

Sanitation Rate Analysis Report

City of Powell, Wyoming

Prepared May 16, 2016

Carl Brown, President
GettingGreatRates.com, LLC

Executive Summary

GettingGreatRates.com analyzed the sanitation rates of the City of Powell, Wyoming and found that the current rates are modestly too low and are not structured as fairly as they should be. This report lays out how rates should be adjusted to correct both of these deficiencies.

Contents

Executive Summary	1
Introduction	2
Principles	3
General Issues	3
Action Recommendations for Policy and General Issues	4
Sanitation Utility Discussion	5
System Improvements.....	5
Target Reserve Levels	5
Modify the Rate Structure	6
Rate Affordability	7
“Snow Bird” Billing.....	7
Bill City Properties.....	8
Recommendations for Sanitation Rates	8
Table 1 - Recommended Rates	9
Closing	9
Rate Model	Attachment

Introduction

In 2015, the City of Powell, Wyoming, later called “the City” or “you” hired GettingGreatRates.com, later called “me,” “we” or “I” to perform rate analyses as guidance for the City in its efforts to set and maintain adequate and fairly structured user charges for its water and sewer utilities. This year you hired me to analyze rates for your sanitation service, later called “the utility.” This report covers that analysis.

I analyzed the financial condition of the utility, considering operating costs, capital improvement needs over the next 10 years, equipment repair and replacement needs over the next 20 years and many other issues. I also classified costs by their nature: customer (fixed), pick-up and volume related; to determine the utility’s cost structure. The cost structure was used to calculate a rate structure that is proportional to the cost to serve the various customers. Said another way, these rates will have the residential customer class, at two pick-ups per week, pay their proportionate share of basic, pick-up, and hauling plus tipping fee costs that the City incurs on their behalf. Rates for the commercial class will do the same. However, in that case, rates will also take into account the number of pick-ups each customer gets: one, two, three or six. The result is a set of recommended rates as well as recommendations for future inflationary increases. This report covers all these issues in detail.

The report package is composed of two sections. The first section is a narrative report that tells readers what should be done to the utility's rates and why. The narrative report will cover issues in this order: principles, general issues and general action recommendations that apply to all utilities; a sanitation subsection that covers general issues; discussion of significant specific issues; and presentation of rate and policy recommendations.

The second section of the report package is a printout of the spreadsheet model used to calculate the recommended rates. The model is named, "City of Powell, WY, Sanitation Rates Scenario 2016-1." Later in this report the model is simply called, "Sanitation Scenario 1" or "the model."

As you read this report, please keep this in mind. This report does not *direct* the City to do anything. Actions you take or do not take are strictly up to you. The report is meant to inform and educate so you can then make well-informed decisions about actions to take. And the report and model are not legal recommendations. For legal issues consult your attorney.

Principles

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

1. Water, sewer, sanitation 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, while the basic cost of operating a sanitation service might call for a basic or flat charge to all customers of \$100 per month, assessing such rates may cause many to forgo subscribing to the service and instead, throw their trash into other people's dumpsters in the dead of night or throw it into a ditch in an out of the way place. That would not serve the community at-large well, so rate setting calls for moderation, too.

General Issues

Concerning construction of the model, it was built to match the system's actual financial statements as much as possible. However, the intent of rate modeling is to see to it that the resulting rates are adequate to pay all system expenses for the next 10 years, build and maintain responsible reserves and collect fees from customers on a fair basis. Because incomes and expenses in your financial statements were not always grouped in such a way as to enable proper rate calculation, the model does not always match your statements.

For modeling purposes, it does not matter whether funds are held in the general system account, a debt service sinking fund, repair and replacement fund, etc. Therefore, the model accounts for funds in a more simplified way than you do. When it comes to segregating funds, staff knows best how to do that so the model does little in this regard and leaves the segregating up to staff.

Several line graph charts in the analysis model graphically depict some things which would be difficult to pick out of the tables. In all the charts the **blue line** represents what would happen under the **recommended** rates and the **red line** under the **current** rates. Trends for the red lines are (generally) bad. Those for the blue lines are (generally) good. Review the definitions section of the model to learn the meaning of terms used in the charts.

As you set and later reset rates I suggest you follow the guidance I give in my book, "How to Get Great Rates." I gave a copy to Annette Thorington last year so check with her about reviewing it. I suggest you also use the "Replacement Scheduler[®]" spreadsheet for future equipment replacement scheduling. It is available for free download from gettinggreatrates.com.

Action Recommendations for Policy and General Issues

Use the following as a checklist of "to-do" tasks. In the report on water and sewer rate setting I stated these things but they bear repeating.

1. Determine how long, on average, it takes to perform the various services you provide in the field, such as after-hours service or special pick-ups. Be sure to include all the time you actually pay staff for performing these services. Then determine how much it costs the utility per hour, on average, to have staff perform these services. This includes benefits, taxes, use of utility 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. 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.
2. Retain required funds in interest bearing debt service and debt reserve accounts when required by your lender(s).
3. Have me conduct a full rate analysis again when your actual financial performance and my projection of that performance diverge significantly. That may be up to five years from now or whenever a new, large financial upset or change is looming. That may be when you consider changing hauling contractors at a markedly different fee, the landfill schedules a sharp tipping fee increase or something else of that magnitude.
4. Continue to track your volumes, pick-ups, incomes, expenses, etc. on a regular basis so the data and information you generate will support future rate adjustments.

5. As a reminder, check with your attorney for language and legality of all charges and issues discussed.

Sanitation Utility Discussion

Sanitation rate revenues are currently modestly too low. In order to pay current operating and ownership costs of the system and build responsible reserves, the rates need to go up by almost 13 percent overall. However, rates also need to be restructured so they will be fairer. Thus, bills for two of the rate classes would actually go down while the others would go up. These results can be seen in Table 7 of the model, page .

System Improvements

The infrastructure of a sanitation service is usually primarily rolling stock: trucks, loaders, bins and dumpsters, etc. Generally, in a utility, rolling stock is thought of as replaceable equipment, not infrastructure. But regardless of what one calls the things used to provide sanitation service, these things need to be purchased, maintained and eventually replaced. In your case, this equipment and related costs amount to approximately 20 percent of the system's total annual costs. While such costs can be postponed occasionally and for a short time, they cannot be avoided. You have plans for maintaining and replacing this equipment and the model reflects that. These costs are shown in Table 17 in detail, and Table 18 in summary, pages , respectively, making them part of the cost basis of the recommended rates.

Target Reserve Levels

When a utility has reserves that are below responsible levels, I endeavor to model and recommend rates that will enable the utility to build proper reserves by at least the tenth year. For most systems serving fewer than 5,000 connections, such reserves usually include the following:

- Unobligated cash and cash equivalent reserves equal to at least 35 percent of the annual operating costs, not including debt service;
- A 20-year repair and replacement (R&R) schedule reserve, in the 20th year equal to at least one average year's R&R expenses; and
- Capital improvement reserves in the tenth year that are adequate to cover the next year's debt payments, the debt coverage requirement and at least 10 to 20 percent of the capital improvements expected during that 10-year period. (The transfer station is your major capital improvement so depreciation on that facility is included at the bottom of Table 3 to pay for its eventual replacement or refurbishment.)

Your current reserves are well below these minimums so I modeled initial rate adjustments and future inflationary increases that will enable you to "catch up" by the tenth year. You can see the results of this strategy in the reserves at the bottom of Table 6, page .

Modify the Rate Structure

Modifying the rate structure means some customers' bills will go up more than others and some will actually go down. Those whose bills will go up the most will tend to think that they are being treated unfairly by the rate adjustments. In reality, those customers are currently being subsidized by other customers and the restructuring is simply correcting that inequity. Thus, while some will see the highest bill increases, everyone needs to be aware that rate restructuring is not about spreading increases evenly among all the customers. It is about having all customers pay their proportionate share of the utility's costs.

Table 10, page , shows most of the math of how the recommended rate structure was calculated. In summary fashion, I describe the process like this:

- In Table 15, page , I classified the system's operating costs based upon their nature.
 - Customer-related costs are those that are simply based upon the existence of customers. Billing costs are the simplest example. Billing costs do not vary between high-volume and low-volume customers. Likewise, other customer-related costs do not vary depending upon how much trash a customer contributes or the number of pick-ups they get per week. They are the same for all customers.
 - Pick-up-related costs are primarily those involved in driving the collection trucks around town and picking up trash. Most of these costs are very directly related to mileage and to a lesser degree, volume of trash contributed by different customers.
 - Volume-related costs; the costs of hauling trash to the landfill and tipping fees at the landfill, are directly related to the volume of trash that goes to the landfill.
- In Table 10, page , data concerning the number of customers using the different size containers and the number of pick-ups each gets were compiled. This enabled me to calculate the volume of refuse contributed by each class of customer and the average volume contributed by each customer type for each pick-up and per week and year.
- At the bottom of Table 15, the results of calculations from Tables 10 and 15 were used to calculate the cost components of each customer class' bill. Those components are the customer charge, the pick-up charge and the landfill and hauling charge. Every customer gets a monthly customer charge and that is the same for all customers. Every pick-up gets assessed a pick-up charge, and that is the same for every pick-up. And, the volume contributed by each customer class gets a hauling and landfill tipping fee charge, which is the same for every cubic foot of refuse. Add these component costs up for each rate class and the result is the bill for each customer in each rate class.

Rates in such a structure are said to be "proportional to use" or based upon "cost to serve." Proportional rates are the fairest and most mathematically based structure you can have and still do rate setting economically and simply.

All of the forgoing said about rate structure, the rate revenues need to go up, too. Thus, to also accommodate an overall revenue increase and still maintain the proportional cost structure, the total of each type of cost was increased by the percentage factor in the yellow highlighted box at the bottom of Table 15. These cost totals were then used as the basis for calculating the proportional rates at the bottom of the table.

Finally, there are a few customers that do not pay the standard fees and you also assess a recycling fee to most customers. The revenues from these fees are highlighted gray in Table 2, page . I handled those fees in this way:

- There is a rate “category” in Table 2 called, “Garbage-No Rate Code.” I assume these services are for the miscellaneous and special pick-up kinds of services that you provide on a requested basis. I simply increased these revenues by the percentages at the top of Table 2, assuming you would increase these rates by the weighted-average increase for all other ratepayers.
- Recycling is handled as a separate service. Thus, this analysis disregarded such items. That said, recycling can help the Council achieve a goal – keeping volume and certain materials from being landfilled. Where that can be done yielding a net savings to ratepayers, it should be. The Council may even want to recycle somewhat beyond the net savings point to conserve landfill space, reduce pollution by preventing use of virgin raw materials and other considerations. Those are harder to pin down but they are well worth considering.

Rate Affordability

As shown near the top of Table 6, page 37 and graphically in Chart 4, page 54, the affordability index of your current residential rates is 0.86 percent. The rates I think you should adopt from the model would increase the affordability index to 1.01 percent. However, because Census Bureau data trends indicate that household incomes are increasing more rapidly than the inflation rates I am using (which I suspect are aggressive), the affordability index should improve (rates will get relatively cheaper) over time.

Table 7 of the model, page 38, shows how bills for each customer class will be affected by the recommended rates. Most will go up, two will go down. With a weighted-average bill increase of 8.5 percent, that is among the lowest of my clients. Most need to go up 20 percent or more.

“Snow Bird” Billing

I recommend Snow Bird billing similar to that for water and sewer utilities. However, I recommend that the amount assessed should be at the minimal (one) pick-up frequency. Also, no volume charge should be included in the Snow Bird bill because there is no volume to pick-up while a customer is away. Therefore, the Snow Bird bill for all customers would be one customer charge plus the charge for one pick-up per week, or \$11.87 at the recommended rates. This fee “buys” a Snow Bird coverage of the utility’s basic costs and their share of the cost of one pass by their property as the truck makes its usual pick-up route.

Bill City Properties

Like I recommend for water and sewer, I recommend you bill City properties for sanitation services, too.

Recommendations for Sanitation Rates

Sanitation Scenario 2016-1 contains all of my rates-related recommendations and shows what they are built upon. I have summarized my recommendations as follows:

1. *You should assess the monthly charges and Snow Bird charges (a new fee) shown in Table 1 that follows this list.*
2. *The calculations assumed you will make these adjustments early enough to enable you to collect at these rates for the July 1, 2016, billing. For each month rate adjustments are postponed past this date you will not collect approximately \$13,250 in fees that you could have. With your current level of reserves this is an important but not critical issue, so long as you adjust rates fairly soon.*
3. *Modify your current late payment/non-payment ordinance language so that it effectively accomplishes what is described in the following bullet points (this is the same recommendation I make for water and sewer rates):*
 - *If payment is insufficient to cover all amounts billed for water, sewer and sanitation services, plus any other fees assessed by the City, the payment will first be applied to sanitation and the other non-water related services, then to sewer service and last to water service.*
 - *A late payment penalty of 10 percent of the outstanding balance or \$10.00, whichever is greater, will be assessed to the customer's account each month.*
 - *Water service, and any other service that is in arrears, will be shut off in accordance with, and at the earliest time allowed by State law.*
 - *Reconnection after non-payment will only be done after the customer has paid all fees and penalties owed, plus a reconnection fee that is 50 percent higher than the usual reconnection fee after shutoff to make repairs, transfer property to a new owner, change tenants and similar events not related to non-payment.*
 - *If a customer is disconnected for non-payment a second time in a one-year period, in addition to the above fees and penalties, you should collect an additional deposit from that customer in an amount you deem appropriate. Such deposit should only be expended to pay the customer's outstanding bill, fees and penalties in the case where the outstanding bill, fees and penalties cannot be collected. A customer moving away without paying is such a circumstance this deposit is meant to guard against.*
4. *If all goes as modeled, on the one-year anniversary of making the rate adjustments called for above, and for several years thereafter, raise all rates and fees across the board by 4.0 percent.*

Table 1 - Recommended Rates

Customer Class	Pick ups per Week	Modeled Monthly Bill	Snow Bird Bill
RES-2PU/WK 1CT	2	\$38.92	\$13.55
COM-1PU/WK 1CT	1	\$36.28	\$11.87
COM-2PU/WK 1CT	2	\$62.38	\$13.55
COM-3PU/WK 2CT	3	\$88.48	\$15.23
COM-6PU/WK 2CT	6	\$166.78	\$20.27

Note: Increase "Garbage - No Rate Code" rate paying customers' bills by the same overall percentage as all other rates will be increased. That is: 8.5%

Closing

You would do well to pursue the rates calculated in Sanitation Scenario 2016-1. These rates will enable you to build appropriately strong reserves, cover increasing costs and do so using fairly structured rates.

Finally, as you address issues raised in this report and the analyses, you will have questions. Ask them. My goal is to help you set and keep adequate, fair and appropriately simple or complex rates. That takes time and effort and it may stretch out beyond the "conclusion" of the project. I'm in it for the long haul with you. Unless you ask for something that takes substantial or very different work, you will owe me no extra fees for that help.

Best regards,
GettingGreatRates.com



Carl E. Brown
President

Powell, WY, Sanitation Rates Scenario 2016-1 Modeling Results

This document contains the calculations that were performed to arrive at new user rates and fees for the next 10 years. These calculations are complex so key issues are also described in a narrative report that accompanies this model.

This analysis was conducted so as to establish user rates that are adequate to pay all reasonably expectable costs while charging rates that are fairly structured and appropriately simple or complex.

Scenario Description: This analysis model assumes continuing the two current customer classes; residential and commercial (as well as a few special case rates, set as needed to fit circumstances). All regular customers would pay a customer charge that is the same for all. Then, each class would pay pick-up and volume charges based upon the averages for each class. After initially setting rates as shown in Table 1, inflationary rate increases will be done annually. Recycling costs and their associated rate are handled separate from sanitation so those costs and that rate are not covered in this model.

For most, the best way to read and understand what this model means is this. Scan the "Index of Tables, Charts and Other Results" to see how the model is laid out. Scan the "Definitions" for any terms you are not already familiar with. Read and even ponder Table 1 and the line graph charts. 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.

Several tables in this model depict volume usage and user rates for the various customer classes. The model includes a continuum of volumes but many volume categories had no users. Most of these lines have been hidden simply to make the tables less voluminous. However, all volume classes that had use or that are break points for rate blocks are shown. For volume classes that are not shown, rates will be the same as the previous rate that is shown.

May 16, 2016

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

www.gettinggreatrates.com
carl@gettinggreatrates.com

Powell, WY, Sanitation Rates Scenario 2016-1 Modeling Results

Index of Tables, Charts and Other Results

Note: When a numbered table or chart is missing from the list below and this model package, that was not a mistake. It simply means that table or chart from our master program was not needed in this situation.

Name	What Each is or Does
Definitions	The meaning of terms used in this report and in rate setting generally
Return on Investment	A summary of financial outcomes produced by the proposed rates
Table 1 - Recommended Rates	User rates calculated and recommended in this model for each user class
Table 2 - User Base and Operating Incomes	Basic user base and user rate statistics and operating revenues, projected for next 10 years, based upon adopting modeled rates
Table 3 - Operating Costs and Net Income	Operating costs projected for next 10 years, excluding debt service
Table 6 - Indicators	Financial results that adopting the modeled rates will cause
Table 7 - Bill Comparisons Before and After Rate Adjustments	Illustrates effects of modeled rates on ratepayers (increases or decreases) at various usage levels
Chart 1 - Operating Ratio	Graph of operating ratio for next 10 years if modeled rates are adopted
Chart 2 - Coverage Ratio	Graph of coverage ratio for next 10 years if modeled rates are adopted
Chart 3 - 5,000 Gallon Residential User's Bill	Graph of bill for a 5,000 gallon per month residential user, with smallest available meter size, for next 10 years at modeled rates (used in grant and loan eligibility determinations)
Chart 4 - Affordability Index	Graph of affordability index of residential user's bill for next 10 years at modeled rates (used in grant and loan eligibility determinations)
Chart 5 - Working Capital vs Goal	Graph of total (unobligated) cash assets for next 10 years at modeled rates compared to the goal for total cash assets
Chart 6 - Value of Cash Assets Before Inflation	Graph of total (unobligated) cash assets NOT adjusted for inflation for next 10 years at modeled rates
Chart 7 - Value of Cash Assets After Inflation	Graph of total (unobligated) cash assets adjusted for inflation for next 10 years at modeled rates
Table 10 - Disposal and Pick up Calculations	Allocation of pick ups and volumes to each rate class
Table 12 - Test Year Usage	Compilation of volume of service used by customers during the test year
Table 13 - Rates at End of Test Year	The user rate table in effect at the end of the test year
Table 14 - AMHI and Incomes	Annual Median Household Income data and system incomes for the test year
Table 15 - Cost Classification for Test Year	Sumation of the appropriate year's system costs and calculation of "cost of service" basis for recovery of customer, pick up and volume costs
Table 17 - Equipment Replacement Details Chart	Detailed schedule of equipment replacements for next 20 years, if applicable
Table 18 - Replacement Schedule	Calculation of the annual annuity (yearly savings amount) needed to pay for all equipment replacements as they come due and end with a desired balance

Definitions

Affordability Index	<p>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.</p>
Comprehensive Rate Analysis	<p>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.</p>
Cost to Produce	<p>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 19.</p>
Cost to Serve Rates	<p>Rates where fixed and variable costs generated by each user class are paid by that class with minimum and unit charges, respectively.</p>
Cost Types; Fixed and Variable	<p>The two main types of costs are fixed - those that are related to the fact that someone is a customer; and variable - those that are related to the volume of the commodity delivered to customers. Generally, fixed costs should be recovered with minimum charges and variable costs with unit charges.</p>
Coverage Ratio (CR)	<p>Incomes 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. Note: the CR in this model also includes reserves available to pay debt in the CR calculation, which is a more realistic approach to debt coverage.</p>
Current Position	<p>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.</p>
Flat Rates	<p>Rates where all users pay exactly the same fee regardless of the volume of service they use</p>
Incremental Rate Adjustments	<p>Rate increases done, generally annually, following the initial rate adjustment. The goal of these rate increases is to keep the system's income and reserve levels on track. Rate structure fairness is a small issue, if it is an issue at all. Such increases are usually small, in the two to five percent per year range.</p>
Initial Rate Adjustments	<p>Rate adjustments done in follow up on the comprehensive rate analysis. Generally, the goal of such adjustments is to establish rates that put the system's income and reserve levels on track with the system's financial needs and do it with a structure that is fair to the ratepayers.</p>
Inflow & Infiltration (I&I)	<p>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)</p>
Infrastructure	<p>Hard assets, such as water towers, treatment plants and lines needed to provide service to customers connected to the system</p>
Life-cycle Cost	<p>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.</p>
Marginal Costs	<p>The part of fixed and/or variable costs that are unavoidable should use go up marginally for reasons like: a new customer is connected or an existing customer increased use. Generally marginal costs are less than the average fixed and variable costs but when extra use requires a system upsizing, they can be greater. These costs are especially useful when considering selling service at wholesale or assessing "Snowbird" fees to customers that leave during part of the year but return.</p>
Operating Costs	<p>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.</p>
Operating Revenues	<p>Revenues generated by user fees</p>
Operating Ratio (OR)	<p>Current incomes divided by current expenses, not including debt. An OR of 1.0 is "break even." Most systems should have an OR of 1.25 or higher. Note: the OR calculation in this model also included undedicated reserves, which is a more realistic approach to covering operating costs.</p>

Definitions, Continued

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.
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
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 new customer sign-up fees, late payment penalties or other types of charges.
Working Capital, Net Income	The amount left in the operating fund after paying all costs due during that month, year or other time period. Working capital of \$0 is "break even."
Working Capital Goal	The desired percentage in excess of "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.

Return on Investment

The rates depicted in this model will produce various returns on investment or paybacks. Usually the most important payback, at least to ratepayers, is a rate structure that is demonstrably fair. For the system, revenues (usually increased) that will be adequate to pay all expected, expectable and many unexpected costs is the key return.

The following calculations show what was invested and what the returns will be over two periods; five years and 10 years. Five years is a reasonable period for return projections. Ten years is a good basic planning horizon but you should not bank on amounts or returns projected that far out. Besides, most systems should have their analyses redone long before then.

Consider these key points about returns on investment. Because the recommended, overall higher rates will fund more improvements, better repair and replacement and such, much of the increase in revenues will be absorbed by those expenses. Thus, few systems end up with a dramatic increase in their reserves because most of the additional revenues get used up making needed improvements. Fairer and higher rates generally enable systems to qualify for grant and loan funding, too, increasing those funds but also using up those funds.

Also note that rates in this model have been modeled to be adjusted during the year following the test year or even later. That year is included in the first five-year return on investment calculation. Thus, the first year of returns calculated below include most or all of one year where rates will not have been changed yet, lowering the calculated return on investment but not the real rate of return.

Calculations

\$4,669	Fees to GettingGreatRates.com
\$500	Estimated value of system staff time and incidentals to assemble needed information
\$5,169	Total Investment for This Analysis
\$398,185	Five-year Improvement in Cash Position Due at Least Partly to This Analysis
7703%	Five-year Return on Investment (increase in revenues / investment)
\$678,560	Ten-year Improvement in Cash Position Due at Least Partly to This Analysis
13127%	Ten-year Return on Investment (increase in revenues / investment)

This analysis was produced using the program [CBGreatRates](#), copyright 2015. You are encouraged to distribute this report to others so long as credit is ascribed to the author, Carl E. Brown of GettingGreatRates.com.

Powell, WY, Sanitation Rates Scenario 2016-1

Table 1 - Recommended Rates

CBGreatRates© Version 7.0

For the initial adjustments, adopt the rates shown in this table.

Customer Class	Pick ups per Week	Modeled Monthly Bill	Snow Bird Bill
RES-2PU/WK 1CT	2	\$38.92	\$13.55
COM-1PU/WK 1CT	1	\$36.28	\$11.87
COM-2PU/WK 1CT	2	\$62.38	\$13.55
COM-3PU/WK 2CT	3	\$88.48	\$15.23
COM-6PU/WK 2CT	6	\$166.78	\$20.27

Note: Increase "Garbage - No Rate Code" rate paying customers' bills by the same overall percentage as all other rates will be increased. That is: 8.5%

Powell, WY, Sanitation Rates Scenario 2016-1
 Table 2 - User Base and Operating Incomes

This table depicts user statistics and system incomes during the test year and for the next 10 years.

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

Infla./De- flation (-) Factor	Test Year	This Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year	
	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	Year Starting 7/1/20	Year Starting 7/1/21	Year Starting 7/1/22	Year Starting 7/1/23	Year Starting 7/1/24	
Average Users for the Year	NA	2734	2738	2742	2746	2750	2754	2758	2762	2766	2770	2774
Users Added/Lost During the Year	NA	6	4	4	4	4	4	4	4	4	4	4
User Growth or Loss Rate	NA	0.22%	0.22%	0.15%	0.15%	0.15%	0.15%	0.15%	0.14%	0.14%	0.14%	0.14%
Weighted-average Rate Increases Started During This & Future Years	NA	NA	8.5%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%

The gray highlighted line above shows the rate revenue increase for "This Year" (heading highlighted blue). However, for "This Year," each customer's bill will go up or down based upon how the new rates apply to their actual use and demand. In future years it is assumed that all rates and fees will go up, either by a simple inflationary factor shown on this line or restructured rates that produce this level of income increases.

Operating Incomes

304400 RESIDENTIAL & COMMERCIAL	NA	\$1,284,462	\$1,284,758	\$1,448,772	\$1,506,722	\$1,566,991	\$1,629,671	\$1,694,858	\$1,762,652	\$1,833,158	\$1,906,484	\$1,982,744
PENALTY	NA	\$1,862	\$1,863	\$2,100	\$2,184	\$2,272	\$2,363	\$2,457	\$2,555	\$2,658	\$2,764	\$2,875
New Customer Sign-up, Current Structure % Above		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Customer Sign-up, New Structure % Above		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
304402 INTEREST EARNED	NA	\$844	\$4,113	\$4,463	\$6,439	\$7,617	\$8,022	\$8,406	\$8,853	\$9,370	\$9,772	\$9,613
304403 OTHER-(WEED & PEST)	NA	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371	\$33,371
304405 RECYCLE FEES COLLECTED (Disregarded in this Model)	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
304409 STATE WY AGRICULTURAL GRANT	NA	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
304410 POWELL FIBER	NA	\$644	\$644	\$644	\$644	\$644	\$644	\$644	\$644	\$644	\$644	\$644
304412 CARD BOARD SALES	NA	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979	\$7,979
Recycling-No Rate Code (Disregarded in this Model)	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Garbage-No Rate Code	NA	\$5,943	\$5,945	\$6,704	\$6,972	\$7,251	\$7,541	\$7,842	\$8,156	\$8,482	\$8,821	\$9,174
Total Regular Income		\$1,347,105	\$1,350,672	\$1,516,032	\$1,576,311	\$1,638,124	\$1,701,589	\$1,767,556	\$1,836,209	\$1,907,662	\$1,981,835	\$2,058,399

Powell, WY, Sanitation Rates Scenario 2016-1
 Table 3 - Operating Costs and Net Income

This table 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	Test Year	This Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
		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	Year Starting 7/1/20	Year Starting 7/1/21	Year Starting 7/1/22	Year Starting 7/1/23	Year Starting 7/1/24
(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.)												
100 SALARY	4.0%	\$268,582	\$279,325	\$290,498	\$302,118	\$314,203	\$326,771	\$339,841	\$353,435	\$367,573	\$382,275	\$397,566
101 SOC SEC	4.0%	\$20,098	\$20,902	\$21,738	\$22,608	\$23,512	\$24,453	\$25,431	\$26,448	\$27,506	\$28,606	\$29,751
102 WORKERS COMP	4.0%	\$6,043	\$6,285	\$6,536	\$6,798	\$7,070	\$7,353	\$7,647	\$7,953	\$8,271	\$8,601	\$8,946
104 WY RETIREMENT	4.0%	\$36,636	\$38,102	\$39,626	\$41,211	\$42,859	\$44,574	\$46,356	\$48,211	\$50,139	\$52,145	\$54,231
201 TELEPHONE	4.0%	\$3,200	\$3,328	\$3,461	\$3,600	\$3,744	\$3,893	\$4,049	\$4,211	\$4,379	\$4,555	\$4,737
203 PUBLISHING/PUBLICATONS	4.0%	\$1,793	\$1,864	\$1,939	\$2,016	\$2,097	\$2,181	\$2,268	\$2,359	\$2,453	\$2,551	\$2,653
204 HEAT & LIGHTS	4.0%	\$5,081	\$5,284	\$5,495	\$5,715	\$5,944	\$6,182	\$6,429	\$6,686	\$6,953	\$7,232	\$7,521
205 TRAVEL EXPENSE	4.0%	\$1,153	\$1,199	\$1,247	\$1,297	\$1,349	\$1,403	\$1,459	\$1,518	\$1,578	\$1,642	\$1,707
209 DUES	4.0%	\$400	\$416	\$433	\$450	\$468	\$487	\$506	\$526	\$547	\$569	\$592
211 PROFESSIONAL SERVICES	4.0%	\$8,512	\$8,852	\$9,206	\$9,574	\$9,957	\$10,356	\$10,770	\$11,201	\$11,649	\$12,115	\$12,599
237 LANDFILL FEES	2.8%	\$157,192	\$161,948	\$166,725	\$171,643	\$176,706	\$181,918	\$187,283	\$192,805	\$198,491	\$204,343	\$210,367
238 RECYCLING SERVICES (Disregarded in this Model)	0.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
239 HAULING	14.9%	\$130,610	\$150,456	\$173,190	\$199,359	\$229,482	\$264,156	\$304,068	\$350,009	\$402,891	\$463,762	\$533,828
6 CONTRACTED CARDBOARD COLLECTION	4.0%	\$400	\$417	\$434	\$452	\$471	\$491	\$511	\$532	\$554	\$577	\$601
301 GAS, OIL, LUBE	4.0%	\$32,422	\$33,793	\$35,196	\$36,657	\$38,179	\$39,764	\$41,414	\$43,133	\$44,924	\$46,788	\$48,730
302 OFFICE SUPPLIES	4.0%	\$315	\$327	\$341	\$354	\$368	\$383	\$398	\$414	\$431	\$448	\$466
303 TOOLS & SHOP SUPPLIES	4.0%	\$1,668	\$1,735	\$1,804	\$1,876	\$1,951	\$2,029	\$2,110	\$2,195	\$2,283	\$2,374	\$2,469
304 CLOTHING	4.0%	\$538	\$559	\$582	\$605	\$629	\$654	\$681	\$708	\$736	\$766	\$796
306 VEHICLE AND EQUIPMENT SUPPLIES	4.0%	\$21,206	\$22,054	\$22,936	\$23,853	\$24,808	\$25,800	\$26,832	\$27,905	\$29,021	\$30,182	\$31,389
307 PLANT/BLDG MAINT.SUPPLIES	4.0%	\$1,940	\$2,017	\$2,098	\$2,182	\$2,269	\$2,360	\$2,454	\$2,552	\$2,655	\$2,761	\$2,871
308 CHEMICALS	4.0%	\$21,758	\$22,678	\$23,620	\$24,600	\$25,621	\$26,685	\$27,793	\$28,946	\$30,148	\$31,399	\$32,702
339 SAFETY	4.0%	\$200	\$208	\$216	\$225	\$234	\$243	\$253	\$263	\$274	\$285	\$296
405 INSURANCE-PD&PL,FIRE,ETC	4.0%	\$10,852	\$11,286	\$11,738	\$12,207	\$12,695	\$13,203	\$13,731	\$14,280	\$14,852	\$15,446	\$16,064
413 MANAGEMENT FEES	4.0%	\$215,760	\$224,390	\$233,366	\$242,701	\$252,409	\$262,505	\$273,005	\$283,925	\$295,282	\$307,094	\$319,378
414 FRANCHISE FEES	4.0%	\$64,613	\$67,198	\$69,886	\$72,681	\$75,588	\$78,612	\$81,757	\$85,027	\$88,428	\$91,965	\$95,644
431 FIBER INTERNET	4.0%	\$214	\$223	\$231	\$241	\$250	\$260	\$271	\$282	\$293	\$305	\$317
490 COMPUTER HARDWARE	4.0%	\$100	\$104	\$108	\$112	\$117	\$122	\$127	\$132	\$137	\$142	\$148
491 COMPUTER SOFTWARE	4.0%	\$1,960	\$2,038	\$2,120	\$2,205	\$2,293	\$2,385	\$2,480	\$2,579	\$2,682	\$2,790	\$2,901
501 NEW EQUIPMENT	0.0%	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17
502 EQUIPMENT REPLACEMENT	0.0%	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17	Table 17
503 LAND IMPROVEMENT	0.0%	\$22,994	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Annual Payment to Replacement Fund	0.0%	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054	\$122,054
User Charge Analysis Services	5.0%	\$0	\$4,669	\$0	\$0	\$5,148	\$0	\$0	\$5,675	\$0	\$0	\$6,257
Transfer Station Depreciation	0.0%	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519	\$38,519
Total Operating Costs		\$1,288,276	\$1,327,354	\$1,384,271	\$1,450,800	\$1,527,995	\$1,601,073	\$1,686,228	\$1,784,845	\$1,880,877	\$1,992,471	\$2,121,489
Net Income (or Loss)		\$58,829	\$23,318	\$131,761	\$125,511	\$110,129	\$100,516	\$81,328	\$51,365	\$26,784	-\$10,636	-\$63,090
Working Capital Goal: 35%	In Dollars, That is:	\$450,897	\$464,574	\$484,495	\$507,780	\$534,798	\$560,376	\$590,180	\$624,696	\$658,307	\$697,365	\$742,521

Powell, WY, Sanitation Rates Scenario 2016-1

Table 6 - Indicators

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

CBGreatRates© Version 7.0

	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	Year Starting 7/1/20	Year Starting 7/1/21	Year Starting 7/1/22	Year Starting 7/1/23	Year Starting 7/1/24	
Capacity Indicators												
Equivalent Final Monthly Bill for a Residential Customer, Including the Recycling Fee	\$33.10	\$41.09	\$42.73	\$44.44	\$46.22	\$48.07	\$49.99	\$51.99	\$54.07	\$56.23	\$58.48	
Annual Median Household Income (AMHI)	\$46,306	\$48,772	\$51,369	\$54,104	\$56,985	\$60,019	\$63,215	\$66,581	\$70,127	\$73,861	\$77,794	
Affordability Index for Proposed Rates	0.86%	1.01%	1.00%	0.99%	0.97%	0.96%	0.95%	0.94%	0.93%	0.91%	0.90%	
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	1.17	1.21	1.21	1.30	1.36	1.42	1.46	1.48	1.49	1.48	1.45	
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.	N.A.	N.A.	N.A.	N.A.	
Coverage Ratio applies only to years with debt service. 1.0 is break even. Generally, the coverage ratio should be at least 1.25.												
Reserves	Balance Ending on 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	Balance Ending on 6/30/21	Balance Ending on 6/30/22	Balance Ending on 6/30/23	Balance Ending on 6/30/24	Balance Ending on 6/30/25
Cash and Cash Equivalents	\$215,376	\$274,204	\$297,523	\$429,283	\$507,780	\$534,798	\$560,376	\$590,180	\$624,696	\$651,480	\$640,845	\$577,755
CIP and Debt Reserve	\$0	\$0	\$0	\$0	\$47,015	\$131,535	\$210,420	\$268,257	\$293,153	\$301,948	\$311,006	\$320,336
Total Cash Assets (Excluding Dedicated Reserves) Before Inflation	\$215,376	\$274,204	\$297,523	\$429,283	\$554,794	\$666,333	\$770,796	\$858,436	\$917,849	\$953,428	\$951,851	\$898,091
Total Cash Assets (Excluding Dedicated Reserves) Discounted for Inflation (Future Unrestricted Purchasing Power)	\$215,376	\$274,204	\$297,523	\$420,698	\$532,825	\$627,148	\$710,958	\$775,959	\$813,069	\$827,695	\$809,799	\$748,781
Replacement Fund	\$0	-\$171,845	-\$84,416	-\$55,296	-\$145,966	-\$92,037	-\$4,643	\$17,165	-\$88,730	-\$3,188	\$24,487	\$99,867
Sum of All Reserves	\$215,376	\$102,359	\$213,107	\$373,987	\$408,828	\$574,296	\$766,153	\$875,602	\$829,119	\$950,239	\$976,338	\$997,958

Powell, WY, Sanitation Rates Scenario 2016-1

Table 7 - Bill Comparisons Before and After Rate Adjustments

CBGreatRates© Version 7.0

This table compares bills for residential and commercial sanitation service, the two most common rate classes. Other classes are difficult to compare because they are more dependent upon pick up frequency and volume of container used. The City currently only offers 2 pick ups per week for residential and 1, 2, 3 or 6 pick ups per week for commercial. These are all reasonable so the recommended rates continue those pick up frequencies.

Weighted Average Bill Increase: 8.5%

Customer Class	Pick ups per Week	Current Monthly Bill	Modeled Monthly Bill	Bill Increase or Decrease (-) After Rate Adjustment	Percent Increase or Decrease (-) After Rate Adjustment
RES-2PU/WK 1CT	2	\$31.10	\$38.92	\$7.82	25%
COM-1PU/WK 1CT	1	\$33.55	\$36.28	\$2.73	8%
COM-2PU/WK 1CT	2	\$78.58	\$62.38	-\$16.20	-21%
COM-3PU/WK 2CT	3	\$96.30	\$88.48	-\$7.82	-8%
COM-6PU/WK 2CT	6	\$128.67	\$166.78	\$38.11	30%

Chart 1 - Operating Ratio

Powell, WY

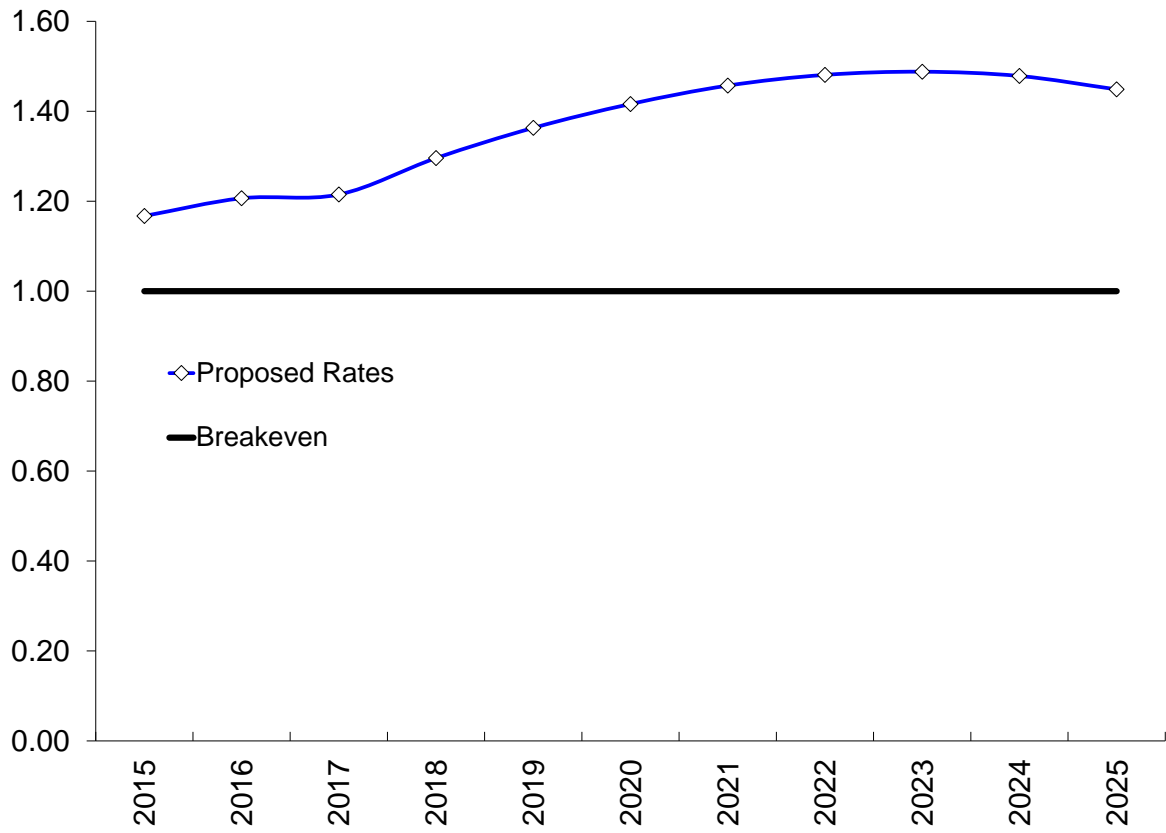


Chart 2 - Coverage Ratio

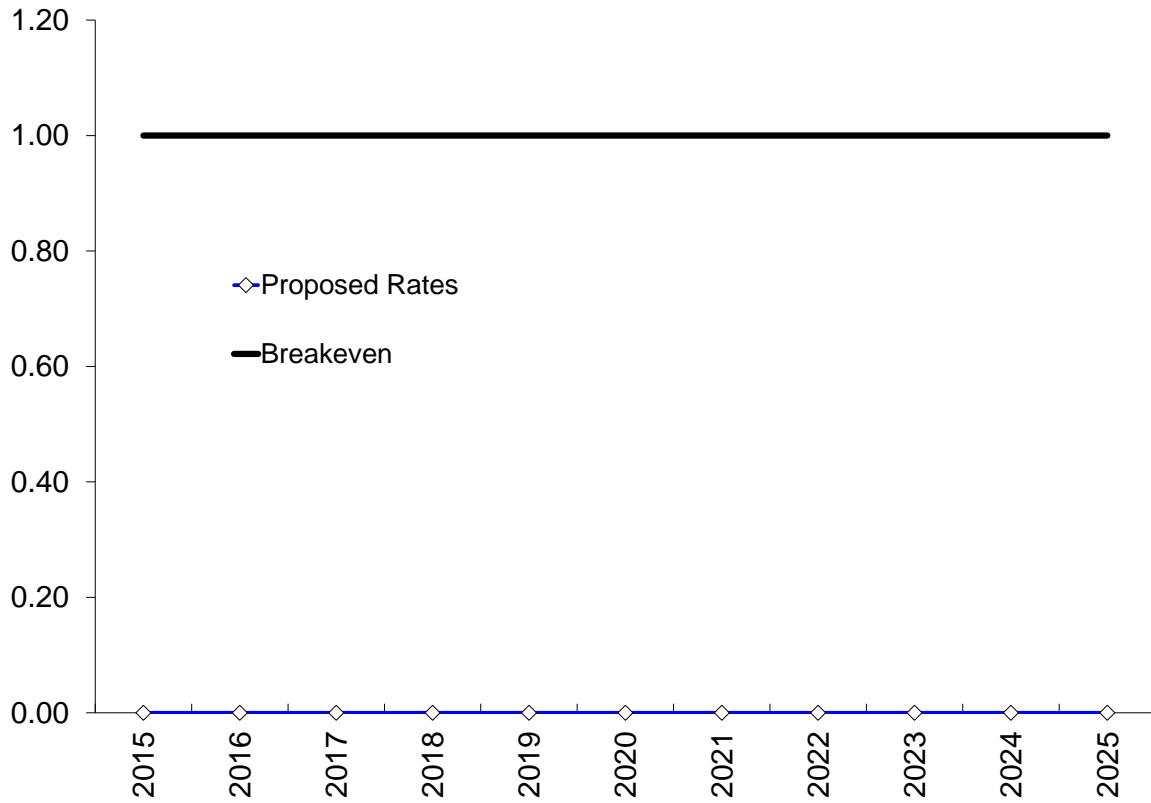


Chart 3 - Normal Residential User's Bill

Powell, WY

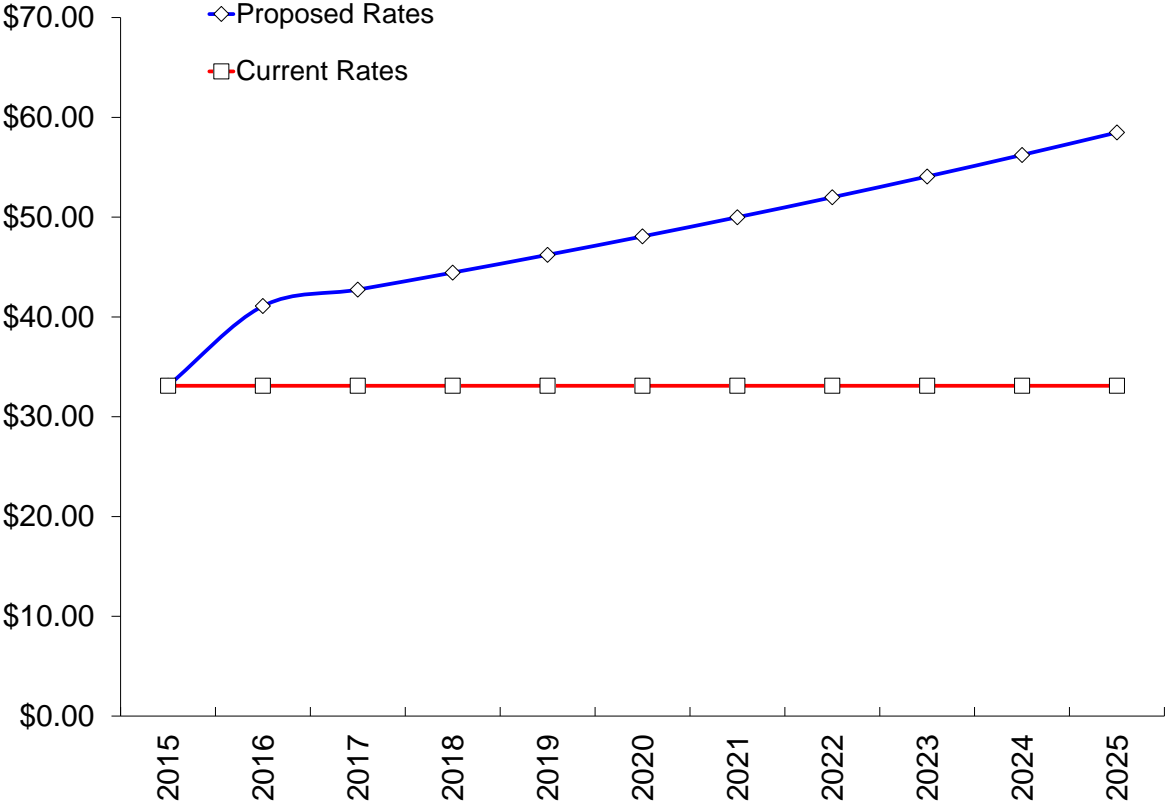


Chart 4 - Affordability Index

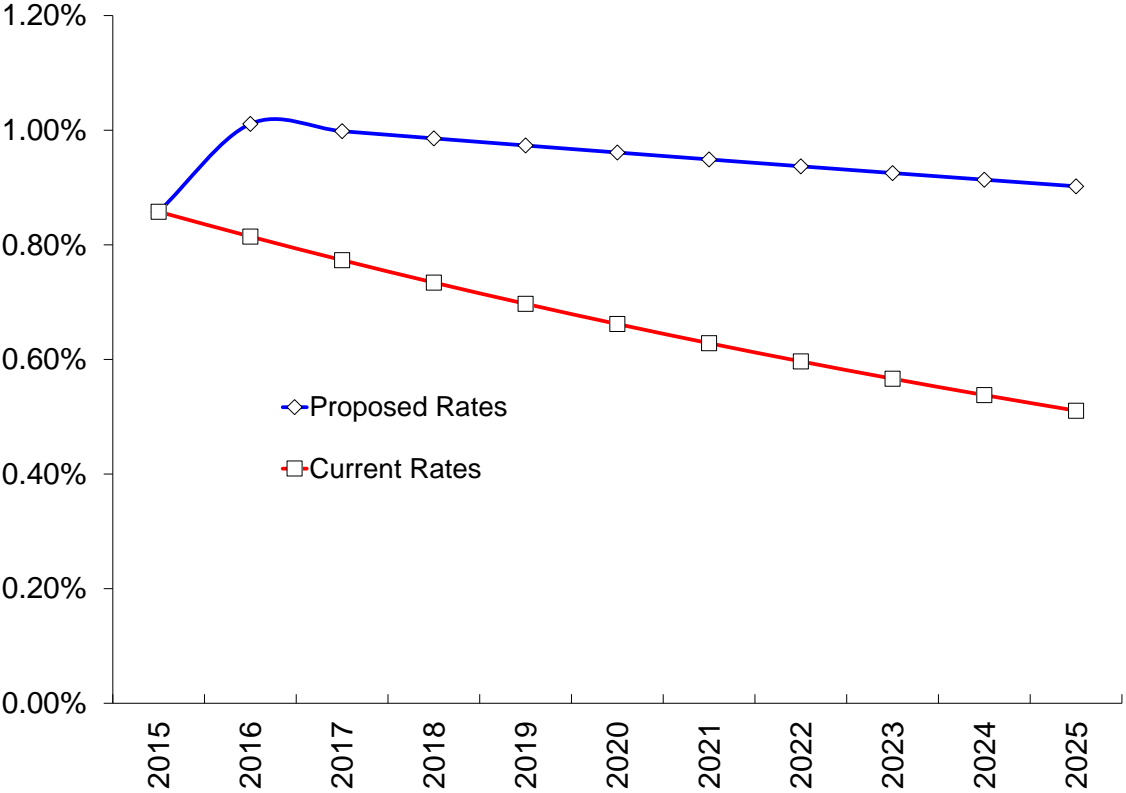


Chart 5 - Working Capital vs Goal

Powell, WY

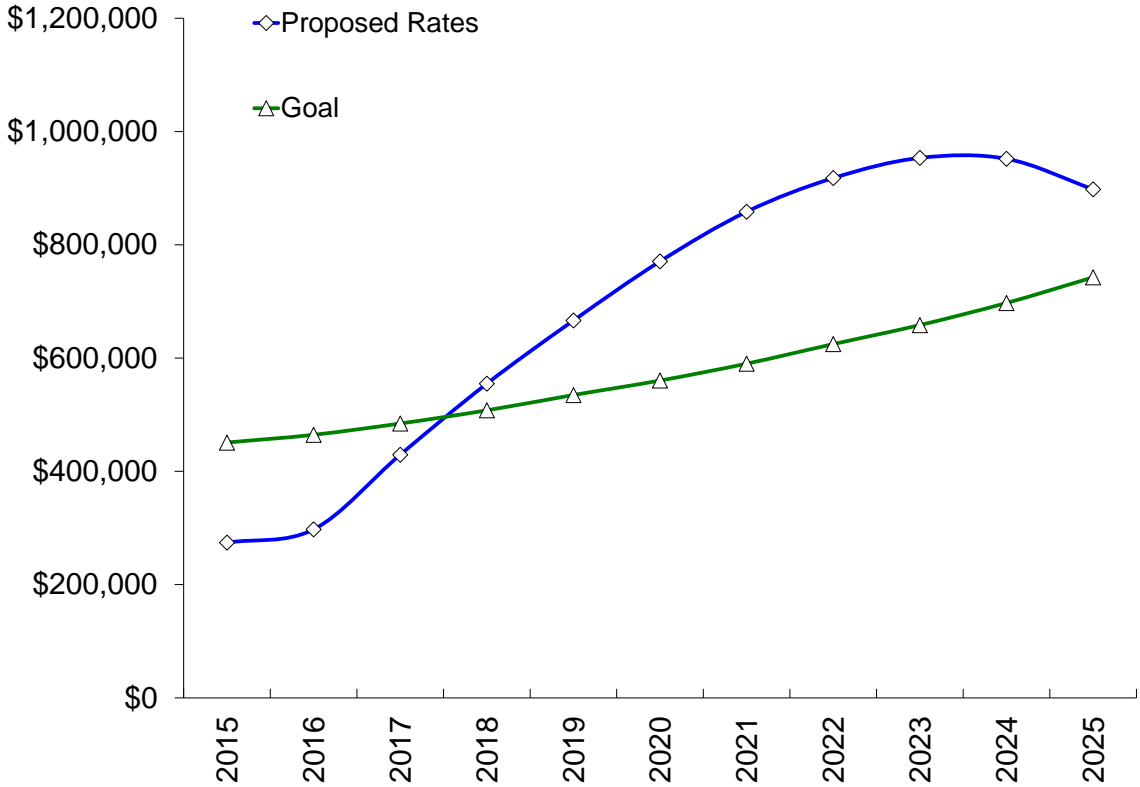


Chart 6 - Value of Cash Assets Before Inflation

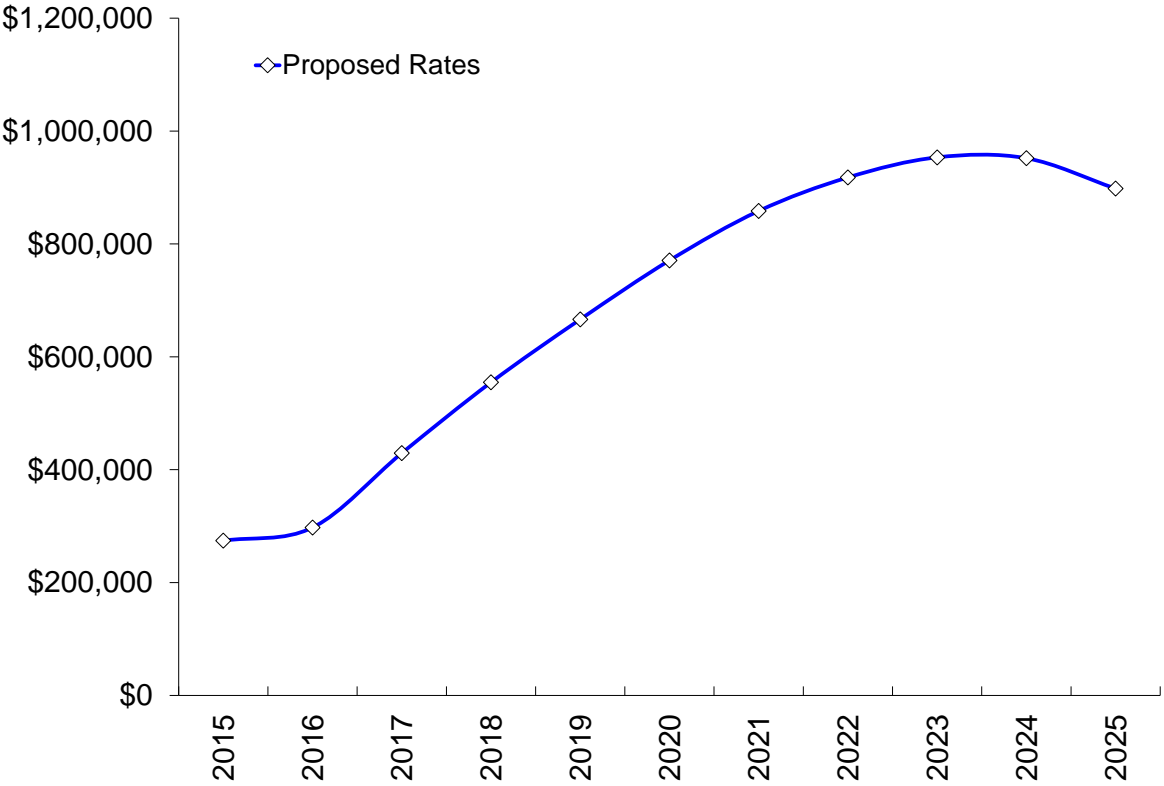
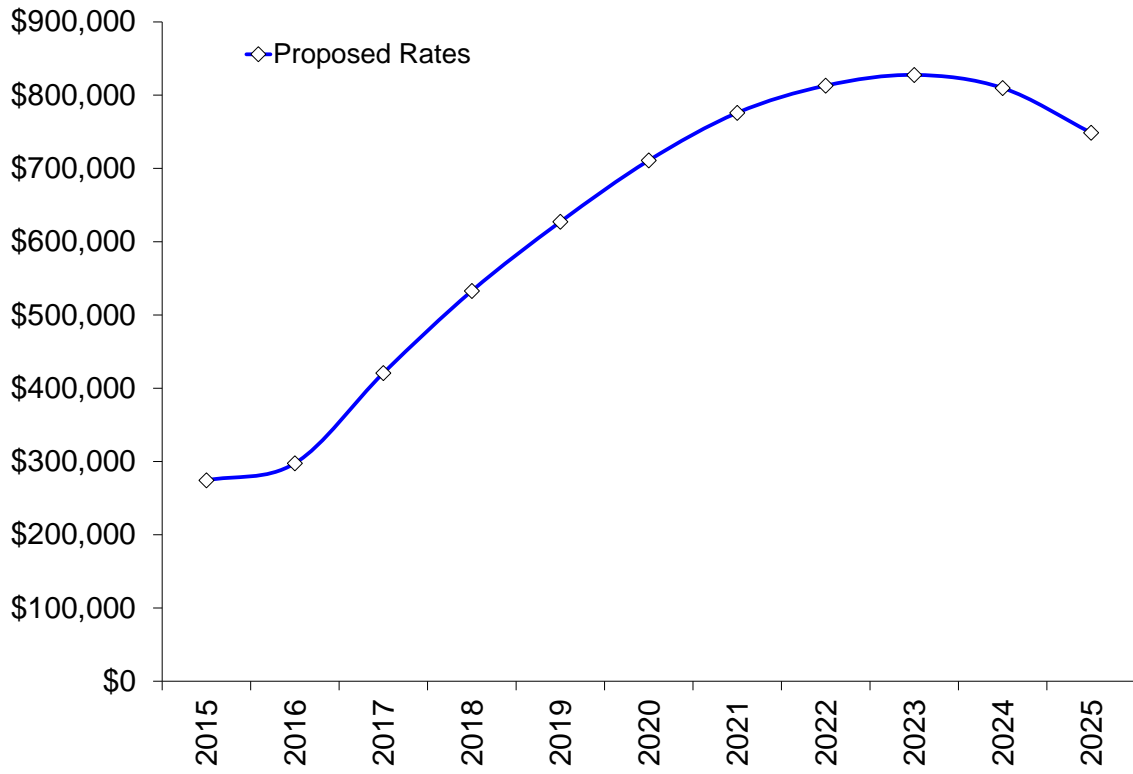


Chart 7 - Value of Cash Assets After Inflation

Powell, WY



Powell, WY, Sanitation Rates Scenario 2016-1

Table 10 - Disposal and Pick up Calculations

CBGreatRates© Version 7.0

In Powell, residential customers use both 95 and 300 gallon containers. Commercial customers use 300 gallon containers. Based upon this, the average pick up frequency for each class and a few other factors, the volumes contributed by each class has been calculated. These results are used to calculate the cost components for each rate class and frequency of pick up.

Class Name	Number Customers in This Class Grouping	Pick up Frequency per Week (Weighted Avg)	Pick ups per Class per Year	95 Gallon (0.5 Cu Yd) Rolling Bins	300 Gallon (1.5 Cu Yd) Dumpsters	Total Cubic Yard Capacity 0.5 Dumpsters	Total Cubic Yard Capacity 1.5 Dumpsters	Total Cubic Yard Capacity All Dumpsters Each Class
Residential	2,387	2.0	248,248	712	649	356.00	973.50	1,329.50
Commercial	347	2.2	39,156	0	248	0.00	372.00	372.00
Total:	2,734		287,404	712	897	356.00	1,345.50	1,701.50

Table continues below

Class Name	Container Capacity, in Cu Yd, At Relevant Weekly Pick up Frequency	Annual Container Capacity, in Cu Yd, for Class	Container Volume Utilization	Actual Capacity, in Cu Yd, for Class	Actual Average Cu Yd per Pick up	Cu Yd per Customer per Year	Cu Yd per Customer per Month
Residential	2,659.0	138,268.0	90%	124,441.2	0.5	52.1	4.3
Commercial	807.3	41,977.0	90%	37,779.3	1.0	108.9	9.1
	3,466.3	180,245.0		162,220.5			

Table 12 - Test Year Usage

Test year, the one-year period being analyzed starts: 7/1/2014

This table shows usage by all customers during the test year.

Date this scenario created: 8/6/2015

Bills sent per year: 12

Customer Class or Rate Class	Bottom of Range in Pick- ups/Units	Top of Volume Range in Pick-up/Unit	Conversion Factor for Billable Units	Average Volume Used Within Each Volume Range in Pick- ups/Units	Count of Bills With ANY Service Within Each Range	Total Annual Service Within Each Range in Pick-ups/Units	Count of Bills Only Where Service "Maxed Out" Within Each Range	Number of Customers With Volume That "Maxed Out" Within Each Range	% of Customers That Averaged This Volume of Use	% of Total Use at This Average Volume
RES-2PU/WK 1CT	2	2	1	8.667	28,644	248,248	28,644	2,387	87.3%	86.4%
COM-1PU/WK 1CT	1	1	1	4.333	2,088	9,048	2,088	174	6.4%	3.1%
COM-2PU/WK 1CT	2	2	1	8.667	1,116	9,672	1,116	93	3.4%	3.4%
COM-3PU/WK 2CT	3	3	1	13.000	348	4,524	348	29	1.1%	1.6%
COM-6PU/WK 2CT	6	6	1	26.000	612	15,912	612	51	1.9%	5.5%
Monthly and Annual Grand Totals:					32,808	287,404	32,808	2,734	100%	100%

Powell, WY, Sanitation Rates Scenario 2016-1

Table 13 - Rates at End of Test Year

CBGreatRates© Version 7.0

This table shows user rates at the end of the test year.

Customer Class or Rate Class	Pick ups per Week	Monthly Fee
RES-2PU/WK 1CT	2	\$31.10
COM-1PU/WK 1CT	1	\$33.55
COM-2PU/WK 1CT	2	\$78.58
COM-3PU/WK 2CT	3	\$96.30
COM-6PU/WK 2CT	6	\$128.67

Powell, WY, Sanitation Rates Scenario 2016-1

Table 14 - AMHI and Incomes

CBGreatRates© Version 7.0

This table shows annual median household income and system incomes for the test year.

Annual Median Household Income (AMHI)

\$46,306	Census Bureau estimate of AMHI for the year:	2013	"AMHI" stands for annual median household income
\$27,364	Census Bureau estimate of AMHI for the year:	2000	
\$18,942 AMHI growth during these years			
5.3% Simple annual income growth rate during these years (used to project incomes into the future)			

System Incomes for 7/1/14 Through 6/30/15

\$1,284,462	304400 RESIDENTIAL & COMMERCIAL	Note: Future sales revenues at new rates will be pro-rated to the collection rate of current fees. (If the system under-collected fees before, it is assumed the system will continue to under-collect at that same rate in the future.)
\$1,862	PENALTY	
	6 Number New Sign-ups	
	\$0 Average Sign-up Fee	
	\$0 New Customer Sign-up, Current Structure	
\$844	304402 INTEREST EARNED	
\$33,371	304403 OTHER-(WEED & PEST)	
	\$0 304405 RECYCLE FEES COLLECTED (Disregarded in this Model)	
\$12,000	304409 STATE WY AGRICULTURAL GRANT	
\$644	304410 POWELL FIBER	
\$7,979	304412 CARD BOARD SALES	
	\$0 Recycling-No Rate Code (Disregarded in this Model)	
\$5,943	Garbage-No Rate Code	
\$1,347,105	Total Regular Income	

Powell, WY, Sanitation Rates Scenario 2016-1

Table 15 - Cost Classification for Test Year

CBGreatRates© Version 7.0

This table distributes costs from a representative year (the "target" year) to fixed and variable categories (see Definitions) in order to calculate the "proportional to use" or "cost of service" rate structure based upon the cost breakdown for that year.

The rate structure target year runs from 7/1/2017 through 6/30/2018

Operating Costs	Amount	% of This Cost That is Customer Related	% of This Cost That is Pick up Related	% of This Cost That is Volume Related	Customer Related Costs	Pick up Related Costs	Volume Related Costs
100 SALARY	\$302,118	25.0%	37.5%	37.5%	\$75,529	\$113,294	\$113,294
101 SOC SEC	\$22,608	25.0%	37.5%	37.5%	\$5,652	\$8,478	\$8,478
102 WORKERS COMP	\$6,798	25.0%	37.5%	37.5%	\$1,699	\$2,549	\$2,549
103 HEALTH & LIFE INS.	\$102,885	25.0%	37.5%	37.5%	\$25,721	\$38,582	\$38,582
104 WY RETIREMENT	\$41,211	25.0%	37.5%	37.5%	\$10,303	\$15,454	\$15,454
201 TELEPHONE	\$3,600	25.0%	37.5%	37.5%	\$900	\$1,350	\$1,350
203 PUBLISHING/PUBLICATONS	\$2,016	25.0%	37.5%	37.5%	\$504	\$756	\$756
204 HEAT & LIGHTS	\$5,715	25.0%	37.5%	37.5%	\$1,429	\$2,143	\$2,143
205 TRAVEL EXPENSE	\$1,297	25.0%	37.5%	37.5%	\$324	\$487	\$487
209 DUES	\$450	25.0%	37.5%	37.5%	\$112	\$169	\$169
211 PROFESSIONAL SERVICES	\$9,574	25.0%	37.5%	37.5%	\$2,394	\$3,590	\$3,590
237 LANDFILL FEES	\$171,643	0.0%	0.0%	100.0%	\$0	\$0	\$171,643
238 RECYCLING SERVICES (Disregarded in this Model)	\$0	25.0%	37.5%	37.5%	\$0	\$0	\$0
239 HAULING	\$199,359	0.0%	0.0%	100.0%	\$0	\$0	\$199,359
256 CONTRACTED CARDBOARD COLLECTION	\$452	33.3%	37.5%	29.2%	\$151	\$170	\$132
301 GAS, OIL, LUBE	\$36,657	25.0%	37.5%	37.5%	\$9,164	\$13,746	\$13,746
302 OFFICE SUPPLIES	\$354	100.0%	0.0%	0.0%	\$354	\$0	\$0
303 TOOLS & SHOP SUPPLIES	\$1,876	100.0%	0.0%	0.0%	\$1,876	\$0	\$0
304 CLOTHING	\$605	100.0%	0.0%	0.0%	\$605	\$0	\$0
306 VEHICLE AND EQUIPMENT SUPPLIES	\$23,853	33.3%	37.5%	29.2%	\$7,950	\$8,945	\$6,958
307 PLANT/BLDG MAINT.SUPPLIES	\$2,182	25.0%	37.5%	37.5%	\$545	\$818	\$818
308 CHEMICALS	\$24,600	0.0%	0.0%	100.0%	\$0	\$0	\$24,600
339 SAFETY	\$225	50.0%	50.0%	0.0%	\$112	\$112	\$0
405 INSURANCE-PD&PL,FIRE,ETC	\$12,207	25.0%	37.5%	37.5%	\$3,052	\$4,578	\$4,578
413 MANAGEMENT FEES	\$242,701	25.0%	37.5%	37.5%	\$60,675	\$91,013	\$91,013
414 FRANCHISE FEES	\$72,681	24.8%	31.1%	44.0%	\$18,049	\$22,630	\$32,002
431 FIBER INTERNET	\$241	100.0%	0.0%	0.0%	\$241	\$0	\$0
490 COMPUTER HARDWARE	\$112	100.0%	0.0%	0.0%	\$112	\$0	\$0
491 COMPUTER SOFTWARE	\$2,205	100.0%	0.0%	0.0%	\$2,205	\$0	\$0
501 NEW EQUIPMENT Table 17		25.0%	37.5%	37.5%	\$0	\$0	\$0
502 EQUIPMENT REPLACEMENT Table 17		25.0%	37.5%	37.5%	\$0	\$0	\$0
503 LAND IMPROVEMENT	\$0	25.0%	37.5%	37.5%	\$0	\$0	\$0
Annual Payment to Replacement Fund	\$122,054	25.0%	37.5%	37.5%	\$30,513	\$45,770	\$45,770
User Charge Analysis Services	\$0	100.0%	0.0%	0.0%	\$0	\$0	\$0
Transfer Station Depreciation	\$38,519	0.0%	0.0%	100.0%	\$0	\$0	\$38,519
Offset for Capacity Surcharges (Table 10)	\$0	25.0%	75.0%	25.0%	\$0	\$0	\$0
Grand Total Costs, Weighted Av Percentages	\$1,450,800	17.9%	25.8%	56.2%	\$260,174	\$374,634	\$815,991

100%

\$1,450,800

"Proportional to Use" Rate Structure for the Basis Year

Calculation Check

Average Cost/Customer/Month =	\$7.90	Number of Customers	2,746	Customer Related Costs	\$260,174
Average Cost/Pick up/Week =	\$1.30	Number of Pick ups/Year	287,404	Pick up Related Costs	\$374,634
Average Cost/Cu Yd =	\$4.53	Cu Yds Landfilled/Year	180,245	Volume Related Costs	\$815,991
					\$1,450,800

Cost Adjustment Factor and Resulting Adjusted Costs for the Rate Basis **129%** \$335,625 \$483,278 \$1,052,629

"Proportional to Use" Rates to Adopt Initially

Unit Costs and Units	RES-2PU/WK 1CT	COM-1PU/WK 1CT	COM-2PU/WK 1CT	COM-3PU/WK 2CT	COM-6PU/WK 2CT
Monthly Customer Charge	\$10.19	\$10.19	\$10.19	\$10.19	\$10.19
Monthly Charge for Relevant # Pick ups/Week	\$1.68	\$3.36	\$1.68	\$5.04	\$10.09
Landfill and Haul Cost per Cu Yd	\$5.84				
Residential Actual Average Cu Yds per Pick up	0.50	\$25.37	N.A.	N.A.	N.A.
Commercial Actual Average Cu Yds per Pick up	0.96	N.A.	\$24.42	\$48.83	\$73.25
Total Monthly Bill for Each Class		\$38.92	\$36.28	\$62.38	\$88.48
					\$166.78

Powell, WY, Sanitation Rates Scenario 2016-1

Table 17 - Equipment Replacement Details Chart

This schedule depicts detailed equipment replacement and refurbishment needed during the next 20 years. Total annual expenses from this table are used in Table 18 to calculate the annuity (savings deposit) needed to pay for these expenses as they come due.

Year Beginning	Garbage Can replacement	Collection Truck	Collection Truck	Wood Chipper	Mosquito Sprayer	Mosquito Sprayer	Carboard Collection Truck	pickup Flatbed Truck	Skidsteer	Chipper Truck	Mower	Transfer Trailer	Pickup	Total Annual Replacement Costs
7/1/14	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$142,954	\$0	\$171,845
7/1/15	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/16	\$28,891	\$0	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$8,000	\$0	\$0	\$0	\$86,891
7/1/17	\$28,891	\$0	\$170,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,891
7/1/18	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$58,891
7/1/19	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/20	\$28,891	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$88,891
7/1/21	\$28,891	\$170,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,891
7/1/22	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/23	\$28,891	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$40,000	\$0	\$0	\$0	\$0	\$78,891
7/1/24	\$28,891	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,891
7/1/25	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,000	\$68,891
7/1/26	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/27	\$28,891	\$0	\$170,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$198,891
7/1/28	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/29	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$142,954	\$0	\$171,845
7/1/30	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$0	\$0	\$38,891
7/1/31	\$28,891	\$170,000	\$0	\$0	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$248,891
7/1/32	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/33	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$58,891
7/1/34	\$28,891	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,891
7/1/35	\$28,891	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,891

Powell, WY, Sanitation Rates Scenario 2016-1

Table 18 - Replacement Schedule

Replacement Scheduler© Version 1.4

This schedule calculates the annual annuity needed to fund all replacement and refurbishment from the detailed schedule, if that schedule was used. Otherwise, this chart includes assumed equipment replacement needs.

- 2.00% Average Inflation Rate for the Following Sewer System Equipment for the Term of This Replacement Schedule
- 3.00% Average Interest Rate on Balances Invested for the Term of This Replacement Schedule
- 3.00% Average Interest Rate on Amounts Borrowed for the Term of This Replacement Schedule

Year Beginning	Item Description	This Year's Costs in Current Dollars	Future Annual Inflated Net Costs	Interest Earned on Prior Balance	End of Year Balance in Future Dollars	Minimum Desired End of Year Balance in Future Dollars
7/1/14	Last year's replacements	\$171,845	\$171,845	\$0	-\$171,845	\$86,939
7/1/15	Total of replacements from detailed replacement schedule	\$28,891	\$29,469	-\$5,155	-\$84,416	\$88,678
7/1/16	Total of replacements from detailed replacement schedule	\$86,891	\$90,402	-\$2,532	-\$55,296	\$90,451
7/1/17	Total of replacements from detailed replacement schedule	\$198,891	\$211,065	-\$1,659	-\$145,966	\$92,260
7/1/18	Total of replacements from detailed replacement schedule	\$58,891	\$63,746	-\$4,379	-\$92,037	\$94,105
7/1/19	Total of replacements from detailed replacement schedule	\$28,891	\$31,898	-\$2,761	-\$4,643	\$95,988
7/1/20	Total of replacements from detailed replacement schedule	\$88,891	\$100,106	-\$139	\$17,165	\$97,907
7/1/21	Total of replacements from detailed replacement schedule	\$198,891	\$228,463	\$515	-\$88,730	\$99,865
7/1/22	Total of replacements from detailed replacement schedule	\$28,891	\$33,851	-\$2,662	-\$3,188	\$101,863
7/1/23	Total of replacements from detailed replacement schedule	\$78,891	\$94,282	-\$96	\$24,487	\$103,900
7/1/24	Total of replacements from detailed replacement schedule	\$38,891	\$47,408	\$735	\$99,867	\$105,978
7/1/25	Total of replacements from detailed replacement schedule	\$68,891	\$85,657	\$2,996	\$139,260	\$108,098
7/1/26	Total of replacements from detailed replacement schedule	\$28,891	\$36,641	\$4,178	\$228,850	\$110,259
7/1/27	Total of replacements from detailed replacement schedule	\$198,891	\$257,287	\$6,865	\$100,482	\$112,465
7/1/28	Total of replacements from detailed replacement schedule	\$28,891	\$38,121	\$3,014	\$187,429	\$114,714
7/1/29	Total of replacements from detailed replacement schedule	\$171,845	\$231,281	\$5,623	\$83,825	\$117,008
7/1/30	Total of replacements from detailed replacement schedule	\$38,891	\$53,389	\$2,515	\$155,004	\$119,348
7/1/31	Total of replacements from detailed replacement schedule	\$248,891	\$348,508	\$4,650	-\$66,800	\$121,735
7/1/32	Total of replacements from detailed replacement schedule	\$28,891	\$41,264	-\$2,004	\$11,986	\$124,170
7/1/33	Total of replacements from detailed replacement schedule	\$58,891	\$85,793	\$360	\$48,606	\$126,653
7/1/34	Total of replacements from detailed replacement schedule	\$28,891	\$42,931	\$1,458	\$129,187	\$129,187

Note: A Discretionary Annuity amount was added so that at the end of the 20-year modeling period, the balance will equal the average of the annual replacement cost amounts.

Starting Account Balance	\$0	\$86,939
Minimum Annual Annuity	\$117,246	Minimum Desired Balance in Today's Dollars
Discretionary Annuity	\$4,808	

Required Annual Deposit to Replacement Account \$122,054

This amount is entered into Table 3 and Table 19 as an operating cost of the system.