0.1%	0.6%	0.3%	0.3%
70,000	74,999	0.1%	0.8%	0.4%	0.5%
75,000	79,999	0.0%	0.2%	0.1%	0.1%
80,000	84,999	0.1%	0.7%	0.3%	0.4%
85,000	89,999	0.0%	0.0%	0.0%	0.0%
90,000	999,999	0.2%	2.8%	1.3%	1.5%
Totals		100.0%	100.0%	100.0%	100.0%

## Moorcroft, WY, Water Rates Scenario 3B

### Chart 5 - Indicators

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

CBGreatRates© Version 5.1

	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>Capacity Indicators</b>											
Equivalent Average Monthly Bill Actually Paid by All Customers Throughout the Year	\$41.47	\$41.51	\$58.85	\$61.79	\$64.88	\$68.13	\$71.53	\$75.11	\$78.87	\$82.81	\$86.95
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$40.00	\$50.90	\$53.44	\$56.11	\$58.92	\$61.86	\$64.96	\$68.20	\$71.61	\$75.20	\$78.95
Annual Median Household Income (AMHI)	\$54,222	\$57,389	\$60,742	\$64,290	\$68,046	\$72,021	\$76,228	\$80,681	\$85,393	\$90,382	\$95,661
Affordability Index for Proposed Rates	0.89%	1.06%	1.06%	1.05%	1.04%	1.03%	1.02%	1.01%	1.01%	1.00%	0.99%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%.											
Estimated Operating Ratio for Proposed Rates	1.15	1.09	1.32	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
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 large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems.											
Estimated Coverage Ratio for Proposed Rates	1.33	1.68	35.91	3.60	3.24	2.94	2.69	2.15	1.92	1.73	1.58
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
<b>Reserves</b>											
	Balance Ending on 6/30/10	Balance Ending on 6/30/11	Balance Ending on 6/30/12	Balance Ending on 6/30/13	Balance Ending on 6/30/14	Balance Ending on 6/30/15	Balance Ending on 6/30/16	Balance Ending on 6/30/17	Balance Ending on 6/30/18	Balance Ending on 6/30/19	Balance Ending on 6/30/20
Operating Fund	\$40,358	\$24,368	\$94,739	\$110,845	\$113,263	\$115,422	\$119,405	\$125,389	\$127,924	\$132,477	\$139,246
CIP Fund	\$5,868	\$12,038	\$618,702	\$524,218	\$453,789	\$396,813	\$347,994	\$273,154	\$218,221	\$174,450	\$139,146
Debt Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Utility Trust (Meter Deposits)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Fund	\$0	\$15,988	-\$2,890	-\$37,404	-\$59,448	-\$84,531	-\$90,071	-\$73,522	-\$56,641	-\$39,428	-\$10,981
Current Position (Unobligated Cash and Cash Equivalents)	\$40,358	\$24,368	\$94,739	\$110,845	\$113,263	\$115,422	\$119,405	\$125,389	\$127,924	\$132,477	\$139,246
Operating Fund + CIP Fund	\$46,226	\$36,406	\$713,440	\$635,063	\$567,052	\$512,235	\$467,399	\$398,543	\$346,145	\$306,927	\$278,392
Operating Fund + CIP Fund Balances Discounted for Inflation (Future Purchasing Power)	\$46,226	\$36,406	\$688,470	\$591,386	\$509,571	\$444,200	\$391,133	\$321,839	\$269,743	\$230,810	\$202,024

Chart 6 - Operating Ratio

Moorcroft, WY

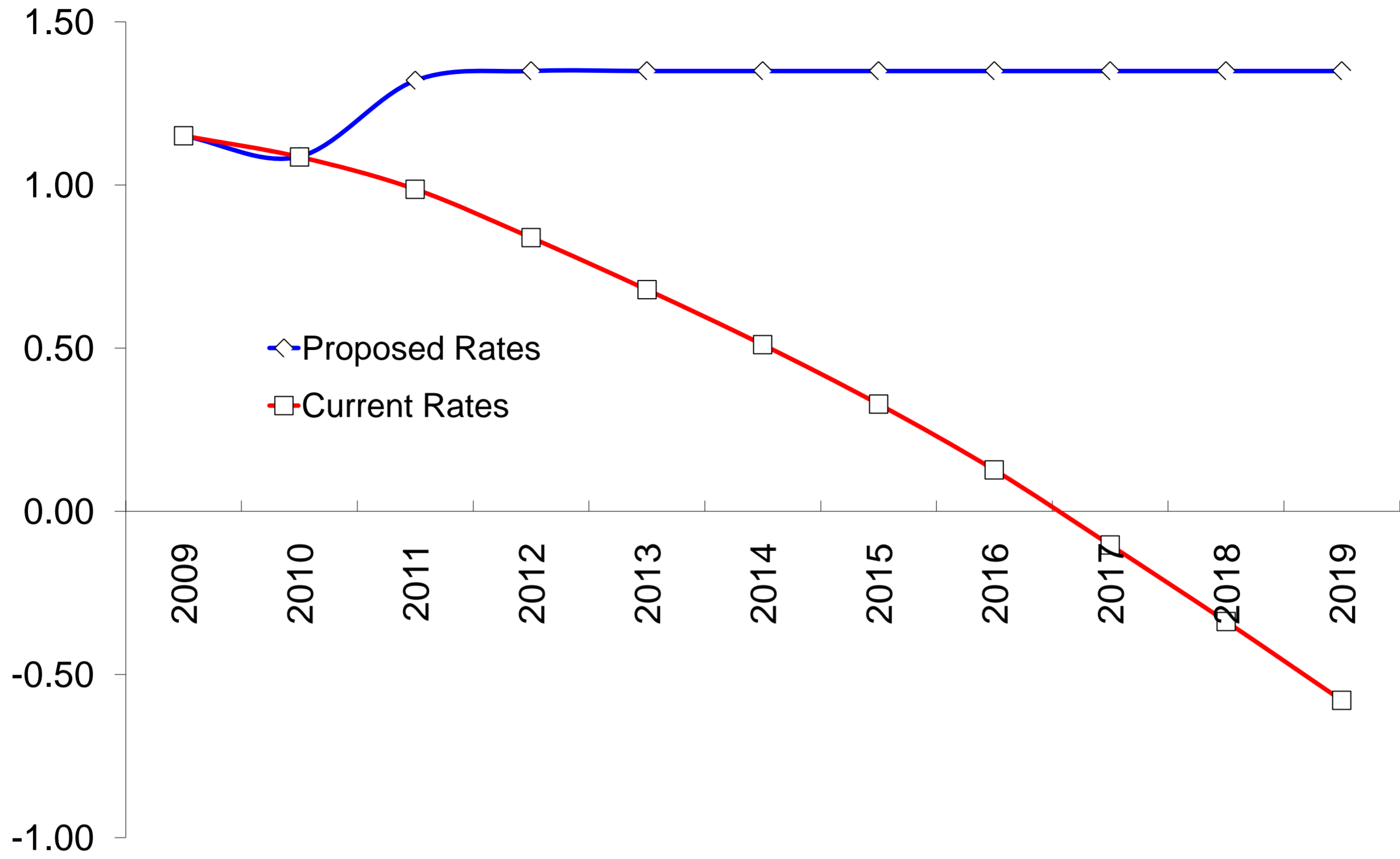


Chart 7 - Coverage Ratio

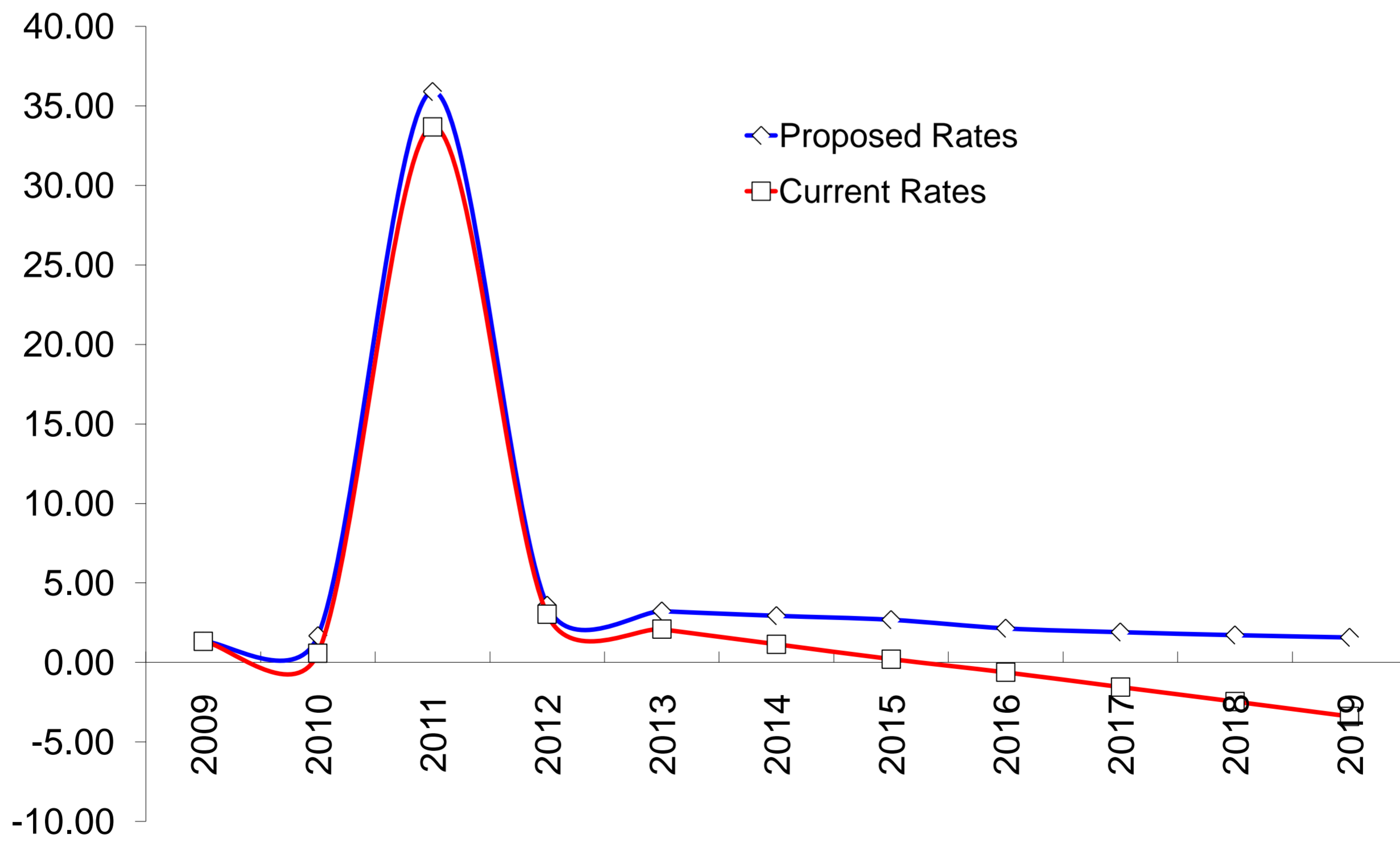


Chart 8 - 5,000 Gal Residential User's Bill

Moorcroft, WY

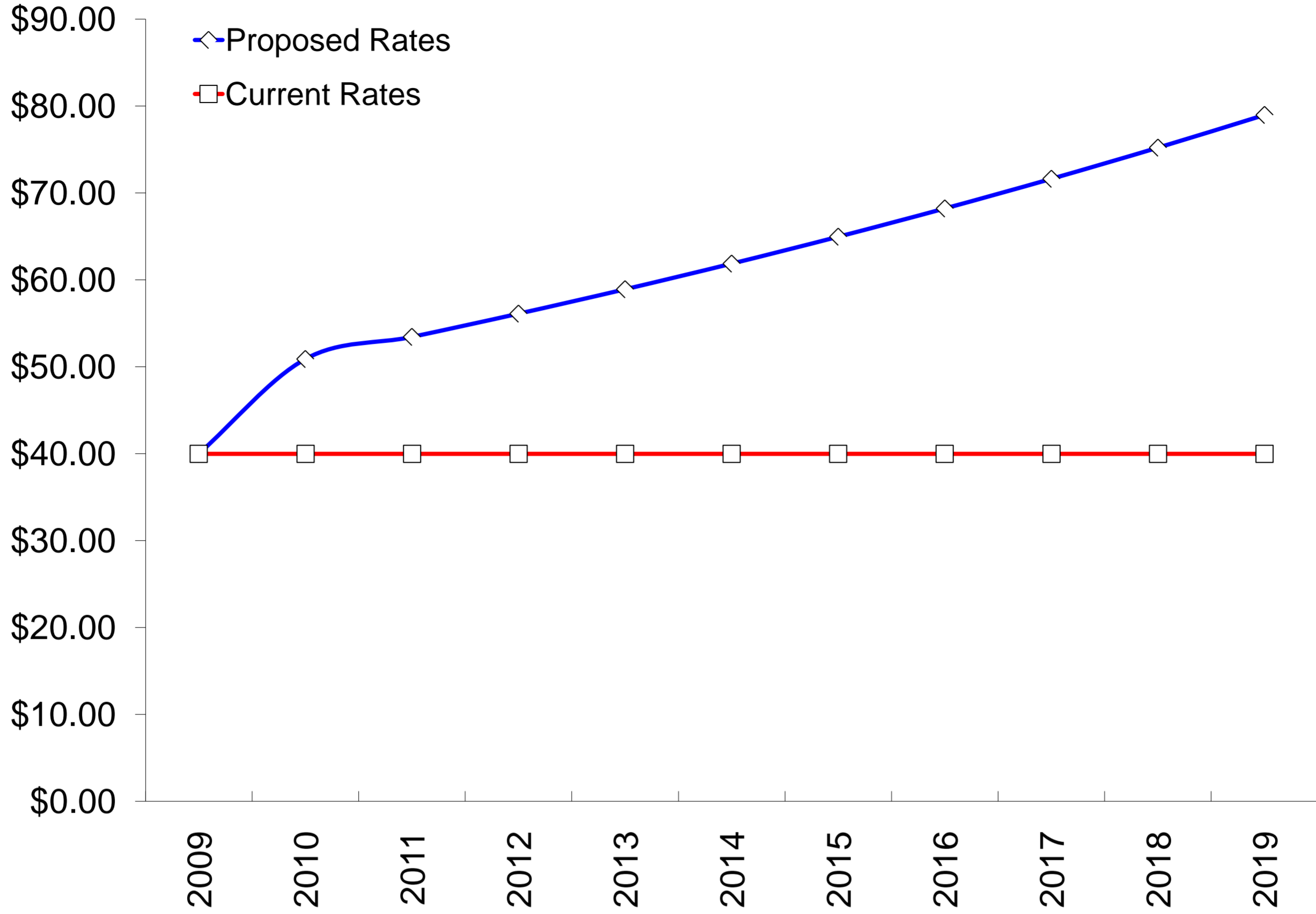


Chart 9 - Affordability Index

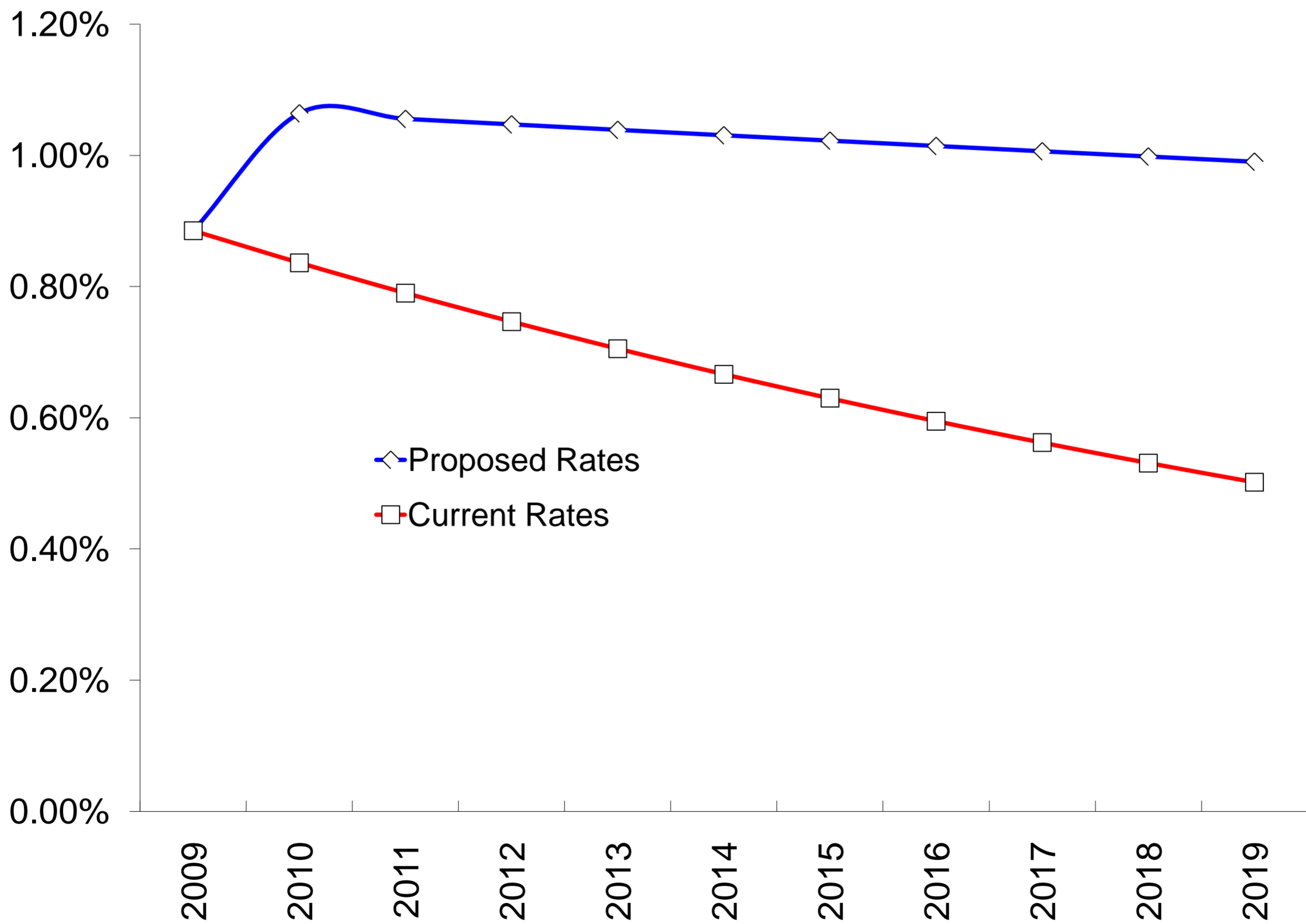


Chart 10 - Working Capital

Moorcroft, WY

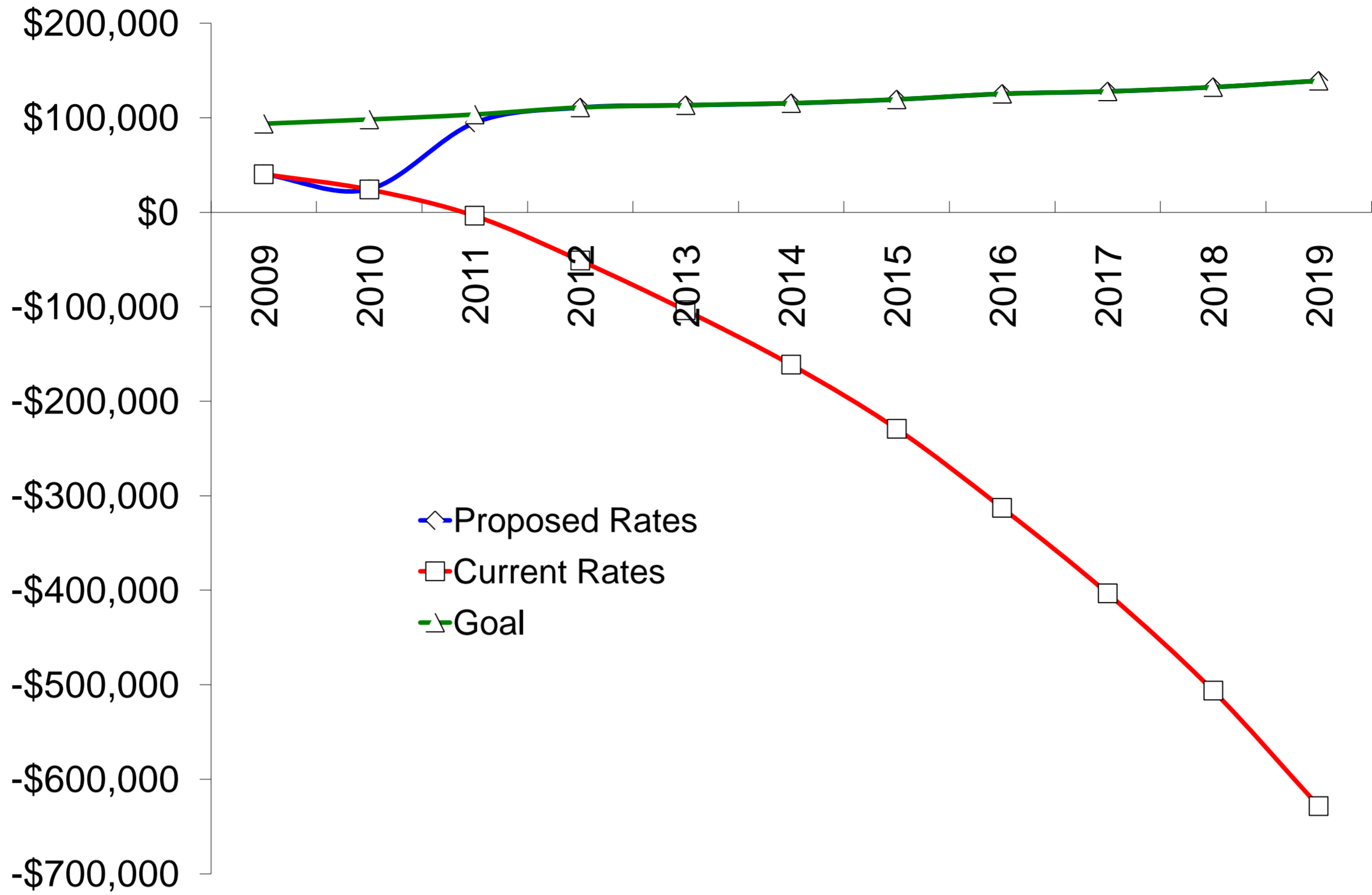


Chart 11 - Working Capital and CIP Reserves Discounted for Inflation

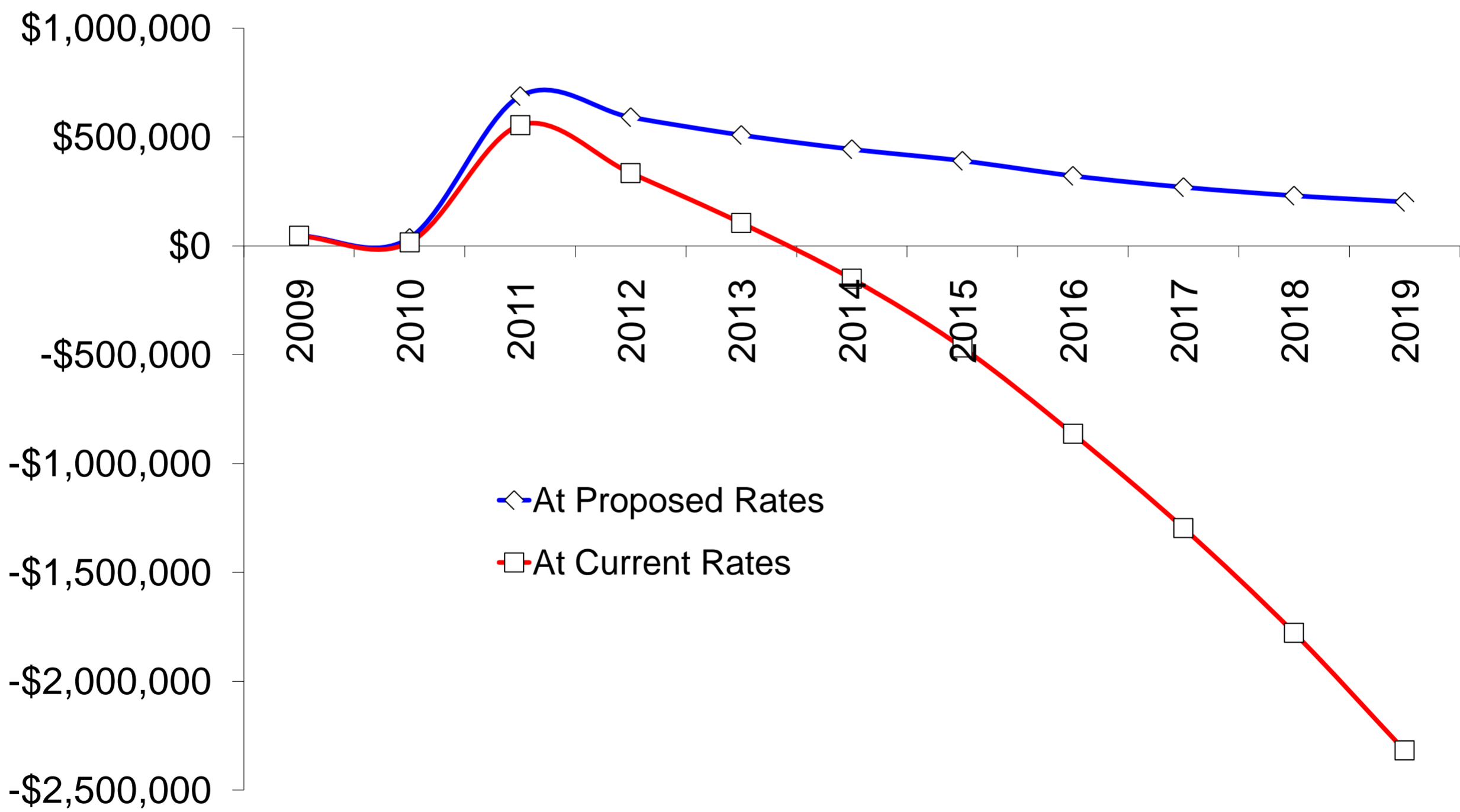


Chart 12 - Use & Revenues

Moorcroft, WY

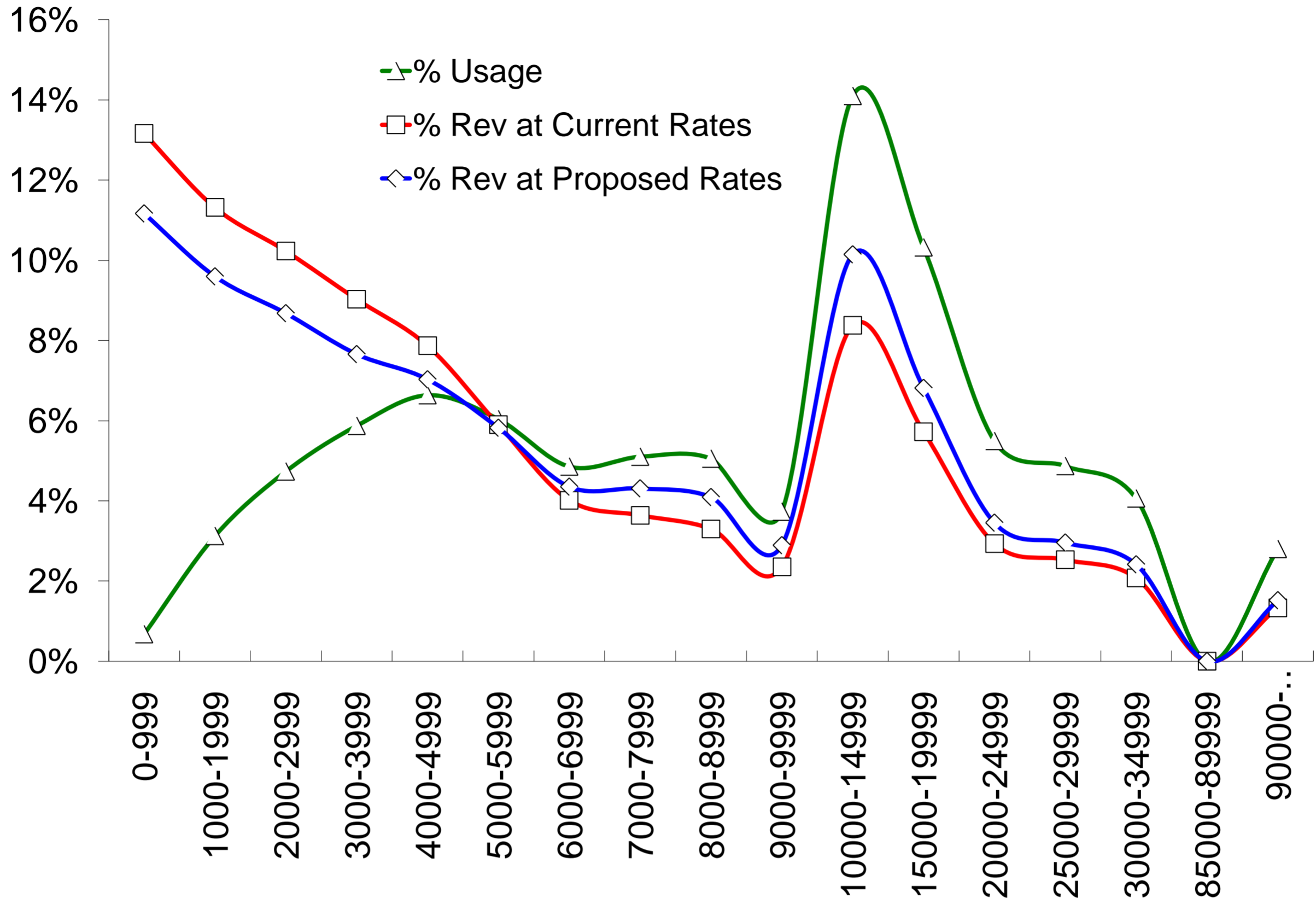
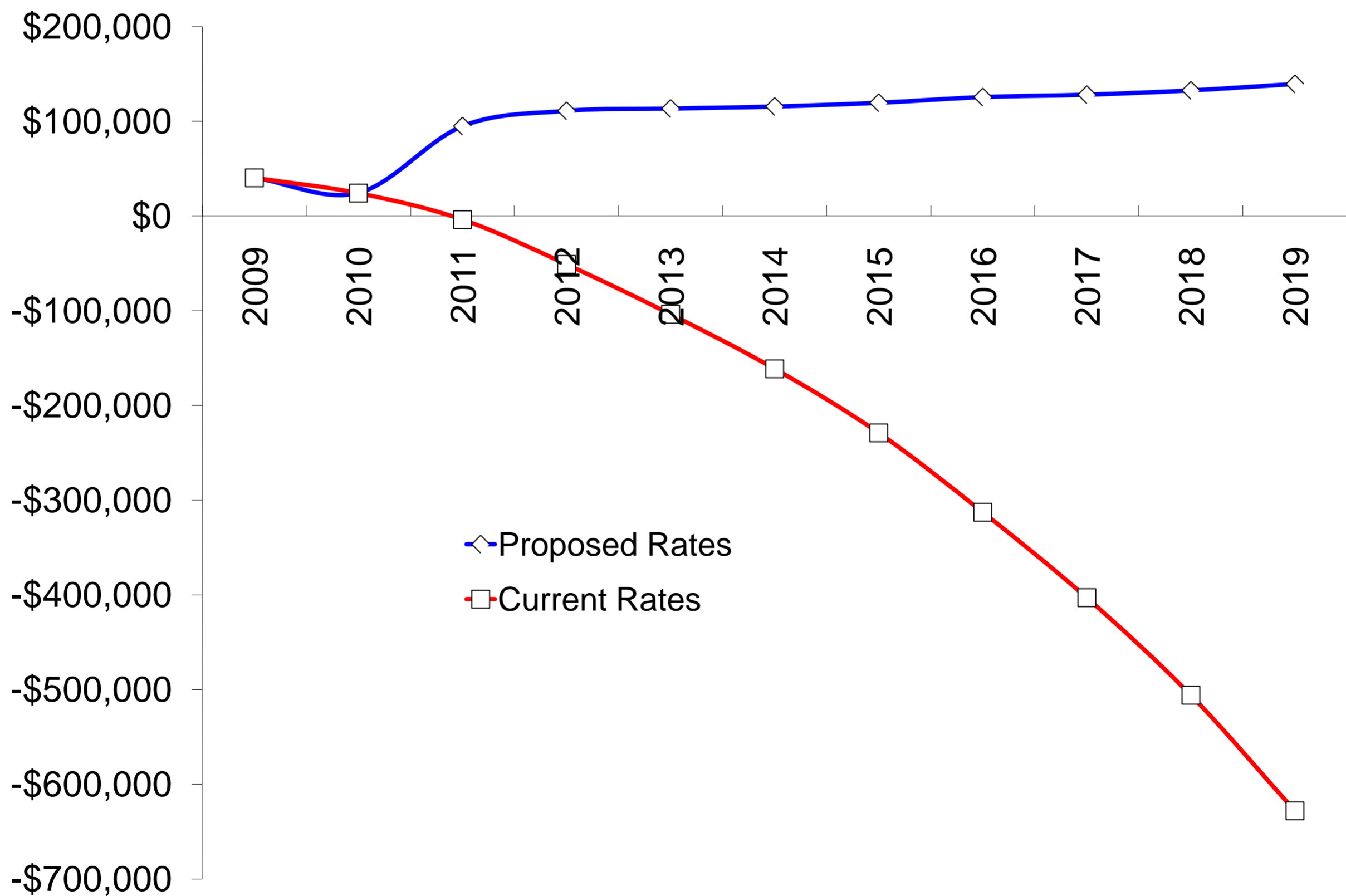


Chart 13 - Current Position



# Moorcroft, WY, Water Rates Scenario 3B

## Chart 14 - Old Rates, New Rates and Changes

This chart compares current and proposed bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Average Bill	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users			
0	999	0.270	\$40.00	\$45.60	\$5.60
1,000	1,999	1.460	\$40.00	\$45.60	\$5.60
2,000	2,999	2.445	\$40.00	\$45.60	\$5.60
3,000	3,999	3.438	\$40.00	\$45.60	\$5.60
4,000	4,999	4.457	\$40.00	\$48.02	\$8.02
5,000	5,999	5.411	\$40.00	\$53.06	\$13.06
6,000	6,999	6.389	\$40.00	\$58.24	\$18.24
7,000	7,999	7.406	\$40.00	\$63.62	\$23.62
8,000	8,999	8.296	\$41.03	\$68.33	\$27.29
9,000	9,999	9.431	\$45.00	\$74.33	\$29.33
10,000	14,999	12.051	\$54.17	\$88.20	\$34.03
15,000	19,999	17.186	\$72.14	\$115.39	\$43.25
20,000	24,999	22.179	\$89.61	\$141.82	\$52.21
25,000	29,999	27.589	\$108.54	\$170.46	\$61.92
30,000	34,999	32.414	\$125.43	\$196.01	\$70.59
35,000	39,999	37.695	\$143.91	\$223.97	\$80.07
40,000	44,999	42.128	\$159.42	\$247.44	\$88.02
45,000	49,999	48.519	\$181.78	\$281.28	\$99.50
50,000	54,999	52.127	\$194.41	\$300.38	\$105.97
55,000	59,999	57.455	\$213.05	\$328.59	\$115.54
60,000	64,999	61.800	\$228.26	\$351.59	\$123.34
65,000	69,999	66.433	\$244.47	\$376.13	\$131.65
70,000	74,999	73.955	\$270.79	\$415.95	\$145.16
75,000	79,999	78.400	\$286.35	\$439.48	\$153.14
80,000	84,999	83.666	\$304.77	\$467.36	\$162.59
85,000	89,999	87.500	\$318.19	\$487.66	\$169.47
90,000	999,999	109.325	\$394.57	\$603.23	\$208.66

# Moorcroft, WY, Water Rates Scenario 3B

## Chart 14B - Rate Changes in Percent

This chart shows percentage increases and decreases.

CBGreatRates© Version 5.1

Effective New All-in Rate/1,000 Gallons	Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
	Use per Billing Cycle in Gallons		All Users
N.A.	0	999	14%
\$31.24	1,000	1,999	14%
\$18.65	2,000	2,999	14%
\$13.26	3,000	3,999	14%
\$10.77	4,000	4,999	20%
\$9.81	5,000	5,999	33%
\$9.12	6,000	6,999	46%
\$8.59	7,000	7,999	59%
\$8.24	8,000	8,999	67%
\$7.88	9,000	9,999	65%
\$7.32	10,000	14,999	63%
\$6.71	15,000	19,999	60%
\$6.39	20,000	24,999	58%
\$6.18	25,000	29,999	57%
\$6.05	30,000	34,999	56%
\$5.94	35,000	39,999	56%
\$5.87	40,000	44,999	55%
\$5.80	45,000	49,999	55%
\$5.76	50,000	54,999	55%
\$5.72	55,000	59,999	54%
\$5.69	60,000	64,999	54%
\$5.66	65,000	69,999	54%
\$5.62	70,000	74,999	54%
\$5.61	75,000	79,999	53%
\$5.59	80,000	84,999	53%
\$5.57	85,000	89,999	53%
\$5.52	90,000	999,999	53%

# Moorcroft, WY, Sewer Rates Scenario 2

## Rate Analysis Modeling Results

This model assumes initial rate adjustments as reflected in Chart 1. Annually thereafter rates will be increased as shown near the top of Chart 2A. The model compares the system's financial outlook under the proposed rates with the outlook if no adjustments are made to make it easy to understand the outcome of the proposed changes.

For most, the best way to read and understand what this model means is this. Scan the "Index of Charts and Pages" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder charts 1 and 6-14. These will show you how the proposed rate adjustments will affect ratepayers and the system. If you need more detail than that, review the entire model. Finally, rate setting involves much more than just rates so you need to read the accompanying narrative report to understand what you need to do and why.

March 3, 2011

This rate analysis scenario was produced by  
Carl E. Brown, Carl Brown Consulting, LLC  
1014 Carousel Drive, Jefferson City, Missouri 65101  
(573) 619-3411

[www.carlbrownconsulting.com](http://www.carlbrownconsulting.com)  
[carl@carlbrownconsulting.com](mailto:carl@carlbrownconsulting.com)

# Moorcroft, WY, Sewer Rates Scenario 2

## Financial Highlights

CBGreatRates© Version 5.1

This analysis package examines a "proposed rates scenario" that depicts what will happen under the adjusted rates and other changes recommended for the system. The results of this scenario are compared to the results you can expect if you do not adjust rates at all during the 10 years following the test year.

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 the model. The second is the year following the test year - the year during which initial rate adjustments (typically) go into effect. The last two columns are the fifth and tenth years following the test year.

	Results for Years Ending on			
	6/30/10	6/30/11	6/30/15	6/30/20
Rate revenues collected	\$50,143	\$50,302	\$138,007	\$186,751
Sum of incomes	\$71,585	\$70,967	\$160,608	\$211,125
Sum of operating costs	\$103,476	\$109,887	\$116,316	\$138,782
Net income gain or loss ( - )	-\$31,891	-\$38,920	\$44,292	\$72,343
Capital improvement reserves	-\$13,745	-\$28,177	-\$49,414	\$163,371
Replacement reserves	\$0	-\$2,409	-\$210,193	-\$70,457
Current position*	-\$31,113	-\$70,033	\$40,711	\$48,574
*All current incomes plus reserves minus all current obligations				
Increase or decrease ( - ) in current position due to this analysis	\$0	\$159	\$288,000	\$607,493

## Return on Investment and Payback Period Calculations

Return on investment due to this analysis, projected one and five years into the future	N.A.	4%	6556%
---	------	----	-------

Payback period, in days, made possible by this analysis	25
---	----

Return rate and payback period are based upon the following investments:

Fees to Carl Brown Consulting	\$3,893
Estimated value of city staff time and incidentals to assemble needed information	\$500
<b>Total Investment</b>	<b>\$4,393</b>

With the exception of tables that depict test year data, all other tables and charts depict the financial performance made possible by the modeled rate changes. The easiest way to grasp the financial future of the system is to view the line graphs. Another table shows the bills your users are paying now compared to the bills they would pay under the proposed rates scenario.

This analysis was produced using the program [CBGreatRates](#), copyright 2010. You are encouraged to distribute this report so long as credit is ascribed to the author, Carl E. Brown of Carl Brown Consulting, LLC.

# Moorcroft, WY, Sewer Rates Scenario 2

## Chart 1 - Proposed Rate Chart

Starting with bills on or after the date of June 30, 2011 user rates will be billed as follows:

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons		All Users		
0	999	\$8.88	0.000	\$3.12
1,000	1,999	\$8.88	0.000	\$3.12
2,000	2,999	\$8.88	0.000	\$3.12
3,000	3,999	\$8.88	0.000	\$3.12
4,000	4,999	\$8.88	0.000	\$3.12
5,000	5,999	\$8.88	0.000	\$3.12
6,000	6,999	\$8.88	0.000	\$3.12
7,000	7,999	\$8.88	0.000	\$3.12
8,000	8,999	\$8.88	0.000	\$3.12
9,000	9,999	\$8.88	0.000	\$3.12
10,000	14,999	\$8.88	0.000	\$3.12
15,000	19,999	\$8.88	0.000	\$3.12
20,000	24,999	\$8.88	0.000	\$3.12
25,000	29,999	\$8.88	0.000	\$3.12
30,000	34,999	\$8.88	0.000	\$3.12
35,000	39,999	\$8.88	0.000	\$3.12
40,000	44,999	\$8.88	0.000	\$3.12
45,000	49,999	\$8.88	0.000	\$3.12
50,000	54,999	\$8.88	0.000	\$3.12
55,000	59,999	\$8.88	0.000	\$3.12
60,000	64,999	\$8.88	0.000	\$3.12
65,000	69,999	\$8.88	0.000	\$3.12
70,000	74,999	\$8.88	0.000	\$3.12
75,000	79,999	\$8.88	0.000	\$3.12
80,000	84,999	\$8.88	0.000	\$3.12
85,000	89,999	\$8.88	0.000	\$3.12
90,000	999,999	\$8.88	0.000	\$3.12

Moorcroft, WY, Sewer Rates Scenario 2  
 Chart 2A - User Base and Operating Incomes

These charts depict starting balances, incomes and expenses during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>User Base</b>												
Average Users for the Year	NA	432	432	432	437	442	447	452	458	463	468	474
Users Added/Lost During the Year	NA	0	0	5	5	5	5	5	5	5	6	6
User Growth/Loss Rate	NA	0.00%	0.00%	1.18%	1.18%	1.18%	1.18%	1.18%	1.18%	1.18%	1.17%	1.17%
Rate Increases Initiated in Future Years	NA	NA	116.1%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Adjusted, Then Annually Readjusted Minimum Charge/Billing Period for Uniform Rates Only	NA	NA	\$8.88	\$9.32	\$9.78	\$10.27	\$10.79	\$11.33	\$11.89	\$12.49	\$13.11	\$13.77
Adjusted, Then Annually Readjusted Unit Charge/Billable Volume Unit for Uniform Rates Only	NA	NA	\$3.12	\$3.27	\$3.44	\$3.61	\$3.79	\$3.98	\$4.18	\$4.39	\$4.61	\$4.84
<b>Operating Incomes</b>												
User Charge Fees	NA	\$50,143	\$50,302	\$115,085	\$122,269	\$129,901	\$138,007	\$146,617	\$155,762	\$165,476	\$175,793	\$186,751
Late Charges, Penalties	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Tap Fees % Above		\$0	\$0	\$5,363	\$5,692	\$6,040	\$6,410	\$6,803	\$7,220	\$7,662	\$8,131	\$8,630
Interest	NA	\$0	-\$778	-\$1,751	-\$1,097	-\$310	\$462	\$916	\$941	\$1,004	\$994	\$1,022
Sewer Investment Fees Less Tap Fees	NA	\$21,442	\$21,442	\$21,442	\$21,672	\$21,904	\$22,139	\$22,376	\$22,616	\$22,859	\$23,104	\$23,352
Total Regular Income		\$71,585	\$70,967	\$134,776	\$142,844	\$151,494	\$160,608	\$169,909	\$179,319	\$189,339	\$199,891	\$211,125

\* This balance target excludes the 302 Fund balance.

Moorcroft, WY, Sewer Rates Scenario 2  
 Chart 2B - Operating Costs and Net Income

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

Infla./De-  
 flation (-)  
 Factor

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
(Note: Some future costs will experience inflation. Those costs that go up as use goes up are also increased by the growth rate in users and the percentage by which that cost is variable as reported in Chart 4.)												
Administration Salaries, Benefits, etc. Allocation	3.0%	\$1,745	\$1,797	\$1,851	\$1,907	\$1,964	\$2,023	\$2,083	\$2,146	\$2,210	\$2,277	\$2,345
Operations Staff Salaries, Benefits & Related Items	5.0%	\$5,234	\$5,496	\$5,771	\$6,059	\$6,362	\$6,680	\$7,014	\$7,365	\$7,733	\$8,120	\$8,526
Office Supplies	5.0%	\$1,286	\$1,350	\$1,418	\$1,489	\$1,563	\$1,641	\$1,723	\$1,810	\$1,900	\$1,995	\$2,095
Repair/Maint Supplies	3.0%	\$8,432	\$8,685	\$8,946	\$9,214	\$9,490	\$9,775	\$10,068	\$10,370	\$10,681	\$11,002	\$11,332
Equipment Repairs	3.0%	\$3,326	\$3,426	\$3,529	\$3,634	\$3,743	\$3,856	\$3,971	\$4,091	\$4,213	\$4,340	\$4,470
Chemicals	5.0%	\$7,633	\$8,015	\$8,415	\$8,836	\$9,278	\$9,742	\$10,229	\$10,740	\$11,277	\$11,841	\$12,433
Postage	5.0%	\$514	\$540	\$567	\$595	\$625	\$656	\$689	\$723	\$759	\$797	\$837
Travel and Training	3.0%	\$2,234	\$2,301	\$2,370	\$2,441	\$2,514	\$2,590	\$2,668	\$2,748	\$2,830	\$2,915	\$3,002
Gas/Lube/Oil	5.0%	\$2,333	\$2,450	\$2,572	\$2,701	\$2,836	\$2,978	\$3,126	\$3,283	\$3,447	\$3,619	\$3,800
Locates	3.0%	\$57	\$59	\$60	\$62	\$64	\$66	\$68	\$70	\$72	\$74	\$77
Liability Insurance	3.0%	\$297	\$306	\$315	\$325	\$334	\$344	\$355	\$365	\$376	\$388	\$399
Property Insurance	3.0%	\$259	\$267	\$275	\$283	\$292	\$300	\$309	\$319	\$328	\$338	\$348
Water Testing	5.0%	\$4,656	\$4,889	\$5,133	\$5,390	\$5,659	\$5,942	\$6,239	\$6,551	\$6,879	\$7,223	\$7,584
Electricity	5.0%	\$18,085	\$18,989	\$19,939	\$20,936	\$21,982	\$23,082	\$24,236	\$25,447	\$26,720	\$28,056	\$29,459
Burlington Northern Lease 5 Years	0.0%	\$950	\$950	\$950	\$950	\$950	\$0	\$0	\$0	\$0	\$0	\$0
Contractual Services	1.0%	\$4,044	\$4,084	\$4,125	\$4,167	\$4,208	\$4,250	\$4,293	\$4,336	\$4,379	\$4,423	\$4,467
Annual Payment to Replacement Fund	0.0%	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391	\$42,391
User Charge Analysis Services	5.0%	\$0	\$3,893	\$0	\$0	\$4,292	\$0	\$0	\$4,732	\$0	\$0	\$5,217
Loan Payment	0.0%	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP
Total Operating Costs		\$103,476	\$109,887	\$108,626	\$111,379	\$118,549	\$116,316	\$119,463	\$127,487	\$126,197	\$129,798	\$138,782
Net Income (or Loss)		-\$31,891	-\$38,920	\$26,149	\$31,465	\$32,946	\$44,292	\$50,446	\$51,833	\$63,141	\$70,093	\$72,343
Working Capital Goal: 35%	In Dollars, That is:	\$36,217	\$38,460	\$38,019	\$38,983	\$41,492	\$40,711	\$41,812	\$44,620	\$44,169	\$45,429	\$48,574

Moorcroft, WY, Sewer Rates Scenario 2  
Chart 3 - Capital Improvement Program

CBGreatRates© Version 5.1

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

	This Year	Next Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year		
	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting		
	7/1/09	7/1/10	7/1/11	7/1/12	7/1/13	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19	
<b>CIP Spending Plan</b>												
Capital Improvements to be Paid With Debt												
Share of New Public Works Shop, SLIB Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$27,799	\$0	\$0	\$0	\$0	
Share of Town Hall Remodel, Loan	\$0	\$0	\$0	\$0	\$0	\$0	\$49,709	\$0	\$0	\$0	\$0	
Sewer Line Replacements (600 ft/yr), SRF	\$0	\$0	\$12,938	\$13,390	\$13,859	\$14,344	\$14,846	\$15,366	\$15,903	\$0	\$0	
<b>Total Capital Improvements to be Paid With Debt</b>	<b>\$0</b>	<b>\$0</b>	<b>\$12,938</b>	<b>\$13,390</b>	<b>\$13,859</b>	<b>\$14,344</b>	<b>\$92,354</b>	<b>\$15,366</b>	<b>\$15,903</b>	<b>\$0</b>	<b>\$0</b>	
Capital Improvements to be Paid With Cash												
Share of New Public Works Shop, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$9,266	\$0	\$0	\$0	\$0	
Share of Town Hall Remodel, Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$16,570	\$0	\$0	\$0	\$0	
Sewer Line Replacements (600 ft/yr), Grant	\$0	\$0	\$38,813	\$40,171	\$41,577	\$43,032	\$44,538	\$46,097	\$47,710	\$0	\$0	
<b>Total Cap Imprvmts to be Paid With Cash</b>	<b>\$0</b>	<b>\$0</b>	<b>\$38,813</b>	<b>\$40,171</b>	<b>\$41,577</b>	<b>\$43,032</b>	<b>\$70,374</b>	<b>\$46,097</b>	<b>\$47,710</b>	<b>\$0</b>	<b>\$0</b>	
<b>Total CIP Planned Spending</b>	<b>\$0</b>	<b>\$0</b>	<b>\$51,750</b>	<b>\$53,561</b>	<b>\$55,436</b>	<b>\$57,376</b>	<b>\$162,729</b>	<b>\$61,463</b>	<b>\$63,614</b>	<b>\$0</b>	<b>\$0</b>	
<b>CIP Funding Plan</b>												
CIP Fund Carryover Plus Transfers in	\$0	-\$13,745	-\$28,177	-\$37,968	-\$48,750	-\$36,472	-\$69	\$36,045	\$79,059	\$128,114	\$178,958	
CIP Fund Interest Earned (or Paid)	\$0	-\$687	-\$1,409	-\$1,898	-\$2,437	-\$3,029	-\$2,471	-\$649	\$696	\$2,668	\$4,939	
Tap Fees Transferred From Operating Fund to CIP Fund	\$0	\$0	\$5,363	\$5,692	\$6,040	\$6,410	\$6,803	\$7,220	\$7,662	\$8,131	\$8,630	
Grants	\$0	\$0	\$38,813	\$40,171	\$41,577	\$43,032	\$70,374	\$46,097	\$47,710	\$0	\$0	
Loan Originated Next Year			\$12,938	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Loan Originated in 3rd Year				\$13,390	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Loan Originated in 4th Year					\$13,859	\$0	\$0	\$0	\$0	\$0	\$0	
Loan Originated in 5th Year						\$14,344	\$0	\$0	\$0	\$0	\$0	
Loan Originated in 6th Year							\$92,354	\$0	\$0	\$0	\$0	
Loan Originated in 7th Year								\$15,366	\$0	\$0	\$0	
Loan Originated in 8th Year									\$15,903	\$0	\$0	
<b>Total CIP Fund Sources</b>	<b>\$0</b>	<b>-\$14,432</b>	<b>\$27,527</b>	<b>\$19,387</b>	<b>\$10,289</b>	<b>\$24,286</b>	<b>\$166,992</b>	<b>\$104,078</b>	<b>\$151,031</b>	<b>\$138,914</b>	<b>\$192,526</b>	
<b>New Debt Payment Plan</b>												
	Payments for future loans assume 100 percent financing for projects, term of:						20	years and	2.50%	interest		
Loan(s) Originated Before Test Year	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	\$13,745	
Loan Originated Next Year				\$830	\$830	\$830	\$830	\$830	\$830	\$830	\$830	
Loan Originated in 3rd Year					\$859	\$859	\$859	\$859	\$859	\$859	\$859	
Loan Originated in 4th Year						\$889	\$889	\$889	\$889	\$889	\$889	
Loan Originated in 5th Year							\$920	\$920	\$920	\$920	\$920	
Loan Originated in 6th Year								\$9,906	\$9,906	\$9,906	\$9,906	
Loan Originated in 7th Year									\$986	\$986	\$986	
Loan Originated in 8th Year										\$1,020	\$1,020	
<b>Total Debt Obligations</b>	<b>\$13,745</b>	<b>\$13,745</b>	<b>\$13,745</b>	<b>\$14,575</b>	<b>\$15,434</b>	<b>\$16,323</b>	<b>\$17,243</b>	<b>\$27,149</b>	<b>\$28,135</b>	<b>\$29,155</b>	<b>\$29,155</b>	
<b>Total CIP Spending Plus Debt Repayment</b>	<b>\$13,745</b>	<b>\$13,745</b>	<b>\$65,495</b>	<b>\$68,136</b>	<b>\$70,870</b>	<b>\$73,699</b>	<b>\$179,972</b>	<b>\$88,612</b>	<b>\$91,749</b>	<b>\$29,155</b>	<b>\$29,155</b>	
CIP Fund Balance	-\$13,745	-\$28,177	-\$37,968	-\$48,750	-\$60,580	-\$49,414	-\$12,980	\$15,466	\$59,282	\$109,759	\$163,371	

Notes: Several capital improvements will be partially paid JPA loans at the anticipated interest rate and term period shown above. Grants are anticipated for most (75%) of the balance of the major project costs. Maintenance shop and town hall remodel costs have been split between the utilities based upon the percentage that each utility's budget is of the town's total budget.

Chart 4A - Rate Adjustments and Incomes for the Modeling Year 7/1/10 Through 6/30/11

These charts depict how rates will be adjusted and the outcomes from those adjustments made during the analysis modeling year.

\$1,000	This is the current average connection fee	1st rate block conservation rates multiplier	100%
\$1,000	Proposed average connection fee	2nd rate block conservation rates multiplier	100%
\$1,000	The part of the proposed average connection fee, above, that will be devoted to future capital improvements	3rd rate block conservation rates multiplier	100%
\$0	Surcharge Fees		
6/30/11 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 \$8.88 and the unit charge is \$3.12 per 1,000 Gallons  
 After rate adjustments are made, general customers will be billed monthly.

Proposed User Rates and Blended User Rate Revenues for the Modeling Year

Class Bottom	Class Top	Revenues at Test Year Rates	New Minimum Charge Base Rates <sup>1</sup>	New Usage Allowance (1,000 Gallons)	New Unit Charge This Class per 1,000 Gallons	Revenues at Proposed Rates	Total Blended Revenues Projected for Modeling Year
All Users							
Use per Billing Cycle in Gallons							
0	999	\$4,028	\$8.88	0.000	\$3.12	\$21	\$4,049
1,000	1,999	\$3,957	\$8.88	0.000	\$3.12	\$29	\$3,986
2,000	2,999	\$4,712	\$8.88	0.000	\$3.12	\$32	\$4,744
3,000	3,999	\$5,063	\$8.88	0.000	\$3.12	\$33	\$5,096
4,000	4,999	\$4,704	\$8.88	0.000	\$3.12	\$29	\$4,734
5,000	5,999	\$4,095	\$8.88	0.000	\$3.12	\$25	\$4,120
6,000	6,999	\$3,183	\$8.88	0.000	\$3.12	\$19	\$3,202
7,000	7,999	\$3,272	\$8.88	0.000	\$3.12	\$19	\$3,292
8,000	8,999	\$2,929	\$8.88	0.000	\$3.12	\$17	\$2,947
9,000	9,999	\$2,428	\$8.88	0.000	\$3.12	\$14	\$2,442
10,000	14,999	\$7,166	\$8.88	0.000	\$3.12	\$41	\$7,207
15,000	19,999	\$5,518	\$8.88	0.000	\$3.12	\$31	\$5,549
20,000	24,999	\$1,938	\$8.88	0.000	\$3.12	\$11	\$1,948
25,000	29,999	\$1,832	\$8.88	0.000	\$3.12	\$10	\$1,842
30,000	34,999	\$1,357	\$8.88	0.000	\$3.12	\$7	\$1,364
35,000	39,999	\$1,056	\$8.88	0.000	\$3.12	\$6	\$1,062
40,000	44,999	\$432	\$8.88	0.000	\$3.12	\$2	\$434
45,000	49,999	\$1,485	\$8.88	0.000	\$3.12	\$8	\$1,493
50,000	54,999	\$170	\$8.88	0.000	\$3.12	\$1	\$171
55,000	59,999	\$1,366	\$8.88	0.000	\$3.12	\$7	\$1,373
60,000	64,999	\$215	\$8.88	0.000	\$3.12	\$1	\$216
65,000	69,999	\$222	\$8.88	0.000	\$3.12	\$1	\$223
70,000	74,999	\$0	\$8.88	0.000	\$3.12	\$0	\$0
75,000	79,999	\$263	\$8.88	0.000	\$3.12	\$1	\$265
80,000	84,999	\$0	\$8.88	0.000	\$3.12	\$0	\$0
85,000	89,999	\$0	\$8.88	0.000	\$3.12	\$0	\$0
90,000	999,999	\$1,652	\$8.88	0.000	\$3.12	\$9	\$1,661
Rate Revenues at Current Rates		\$63,045	Rate Revenues at Adjusted Rates			\$374	
						Total Blended Rate Revenues for the Year <sup>2</sup>	\$63,419

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 12.0 months at the old user charge rates 7/1/10 and 0.0 months at the new user charge rates through 6/30/11 assume the following:

## Moorcroft, WY, Sewer Rates Scenario 2

### Chart 4B - Rate Statistics

CBGreatRates© Version 5.1

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/month (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 5,617 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.

Class Bottom	Class Top	% Users	% Usage	% Rev at	
				Current Rates	Proposed Rates
Use per Billing Cycle in Gallons					
All Users					
0	999	15.3%	0.7%	6.4%	5.6%
1,000	1,999	15.0%	3.9%	6.3%	7.7%
2,000	2,999	13.6%	6.0%	7.5%	8.6%
3,000	3,999	11.8%	7.2%	8.0%	8.8%
4,000	4,999	9.1%	7.3%	7.5%	7.9%
5,000	5,999	6.9%	6.6%	6.5%	6.7%
6,000	6,999	4.7%	5.3%	5.0%	5.1%
7,000	7,999	4.3%	5.6%	5.2%	5.2%
8,000	8,999	3.5%	5.1%	4.6%	4.6%
9,000	9,999	2.6%	4.3%	3.9%	3.8%
10,000	14,999	6.2%	13.2%	11.4%	10.9%
15,000	19,999	3.5%	10.6%	8.8%	8.2%
20,000	24,999	1.0%	3.8%	3.1%	2.8%
25,000	29,999	0.7%	3.6%	2.9%	2.7%
30,000	34,999	0.5%	2.7%	2.2%	2.0%
35,000	39,999	0.3%	2.1%	1.7%	1.5%
40,000	44,999	0.1%	0.9%	0.7%	0.6%
45,000	49,999	0.3%	3.0%	2.4%	2.1%
50,000	54,999	0.0%	0.3%	0.3%	0.2%
55,000	59,999	0.3%	2.8%	2.2%	1.9%
60,000	64,999	0.0%	0.4%	0.3%	0.3%
65,000	69,999	0.0%	0.5%	0.4%	0.3%
70,000	74,999	0.0%	0.0%	0.0%	0.0%
75,000	79,999	0.0%	0.5%	0.4%	0.4%
80,000	84,999	0.0%	0.0%	0.0%	0.0%
85,000	89,999	0.0%	0.0%	0.0%	0.0%
90,000	999,999	0.2%	3.4%	2.6%	2.3%
Totals		100.0%	100.0%	100.0%	100.0%

## Moorcroft, WY, Sewer Rates Scenario 2

### Chart 5 - Indicators

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

CBGreatRates© Version 5.1

	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>Capacity Indicators</b>											
Equivalent Average Monthly Bill Actually Paid by All Customers Throughout the Year	\$9.68	\$9.71	\$22.23	\$23.34	\$24.50	\$25.73	\$27.02	\$28.37	\$29.78	\$31.27	\$32.84
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$10.88	\$24.47	\$25.69	\$26.98	\$28.32	\$29.74	\$31.23	\$32.79	\$34.43	\$36.15	\$37.96
Annual Median Household Income (AMHI)	\$54,222	\$57,389	\$60,742	\$64,290	\$68,046	\$72,021	\$76,228	\$80,681	\$85,393	\$90,382	\$95,661
Affordability Index for Proposed Rates	0.24%	0.51%	0.51%	0.50%	0.50%	0.50%	0.49%	0.49%	0.48%	0.48%	0.48%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%.											
Estimated Operating Ratio for Proposed Rates	0.70	0.36	0.60	0.89	1.17	1.35	1.35	1.35	1.35	1.35	1.35
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 large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems.											
Estimated Coverage Ratio for Proposed Rates	0.00	-1.05	-1.76	-2.34	-2.93	-2.03	0.25	1.57	3.11	4.76	6.60
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
<b>Reserves</b>											
	Balance Ending on 6/30/10	Balance Ending on 6/30/11	Balance Ending on 6/30/12	Balance Ending on 6/30/13	Balance Ending on 6/30/14	Balance Ending on 6/30/15	Balance Ending on 6/30/16	Balance Ending on 6/30/17	Balance Ending on 6/30/18	Balance Ending on 6/30/19	Balance Ending on 6/30/20
Operating Fund	-\$31,113	-\$70,033	-\$43,884	-\$12,418	\$20,527	\$40,711	\$41,812	\$44,620	\$44,169	\$45,429	\$48,574
CIP Fund	-\$13,745	-\$28,177	-\$37,968	-\$48,750	-\$60,580	-\$49,414	-\$12,980	\$15,466	\$59,282	\$109,759	\$163,371
Debt Reserve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Utility Trust (Meter Deposits)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Fund	\$0	-\$2,409	-\$88,513	-\$135,211	-\$170,575	-\$210,193	-\$208,281	-\$176,304	-\$142,728	-\$107,474	-\$70,457
Current Position (Unobligated Cash and Cash Equivalents)	-\$31,113	-\$70,033	-\$43,884	-\$12,418	\$20,527	\$40,711	\$41,812	\$44,620	\$44,169	\$45,429	\$48,574
Operating Fund + CIP Fund	-\$44,858	-\$98,210	-\$81,852	-\$61,168	-\$40,053	-\$8,703	\$28,833	\$60,087	\$103,451	\$155,188	\$211,945
Operating Fund + CIP Fund Balances Discounted for Inflation (Future Purchasing Power)	-\$44,858	-\$98,210	-\$84,820	-\$65,685	-\$44,571	-\$10,036	\$24,128	\$48,522	\$80,617	\$116,701	\$153,804

Chart 6 - Operating Ratio

Moorcroft, WY

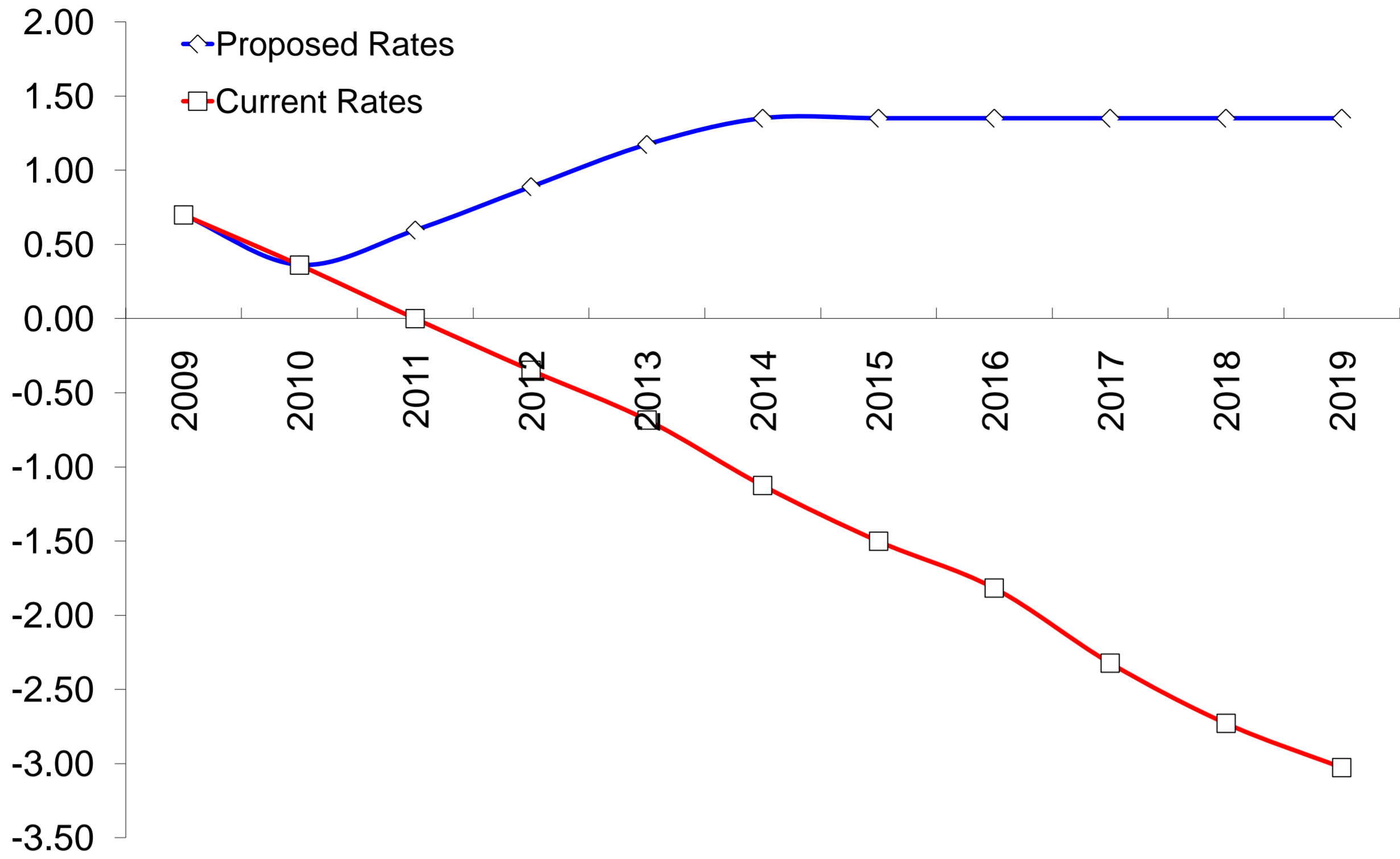


Chart 7 - Coverage Ratio

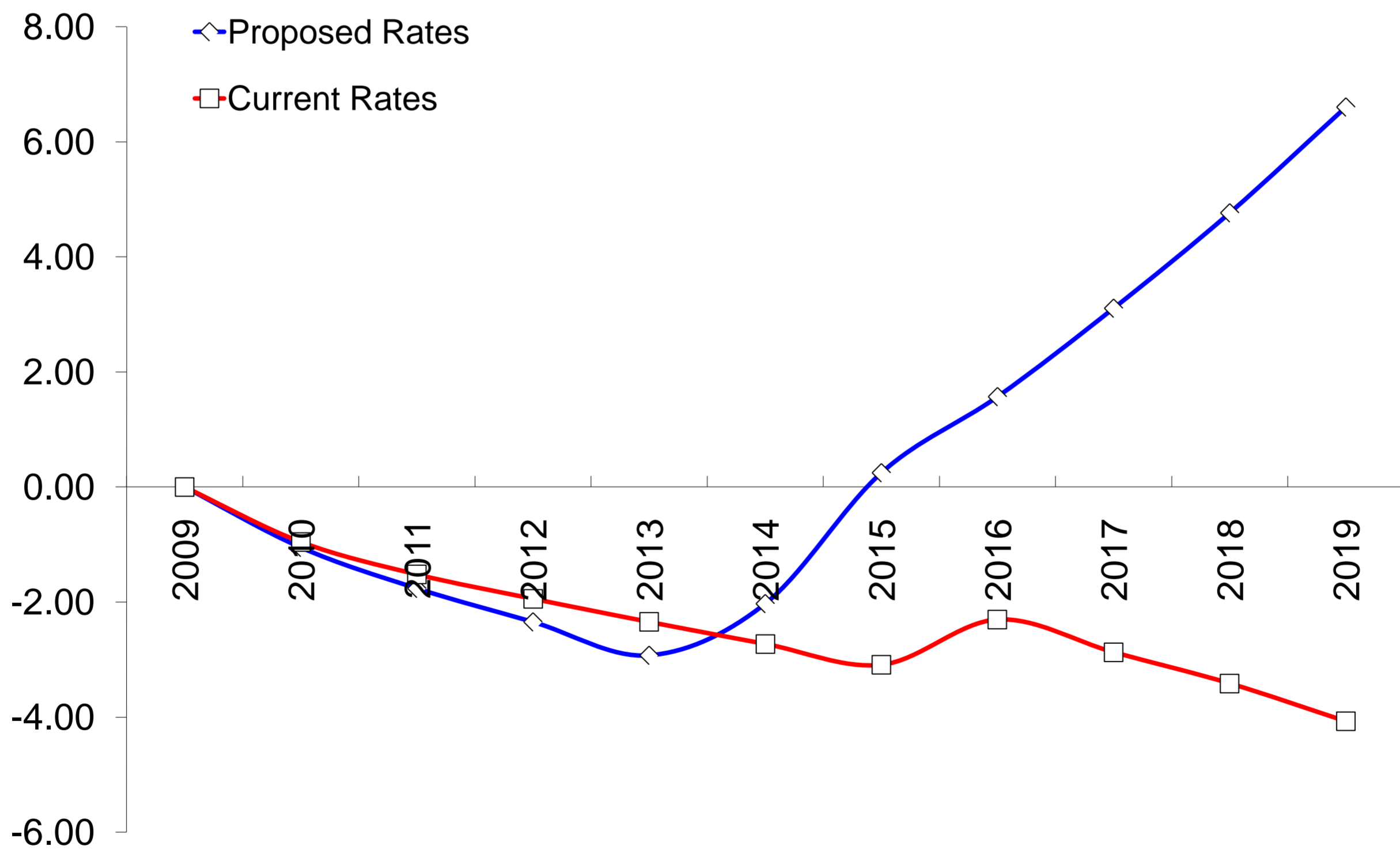


Chart 8 - 5,000 Gal Residential User's Bill

Moorcroft, WY

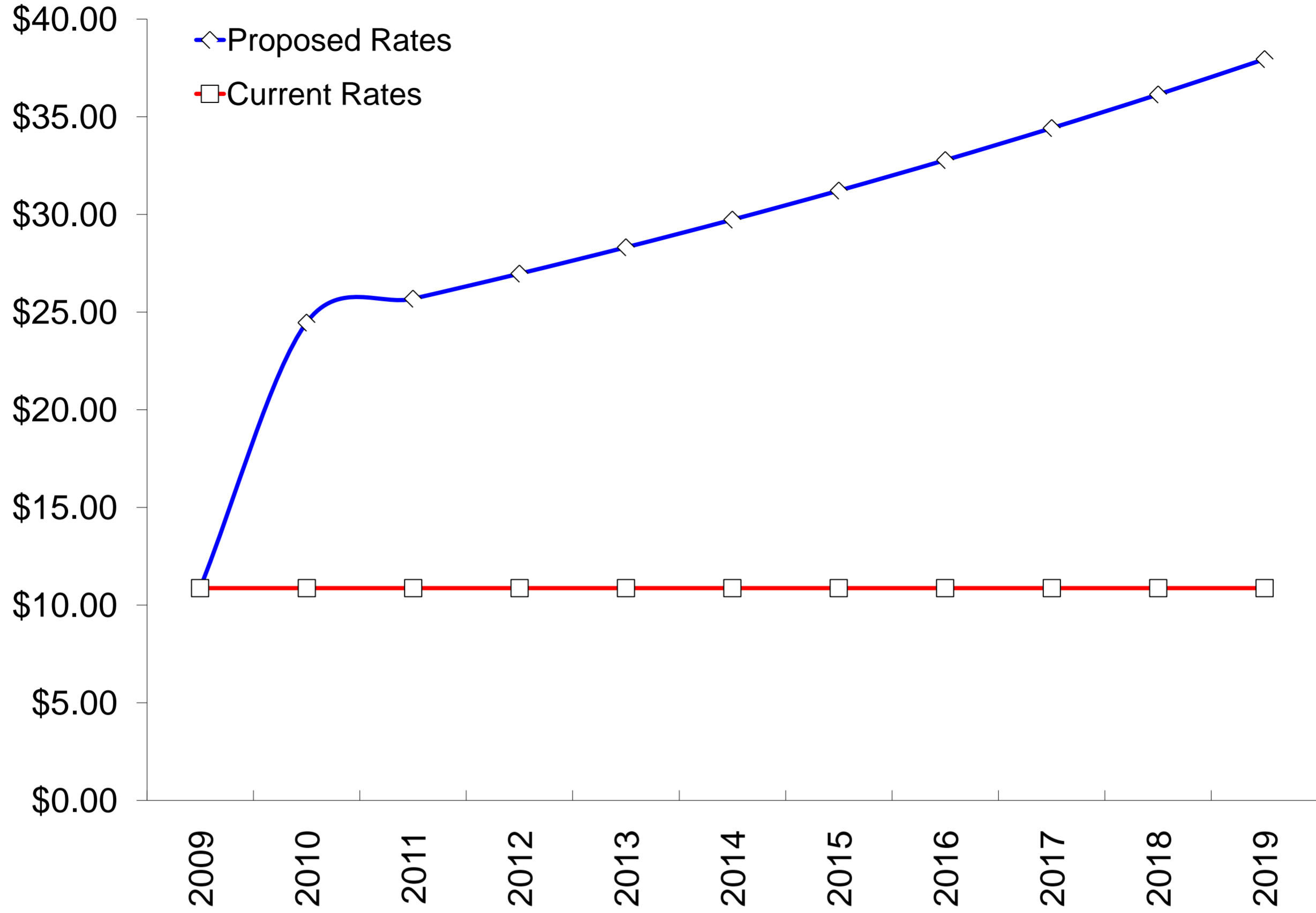


Chart 9 - Affordability Index

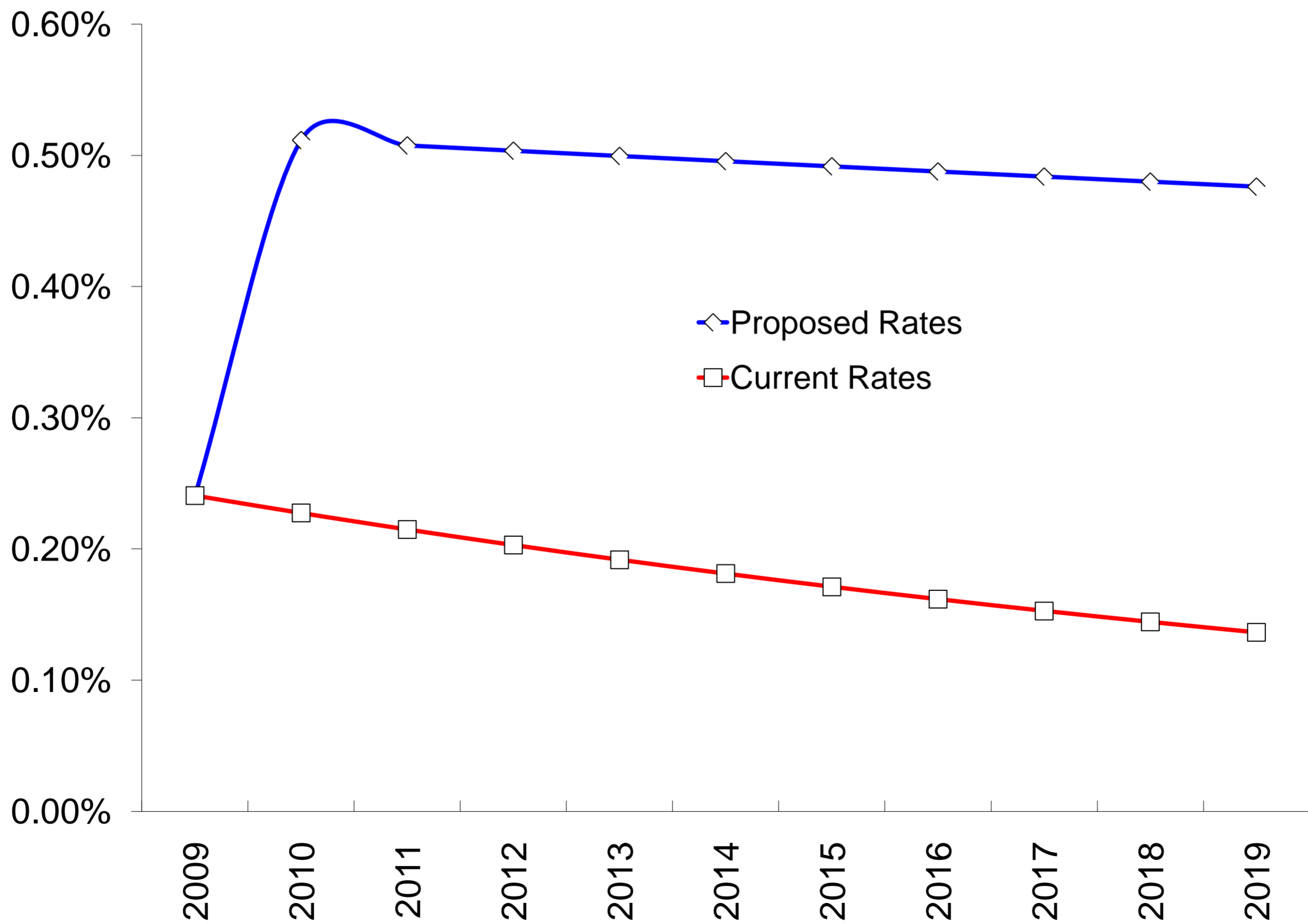


Chart 10 - Working Capital

Moorcroft, WY

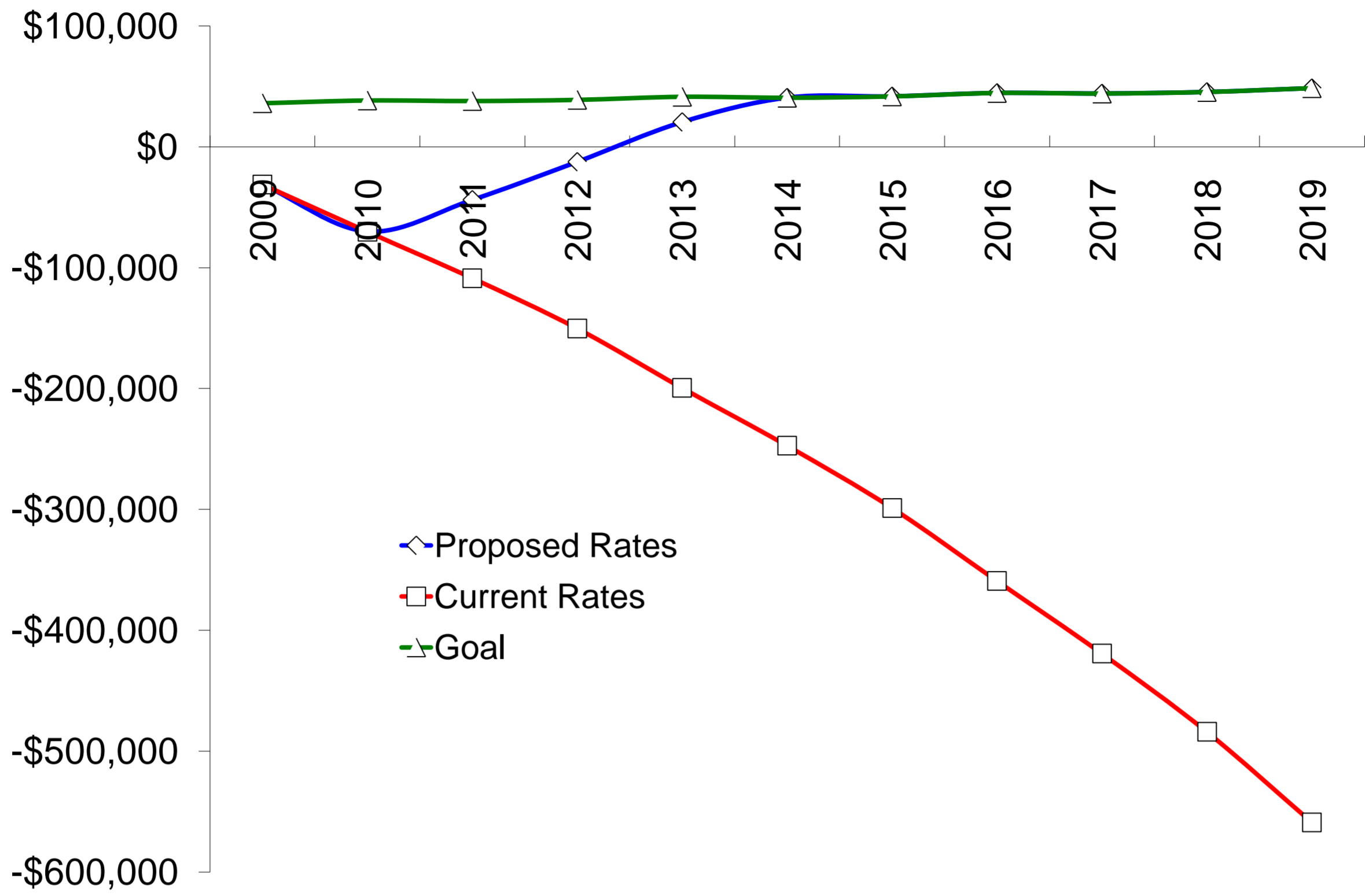


Chart 11 - Working Capital and CIP Reserves Discounted for Inflation

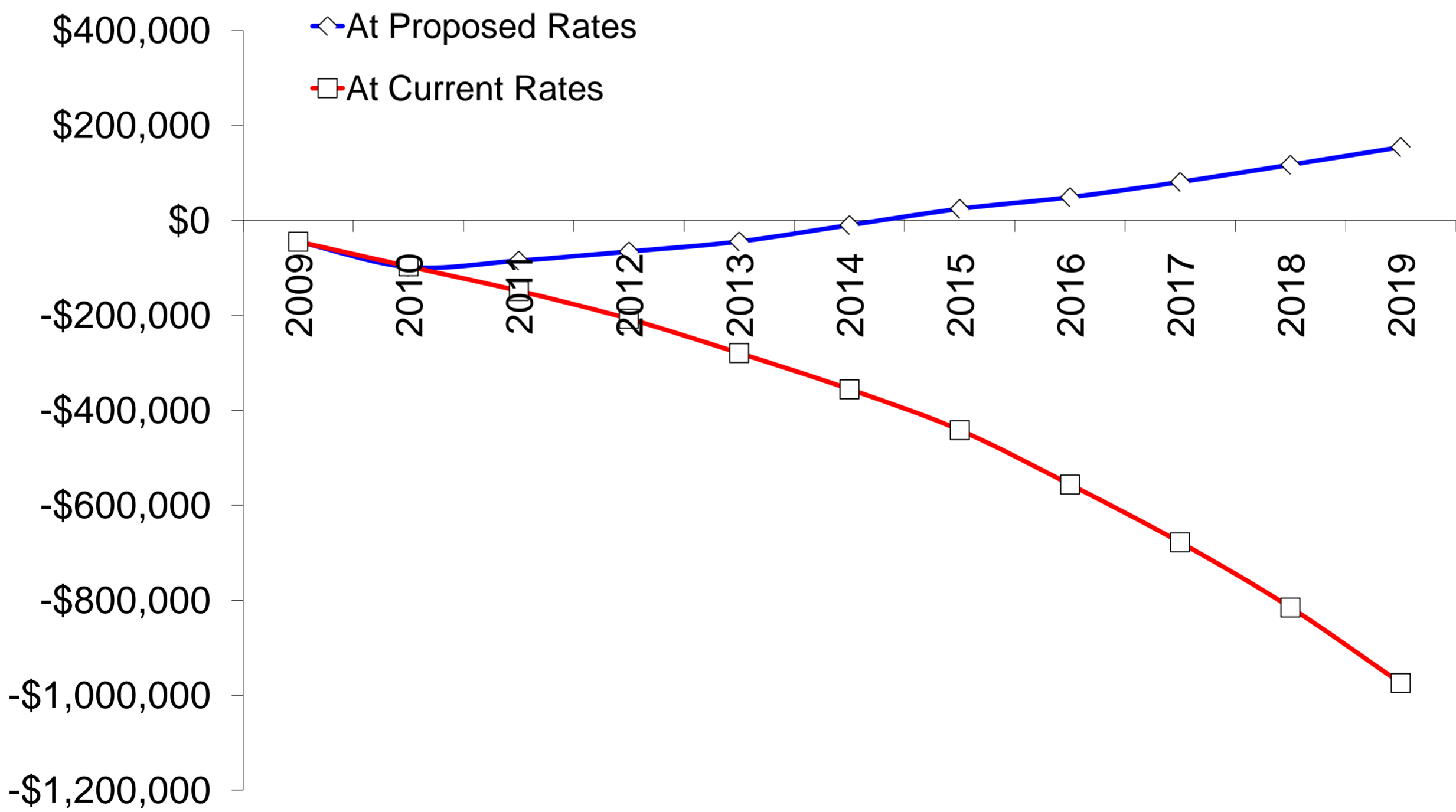


Chart 12 - Use & Revenues

Moorcroft, WY

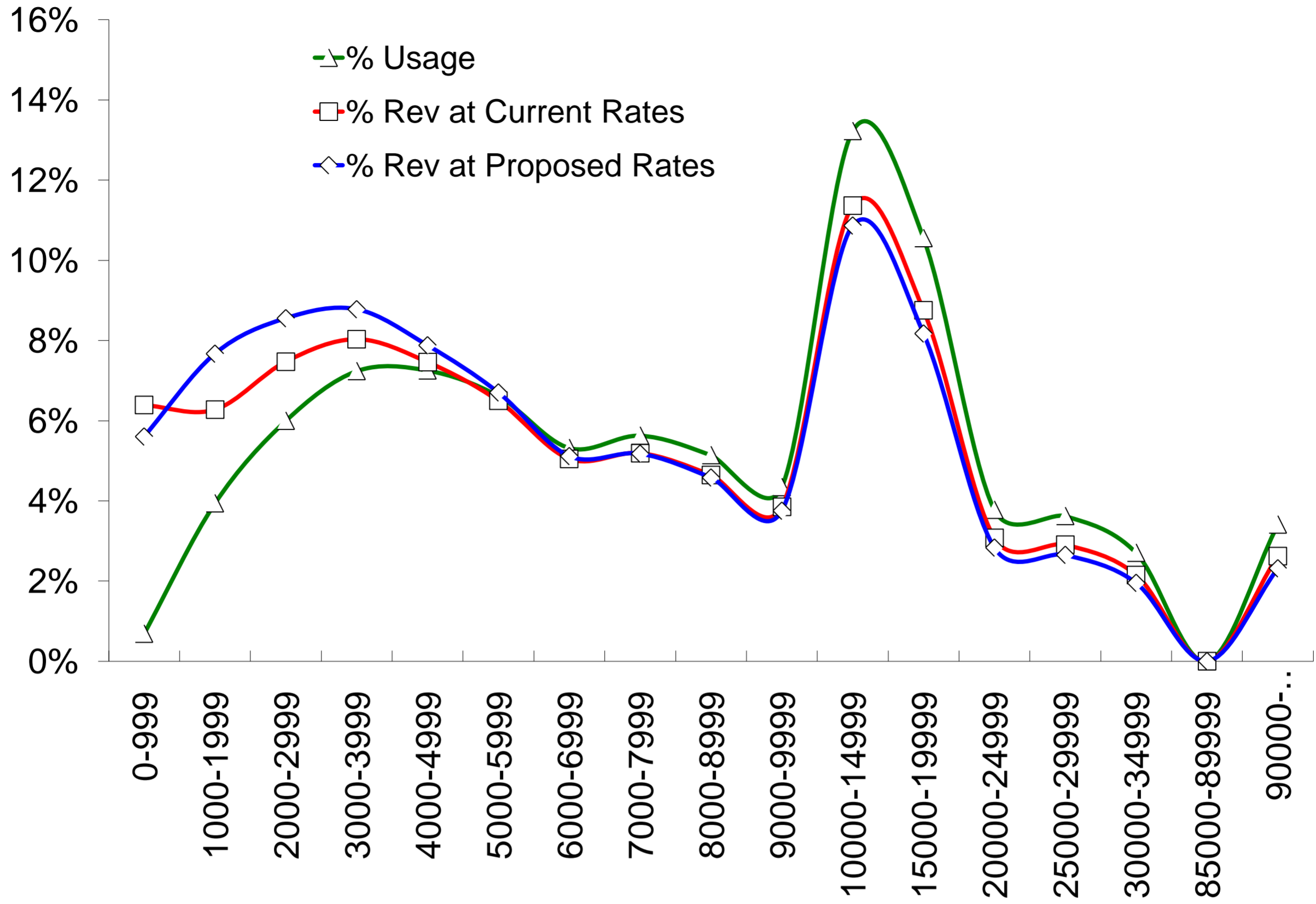
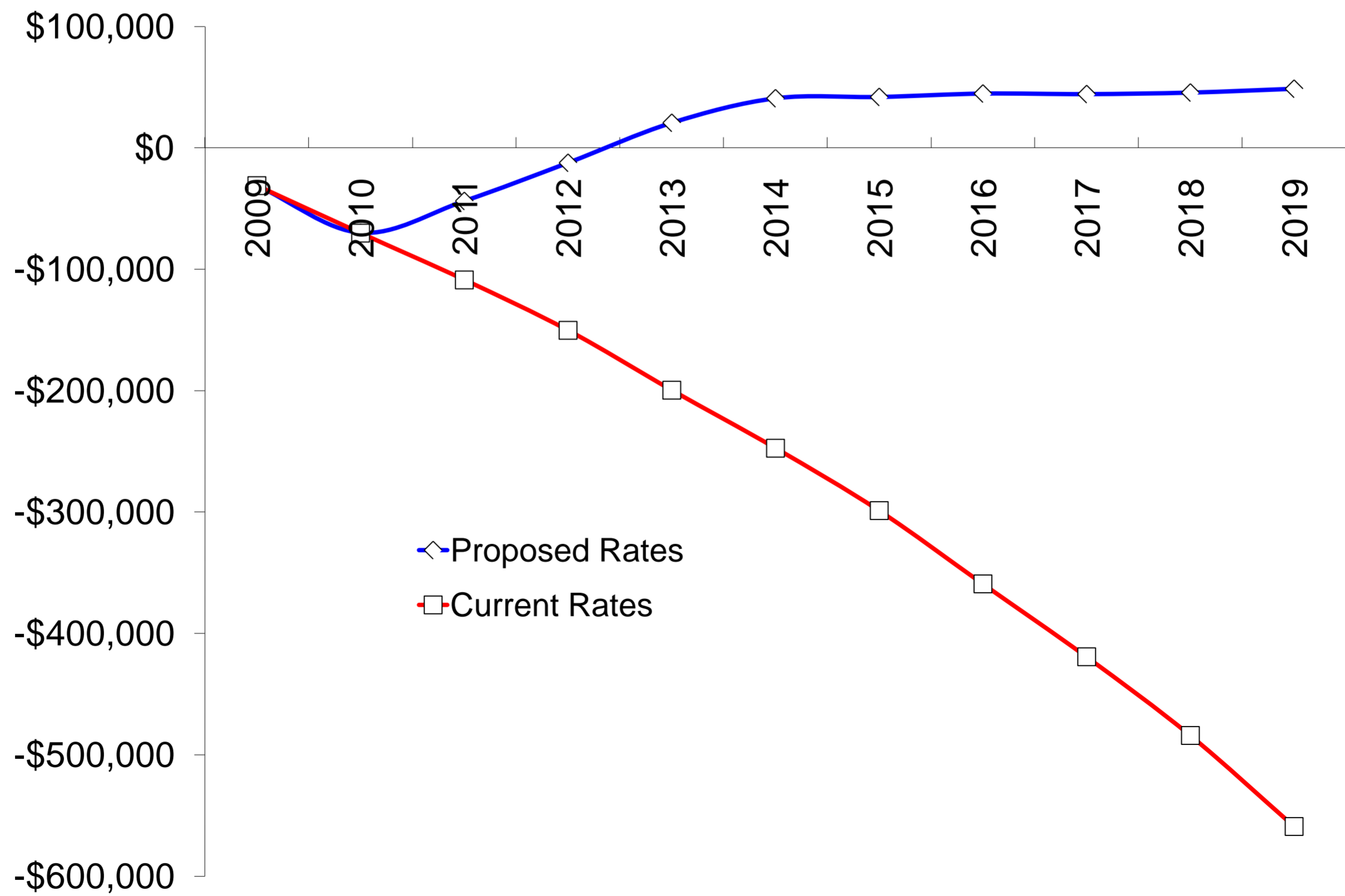


Chart 13 - Current Position



## Moorcroft, WY, Sewer Rates Scenario 2

### Combined Water & Sewer Bills Using the Higher Water Rates Scenario Rates

This chart compares current and proposed combined water and sewer bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Combined Water & Sewer Bill	Proposed Combined Water and Sewer Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
Use per Billing Cycle in Gallons						
All Users						
0	999	0.261	\$45.10	\$56.98	\$11.88	26%
1,000	1,999	1.466	\$45.10	\$60.78	\$15.68	35%
2,000	2,999	2.461	\$46.71	\$63.91	\$17.20	37%
3,000	3,999	3.438	\$48.30	\$66.91	\$18.61	39%
4,000	4,999	4.463	\$49.99	\$72.63	\$22.63	45%
5,000	5,999	5.407	\$51.54	\$80.78	\$29.24	57%
6,000	6,999	6.365	\$53.08	\$89.07	\$35.99	68%
7,000	7,999	7.389	\$54.78	\$97.86	\$43.08	79%
8,000	8,999	8.301	\$57.35	\$105.65	\$48.30	84%
9,000	9,999	9.429	\$63.17	\$115.38	\$52.21	83%
10,000	14,999	11.997	\$76.49	\$137.61	\$61.13	80%
15,000	19,999	17.118	\$102.88	\$181.75	\$78.87	77%
20,000	24,999	22.076	\$128.48	\$224.53	\$96.05	75%
25,000	29,999	27.655	\$156.89	\$272.17	\$115.28	73%
30,000	34,999	32.601	\$182.13	\$314.48	\$132.35	73%
35,000	39,999	38.121	\$210.11	\$361.45	\$151.34	72%
40,000	44,999	42.131	\$231.54	\$396.98	\$165.44	71%
45,000	49,999	48.537	\$264.50	\$452.12	\$187.62	71%
50,000	54,999	51.113	\$279.67	\$476.75	\$197.08	70%
55,000	59,999	57.592	\$310.90	\$529.81	\$218.91	70%
60,000	64,999	62.750	\$335.96	\$572.30	\$236.35	70%
65,000	69,999	66.167	\$355.80	\$604.61	\$248.82	70%
70,000	74,999	73.227	\$393.01	\$666.52	\$273.51	70%
75,000	79,999	78.400	\$418.30	\$709.33	\$291.04	70%
80,000	84,999	83.083	\$443.49	\$751.05	\$307.56	69%
85,000	89,999	87.500	\$465.15	\$787.70	\$322.55	69%
90,000	999,999	116.637	\$601.67	\$1,021.29	\$419.61	70%

## Moorcroft, WY, Sewer Rates Scenario 2

### Combined Water & Sewer Bills Using the Lower Water Rates Scenario Rates

This chart compares current and proposed combined water and sewer bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Combined Water & Sewer Bill	Proposed Combined Water and Sewer Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
Use per Billing Cycle in Gallons		All Users				
0	999	0.261	\$45.10	\$55.26	\$10.16	23%
1,000	1,999	1.466	\$45.10	\$59.06	\$13.96	31%
2,000	2,999	2.461	\$46.71	\$62.19	\$15.48	33%
3,000	3,999	3.438	\$48.30	\$65.19	\$16.89	35%
4,000	4,999	4.463	\$49.99	\$70.82	\$20.83	42%
5,000	5,999	5.407	\$51.54	\$78.78	\$27.24	53%
6,000	6,999	6.365	\$53.08	\$86.87	\$33.79	64%
7,000	7,999	7.389	\$54.78	\$95.47	\$40.68	74%
8,000	8,999	8.301	\$57.35	\$103.08	\$45.73	80%
9,000	9,999	9.429	\$63.17	\$112.58	\$49.41	78%
10,000	14,999	11.997	\$76.49	\$134.29	\$57.80	76%
15,000	19,999	17.118	\$102.88	\$177.40	\$74.52	72%
20,000	24,999	22.076	\$128.48	\$219.19	\$90.71	71%
25,000	29,999	27.655	\$156.89	\$265.75	\$108.86	69%
30,000	34,999	32.601	\$182.13	\$307.10	\$124.96	69%
35,000	39,999	38.121	\$210.11	\$353.01	\$142.90	68%
40,000	44,999	42.131	\$231.54	\$387.66	\$156.12	67%
45,000	49,999	48.537	\$264.50	\$441.52	\$177.02	67%
50,000	54,999	51.113	\$279.67	\$465.44	\$185.77	66%
55,000	59,999	57.592	\$310.90	\$517.44	\$206.53	66%
60,000	64,999	62.750	\$335.96	\$559.06	\$223.10	66%
65,000	69,999	66.167	\$355.80	\$590.44	\$234.65	66%
70,000	74,999	73.227	\$393.01	\$650.85	\$257.84	66%
75,000	79,999	78.400	\$418.30	\$692.78	\$274.48	66%
80,000	84,999	83.083	\$443.49	\$733.44	\$289.95	65%
85,000	89,999	87.500	\$465.15	\$769.33	\$304.18	65%
90,000	999,999	116.637	\$601.67	\$998.56	\$396.89	66%

## Moorcroft, WY, Sewer Rates Scenario 2

### Chart 14 - Old Rates, New Rates and Changes

This chart compares current and proposed bills.

CBGreatRates© Version 5.1

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Current Average Bill	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment
Use per Billing Cycle in Gallons			All Users		
0	999	0.252	\$5.10	\$9.66	\$4.56
1,000	1,999	1.473	\$5.10	\$13.46	\$8.36
2,000	2,999	2.478	\$6.71	\$16.59	\$9.88
3,000	3,999	3.439	\$8.30	\$19.59	\$11.29
4,000	4,999	4.469	\$9.99	\$22.80	\$12.81
5,000	5,999	5.404	\$11.54	\$25.71	\$14.18
6,000	6,999	6.341	\$13.08	\$28.63	\$15.55
7,000	7,999	7.373	\$14.78	\$31.85	\$17.07
8,000	8,999	8.306	\$16.32	\$34.75	\$18.43
9,000	9,999	9.427	\$18.17	\$38.24	\$20.08
10,000	14,999	11.943	\$22.32	\$46.09	\$23.77
15,000	19,999	17.050	\$30.74	\$62.01	\$31.27
20,000	24,999	21.974	\$38.86	\$77.36	\$38.50
25,000	29,999	27.721	\$48.34	\$95.28	\$46.94
30,000	34,999	32.788	\$56.70	\$111.08	\$54.38
35,000	39,999	38.548	\$66.21	\$129.04	\$62.83
40,000	44,999	42.133	\$72.12	\$140.22	\$68.10
45,000	49,999	48.556	\$82.72	\$160.24	\$77.53
50,000	54,999	50.100	\$85.26	\$165.06	\$79.79
55,000	59,999	57.730	\$97.85	\$188.85	\$91.00
60,000	64,999	63.700	\$107.70	\$207.46	\$99.76
65,000	69,999	65.900	\$111.33	\$214.32	\$102.99
70,000	74,999	72.500	\$122.21	\$234.90	\$112.68
75,000	79,999	78.400	\$131.95	\$253.29	\$121.34
80,000	84,999	82.500	\$138.71	\$266.07	\$127.36
85,000	89,999	87.500	\$146.96	\$281.66	\$134.70
90,000	999,999	123.950	\$207.10	\$395.33	\$188.23

## Moorcroft, WY, Sewer Rates Scenario 2

### Chart 14B - Rate Changes in Percent

This chart shows percentage increases and decreases.

CBGreatRates© Version 5.1

Effective New All-in Rate/1,000 Gallons	Class Bottom	Class Top	Percent Increase or Decrease (-) After Rate Adjustment
	Use per Billing Cycle in Gallons		All Users
N.A.	0	999	89%
\$9.14	1,000	1,999	164%
\$6.70	2,000	2,999	147%
\$5.70	3,000	3,999	136%
\$5.10	4,000	4,999	128%
\$4.76	5,000	5,999	123%
\$4.52	6,000	6,999	119%
\$4.32	7,000	7,999	115%
\$4.18	8,000	8,999	113%
\$4.06	9,000	9,999	111%
\$3.86	10,000	14,999	107%
\$3.64	15,000	19,999	102%
\$3.52	20,000	24,999	99%
\$3.44	25,000	29,999	97%
\$3.39	30,000	34,999	96%
\$3.35	35,000	39,999	95%
\$3.33	40,000	44,999	94%
\$3.30	45,000	49,999	94%
\$3.29	50,000	54,999	94%
\$3.27	55,000	59,999	93%
\$3.26	60,000	64,999	93%
\$3.25	65,000	69,999	93%
\$3.24	70,000	74,999	92%
\$3.23	75,000	79,999	92%
\$3.23	80,000	84,999	92%
\$3.22	85,000	89,999	92%
\$3.19	90,000	999,999	91%

Chart 15 - Test Year Usage

One-year period being analyzed starts 7/1/2009

This chart shows usage by your customers during the test year.

Date this scenario created 11/2/2010

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	July-09	August-09	September-09	October-09	November-09	December-09	January-10	February-10	March-10	April-10	May-10	June-10	Average Number Users in Each Class
Use per Billing Cycle in Gallons			All Users												
0	999	0.252				66	66	66	66	66	66				66
1,000	1,999	1.473				65	65	65	65	65	65				65
2,000	2,999	2.478				59	59	59	59	59	59				59
3,000	3,999	3.439				51	51	51	51	51	51				51
4,000	4,999	4.469				39	39	39	39	39	39				39
5,000	5,999	5.404				30	30	30	30	30	30				30
6,000	6,999	6.341				20	20	20	20	20	20				20
7,000	7,999	7.373				19	19	19	19	19	19				19
8,000	8,999	8.306				15	15	15	15	15	15				15
9,000	9,999	9.427				11	11	11	11	11	11				11
10,000	14,999	11.943				27	27	27	27	27	27				27
15,000	19,999	17.050				15	15	15	15	15	15				15
20,000	24,999	21.974				4	4	4	4	4	4				4
25,000	29,999	27.721				3	3	3	3	3	3				3
30,000	34,999	32.788				2	2	2	2	2	2				2
35,000	39,999	38.548				1	1	1	1	1	1				1
40,000	44,999	42.133				1	1	1	1	1	1				1
45,000	49,999	48.556				2	2	2	2	2	2				2
50,000	54,999	50.100				0	0	0	0	0	0				0
55,000	59,999	57.730				1	1	1	1	1	1				1
60,000	64,999	63.700				0	0	0	0	0	0				0
65,000	69,999	65.900				0	0	0	0	0	0				0
70,000	74,999	72.500				0	0	0	0	0	0				0
75,000	79,999	78.400				0	0	0	0	0	0				0
80,000	84,999	82.500				0	0	0	0	0	0				0
85,000	89,999	87.500				0	0	0	0	0	0				0
90,000	999,999	123.950				1	1	1	1	1	1				1
Total Users Each Month and Average for the Year			0	0	0	432	432	432	432	432	432	0	0	0	432

# Moorcroft, WY

## Chart 16A - Rates During Test Year

CBGreatRates© Version 5.1

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

Class Bottom	Class Top	Median or Actual Average use (1,000 Gallons)	Base Minimum Charge (1,000 Gallons)	Usage Allowance (1,000 Gallons)	Unit Charge This Class per 1,000 Gallons
Use per Billing Cycle in Gallons					
0	999	0.252	\$5.10	All Users 1.5	\$1.65
1,000	1,999	1.473	\$5.10	1.5	\$1.65
2,000	2,999	2.478	\$5.10	1.5	\$1.65
3,000	3,999	3.439	\$5.10	1.5	\$1.65
4,000	4,999	4.469	\$5.10	1.5	\$1.65
5,000	5,999	5.404	\$5.10	1.5	\$1.65
6,000	6,999	6.341	\$5.10	1.5	\$1.65
7,000	7,999	7.373	\$5.10	1.5	\$1.65
8,000	8,999	8.306	\$5.10	1.5	\$1.65
9,000	9,999	9.427	\$5.10	1.5	\$1.65
10,000	14,999	11.943	\$5.10	1.5	\$1.65
15,000	19,999	17.050	\$5.10	1.5	\$1.65
20,000	24,999	21.974	\$5.10	1.5	\$1.65
25,000	29,999	27.721	\$5.10	1.5	\$1.65
30,000	34,999	32.788	\$5.10	1.5	\$1.65
35,000	39,999	38.548	\$5.10	1.5	\$1.65
40,000	44,999	42.133	\$5.10	1.5	\$1.65
45,000	49,999	48.556	\$5.10	1.5	\$1.65
50,000	54,999	50.100	\$5.10	1.5	\$1.65
55,000	59,999	57.730	\$5.10	1.5	\$1.65
60,000	64,999	63.700	\$5.10	1.5	\$1.65
65,000	69,999	65.900	\$5.10	1.5	\$1.65
70,000	74,999	72.500	\$5.10	1.5	\$1.65
75,000	79,999	78.400	\$5.10	1.5	\$1.65
80,000	84,999	82.500	\$5.10	1.5	\$1.65
85,000	89,999	87.500	\$5.10	1.5	\$1.65
90,000	999,999	123.950	\$5.10	1.5	\$1.65

# Moorcroft, WY

## Chart 16B - Reserves, AMHI

CBGreatRates© Version 5.1

Reserve Starting Balances as of 7/1/09 and Debits and Credits\*

Starting Balances	\$778 Operating Fund	\$0 Replacement Fund
Starting Balances	\$0 CIP Fund	

### Annual Median Household Income (AMHI)

\$54,222 AMHI for Moorcroft, WY for the year 2008, by Census estimate

5.8% Rate of growth in AMHI (assumed)

## Chart 16C - Incomes

Incomes for 7/1/09 Through 6/30/10

\$50,143 User Charge Fees

\$0 Late Charges, Penalties

0 Number of New Taps

\$1,000 Average Tap Fee

\$0 Tap Fees

\$0 Interest

\$0 Surcharge Fees

\$0 Bulk Water Sales

\$0 Water Sales Taxes

\$21,442 Sewer Investment Fees Less Tap Fees

**\$71,585 Total All Incomes**

Predicted billable  
user fees:

\$63,218

Tap Fees dedicated  
to capital  
improvements:

\$0

# Moorcroft, WY, Sewer Rates Scenario 2

## Chart 17A - Equipment Replacement Details Chart

This schedule depicts detailed equipment replacement and refurbishment during the next 20 years.

CBGreatRates© Version 5.1, Replacement Scheduler© Version 1.4

Year Beginning	Replace Sewer Pumps 1 - 3	Replace 6 Lagoon Aerator Pumps	Loader (1/3rd shares water, sewer, trash)	2002 Ford F350 Service Bed (50% water, 50% sewer)	2008 Ford F450 Dump Truck w/ Plow (1/3rd shares)	2005 Ford F250 Truck (50% water, 50% sewer)	Hydrovac Truck (30% water, 70% sewer)	2009 John Deere Backhoe (50% water, 50% sewer)	Total Annual Replacement Costs
7/1/09	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/10	\$0	\$0	\$0	\$0	\$0	\$0	\$44,800	\$0	\$44,800
7/1/11	\$60,000	\$0	\$9,333	\$0	\$0	\$2,600	\$44,800	\$7,300	\$124,033
7/1/12	\$0	\$0	\$9,333	\$15,000	\$0	\$2,600	\$44,800	\$7,300	\$79,033
7/1/13	\$0	\$0	\$9,333	\$0	\$0	\$2,600	\$44,800	\$7,300	\$64,033
7/1/14	\$0	\$0	\$9,333	\$0	\$0	\$2,600	\$44,800	\$7,300	\$64,033
7/1/15	\$0	\$6,000	\$9,333	\$0	\$0	\$2,600	\$0	\$7,300	\$25,233
7/1/16	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/17	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/18	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/19	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/20	\$0	\$0	\$0	\$0	\$12,667	\$0	\$0	\$0	\$12,667
7/1/21	\$0	\$0	\$0	\$0	\$0	\$2,600	\$0	\$0	\$2,600
7/1/22	\$0	\$0	\$0	\$15,000	\$0	\$2,600	\$0	\$0	\$17,600
7/1/23	\$0	\$0	\$0	\$0	\$0	\$2,600	\$0	\$0	\$2,600
7/1/24	\$0	\$0	\$0	\$0	\$0	\$2,600	\$0	\$0	\$2,600
7/1/25	\$0	\$0	\$0	\$0	\$0	\$2,600	\$0	\$0	\$2,600
7/1/26	\$60,000	\$6,000	\$0	\$0	\$0	\$0	\$0	\$0	\$66,000
7/1/27	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/28	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/29	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7/1/30	\$0	\$0	\$0	\$0	\$0	\$0	\$44,800	\$0	\$44,800
7/1/31	\$0	\$0	\$9,333	\$0	\$0	\$2,600	\$44,800	\$7,300	\$64,033
7/1/32	\$0	\$0	\$9,333	\$15,000	\$12,667	\$2,600	\$44,800	\$7,300	\$91,700
7/1/33	\$0	\$0	\$9,333	\$0	\$0	\$2,600	\$44,800	\$7,300	\$64,033

# Moorcroft, WY, Sewer Rates Scenario 2

## Chart 17 - Replacement Schedule

CBGreatRates© Version 5.1, Replacement Scheduler© Version 1.4

This schedule calculates the annual annuity to fund all replacement and refurbishment from the detailed schedule.

3.50% Average Inflation Rate for the Following Sewer System Equipment for the Term of This Replacement Schedule

4.50% 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	This Year's Costs in Current Dollars	One-time Transfers From Operating Fund	One-time Transfers to Operating Fund	End of Year Balance in Future Dollars	Minimum Desired End of Year Balance in Future Dollars
7/1/09	Test year replacements	\$0	\$0	\$0	\$0	\$101,567
7/1/10	Total of replacements from detailed replacement schedule	\$44,800	\$0	\$0	-\$2,409	\$101,567
7/1/11	Total of replacements from detailed replacement schedule	\$124,033	\$0	\$0	-\$88,513	\$105,122
7/1/12	Total of replacements from detailed replacement schedule	\$79,033	\$0	\$0	-\$135,211	\$108,801
7/1/13	Total of replacements from detailed replacement schedule	\$64,033	\$0	\$0	-\$170,575	\$112,609
7/1/14	Total of replacements from detailed replacement schedule	\$64,033	\$0	\$0	-\$210,193	\$116,550
7/1/15	Total of replacements from detailed replacement schedule	\$25,233	\$0	\$0	-\$208,281	\$120,629
7/1/16	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	-\$176,304	\$124,851
7/1/17	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	-\$142,728	\$129,221
7/1/18	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	-\$107,474	\$133,744
7/1/19	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	-\$70,457	\$138,425
7/1/20	Total of replacements from detailed replacement schedule	\$12,667	\$0	\$0	-\$49,456	\$143,270
7/1/21	Total of replacements from detailed replacement schedule	\$2,600	\$0	\$0	-\$13,334	\$148,284
7/1/22	Total of replacements from detailed replacement schedule	\$17,600	\$0	\$0	\$1,795	\$153,474
7/1/23	Total of replacements from detailed replacement schedule	\$2,600	\$0	\$0	\$40,201	\$158,846
7/1/24	Total of replacements from detailed replacement schedule	\$2,600	\$0	\$0	\$80,192	\$164,405
7/1/25	Total of replacements from detailed replacement schedule	\$2,600	\$0	\$0	\$121,835	\$170,160
7/1/26	Total of replacements from detailed replacement schedule	\$66,000	\$0	\$0	\$55,266	\$176,115
7/1/27	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$100,144	\$182,279
7/1/28	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$147,041	\$188,659
7/1/29	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$196,049	\$195,262

Notes: Replacement needs were drawn from the most recent system budget for 2010 and projected into the future. The minimum desired balance was set so as to build and maintain a balance that will be approximately double the amount of the average annual replacement costs. The required annual deposit was calculated based upon these amounts.

Starting Account Balance	\$0	\$101,567
Minimum Annual Annuity	\$38,591	Minimum Desired Balance in Today's Dollars
Discretionary Annuity	\$3,800	

**Required Annual Deposit to Replacement Account \$42,391**

# Moorcroft, WY

## Chart 18 - All-in Test Year Costs and Rate Structure Calculations

CBGreatRates© Version 5.1

This chart depicts all costs for the test year and distributes those costs to fixed and variable categories for the purpose of calculating the "proportional to use" rate structure (see Definitions).

### 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	Surchargeable Costs
Administration Salaries, Benefits, etc. Allocation	\$1,745	100%	\$1,745	\$1,745	\$0	\$0
Operations Staff Salaries, Benefits & Related Items	\$5,234	0%	\$5,234	\$0	\$5,234	\$0
Office Supplies	\$1,286	100%	\$1,286	\$1,286	\$0	\$0
Repair/Maint Supplies	\$8,432	100%	\$8,432	\$8,432	\$0	\$0
Equipment Repairs	\$3,326	50%	\$3,326	\$1,663	\$1,663	\$0
Chemicals	\$7,633	0%	\$7,633	\$0	\$7,633	\$0
Postage	\$514	100%	\$514	\$514	\$0	\$0
Travel and Training	\$2,234	100%	\$2,234	\$2,234	\$0	\$0
Gas/Lube/Oil	\$2,333	50%	\$2,333	\$1,167	\$1,167	\$0
Locates	\$57	100%	\$57	\$57	\$0	\$0
Liability Insurance	\$297	100%	\$297	\$297	\$0	\$0
Property Insurance	\$259	100%	\$259	\$259	\$0	\$0
Water Testing	\$4,656	100%	\$4,656	\$4,656	\$0	\$0
Electricity	\$18,085	10%	\$18,085	\$1,809	\$16,277	\$0
Burlington Northern Lease 5 Years	\$950	100%	\$950	\$950	\$0	\$0
Contractual Services	\$4,044	100%	\$4,044	\$4,044	\$0	\$0
Surchargeable Sewer Services	NA	0%	\$0	\$0	\$0	\$0
Inflow and Infiltration	NA	0%	\$0	\$0	\$0	\$0
One-time Transfer to Replacement Fund	\$0	0%	\$0	\$0	\$0	\$0
Annual Payment to Replacement Fund	\$42,391	0%	\$42,391	\$0	\$42,391	\$0
User Charge Analysis Services	\$0	50%	\$0	\$0	\$0	\$0
Loan Payment	\$13,745	75%	\$13,745	\$10,309	\$3,436	\$0
<b>Grand Total All Costs</b>	<b>\$117,221</b>		<b>\$117,221</b>	<b>\$39,421</b>	<b>\$77,800</b>	<b>\$0</b>

### Cost Calculations for "Proportional" Rates

Fixed Cost/User/Month =	\$7.61	Surchargeable Services are Estimated at	\$0
Variable Costs (Cost to Produce)/1,000 Gallons Sold =	\$2.68	Inflow and Infiltration is Estimated at	15%
		Percentage of Inflow and Infiltration to Allocate to Fixed Costs is	0%
		As Compared to Service Sold, the Relative Cost of Inflow and Infiltration is Estimated at	50%
		Resulting Cost of Inflow and Infiltration	\$13,364

	Test Year Usage Metered Through Customer Meters	29,083,364 Gallons
Gallons/Billing Cycle Used by Average General Customer =	5,617	+ Test Year Inflow and Infiltration
Gallons/Billing Cycle Used by Average Special Customer =	NA	= Total Test Year Volume
		34,310,000 Gallons

# Moorcroft, WY, Garbage Rates Scenario 2

## Rate Analysis Modeling Results

This model assumes initial rate adjustments as reflected in Chart 1. Annually thereafter rates will be increased as shown near the top of Chart 2A. The model compares the system's financial outlook under the proposed rates with the outlook if no adjustments are made to make it easy to understand the outcome of the proposed changes.

For most, the best way to read and understand what this model means is this. Scan the "Index of Charts and Pages" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder charts 1 and 6-14. These will show you how the proposed rate adjustments will affect ratepayers and the system. If you need more detail than that, review the entire model. Finally, rate setting involves much more than just rates so you need to read the accompanying narrative report to understand what you need to do and why.

March 3, 2011

This rate analysis scenario was produced by  
Carl E. Brown, Carl Brown Consulting, LLC  
1014 Carousel Drive, Jefferson City, Missouri 65101  
(573) 619-3411

[www.carlbrownconsulting.com](http://www.carlbrownconsulting.com)  
[carl@carlbrownconsulting.com](mailto:carl@carlbrownconsulting.com)

CBGreatRates© Version 5.2

# Moorcroft, WY, Garbage Rates Scenario 2

## Financial Highlights

CBGreatRates© Version 5.2

This analysis package examines a "proposed rates scenario" that depicts what will happen under the adjusted rates and other changes recommended for the system. The results of this scenario are compared to the results you can expect if you do not adjust rates at all during the 10 years following the test year.

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 the model. The second is the year following the test year - the year during which initial rate adjustments (typically) go into effect. The last two columns are the fifth and tenth years following the test year.

	Results for Years Ending on			
	6/30/10	6/30/11	6/30/15	6/30/20
Rate revenues collected	\$87,081	\$87,124	\$130,525	\$175,902
Sum of incomes	\$87,081	\$87,924	\$131,518	\$177,328
Sum of operating costs	\$79,087	\$106,894	\$112,609	\$133,979
Net income gain or loss ( - )	\$7,994	-\$18,970	\$18,909	\$43,348
Capital improvement reserves	\$0	\$0	\$6,722	\$154,974
Replacement reserves	\$0	\$5,138	\$1,074	\$4,026
Current position*	\$35,556	\$16,586	\$56,305	\$66,990
*All current incomes plus reserves minus all current obligations				
Increase or decrease ( - ) in current position due to this analysis	\$0	\$43	\$117,406	\$295,589

## Return on Investment and Payback Period Calculations

Return on investment due to this analysis, projected one and five years into the future	N.A.	1%	3976%
---	------	----	-------

Payback period, in days, made possible by this analysis	38
---	----

Return rate and payback period are based upon the following investments:

Fees to Carl Brown Consulting	\$2,453
Estimated value of city staff time and incidentals to assemble needed information	\$500
<b>Total Investment</b>	<b>\$2,953</b>

With the exception of tables that depict test year data, all other tables and charts depict the financial performance made possible by the modeled rate changes. The easiest way to grasp the financial future of the system is to view the line graphs. Another table shows the bills your users are paying now compared to the bills they would pay under the proposed rates scenario.

This analysis was produced using the program [CBGreatRates](#), copyright 2010. You are encouraged to distribute this report so long as credit is ascribed to the author, Carl E. Brown of Carl Brown Consulting, LLC.

# Moorcroft, WY, Garbage Rates Scenario 2

## Chart 1 - Proposed Rate Chart

CBGreatRates© Version 5.2

Starting with bills on and after June 30, 2011 user rates will be as follows:

	Volume in Gallons	Number of Cans	Pickups/Week	Minimum Charge	Pickup Allowance in Cans	Charge per Pickup	Total Bill for This User Class
	95	1	1	\$7.68	0	\$9.22	\$16.90
	95	1	2	\$7.68	0	\$18.44	\$44.56
	95	1	3	\$7.68	0	\$27.66	\$90.65
	95	1	4	\$7.68	0	\$36.87	\$155.18
	95	1	5	\$7.68	0	\$46.09	\$238.14
	300	1	1	\$21.30	0	\$9.22	\$30.52
	300	1	2	\$21.30	0	\$18.44	\$58.18
	300	1	3	\$21.30	0	\$27.66	\$104.27
	300	1	4	\$21.30	0	\$36.87	\$168.80
	300	1	5	\$21.30	0	\$46.09	\$251.76
	300	2	1	\$34.92	0	\$12.37	\$47.30
	300	2	2	\$34.92	0	\$21.59	\$78.11
	300	2	3	\$34.92	0	\$30.81	\$127.36
	300	2	4	\$34.92	0	\$40.03	\$195.04
	300	2	5	\$34.92	0	\$49.25	\$281.16
	300	3	1	\$48.54	0	\$15.53	\$64.07
	300	3	2	\$48.54	0	\$24.75	\$98.04
	300	3	3	\$48.54	0	\$33.97	\$150.44
	300	3	4	\$48.54	0	\$43.19	\$221.29
	300	3	5	\$48.54	0	\$52.40	\$310.56
	300	4	1	\$62.16	0	\$18.69	\$80.85
	300	4	2	\$62.16	0	\$27.90	\$117.97
	300	4	3	\$62.16	0	\$37.12	\$173.53
	300	4	4	\$62.16	0	\$46.34	\$247.53
	300	4	5	\$62.16	0	\$55.56	\$339.96
	300	5	1	\$75.78	0	\$21.84	\$97.62
	300	5	2	\$75.78	0	\$31.06	\$137.90
	300	5	3	\$75.78	0	\$40.28	\$196.62
	300	5	4	\$75.78	0	\$49.50	\$273.77
	300	5	5	\$75.78	0	\$58.72	\$369.36
	300	6	1	\$89.40	0	\$25.00	\$114.40
	300	6	2	\$89.40	0	\$34.22	\$157.84
	300	6	3	\$89.40	0	\$43.43	\$219.71
	300	6	4	\$89.40	0	\$52.65	\$300.02
	300	6	5	\$89.40	0	\$61.87	\$398.76
	300	7	1	\$103.02	0	\$28.15	\$131.18
	300	7	2	\$103.02	0	\$37.37	\$177.77
	300	7	3	\$103.02	0	\$46.59	\$242.80
	300	7	4	\$103.02	0	\$55.81	\$326.26
	300	7	5	\$103.02	0	\$65.03	\$428.16
	300	8	1	\$116.64	0	\$31.31	\$147.95
	300	8	2	\$116.64	0	\$40.53	\$197.70
	300	8	3	\$116.64	0	\$49.75	\$265.88
	300	8	4	\$116.64	0	\$58.97	\$352.50
	300	8	5	\$116.64	0	\$68.18	\$457.56

In-Town Service

	Volume in Gallons	Number of Cans	Pickups/Week	Minimum Charge	Pickup Allowance in Cans	Charge per Pickup	Total Bill for This User Class
	95	1	1	\$9.60	0	\$11.52	\$21.13
	95	1	2	\$9.60	0	\$23.05	\$55.69
	95	1	3	\$9.60	0	\$34.57	\$113.31
	95	1	4	\$9.60	0	\$46.09	\$193.97
	95	1	5	\$9.60	0	\$57.62	\$297.68
	300	1	1	\$26.63	0	\$11.52	\$38.15
	300	1	2	\$26.63	0	\$23.05	\$72.72
	300	1	3	\$26.63	0	\$34.57	\$130.34
	300	1	4	\$26.63	0	\$46.09	\$211.00
	300	1	5	\$26.63	0	\$57.62	\$314.71
	600	2	1	\$43.65	0	\$15.47	\$59.12
	600	2	2	\$43.65	0	\$26.99	\$97.64
	600	2	3	\$43.65	0	\$38.51	\$159.20
	600	2	4	\$43.65	0	\$50.04	\$243.80
	600	2	5	\$43.65	0	\$61.56	\$351.45
	900	3	1	\$60.68	0	\$19.41	\$80.09
	900	3	2	\$60.68	0	\$30.94	\$122.55
	900	3	3	\$60.68	0	\$42.46	\$188.06
	900	3	4	\$60.68	0	\$53.98	\$276.61
	900	3	5	\$60.68	0	\$65.51	\$388.20
	1,200	4	1	\$77.70	0	\$23.36	\$101.06
	1,200	4	2	\$77.70	0	\$34.88	\$147.46
	1,200	4	3	\$77.70	0	\$46.40	\$216.92
	1,200	4	4	\$77.70	0	\$57.93	\$309.41
	1,200	4	5	\$77.70	0	\$69.45	\$424.95
	1,500	5	1	\$94.73	0	\$27.30	\$122.03
	1,500	5	2	\$94.73	0	\$38.83	\$172.38
	1,500	5	3	\$94.73	0	\$50.35	\$245.77
	1,500	5	4	\$94.73	0	\$61.87	\$342.22
	1,500	5	5	\$94.73	0	\$73.39	\$461.70
	1,800	6	1	\$111.75	0	\$31.25	\$143.00
	1,800	6	2	\$111.75	0	\$42.77	\$197.29
	1,800	6	3	\$111.75	0	\$54.29	\$274.63
	1,800	6	4	\$111.75	0	\$65.82	\$375.02
	1,800	6	5	\$111.75	0	\$77.34	\$498.45
	2,100	7	1	\$128.78	0	\$35.19	\$163.97
	2,100	7	2	\$128.78	0	\$46.72	\$222.21
	2,100	7	3	\$128.78	0	\$58.24	\$303.49
	2,100	7	4	\$128.78	0	\$69.76	\$407.83
	2,100	7	5	\$128.78	0	\$81.28	\$535.20
	2,400	8	1	\$145.80	0	\$39.14	\$184.94
	2,400	8	2	\$145.80	0	\$50.66	\$247.12
	2,400	8	3	\$145.80	0	\$62.18	\$332.35
	2,400	8	4	\$145.80	0	\$73.71	\$440.63
	2,400	8	5	\$145.80	0	\$85.23	\$571.95

Out-of-Town Service

Moorcroft, WY, Garbage Rates Scenario 2  
 Chart 2A - User Base and Operating Incomes

This chart depicts incomes during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>User Base</b>												
Average Users for the Year	NA	466	466	466	471	477	482	487	492	498	503	509
Users Added/Lost During the Year	NA	0	0	5	5	5	5	5	5	5	6	6
User Growth/Loss Rate	NA	0.00%	0.00%	1.10%	1.10%	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%	1.09%
Rate Increases Initiated in Future Years	NA	NA	18.1%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
<b>Operating Incomes</b>												
User Charge Fees	NA	\$87,081	\$87,124	\$109,128	\$115,840	\$122,964	\$130,525	\$138,552	\$147,071	\$156,114	\$165,713	\$175,902
Late Charges, Penalties	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Customer Fees % Above		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest	NA	\$0	\$800	\$373	\$509	\$733	\$993	\$1,267	\$1,304	\$1,377	\$1,384	\$1,426
Total Regular Income		\$87,081	\$87,924	\$109,501	\$116,348	\$123,696	\$131,518	\$139,818	\$148,375	\$157,491	\$167,097	\$177,328

Chart 2B - Operating Costs and Net Income

This chart depicts expenses during the test year, this year and for the next 10 years.

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

	Infla./De- flation (-) Factor	Year Starting 7/1/09	Year Starting 7/1/10	Year Starting 7/1/11	Year Starting 7/1/12	Year Starting 7/1/13	Year Starting 7/1/14	Year Starting 7/1/15	Year Starting 7/1/16	Year Starting 7/1/17	Year Starting 7/1/18	Year Starting 7/1/19
<b>Operating Costs</b>												
Administration Salaries, Benefits, etc. Allocation	3.0%	\$2,706	\$8,750	\$9,013	\$9,283	\$9,562	\$9,848	\$10,144	\$10,448	\$10,762	\$11,085	\$11,417
Operations Staff Salaries, Benefits & Related Items	5.0%	\$8,119	\$26,250	\$27,562	\$28,940	\$30,387	\$31,907	\$33,502	\$35,177	\$36,936	\$38,783	\$40,722
Office Supplies	5.0%	\$1,039	\$1,091	\$1,145	\$1,203	\$1,263	\$1,326	\$1,392	\$1,462	\$1,535	\$1,612	\$1,692
Repair/Maint Supplies	3.0%	\$5,674	\$5,844	\$6,019	\$6,200	\$6,386	\$6,577	\$6,774	\$6,978	\$7,187	\$7,403	\$7,625
Equipment Repairs	3.0%	\$5,312	\$5,471	\$5,635	\$5,804	\$5,978	\$6,157	\$6,342	\$6,532	\$6,728	\$6,930	\$7,138
Cell Phone	5.0%	\$88	\$92	\$97	\$102	\$107	\$112	\$118	\$124	\$130	\$137	\$143
Postage	5.0%	\$502	\$527	\$553	\$581	\$610	\$641	\$673	\$706	\$742	\$779	\$818
Travel and Training	3.0%	\$0	\$300	\$309	\$318	\$328	\$338	\$348	\$358	\$369	\$380	\$391
Gas/Lube/Oil	5.0%	\$9,222	\$9,683	\$10,167	\$10,676	\$11,209	\$11,770	\$12,358	\$12,976	\$13,625	\$14,306	\$15,022
Financial Assurance	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Liability Insurance	3.0%	\$246	\$253	\$261	\$269	\$277	\$285	\$294	\$303	\$312	\$321	\$331
Property Insurance	3.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Testing	5.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Permeability Testing	5.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Electricity	5.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contractual Collection Services	0.0%	\$26,980	\$26,980	\$13,490	\$13,490	\$13,490	\$13,490	\$13,490	\$13,490	\$13,490	\$13,490	\$13,490
Miscellaneous	0.0%	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62	\$62
Tipping Fees	3.0%	\$37,809	\$38,943	\$40,111	\$41,315	\$42,554	\$43,831	\$45,146	\$46,500	\$47,895	\$49,332	\$50,812
Tipping Fee Reduction	3.0%	-\$37,809	-\$38,943	-\$30,084	-\$30,986	-\$31,916	-\$32,873	-\$33,859	-\$34,875	-\$35,921	-\$36,999	-\$38,109
Annual Payment to Replacement Fund	0.0%	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138	\$19,138
User Charge Analysis Services	5.0%	\$0	\$2,453	\$0	\$0	\$2,704	\$0	\$0	\$2,982	\$0	\$0	\$3,287
Total Operating Costs		\$79,087	\$106,894	\$103,480	\$106,394	\$112,140	\$112,609	\$115,922	\$122,361	\$122,989	\$126,758	\$133,979
Net Income (or Loss)		\$7,994	-\$18,970	\$6,021	\$9,954	\$11,556	\$18,909	\$23,897	\$26,014	\$34,502	\$40,339	\$43,348
Working Capital Goal: 50%	In Dollars, That is:	\$39,543	\$53,447	\$51,740	\$53,197	\$56,070	\$56,305	\$57,961	\$61,181	\$61,495	\$63,379	\$66,990

Moorcroft, WY, Garbage Rates Scenario 2  
 Chart 3 - 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.

	This Year Year Starting 7/1/09	Next Year Year Starting 7/1/10	3rd Year Year Starting 7/1/11	4th Year Year Starting 7/1/12	5th Year Year Starting 7/1/13	6th Year Year Starting 7/1/14	7th Year Year Starting 7/1/15	8th Year Year Starting 7/1/16	9th Year Year Starting 7/1/17	10th Year Year Starting 7/1/18	10th Year Year Starting 7/1/19	
<b>CIP Spending Plan</b>												
Capital Improvements to be Paid With Debt												
Share of New Public Works Shop	\$0	\$0	\$0	\$0	\$0	\$0	\$14,007	\$0	\$0	\$0	\$0	
Share of Town Hall Remodel	\$0	\$0	\$0	\$0	\$0	\$0	\$53,671	\$0	\$0	\$0	\$0	
Total Capital Improvements to be Paid With Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$67,678	\$0	\$0	\$0	\$0	
Capital Improvements to be Paid With Cash												
Share of New Public Works Shop	\$0	\$0	\$0	\$0	\$0	\$0	\$4,669	\$0	\$0	\$0	\$0	
Share of Town Hall Remodel	\$0	\$0	\$0	\$0	\$0	\$0	\$17,890	\$0	\$0	\$0	\$0	
Total Cap Imprvmts to be Paid With Cash	\$0	\$0	\$0	\$0	\$0	\$0	\$22,559	\$0	\$0	\$0	\$0	
Total CIP Planned Spending	\$0	\$0	\$0	\$0	\$0	\$0	\$90,237	\$0	\$0	\$0	\$0	
<b>CIP Funding Plan</b>												
CIP Fund Carryover Plus Transfers in	\$0	\$0	\$0	\$0	\$0	\$6,722	\$28,962	\$52,059	\$82,142	\$117,334	\$155,199	
CIP Fund Interest Earned (or Paid)	\$0	\$0	\$0	\$0	\$0	\$0	\$302	\$1,317	\$2,158	\$3,550	\$5,196	
Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$22,559	\$0	\$0	\$0	\$0	
Loan Originated in 6th Year							\$67,678	\$0	\$0	\$0	\$0	
Total CIP Fund Sources	\$0	\$0	\$0	\$0	\$0	\$6,722	\$119,502	\$53,376	\$84,300	\$120,883	\$160,395	
<b>New Debt Payment Plan</b>												
	Payments for future loans assume 100 percent financing for projects, term of:					20	years and	4.98%	interest			
Loan Originated in 6th Year								\$5,421	\$5,421	\$5,421	\$5,421	
Total Debt Obligations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,421	\$5,421	\$5,421	\$5,421	
Total CIP Spending Plus Debt Repayment	\$0	\$0	\$0	\$0	\$0	\$0	\$90,237	\$5,421	\$5,421	\$5,421	\$5,421	
CIP Fund Balance	\$0	\$0	\$0	\$0	\$0	\$6,722	\$29,265	\$47,955	\$78,879	\$115,462	\$154,974	

Notes: There are no capital improvements needed for the garbage collection service itself. Maintenance shop and town hall remodel costs have been split between the utilities based upon the percentage that each utility's budget is of the town's total budget and the use that the garbage collection service will make of the shop and town hall.

Moorcroft, WY, Garbage Rates Scenario 2

Chart 4 - Rate Adjustments and Incomes for the Modeling Year

7/1/10 Through 6/30/11

This chart depicts how rates would be set for this scenario.

\$0 Anticipated Surcharge Fees

6/30/11 Date when fees will first be collected at adjusted rates - actual adjustment will probably occur one billing period earlier.)

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 \$7.68 and the unit charge is \$6.31 per can, assuming all were the same size.

After rate adjustments are made, general customers will be billed monthly.

Existing, Proposed and Blended User Rate Revenues for the Modeling Year

	Volume in Gallons	Number of Cans	Revenues at Test Year Rates	Pickups/Week	New Minimum Charge	Pickup Allowance in Cans	Charge for Cans & Pickups Exceeding the Allowance	Revenues at Proposed Rates	Total Blended Revenues for Modeling Year
	95	1	\$61,830	1	\$7.68	0	\$9.22	\$230	\$62,060
	95	1	\$0	2	\$7.68	0	\$18.44	\$0	\$0
	95	1	\$0	3	\$7.68	0	\$27.66	\$0	\$0
	95	1	\$0	4	\$7.68	0	\$36.87	\$0	\$0
	95	1	\$0	5	\$7.68	0	\$46.09	\$0	\$0
	300	1	\$0	1	\$21.30	0	\$9.22	\$0	\$0
	300	1	\$0	2	\$21.30	0	\$18.44	\$0	\$0
	300	1	\$62,546	3	\$21.30	0	\$27.66	\$175	\$62,721
	300	1	\$0	4	\$21.30	0	\$36.87	\$0	\$0
	300	1	\$0	5	\$21.30	0	\$46.09	\$0	\$0
	300	2	\$0	1	\$34.92	0	\$12.37	\$0	\$0
	300	2	\$0	2	\$34.92	0	\$21.59	\$0	\$0
	300	2	\$0	3	\$34.92	0	\$30.81	\$0	\$0
	300	2	\$0	4	\$34.92	0	\$40.03	\$0	\$0
	300	2	\$0	5	\$34.92	0	\$49.25	\$0	\$0
	300	3	\$0	1	\$48.54	0	\$15.53	\$0	\$0
	300	3	\$0	2	\$48.54	0	\$24.75	\$0	\$0
	300	3	\$0	3	\$48.54	0	\$33.97	\$0	\$0
	300	3	\$0	4	\$48.54	0	\$43.19	\$0	\$0
	300	3	\$0	5	\$48.54	0	\$52.40	\$0	\$0
In-Town Service	300	4	\$0	1	\$62.16	0	\$18.69	\$0	\$0
	300	4	\$0	2	\$62.16	0	\$27.90	\$0	\$0
	300	4	\$0	3	\$62.16	0	\$37.12	\$0	\$0
	300	4	\$0	4	\$62.16	0	\$46.34	\$0	\$0
	300	4	\$0	5	\$62.16	0	\$55.56	\$0	\$0
	300	5	\$2,301	1	\$75.78	0	\$21.84	\$6	\$2,307
	300	5	\$0	2	\$75.78	0	\$31.06	\$0	\$0
	300	5	\$0	3	\$75.78	0	\$40.28	\$0	\$0
	300	5	\$0	4	\$75.78	0	\$49.50	\$0	\$0
	300	5	\$0	5	\$75.78	0	\$58.72	\$0	\$0
	300	6	\$0	1	\$89.40	0	\$25.00	\$0	\$0
	300	6	\$0	2	\$89.40	0	\$34.22	\$0	\$0
	300	6	\$0	3	\$89.40	0	\$43.43	\$0	\$0
	300	6	\$0	4	\$89.40	0	\$52.65	\$0	\$0
	300	6	\$0	5	\$89.40	0	\$61.87	\$0	\$0
	300	7	\$0	1	\$103.02	0	\$28.15	\$0	\$0
	300	7	\$0	2	\$103.02	0	\$37.37	\$0	\$0
	300	7	\$0	3	\$103.02	0	\$46.59	\$0	\$0
	300	7	\$0	4	\$103.02	0	\$55.81	\$0	\$0
	300	7	\$0	5	\$103.02	0	\$65.03	\$0	\$0
	300	8	\$0	1	\$116.64	0	\$31.31	\$0	\$0
	300	8	\$0	2	\$116.64	0	\$40.53	\$0	\$0
	300	8	\$0	3	\$116.64	0	\$49.75	\$0	\$0
	300	8	\$0	4	\$116.64	0	\$58.97	\$0	\$0
	300	8	\$0	5	\$116.64	0	\$68.18	\$0	\$0

Existing, Proposed and Blended User Rate Revenues for the Modeling Year

	Volume in Gallons	Number of Cans	Revenues at Test Year Rates	Pickups/Week	New Minimum Charge	Pickup Allowance in Cans	Charge for Cans & Pickups Exceeding the Allowance	Revenues at Proposed Rates	Total Blended Revenues for Modeling Year	
	95	1	\$0	1	\$9.60	0	\$11.52	\$0	\$0	
	95	1	\$0	2	\$9.60	0	\$23.05	\$0	\$0	
	95	1	\$0	3	\$9.60	0	\$34.57	\$0	\$0	
	95	1	\$0	4	\$9.60	0	\$46.09	\$0	\$0	
	95	1	\$0	5	\$9.60	0	\$57.62	\$0	\$0	
	300	1	\$0	1	\$26.63	0	\$11.52	\$0	\$0	
	300	1	\$0	2	\$26.63	0	\$23.05	\$0	\$0	
	300	1	\$0	3	\$26.63	0	\$34.57	\$0	\$0	
	300	1	\$0	4	\$26.63	0	\$46.09	\$0	\$0	
	300	1	\$0	5	\$26.63	0	\$57.62	\$0	\$0	
	600	2	\$0	1	\$43.65	0	\$15.47	\$0	\$0	
	600	2	\$0	2	\$43.65	0	\$26.99	\$0	\$0	
	600	2	\$0	3	\$43.65	0	\$38.51	\$0	\$0	
	600	2	\$0	4	\$43.65	0	\$50.04	\$0	\$0	
	600	2	\$0	5	\$43.65	0	\$61.56	\$0	\$0	
	900	3	\$0	1	\$60.68	0	\$19.41	\$0	\$0	
	900	3	\$0	2	\$60.68	0	\$30.94	\$0	\$0	
	900	3	\$0	3	\$60.68	0	\$42.46	\$0	\$0	
	900	3	\$0	4	\$60.68	0	\$53.98	\$0	\$0	
	900	3	\$0	5	\$60.68	0	\$65.51	\$0	\$0	
	1,200	4	\$0	1	\$77.70	0	\$23.36	\$0	\$0	
	1,200	4	\$0	2	\$77.70	0	\$34.88	\$0	\$0	
	1,200	4	\$0	3	\$77.70	0	\$46.40	\$0	\$0	
	1,200	4	\$0	4	\$77.70	0	\$57.93	\$0	\$0	
	1,200	4	\$0	5	\$77.70	0	\$69.45	\$0	\$0	
	1,500	5	\$0	1	\$94.73	0	\$27.30	\$0	\$0	
	1,500	5	\$0	2	\$94.73	0	\$38.83	\$0	\$0	
	1,500	5	\$0	3	\$94.73	0	\$50.35	\$0	\$0	
	1,500	5	\$0	4	\$94.73	0	\$61.87	\$0	\$0	
	1,500	5	\$0	5	\$94.73	0	\$73.39	\$0	\$0	
	1,800	6	\$0	1	\$111.75	0	\$31.25	\$0	\$0	
	1,800	6	\$0	2	\$111.75	0	\$42.77	\$0	\$0	
	1,800	6	\$0	3	\$111.75	0	\$54.29	\$0	\$0	
	1,800	6	\$0	4	\$111.75	0	\$65.82	\$0	\$0	
	1,800	6	\$0	5	\$111.75	0	\$77.34	\$0	\$0	
	2,100	7	\$0	1	\$128.78	0	\$35.19	\$0	\$0	
	2,100	7	\$0	2	\$128.78	0	\$46.72	\$0	\$0	
	2,100	7	\$0	3	\$128.78	0	\$58.24	\$0	\$0	
	2,100	7	\$0	4	\$128.78	0	\$69.76	\$0	\$0	
	2,100	7	\$0	5	\$128.78	0	\$81.28	\$0	\$0	
	2,400	8	\$0	1	\$145.80	0	\$39.14	\$0	\$0	
	2,400	8	\$0	2	\$145.80	0	\$50.66	\$0	\$0	
	2,400	8	\$0	3	\$145.80	0	\$62.18	\$0	\$0	
	2,400	8	\$0	4	\$145.80	0	\$73.71	\$0	\$0	
	2,400	8	\$0	5	\$145.80	0	\$85.23	\$0	\$0	
	Rate Rev at Current Rates		\$126,677				Rate Rev at Adjusted Rates	\$411		
							Total Blended Rate Revenues for the Year <sup>1</sup>		\$127,088	

Note 1: Blended Rate Revenues for the one-year period  
 ## months at the old user charge rates and

7/1/10 through 6/30/11 assume the following:  
 0.0 months at the new user charge rates.

## Moorcroft, WY, Garbage Rates Scenario 2

### Chart 5 - Indicators

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

CBGreatRates© Version 5.2

	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting
	7/1/09	7/1/10	7/1/11	7/1/12	7/1/13	7/1/14	7/1/15	7/1/16	7/1/17	7/1/18	7/1/19
<b>Capacity Indicators</b>											
Current and Future System-wide Average Monthly Bill for All Customers	\$15.56	\$15.57	\$19.50	\$20.48	\$21.50	\$22.57	\$23.70	\$24.89	\$26.13	\$27.44	\$28.81
Monthly Bill for In-Town Pickup of 1-95 Gallon Can/Week	\$12.50	\$16.90	\$17.75	\$18.63	\$19.56	\$20.54	\$21.57	\$22.65	\$23.78	\$24.97	\$26.22
Annual Median Household Income (AMHI)	\$50,217	\$52,150	\$54,158	\$56,243	\$58,408	\$60,656	\$62,991	\$65,416	\$67,935	\$70,550	\$73,266
Affordability Index for Proposed Rates	0.30%	0.39%	0.39%	0.40%	0.40%	0.41%	0.41%	0.42%	0.42%	0.42%	0.43%
Affordability Index is the percent of AMHI needed by a 5,000 gallon per month residential user to pay their bill. Rates near 1.0% are common in the U.S. and are generally considered affordable. Federal grant agencies generally will not consider awarding grants if this indicator is less than 2.0%.											
Estimated Operating Ratio for Proposed Rates	1.45	1.16	1.22	1.31	1.39	1.50	1.50	1.50	1.50	1.50	1.50
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 large systems, 1.30 or more for medium systems and perhaps as high as 2.0 for small systems.											
Estimated Coverage Ratio for Proposed Rates	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	9.85	15.55	22.30	29.59
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.											
<b>Reserves</b>											
	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
	6/30/10	6/30/11	6/30/12	6/30/13	6/30/14	6/30/15	6/30/16	6/30/17	6/30/18	6/30/19	6/30/20
Operating Fund	\$35,556	\$16,586	\$22,607	\$32,561	\$44,118	\$56,305	\$57,961	\$61,181	\$61,495	\$63,379	\$66,990
CIP Fund	\$0	\$0	\$0	\$0	\$0	\$6,722	\$29,265	\$47,955	\$78,879	\$115,462	\$154,974
Replacement Fund	\$0	\$5,138	\$5,188	\$4,564	\$3,211	\$1,074	\$14,718	\$34,518	\$55,210	\$76,833	\$4,026
Current Position (Unobligated Cash and Cash Equivalents)	\$35,556	\$16,586	\$22,607	\$32,561	\$44,118	\$56,305	\$57,961	\$61,181	\$61,495	\$63,379	\$66,990
Operating Fund + CIP Fund	\$35,556	\$16,586	\$22,607	\$32,561	\$44,118	\$63,027	\$87,226	\$109,135	\$140,373	\$178,841	\$221,963
Operating Fund + CIP Fund Balances Discounted for Inflation (Future Purchasing Power)	\$35,556	\$16,586	\$21,816	\$30,322	\$39,646	\$54,655	\$72,993	\$88,131	\$109,390	\$134,488	\$161,075

Chart 6 - Operating Ratio

Moorcroft, WY

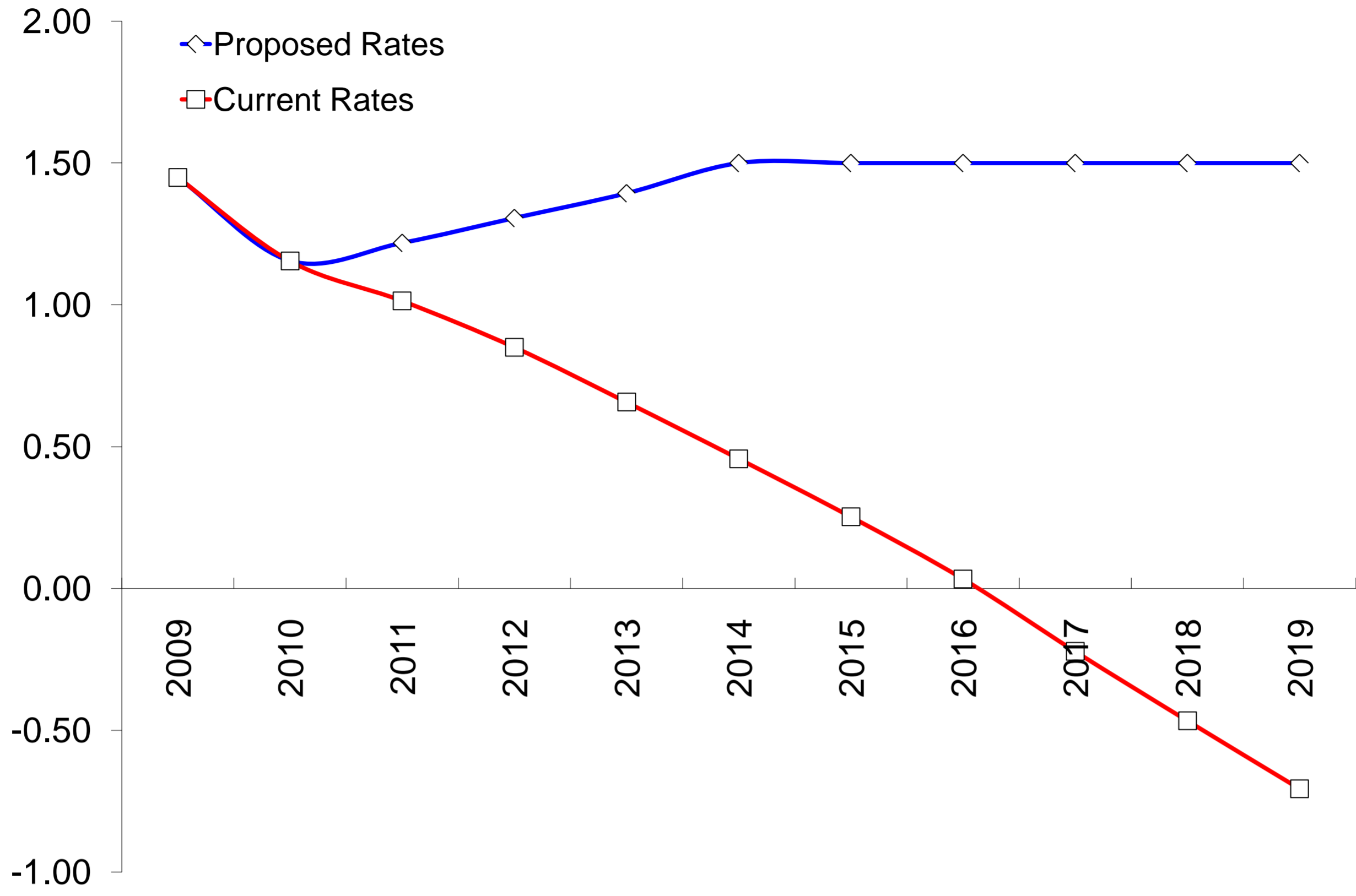


Chart 7 - Coverage Ratio

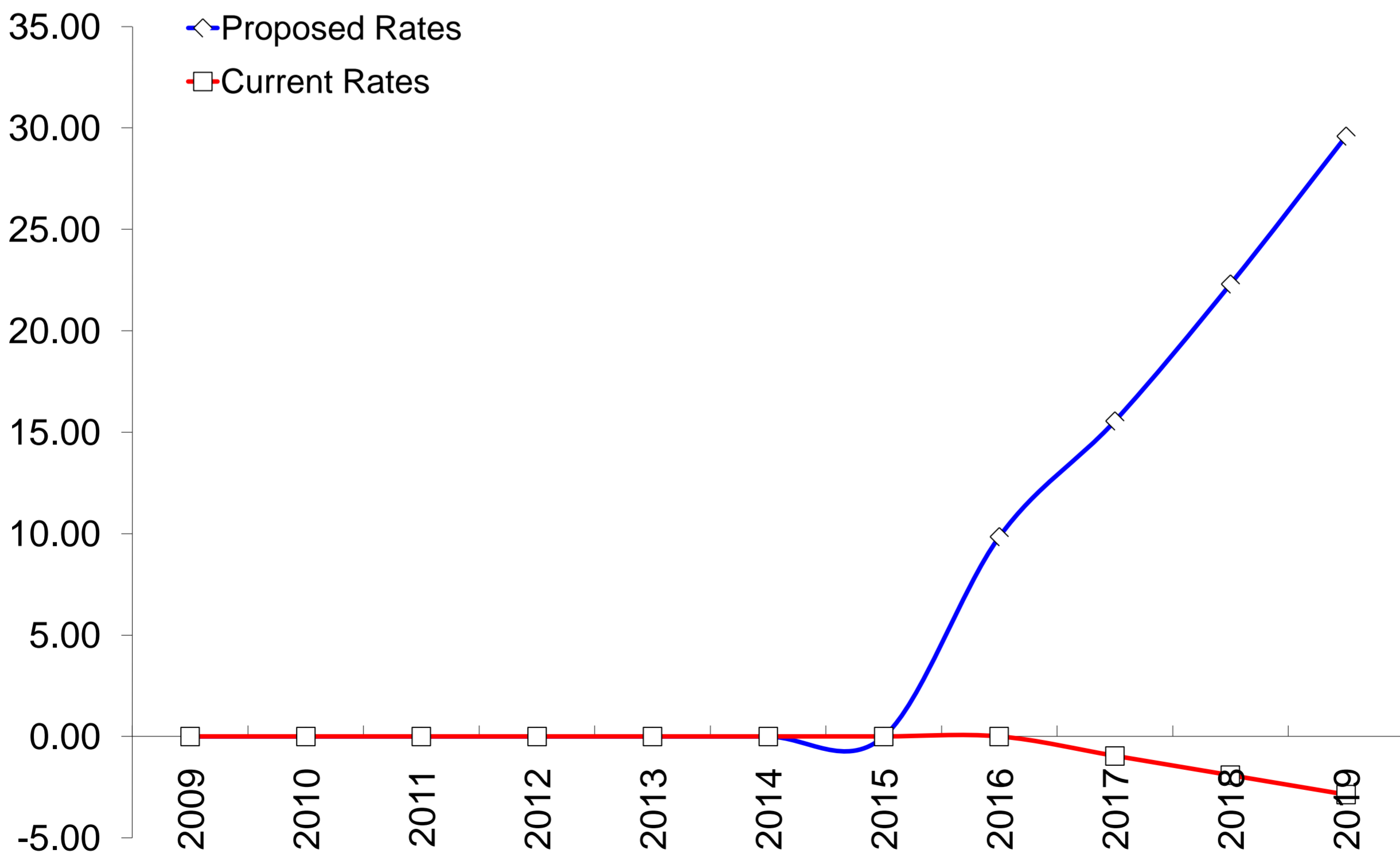


Chart 8 - 95 Gallon Residential Bill

Moorcroft, WY

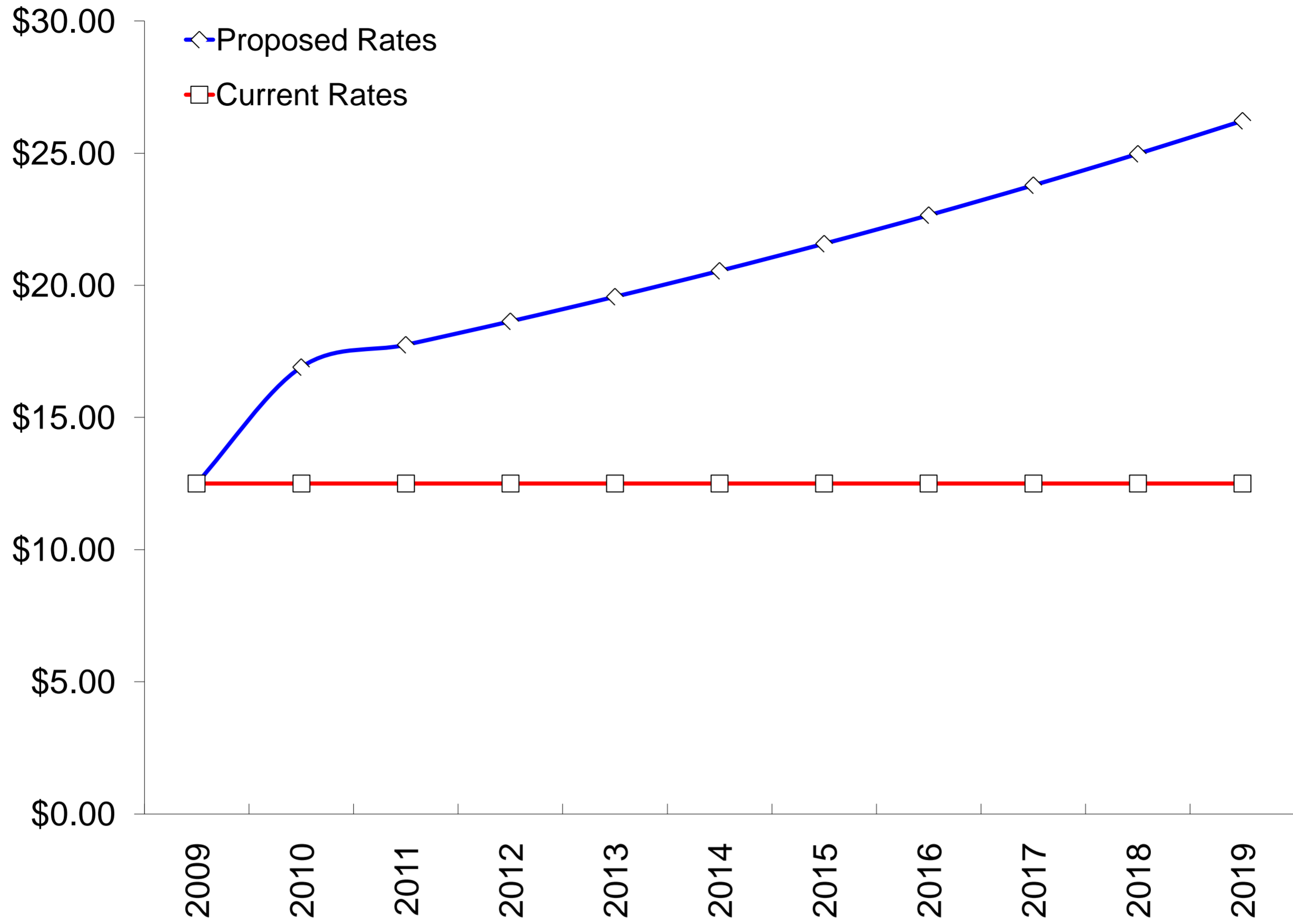


Chart 9 - Affordability Index

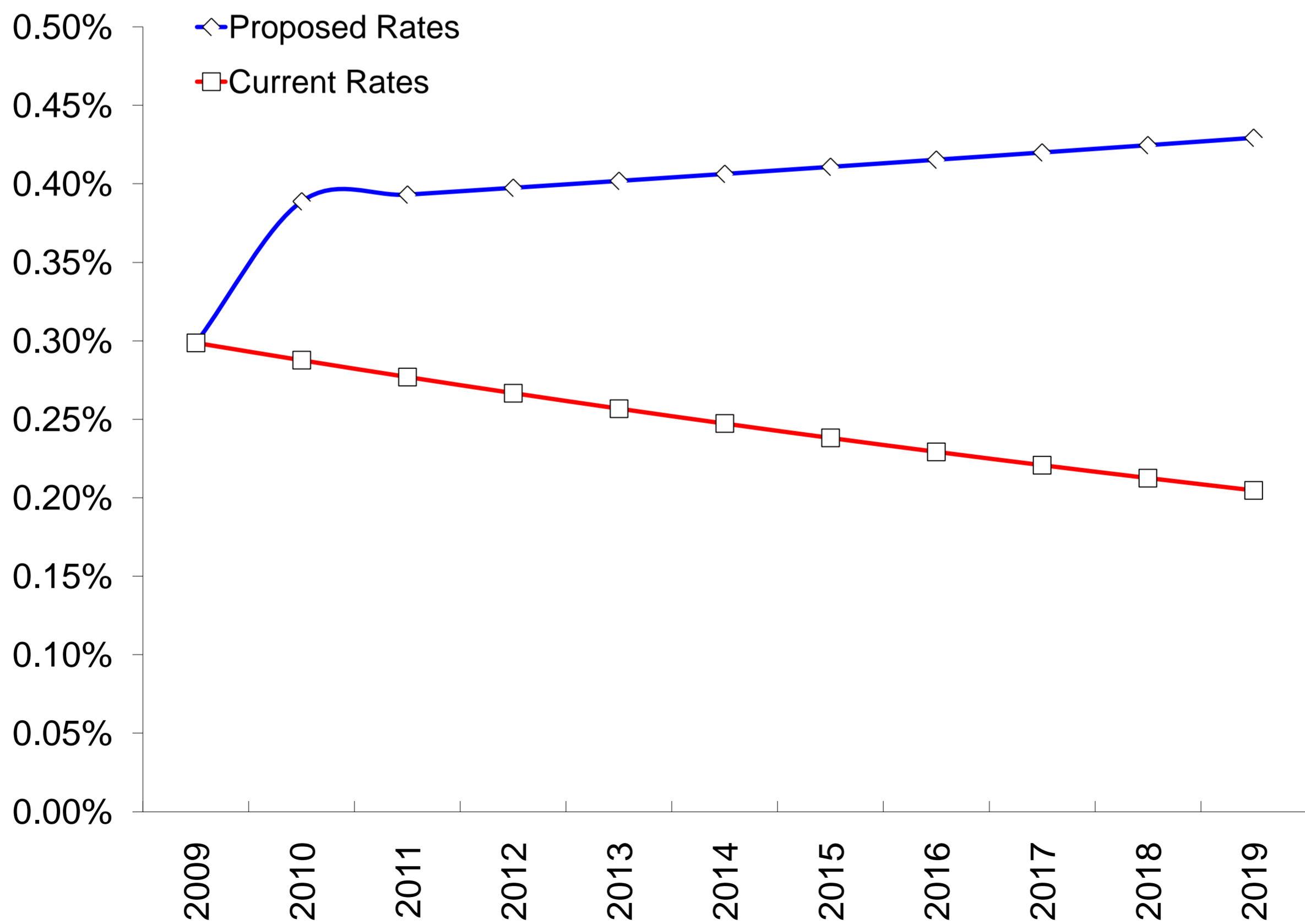


Chart 10 - Working Capital

Moorcroft, WY

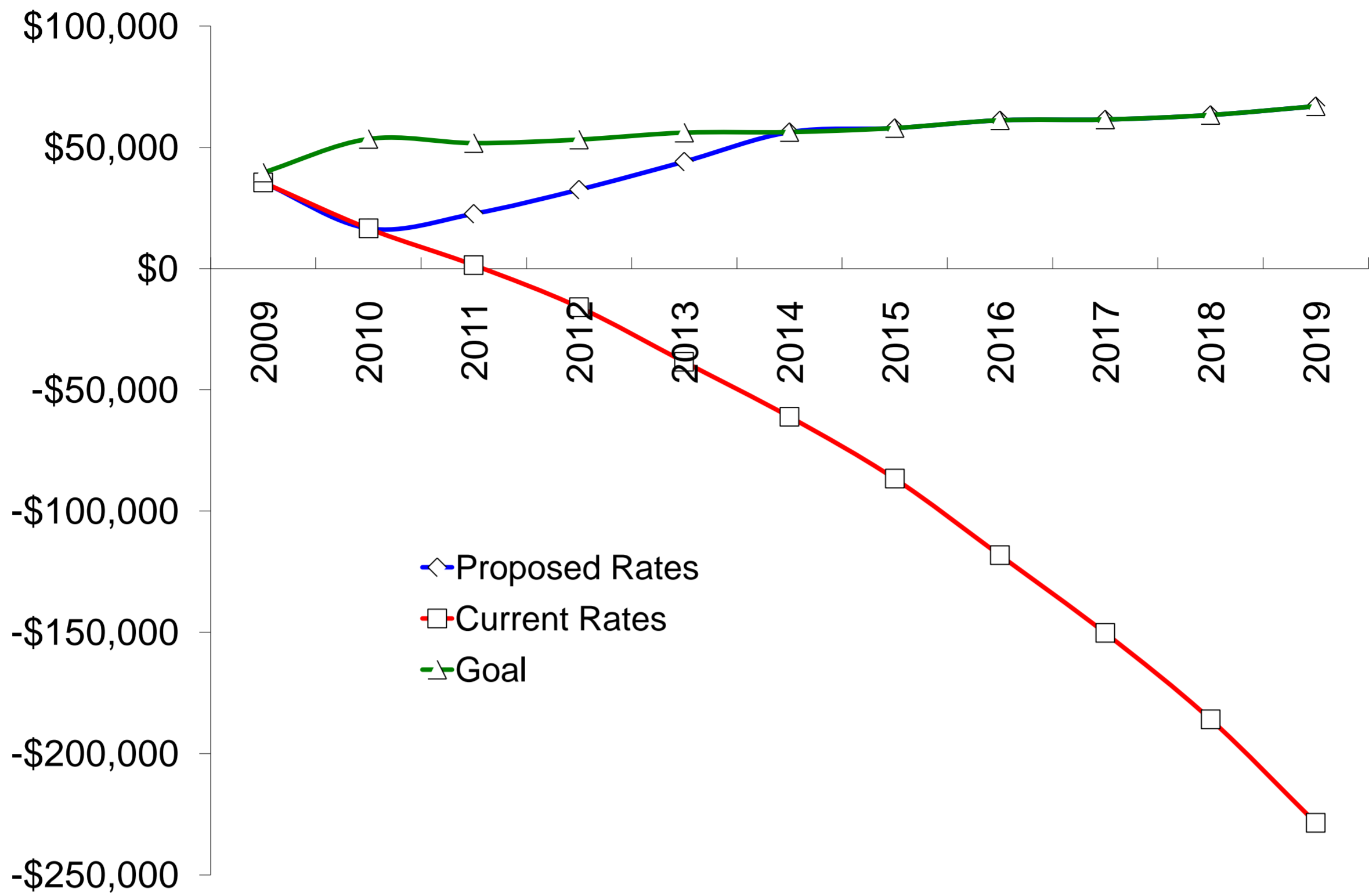


Chart 11 - Working Capital and CIP Reserves Discounted for Inflation

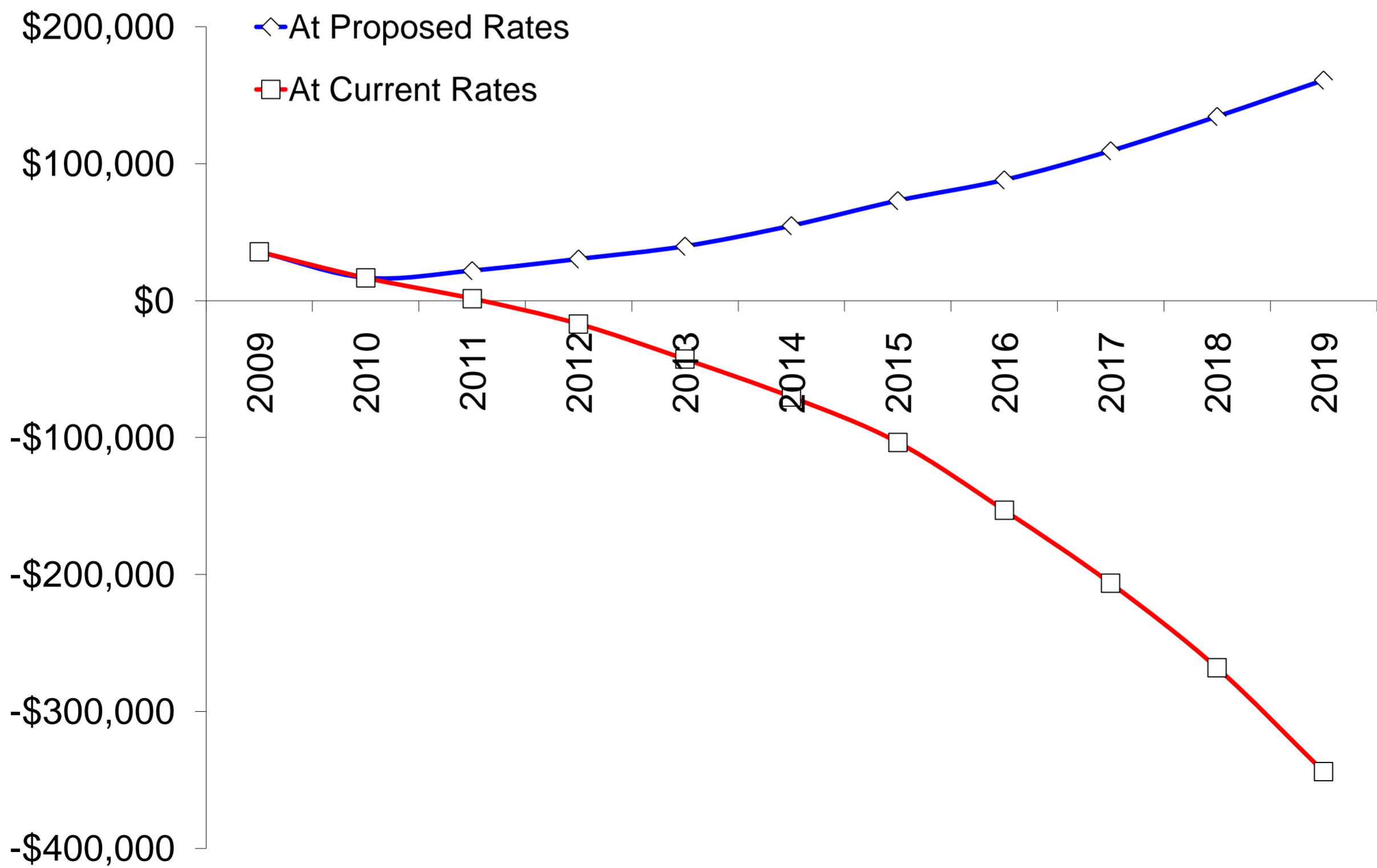


Chart 12 - Current Position

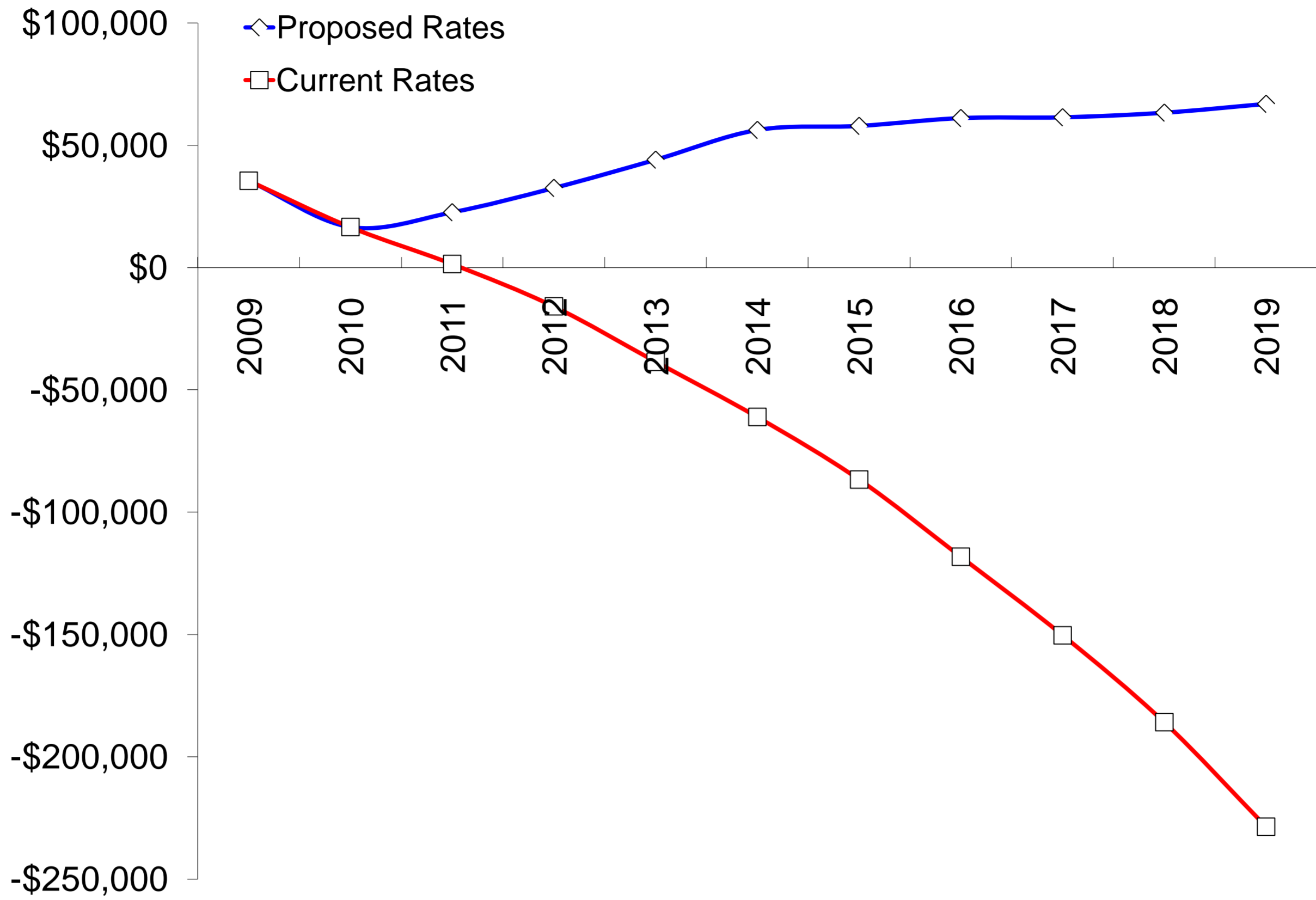
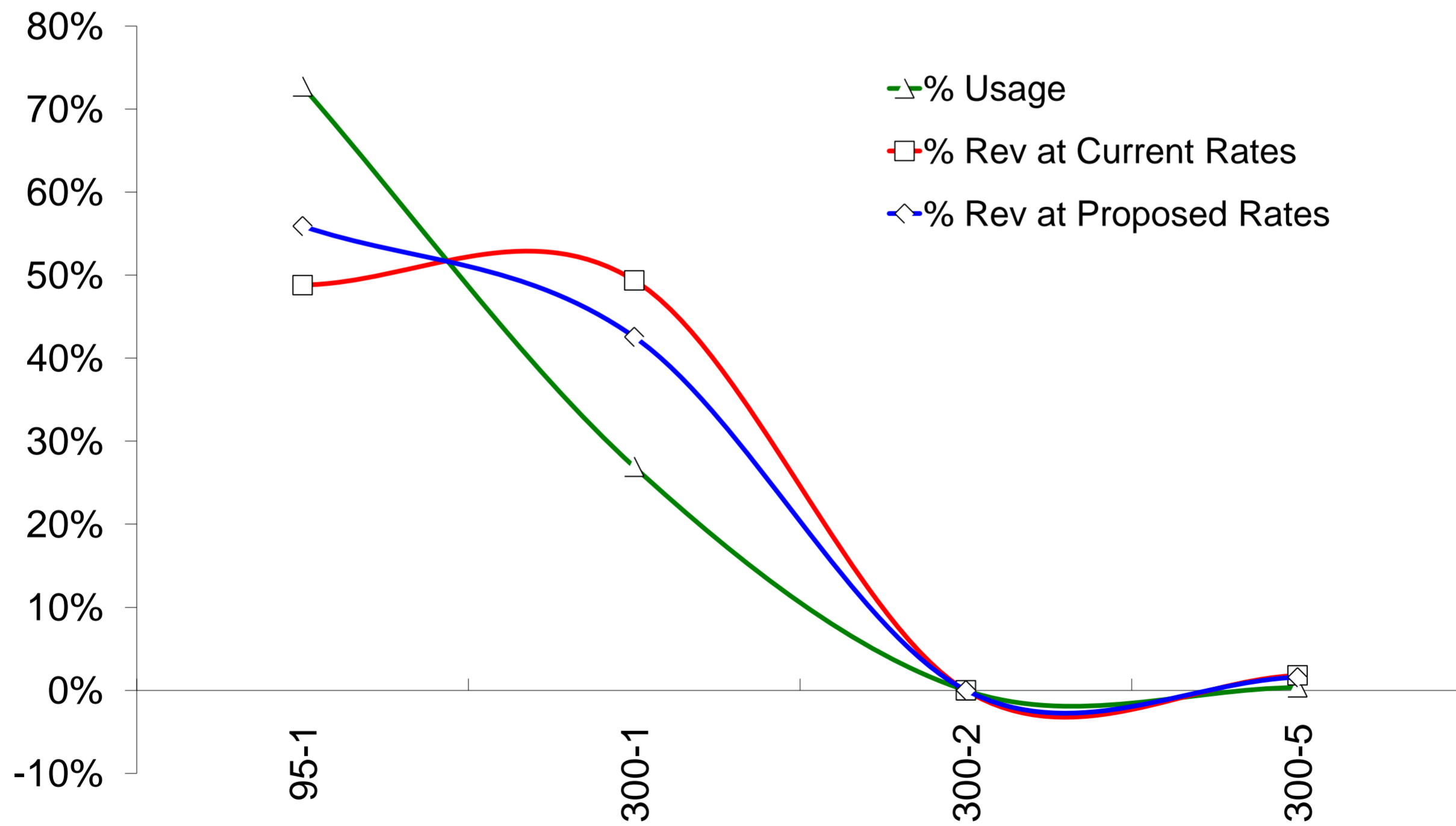


Chart 13 - Residential Use & Revenues

Moorcroft, WY



# Moorcroft, WY, Garbage Rates Scenario 2

## Chart 14 - Old Rates, New Rates and Changes

This chart compares current and proposed rates.

CBGreatRates© Version 5.2

	Volume in Gallons	Number of Cans	Pickups/Week	Total Bill for This User Class	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
	<b>95</b>	<b>1</b>	<b>1</b>	<b>\$12.50</b>	<b>\$16.90</b>	<b>\$4.40</b>	<b>35%</b>
	95	1	2	\$31.45	\$44.56	\$13.11	42%
	95	1	3	\$50.40	\$90.65	\$40.25	80%
	95	1	4	\$69.35	\$155.18	\$85.83	124%
	95	1	5	\$88.30	\$238.14	\$149.84	170%
	300	1	1	\$34.16	\$30.52	-\$3.64	-11%
	300	1	2	\$68.32	\$58.18	-\$10.14	-15%
	<b>300</b>	<b>1</b>	<b>3</b>	<b>\$102.48</b>	<b>\$104.27</b>	<b>\$1.79</b>	<b>2%</b>
	300	1	4	\$136.64	\$168.80	\$32.16	24%
	300	1	5	\$170.80	\$251.76	\$80.96	47%
	300	2	1	\$46.81	\$47.30	\$0.49	1%
	300	2	2	\$93.62	\$78.11	-\$15.51	-17%
	300	2	3	\$140.43	\$127.36	-\$13.07	-9%
	300	2	4	\$187.24	\$195.04	\$7.80	4%
	300	2	5	\$234.05	\$281.16	\$47.11	20%
	300	3	1	\$63.25	\$64.07	\$0.82	1%
	300	3	2	\$126.50	\$98.04	-\$28.46	-22%
	300	3	3	\$189.75	\$150.44	-\$39.31	-21%
	300	3	4	\$253.00	\$221.29	-\$31.71	-13%
	300	3	5	\$316.25	\$310.56	-\$5.69	-2%
In-Town Service	300	4	1	\$79.70	\$80.85	\$1.15	1%
	300	4	2	\$159.40	\$117.97	-\$41.43	-26%
	300	4	3	\$239.10	\$173.53	-\$65.57	-27%
	300	4	4	\$318.80	\$247.53	-\$71.27	-22%
	300	4	5	\$398.50	\$339.96	-\$58.54	-15%
	<b>300</b>	<b>5</b>	<b>1</b>	<b>\$96.14</b>	<b>\$97.62</b>	<b>\$1.48</b>	<b>2%</b>
	300	5	2	\$192.28	\$137.90	-\$54.38	-28%
	300	5	3	\$288.42	\$196.62	-\$91.80	-32%
	300	5	4	\$384.56	\$273.77	-\$110.79	-29%
	300	5	5	\$480.70	\$369.36	-\$111.34	-23%
	300	6	1	\$112.59	\$114.40	\$1.81	2%
	300	6	2	\$225.18	\$157.84	-\$67.34	-30%
	300	6	3	\$337.77	\$219.71	-\$118.06	-35%
	300	6	4	\$450.36	\$300.02	-\$150.34	-33%
	300	6	5	\$562.95	\$398.76	-\$164.19	-29%
	300	7	1	\$129.03	\$131.18	\$2.15	2%
	300	7	2	\$258.06	\$177.77	-\$80.29	-31%
	300	7	3	\$387.09	\$242.80	-\$144.29	-37%
	300	7	4	\$516.12	\$326.26	-\$189.86	-37%
	300	7	5	\$645.15	\$428.16	-\$216.99	-34%
	300	8	1	\$145.48	\$147.95	\$2.47	2%
	300	8	2	\$290.96	\$197.70	-\$93.26	-32%
	300	8	3	\$436.44	\$265.88	-\$170.56	-39%
	300	8	4	\$581.92	\$352.50	-\$229.42	-39%
	300	8	5	\$727.40	\$457.56	-\$269.84	-37%

	Volume in Gallons	Number of Cans	Pickups/Week	Total Bill for This User Class	Proposed Average Bill Starting on 6/30/11	Bill Increase or (Decrease) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
	<b>95</b>	<b>1</b>	<b>1</b>	<b>\$14.42</b>	<b>\$21.13</b>	<b>\$6.71</b>	<b>47%</b>
	95	1	2	\$28.84	\$55.69	\$26.85	93%
	95	1	3	\$43.26	\$113.31	\$70.05	162%
	95	1	4	\$57.68	\$193.97	\$136.29	236%
	95	1	5	\$72.10	\$297.68	\$225.58	313%
	<b>300</b>	<b>1</b>	<b>1</b>	<b>\$53.13</b>	<b>\$38.15</b>	<b>-\$14.98</b>	<b>-28%</b>
	300	1	2	\$106.26	\$72.72	-\$33.54	-32%
	300	1	3	\$159.39	\$130.34	-\$29.05	-18%
	300	1	4	\$212.52	\$211.00	-\$1.52	-1%
	300	1	5	\$265.65	\$314.71	\$49.06	18%
	<b>600</b>	<b>2</b>	<b>1</b>	<b>\$82.23</b>	<b>\$59.12</b>	<b>-\$23.11</b>	<b>-28%</b>
	600	2	2	\$164.46	\$97.64	-\$66.82	-41%
	600	2	3	\$246.69	\$159.20	-\$87.49	-35%
	600	2	4	\$328.92	\$243.80	-\$85.12	-26%
	600	2	5	\$411.15	\$351.45	-\$59.70	-15%
	<b>900</b>	<b>3</b>	<b>1</b>	<b>\$111.32</b>	<b>\$80.09</b>	<b>-\$31.23</b>	<b>-28%</b>
	900	3	2	\$222.64	\$122.55	-\$100.09	-45%
	900	3	3	\$333.96	\$188.06	-\$145.90	-44%
	900	3	4	\$445.28	\$276.61	-\$168.67	-38%
	900	3	5	\$556.60	\$388.20	-\$168.40	-30%
Out-of-Town Service	<b>1,200</b>	<b>4</b>	<b>1</b>	<b>\$140.42</b>	<b>\$101.06</b>	<b>-\$39.36</b>	<b>-28%</b>
	1,200	4	2	\$280.84	\$147.46	-\$133.38	-47%
	1,200	4	3	\$421.26	\$216.92	-\$204.34	-49%
	1,200	4	4	\$561.68	\$309.41	-\$252.27	-45%
	1,200	4	5	\$702.10	\$424.95	-\$277.15	-39%
	<b>1,500</b>	<b>5</b>	<b>1</b>	<b>\$169.51</b>	<b>\$122.03</b>	<b>-\$47.48</b>	<b>-28%</b>
	1,500	5	2	\$339.02	\$172.38	-\$166.64	-49%
	1,500	5	3	\$508.53	\$245.77	-\$262.76	-52%
	1,500	5	4	\$678.04	\$342.22	-\$335.82	-50%
	1,500	5	5	\$847.55	\$461.70	-\$385.85	-46%
	<b>1,800</b>	<b>6</b>	<b>1</b>	<b>\$198.61</b>	<b>\$143.00</b>	<b>-\$55.61</b>	<b>-28%</b>
	1,800	6	2	\$397.22	\$197.29	-\$199.93	-50%
	1,800	6	3	\$595.83	\$274.63	-\$321.20	-54%
	1,800	6	4	\$794.44	\$375.02	-\$419.42	-53%
	1,800	6	5	\$993.05	\$498.45	-\$494.60	-50%
	<b>2,100</b>	<b>7</b>	<b>1</b>	<b>\$226.44</b>	<b>\$163.97</b>	<b>-\$62.47</b>	<b>-28%</b>
	2,100	7	2	\$452.88	\$222.21	-\$230.67	-51%
	2,100	7	3	\$679.32	\$303.49	-\$375.83	-55%
	2,100	7	4	\$905.76	\$407.83	-\$497.93	-55%
	2,100	7	5	\$1,132.20	\$535.20	-\$597.00	-53%
<b>2,400</b>	<b>8</b>	<b>1</b>	<b>\$255.53</b>	<b>\$184.94</b>	<b>-\$70.59</b>	<b>-28%</b>	
2,400	8	2	\$511.06	\$247.12	-\$263.94	-52%	
2,400	8	3	\$766.59	\$332.35	-\$434.24	-57%	
2,400	8	4	\$1,022.12	\$440.63	-\$581.49	-57%	
2,400	8	5	\$1,277.65	\$571.95	-\$705.70	-55%	

Note: Bold font indicates classes in which customers are currently receiving service.



# Moorcroft, WY

## Chart 16A - Rates During Test Year

CBGreatRates© Version 5.2

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

	Volume in Gallons	Number of Cans	Pickups/Week	Minimum Charge	Pickup Allowance in Cans	Charge per Additional Pickup	Total Bill for This User Class
	95	1	1	\$12.50	1	\$18.95	\$12.50
	95	1	2	\$12.50	1	\$18.95	\$31.45
	95	1	3	\$12.50	1	\$18.95	\$50.40
	95	1	4	\$12.50	1	\$18.95	\$69.35
	95	1	5	\$12.50	1	\$18.95	\$88.30
	300	1	1	\$34.16	1	\$34.16	\$34.16
	300	1	2	\$34.16	1	\$34.16	\$68.32
	300	1	3	\$34.16	1	\$34.16	\$102.48
	300	1	4	\$34.16	1	\$34.16	\$136.64
	300	1	5	\$34.16	1	\$34.16	\$170.80
	300	2	1	\$46.81	1	\$46.81	\$46.81
	300	2	2	\$46.81	1	\$46.81	\$93.62
	300	2	3	\$46.81	1	\$46.81	\$140.43
	300	2	4	\$46.81	1	\$46.81	\$187.24
	300	2	5	\$46.81	1	\$46.81	\$234.05
	300	3	1	\$63.25	1	\$63.25	\$63.25
	300	3	2	\$63.25	1	\$63.25	\$126.50
	300	3	3	\$63.25	1	\$63.25	\$189.75
	300	3	4	\$63.25	1	\$63.25	\$253.00
	300	3	5	\$63.25	1	\$63.25	\$316.25
	300	4	1	\$79.70	1	\$79.70	\$79.70
	300	4	2	\$79.70	1	\$79.70	\$159.40
	300	4	3	\$79.70	1	\$79.70	\$239.10
	300	4	4	\$79.70	1	\$79.70	\$318.80
	300	4	5	\$79.70	1	\$79.70	\$398.50
	300	5	1	\$96.14	1	\$96.14	\$96.14
	300	5	2	\$96.14	1	\$96.14	\$192.28
	300	5	3	\$96.14	1	\$96.14	\$288.42
	300	5	4	\$96.14	1	\$96.14	\$384.56
	300	5	5	\$96.14	1	\$96.14	\$480.70
	300	6	1	\$112.59	1	\$112.59	\$112.59
	300	6	2	\$112.59	1	\$112.59	\$225.18
	300	6	3	\$112.59	1	\$112.59	\$337.77
	300	6	4	\$112.59	1	\$112.59	\$450.36
	300	6	5	\$112.59	1	\$112.59	\$562.95
	300	7	1	\$129.03	1	\$129.03	\$129.03
	300	7	2	\$129.03	1	\$129.03	\$258.06
	300	7	3	\$129.03	1	\$129.03	\$387.09
	300	7	4	\$129.03	1	\$129.03	\$516.12
	300	7	5	\$129.03	1	\$129.03	\$645.15
	300	8	1	\$145.48	1	\$145.48	\$145.48
	300	8	2	\$145.48	1	\$145.48	\$290.96
	300	8	3	\$145.48	1	\$145.48	\$436.44
	300	8	4	\$145.48	1	\$145.48	\$581.92
	300	8	5	\$145.48	1	\$145.48	\$727.40

In-Town Service

	Volume in Gallons	Number of Cans	Pickups/Week	Minimum Charge	Pickup Allowance in Cans	Charge per Additional Pickup	Total Bill for This User Class
	95	1	1	\$14.42	1	\$14.42	\$14.42
	95	1	2	\$14.42	1	\$14.42	\$28.84
	95	1	3	\$14.42	1	\$14.42	\$43.26
	95	1	4	\$14.42	1	\$14.42	\$57.68
	95	1	5	\$14.42	1	\$14.42	\$72.10
	300	1	1	\$53.13	1	\$53.13	\$53.13
	300	1	2	\$53.13	1	\$53.13	\$106.26
	300	1	3	\$53.13	1	\$53.13	\$159.39
	300	1	4	\$53.13	1	\$53.13	\$212.52
	300	1	5	\$53.13	1	\$53.13	\$265.65
	600	2	1	\$82.23	1	\$82.23	\$82.23
	600	2	2	\$82.23	1	\$82.23	\$164.46
	600	2	3	\$82.23	1	\$82.23	\$246.69
	600	2	4	\$82.23	1	\$82.23	\$328.92
	600	2	5	\$82.23	1	\$82.23	\$411.15
	900	3	1	\$111.32	1	\$111.32	\$111.32
	900	3	2	\$111.32	1	\$111.32	\$222.64
	900	3	3	\$111.32	1	\$111.32	\$333.96
	900	3	4	\$111.32	1	\$111.32	\$445.28
	900	3	5	\$111.32	1	\$111.32	\$556.60
	1,200	4	1	\$140.42	1	\$140.42	\$140.42
	1,200	4	2	\$140.42	1	\$140.42	\$280.84
	1,200	4	3	\$140.42	1	\$140.42	\$421.26
	1,200	4	4	\$140.42	1	\$140.42	\$561.68
	1,200	4	5	\$140.42	1	\$140.42	\$702.10
	1,500	5	1	\$169.51	1	\$169.51	\$169.51
	1,500	5	2	\$169.51	1	\$169.51	\$339.02
	1,500	5	3	\$169.51	1	\$169.51	\$508.53
	1,500	5	4	\$169.51	1	\$169.51	\$678.04
	1,500	5	5	\$169.51	1	\$169.51	\$847.55
	1,800	6	1	\$198.61	1	\$198.61	\$198.61
	1,800	6	2	\$198.61	1	\$198.61	\$397.22
	1,800	6	3	\$198.61	1	\$198.61	\$595.83
	1,800	6	4	\$198.61	1	\$198.61	\$794.44
	1,800	6	5	\$198.61	1	\$198.61	\$993.05
	2,100	7	1	\$226.44	1	\$226.44	\$226.44
	2,100	7	2	\$226.44	1	\$226.44	\$452.88
	2,100	7	3	\$226.44	1	\$226.44	\$679.32
	2,100	7	4	\$226.44	1	\$226.44	\$905.76
	2,100	7	5	\$226.44	1	\$226.44	\$1,132.20
	2,400	8	1	\$255.53	1	\$255.53	\$255.53
	2,400	8	2	\$255.53	1	\$255.53	\$511.06
	2,400	8	3	\$255.53	1	\$255.53	\$766.59
	2,400	8	4	\$255.53	1	\$255.53	\$1,022.12
	2,400	8	5	\$255.53	1	\$255.53	\$1,277.65

Out-of-Town Service

## Moorcroft, WY

### Chart 16B - Reserves, AMHI

CBGreatRates© Version 5.2

This chart shows starting reserve balances and activity not shown elsewhere and median household income for the test year.

#### Reserve Starting Balances as of 7/1/09 and Debits and Credits\*

Starting Balances	\$27,562 Operating Fund	Starting Balances	\$0 Replacement Fund
Starting Balances	\$0 CIP Fund		

#### Annual Median Household Income (AMHI)

\$50,217 AMHI for Moorcroft, WY for the year 2008, by Census estimate

3.8% Historical rate of growth in AMHI for Moorcroft, WY

## Moorcroft, WY

### Chart 16C - Incomes

CBGreatRates© Version 5.2

This chart shows incomes for the test year.

#### Incomes for 7/1/09 Through 6/30/10

\$87,081 User Charge Fees

\$0 Late Charges, Penalties

0 Number of New Customers

\$0 Average New Customer Fee

\$0 New Customer Fees

\$0 Interest

\$87,081 Total All Incomes

Predicted billable  
user fees:

\$127,025

New Customer Fees  
dedicated to capital  
improvements:

\$0

# Moorcroft, WY, Garbage Rates Scenario 2

## Chart 17A - Equipment Replacement Details Chart

This schedule depicts detailed equipment replacement and refurbishment during the next 20 years.

CBGreatRates© Version 5.2, Replacement Scheduler© Version 1.4

Year Beginning	2006 International Garbage Truck	Loader (1/3rd shares water, sewer, 1/6th trash, 1/6th landfill)	2008 Ford F450 Dump Truck w/ Plow (1/3rd shares water, sewer, 1/6th trash, 1/6th landfill)	Total Annual Replacement Costs
7/1/09	\$0	\$0	\$0	\$0
7/1/10	\$14,000	\$0	\$0	\$14,000
7/1/11	\$14,000	\$4,667	\$0	\$18,667
7/1/12	\$14,000	\$4,667	\$0	\$18,667
7/1/13	\$14,000	\$4,667	\$0	\$18,667
7/1/14	\$14,000	\$4,667	\$0	\$18,667
7/1/15	\$0	\$4,667	\$0	\$4,667
7/1/16	\$0	\$0	\$0	\$0
7/1/17	\$0	\$0	\$0	\$0
7/1/18	\$0	\$0	\$0	\$0
7/1/19	\$70,000	\$0	\$0	\$70,000
7/1/20	\$0	\$0	\$6,333	\$6,333
7/1/21	\$0	\$0	\$0	\$0
7/1/22	\$0	\$0	\$0	\$0
7/1/23	\$0	\$0	\$0	\$0
7/1/24	\$0	\$0	\$0	\$0
7/1/25	\$0	\$0	\$0	\$0
7/1/26	\$0	\$0	\$0	\$0
7/1/27	\$0	\$0	\$0	\$0
7/1/28	\$0	\$0	\$0	\$0
7/1/29	\$70,000	\$0	\$0	\$70,000
7/1/30	\$0	\$0	\$0	\$0
7/1/31	\$0	\$4,667	\$0	\$4,667
7/1/32	\$0	\$4,667	\$6,333	\$11,000
7/1/33	\$0	\$4,667	\$0	\$4,667

Replacement Scheduler Version 1.4, copyright 2008. The program itself may not be copied but report output may be so long as credit is ascribed to the developer, Carl E. Brown of Carl Brown Consulting, LLC.

# Moorcroft, WY, Garbage Rates Scenario 2

## Chart 17 - Replacement Schedule

CBGreatRates© Version 5.2, Replacement Scheduler© Version 1.4

This schedule calculates the annual annuity to fund all replacement and refurbishment from the detailed schedule.

3.50% Average Inflation Rate for the Following Sewer System Equipment for the Term of This Replacement Schedule

4.50% Average Interest Rate on Balances Invested for the Term of This Replacement Schedule

5.13% Average Interest Rate on Amounts Borrowed for the Term of This Replacement Schedule

Year Beginning	Item Description	This Year's Costs in Current Dollars	One-time Transfers From Operating Fund	One-time Transfers to Operating Fund	End of Year Balance in Future Dollars	Minimum Desired End of Year Balance in Future Dollars
7/1/09	Test year replacements	\$0	\$0	\$0	\$0	\$47,933
7/1/10	Total of replacements from detailed replacement schedule	\$14,000	\$0	\$0	\$5,138	\$47,933
7/1/11	Total of replacements from detailed replacement schedule	\$18,667	\$0	\$0	\$5,188	\$49,611
7/1/12	Total of replacements from detailed replacement schedule	\$18,667	\$0	\$0	\$4,564	\$51,347
7/1/13	Total of replacements from detailed replacement schedule	\$18,667	\$0	\$0	\$3,211	\$53,145
7/1/14	Total of replacements from detailed replacement schedule	\$18,667	\$0	\$0	\$1,074	\$55,005
7/1/15	Total of replacements from detailed replacement schedule	\$4,667	\$0	\$0	\$14,718	\$56,930
7/1/16	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$34,518	\$58,922
7/1/17	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$55,210	\$60,985
7/1/18	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$76,833	\$63,119
7/1/19	Total of replacements from detailed replacement schedule	\$70,000	\$0	\$0	\$4,026	\$65,328
7/1/20	Total of replacements from detailed replacement schedule	\$6,333	\$0	\$0	\$14,412	\$67,615
7/1/21	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$34,199	\$69,981
7/1/22	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$54,876	\$72,431
7/1/23	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$76,484	\$74,966
7/1/24	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$99,064	\$77,589
7/1/25	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$122,660	\$80,305
7/1/26	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$147,318	\$83,116
7/1/27	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$173,086	\$86,025
7/1/28	Total of replacements from detailed replacement schedule	\$0	\$0	\$0	\$200,013	\$89,036
7/1/29	Total of replacements from detailed replacement schedule	\$70,000	\$0	\$0	\$93,577	\$92,152

Notes: Replacement needs were drawn from the most recent system budget for 2010 and projected into the future. The minimum desired balance was set so as to maintain a balance that will be approximately double the amount of the average annual replacement costs. The required annual deposit was calculated based upon these amounts.

Starting Account Balance	\$0	\$47,933
Minimum Annual Annuity	\$17,438	Minimum Desired Balance in Today's Dollars
Discretionary Annuity	\$1,700	

**Required Annual Deposit to Replacement Account \$19,138**

# Moorcroft, WY

## Chart 18 - All-in Test Year Costs and Rate Structure Calculations

CBGreatRates© Version 5.2

This chart depicts all costs for the test year and distributes those costs to fixed and variable categories for the purpose of calculating the "proportional to use" rate structure (see Definitions).

### 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	Surcharge-able Costs
Administration Salaries, Benefits, etc. Allocation	\$2,706	100%	\$2,706	\$2,706	\$0	\$0
Operations Staff Salaries, Benefits & Related Items	\$8,119	50%	\$8,119	\$4,059	\$4,059	\$0
Office Supplies	\$1,039	100%	\$1,039	\$1,039	\$0	\$0
Repair/Maint Supplies	\$5,674	75%	\$5,674	\$4,255	\$1,418	\$0
Equipment Repairs	\$5,312	75%	\$5,312	\$3,984	\$1,328	\$0
Cell Phone	\$88	75%	\$88	\$66	\$22	\$0
Postage	\$502	100%	\$502	\$502	\$0	\$0
Travel and Training	\$0	100%	\$0	\$0	\$0	\$0
Gas/Lube/Oil	\$9,222	75%	\$9,222	\$6,917	\$2,306	\$0
Financial Assurance	\$0	100%	\$0	\$0	\$0	\$0
Liability Insurance	\$246	100%	\$246	\$246	\$0	\$0
Property Insurance	\$0	100%	\$0	\$0	\$0	\$0
Water Testing	\$0	100%	\$0	\$0	\$0	\$0
Permeability Testing	\$0	100%	\$0	\$0	\$0	\$0
Electricity	\$0	100%	\$0	\$0	\$0	\$0
Contractual Collection Services	\$26,980	75%	\$26,980	\$20,235	\$6,745	\$0
Miscellaneous	\$62	75%	\$62	\$46	\$15	\$0
Tipping Fees	\$37,809	0%	\$37,809	\$0	\$37,809	\$0
Annual Payment to Replacement Fund	\$19,138	75%	\$19,138	\$14,354	\$4,785	\$0
User Charge Analysis Services	\$0	75%	\$0	\$0	\$0	\$0
<b>Grand Total All Costs</b>	<b>\$116,896</b>		<b>\$116,896</b>	<b>\$58,409</b>	<b>\$58,487</b>	<b>\$0</b>

### Cost Calculations for "Proportional" Rates Disregarding Can Size

Fixed Cost/User/Month =	\$10.44
Variable Costs (Cost to Produce)/Cans Collected, Disregarding Can Size =	\$8.58