

September 10, 2010

The Honorable Chuck Blum
Mayor of Woodland
P O Box 9
Woodland, WA 98674

Subject: Addendum 1 to the sewer rate analysis report dated August 17, 2010

Dear Mayor Blum:

This addendum modifies the analysis report entitled "Woodland, WA Winter Averaged Sewer Rates Scenario" which was dated August 17, 2010. It also includes the analysis results of those modifications. Except for these modifications and the resulting change in financial performance everything else in the August 17 report remains valid. The City should carry out those recommendations as modified here in order to save the sewer system from imminent insolvency.

City staff considered previously offered analysis and recommendations and has now selected final rates to propose to the Council. I modeled those rates as shown in the attached printout. The selected rates are detailed in Chart 14. The selected rates are close to those developed in the August 17 analysis, they are reasonable and they are slightly more conservative than those developed in the August 17 analysis. Therefore, I feel confident these rates will serve the City well and they should be adopted as soon as possible.

Best regards,
Carl Brown Consulting, LLC



Carl E. Brown
President

Enclosure

August 17, 2010

The Honorable Chuck Blum
Mayor of Woodland
P O Box 9
Woodland, WA 98674

Subject: User Charge Analysis Results

Dear Mayor Blum:

Enclosed please find the results of the sewer utility user charge analysis I recently completed for the City.

I want to say to you and the council that Steve Branz, Jody Stout, Shannon Thomas and Mari Ripp have all been wonderful to work with on this project. They got me to the right people and provided information and data quickly and deftly. We had much difficulty in extracting usage data from the City's billing program but Shannon was very patient and helpful in that task. Several cost and income items were hard for me as an outsider to decipher but Mari talked me through those easily. Steve gave me excellent guidance on the overall picture of the system. All in all I found City staff to be very helpful; you and the council have excellent backing in all the staff that I came into contact with.

The report and analysis model 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, please feel free to give me a call. It will be much easier for me to talk you through issues than it would be for you to study the charts and tables to find the answers on your own. The City did not request me to visit Woodland to discuss my findings and recommendations, but you are welcome to. I will be glad to get on a conference call with you, the council, staff and any others to go over the analysis results and my recommendations at no additional charge.

You and others may feel the need to ask questions, even long after making your initial rate adjustments. I want you, the council 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. Whether I help you with the issue or I find someone else who is more appropriate to help you, I want to make sure you get and keep strong and fairly structured rates.

My original proposal included an option to analyze your water rates, as well. You chose not to have that analysis done. If, after seeing the sewer rate analysis results you want to go ahead and get your water rates in great shape, too, I will be glad to start on a water rate analysis right away.

Finally, I am sure you know of other cities and utility 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 Woodland. In fact, if you are so inclined I would like for you to call Michael Derrick of the Ronald Wastewater District in Shoreline, WA at (206) 546-2494 and encourage him to consider having me analyze the District's rates and fees. Perhaps I will soon be helping the Ronald District largely because of your having talked to Michael.

I have thoroughly enjoyed working with your staff and helping you get your rates in great shape.

Best regards,
Carl Brown Consulting, LLC



Carl E. Brown
President

Enclosures

Sewer Rate Analysis Report City of Woodland, Washington

Prepared August 17, 2010

Carl Brown, President
Carl Brown Consulting, LLC

Table of Contents

Purpose.....	2
Summary	2
Action Items	3
Action Items not Related to the Results of the Analysis	5
Discussion of Significant Issues.....	6
Year-round Metered Sewer Rates.....	6
“Contribution From 302” Fund	6
Rate Structure, Minimum and Unit Charges.....	7
Service Unit Costs and Fees	8
Initial and Future Rate Adjustments.....	9
New Customers	9
“Snowbirds,” Disconnections for Non-payment and Reconnections	9
Working Capital and Capital Improvement Reserves.....	11
Equipment Replacement Scheduling and Budgeting.....	11
Depreciation and Capital Improvements	12
Judging How Much to Raise Rates in the Future.....	13
General Discussion of the Analysis Model.....	13
General Background.....	15
Principles.....	15
Closing.....	16
Rate Analysis Models	Attachments

Purpose

This report and the accompanying analyses are intended to help City staff prepare proposed rate and fee revisions and to help the Council to better understand the situation surrounding the sewer utility and what should be done about it.

This report is part of a package that includes the following:

- A cover letter,
- This narrative report that details the findings and recommendations, and
- The analysis entitled “Woodland, WA Winter Averaged Sewer Rates Scenario” is a Microsoft Excel-based model that depicts what will happen if you adjust rates and fees in the ways described. Other scenarios were examined and this one was chosen by the City as the best.

Summary

To make it easy for decision-makers to see what they need to do, this report starts with the analysis results and proceeds “backwards” to the considerations that contributed to those results. Thus, specific recommendations appear first. General recommendations, observations and important considerations follow. The analyses, which are simply printouts of the spreadsheet models, conclude the report package.

The rates depicted in the analysis are the rates I recommend you adopt. These are winter averaged rates for in-city residential users and full-year metered rates for all others.

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 the public works director at the start of the project. You may also want to download the "Replacement Scheduler©" spreadsheet, at no charge, from <http://www.gettinggreatrates.com/ggrn/store/products.asp> and use it for future equipment replacement scheduling.

It appears the system's revenues need to be increased by approximately \$300,000 initially and by smaller amounts in future years to track with inflation and new expenses. I was told at the beginning of the project that a recent rate adjustment resulted in a revenue loss of about \$100,000. However, based upon the expected 2010 transfer from the 302 Fund, which is higher, this shortfall is probably greater. Therefore, part of the increase I am proposing will go toward getting your revenues back to the level they were at before the last rate adjustment. Another part of the increase is needed to replenish the 302 Fund for the portion of that fund (approximately \$180,000) that will be used to sustain the sewer fund in 2010 but which should have been reserved for water system improvements. The final part of the increase is needed to build and maintain adequate reserves to sustain the sewer system during revenue drops and cost spikes in the future. These and other issues will be addressed in detail in this report package.

Three primary issues were addressed in the analysis:

- The user rate structure was examined to assure that in-city residential rates are based upon the costs to serve customers proportionately. All other rates were examined and modeled in relation to the in-city residential rates,
- The connection and impact fees were examined to determine if they are at reasonable levels, and
- Basic plans for equipment replacement and capital improvements were assembled and these costs are included in the rates. Capital improvement costs, in the form of debt payments in future years, will be a major driver for future rates.

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 "Woodland, WA Winter Averaged Sewer Rates Scenario."

Effective on or near September 1, 2010:

1. Set the minimum charge for all in-city and out-of-city residential customers, except multi-residential facilities (apartments and similar facilities) at \$33.40. Include no usage allowance with the minimum charge.

2. The Woodland East MHP (mobile home park) and the class called Multi-residential are special cases. Each such facility will be charged the residential minimum charge times the number of living units in that facility as they are now.
3. Set a fee, called the service unit charge, at \$2.69 for extra service units in a multiple unit facility or property, such as shops in excess of one in a strip mall and motel rooms in a motel. In other words, motel rooms and businesses in a multi-business facility do not receive an individual sewer bill. Therefore, the facility that does receive the bill that includes that usage will be charged the minimum charge above plus a service unit charge for each service unit served by them.
4. Set the unit charge for all in-city residential customers at \$3.01/100 cubic feet. Set the volume used by each in-city residential customer at the volume each used during the previous two winter bi-monthly billing periods. Therefore, each in-city residential customer's bi-monthly bill throughout the year will be the sum of their bi-monthly minimum charge plus the unit charge times the bi-monthly winter average volume used. All other customers that pay a unit charge will pay such charges based upon usage every month, as they do now.
5. Continue the senior and disabled discount but increase the discount to \$19.64, based upon the sewer bill increase for the assumed senior average usage of 203 cubic feet per month.
6. Set all other users' rates as shown in Chart 14.
7. Assuming financial performance was well predicted by the analysis, effective on or about 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 1A. Otherwise, use the technique described in Chapter 9 of the book, "How to Get Great Rates" to determine future inflationary increases.
8. Do not change the sewer service assessment rates at this time. However, raise each of these rates in future years by the inflationary factor above.
9. Adopt a "snowbirds" and reconnection after non-payment policy and fees as described later in this report.
10. Continue the "Contribution From 302" fund subsidy as shown in Chart 1A in 2010, emptying that fund, but repay that fund \$180,146 in 2011 to make the water portion of that fund whole again. You may resume depositing sewer revenues in that fund and paying sewer improvement costs from that fund if you desire. However, for the purposes of this analysis, it is assumed that all future capital improvements will be funded through a CIP fund and equipment replacements and refurbishments will be funded from an equipment replacement fund as shown later in this report.

Action Items not Related to the Results of the Analysis

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

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

1. 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 the “ToolShed” at <http://carlbrownconsulting.com/> for more information on asset management or call me to discuss how the City might move into asset management.
2. Before you officially propose or adopt new rate language, you may mail or e-mail the rate chart, ordinance or agreement to me and, as a part of this project, I will verify that your language will effectuate the intended rate adjustments.
3. City 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 (but do not obsess with recovering all of these costs because the total revenue they generate is minimal) and set fees and charges to fully recover those costs. The “City of Woodland Fee Schedule” shows the new sewer service inspection fee is \$100. That is probably low by \$100 to \$200. All such funds should be deposited into the general system fund and be used to pay the personnel and other expenses incurred by the utility for providing these services.
4. Have me conduct a full rate analysis 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 system and fair to your ratepayers. At the time you begin planning funding for the line replacement project would be a good time for the next analysis because you will need to re-evaluate your rates then anyway and the analysis will help you to get advantageous funding.
5. When it comes time to replace your current billing program make sure you get a new program that makes it easy to extract volume usage data by customer and customer class for any range of time. It was difficult to extract data from your current billing program.
6. Several large and special sewer customers are billed rates on negotiated schedules. Several of these customers account for a very high percentage of the system’s total water use. At your next opportunity make these rates the same as or at least as similar to the rates all other users pay as possible. I understand the main reason for special rates is the lack of water meters to some users or at least sub-meters for that water use that is returned to the sewer system. In the interest of fairness and transparency, install additional meters where feasible. I can describe to you how to do this.

7. Check with your attorney for language and legality of all charges and issues discussed.

Discussion of Significant Issues

Year-round Metered Sewer Rates

The City currently bills all sewer users, including in-city residential users, on the basis of water meter readings every month of the year. The effect of using year-round volume usage as the sewer billing basis is to make those users that “consume” water (primarily lawn irrigators in the summertime) and do not return it to the sewer system pay sewer charges on that volume. Comparing the winter average and year-round in-city residential water volume use it is apparent that many in-city residential users use a large volume of water, presumably watering lawns. Collectively they use nearly 10,000,000 cubic feet per year that does not return to the sewer system. Thus, while the proposed in-city residential rates may seem high compared to the current rates, which are based upon water use each month, the proposed rates are based upon a much lower billable volume for most users.

The City currently has year-round volume usage billing for in-city residential users so going to a winter averaged billing basis will be a significant change for these users and for City staff in establishing such rates. I can guide staff in how to make the necessary computations.

“Contribution From 302” Fund

This fund is intended to function as a reserve for water and sewer utility improvements and maintenance costs. Due to last year’s rate adjustment that resulted in a significant funding shortfall, this fund was used to temporarily augment the general sewer fund. A similar transfer has already been budgeted for 2010 as well. To correct this situation I propose the following.

Monitor the sewer system balances to make sure they do not get dangerously low through 2011. After that they will start recovering. For modeling purposes, I assumed the 302 contribution to the sewer fund will continue in 2010, emptying the current balance of this fund. In 2011 \$180,146 will be transferred back to the 302 fund. This is the amount of the fund that should have been reserved for water system improvements (40 percent of the starting balance of \$450,366).

In the future you may well continue to contribute sewer system funds to the 302 Fund and pay improvement costs from this fund. However, the analysis model disregards the 302 Fund balance after the water system balance in this fund has been restored. The analysis instead depicts capital improvements and equipment replacements in separate funds by these names.

Rate Structure, Minimum and Unit Charges

Currently the City charges all in-city residential customers the same minimum charge and the same unit charge. This is the simplest rate structure and I recommend retaining it, except for switching to winter averaged volume usage, for these reasons:

- All other things being equal, simple is better than complex.
- The major construction of the system is complete. Therefore, some capital costs have already been paid for and the rest are being paid with debt. Recapture of impending capital costs is one of the major reasons for having variable minimum and/or unit charges so that need has essentially passed.
- Winter averaged in-city residential customer bi-monthly bills will be calculated one time and then remain the same until the next rate adjustment is done. This will make budgeting for these customers very simple because their sewer bill will not change for many months. It will also make the system's rate revenue stream more dependable.

The analysis model assumed retaining the current type of rate structure but using winter averaged volume usage for in-city residential customers.

Out-of-city residential users are charged 50 percent more than in-city users. This is a common and fair practice and a 50 percent differential is probably the most common differential used around the Country. I continued that structure in the rates I recommended.

As to the level at which the proposed minimum and unit charges were modeled, the following methodology was used:

- All costs associated with owning and operating the system were categorized as "fixed," "variable" or some mix of fixed and variable. Fixed costs are those related to the fact that someone is a customer. The simplest example of a fixed cost is the stamp it takes to mail everyone's bill. It takes the same amount of postage whether a customer uses a lot or a little sewer service. Variable costs are related to flow. Electricity to run the system is a good example of a variable cost. This delineation of costs is set out in Chart 18 in the column called "% of This Cost That is Fixed." About one-third of the system's costs are fixed. That is a very normal fixed rate percentage. In future years the fixed vs. variable cost split will change. (After the initial rate adjustments, once your overall rates have risen an additional 25 percent or so you should have a new rate analysis done to reset the relationship between minimum and unit charges so they will reflect the breakdown of costs at that time. This will occur about four to five years from now, about the same time you will probably initiate significant line replacements.)
- At the bottom of Chart 18 you will see a section called "Cost Calculations." In this section are the results of calculations of the fixed and variable costs for the system reduced to a single user. (Based upon this calculation your current minimum and unit charges are too low but you have significant offsetting

revenues as well as the revenues generated by the marginally higher rates to some of the special customers. Therefore, this shortfall is not as serious as it appears on a per user cost basis.) The mathematical relationship between the cost streams represented by these two costs is used to project the rates needed going forward.

- Projecting forward from Chart 18, the initially adjusted rates are set out in Chart 3A. Thus, while the proposed rates are lower than the customer costs shown in Chart 18, the fixed and variable components of the proposed rates are in the same proportion.

This methodology is further described in chapters 4 and 6 of the book, “How to Get Great Rates.”

A subgroup of users needs discussion. The special users called, “Multi-residential” (apartments and similar facilities) and “Woodland East MHP” (a mobile home park with 127 units) are charged minimum charges differently. The minimum charges shown in the analysis model, Chart 16A, are the minimum charge amounts that one living unit within each class are now paying under the current rates. The actual minimum charge each multi-unit facility pays is this amount times the number of units in that facility.

Charts 3A and 14 depict proposed minimum charge amounts, again for one living unit in each class. However, each such establishment in these classes is and will be charged the minimum charge rate of an in-city residential user times the number of units in each facility.

Because the number of living units will change over time you will need to track them as they change and adjust rates accordingly, or recount them periodically and reset the minimum charge for each customer of record.

Service Unit Costs and Fees

The City serves businesses where more than one business is billed on one bill. A good example is a strip mall with five different businesses where sewer flows into a combined system and only the mall owner gets a sewer bill on their behalf. The city also serves nine motels that have 183 motel rooms. Each such business and motel room is referred to in this analysis as a “service unit.” Service units add to the workload, ownership and operating costs of the system. Therefore, such customers should be charged an additional fee to enable the system to recoup these costs without having to pass it along to single family residential customers.

The analysis and proposed rates include a calculation of the costs required to serve multiple service units. Chart 18B details the costs involved. In this chart “Avoidable Fixed Costs” are those that are associated with each customer of record (each customer that actually receives a sewer bill from the City). These kinds of costs are little affected by the presence or absence of extra service units. However, “Unavoidable Fixed Costs” are associated with extra service units. The unavoidable fixed cost that each extra service unit caused the system to incur during the test year appears at the bottom of Chart 18B. Adding this cost to the “Avoidable Fixed Cost” yields the total fixed cost per user.

Going forward, service unit fees were calculated to increase at the same rate as the system-wide average sewer bill. Under the proposed rates a strip mall with five different business would pay the unit charge times the volume used plus the regular minimum charge plus the extra service units charge times four service units.

Because the number of service units will change over time you will need to track them as they change and adjust rates accordingly, or recount them periodically and reset the service unit number and total service unit charge for each customer of record.

Initial and Future Rate Adjustments

On average the bills most of your ratepayers pay need to go up about 20 percent right now. These changes are shown in Chart 3A. Your rate increase and structure adjustment needs are actually on the low side of typical for systems I serve all around the Country. Most system's rates need to go up between 20 and 45 percent initially and then about five percent per year after that.

In subsequent years, all rates will need to rise to track with rising treatment costs, debt payments and inflation in the costs to run the system. Most likely you will do that on an across the board percentage basis for several years. At the top of Chart 1A you will find the minimum and unit charges for in-city residential users projected through the modeling period as well as the average percentage increases needed in future years. Other user's rates need to be proportionately higher than the rates shown in that chart.

New Customers

The City charges new customers (not reconnections or account transfers) a sewer service assessment that currently is \$4,250 for the typical residential customer. Last year the City made 16 new connections during the development standstill the rest of the Country experienced. Because the development climate is likely to be very slow for some time, in the future I project your growth rate will be the same as last year.

As shown in the "City of Woodland Fee Schedule" sent to me it appears the City already charges sewer service assessment fees that are flow volume based (they graduate with line size) and they are relative to the flow volume of a single family residential property. That is an excellent basis for service assessments. These assessments are currently set high enough to recapture a substantial part of system construction costs but not so high that they would be a significant deterrent to future development. Therefore, I see no need to change the connection fee structure now. However, I recommend you increase these fees in future years by the same inflationary rates you increase user rates by during those years.

"Snowbirds," Disconnections for Non-payment and Reconnections

You may have some users that are only part-year residents, generally called "snowbirds." If such a user only spends three months, for example, in their Woodland home during a year and "discontinues" sewer service during the other months, during which time the City does not bill them, they avoid paying debt service and other fixed costs that accrue to the system for their benefit during the time they are away. The operative principle can be illustrated like this. When someone borrows money to buy a

car they must pay the banker each month even if they do not drive the car during one month. The debt service is an “opportunity” cost, not a cost related to use.

Some users will be disconnected for non-payment. The financial effect on the system is about the same as with snowbirds.

Both situations can be handled with the same set of policies and fees:

- 1) Establish disconnection fees that fully recover the costs of disconnecting service to a customer’s property. Make sure you capture all costs associated with this action, importantly including administrative costs.
- 2) Establish reconnection fees that fully recover the costs of restoring service to a customer’s property.
 - a) For those reconnections where someone sells their property and the service is just discontinued during the transition, charge the same amount as is charged for disconnection.
 - b) For those reconnections made for the same customer that disconnected voluntarily (the property did not change ownership, usually snowbirds), the reconnection fees should include Item a) above plus payment of that customer’s share of fixed costs (the extra service unit charge times the number of billing periods they missed) that accrued during the time of their disconnection.
 - c) For those reconnections made as a result of involuntary disconnection for cause (non-payment), the reconnection fees should include Item b) above plus a significant penalty to encourage poor planners to handle their financial business better. I recommend a late payment penalty of ten percent (10%) of the outstanding bill amount or ten dollars (\$10.00) per billing period during which there is an unpaid balance, whichever is greater. This will catch both large and small volume users with a penalty that is meaningful to them.
- 3) You should give part-year customers options for how they will be billed when they are not in town.
 - a) One option could be to not discontinue service at all, in which case they would have no usage and would be billed the minimum charge only, thus avoiding paying disconnection, reconnection and extra service unit charges.
 - b) Another option could be to disconnect, paying the disconnection fee, reconnect paying the reconnection fee when they return, and paying the extra service unit charges that accrued during their disconnection. Collect this amount before service is restored.

The effect of such a policy is to make part-year residents and those disconnected for cause pay their fair share of the continuing costs of the system so full-year residents will not have to subsidize such users by paying higher user rates.

Working Capital and Capital Improvement Reserves

The current position, essentially the readily available cash balance at the close of 2009 was estimated by the City to settle at \$50,000, so I modeled the test year to close at that amount. In future years, after making the initial rate increases and future inflationary increases, the system's total reserves will climb gradually. The more important figure to track is the last line of Chart 4. This line depicts what your readily available reserve purchasing power will be in future years.

Beyond the need to build adequate total reserves, you should account for portions of your overall reserves in several different accounts:

- Operating or working capital reserves are for paying operating costs during unusual swings in operating costs and revenues,
- Capital improvement reserves are for paying that portion of capital improvements that will not be paid with loan and/or grant proceeds, to make debt payments and to fund a debt coverage reserve for future debt, and
- Equipment replacement reserves are for paying equipment replacement and refurbishment costs. Equipment replacement reserve amounts that will accrue are in addition to those stated above.

While you do not necessarily need to have these funds in separate accounts (but doing so will make it easier to keep track of each fund), you should at least account for them separately. The analysis shows what will happen to these reserves over the next 10 years at the proposed rates and compares them to the reserves you can expect if the rates are not changed.

In the analysis I set a goal for your equipment replacement reserve that is approximately double the average amount of your annual projected replacement costs. I set a goal for working capital plus capital improvement reserves, discounted for inflation 10 years from now at \$685,000. That is \$500,000 for working capital and the balance for capital improvements. These reserves will give the utility a reasonable cushion and enable the City to do smaller capital improvements with cash, relieving you of the headache and cost of borrowing funds for small, time-sensitive projects.

Equipment Replacement Scheduling and Budgeting

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 repairs, replacements, refurbishments (R&R) and the like and set aside funds ahead of time to pay for these expenses when they occur.

It appears from the test year income and expense statement that R&R scheduling and budgeting have been handled in the past as a function of general system budgeting. This is a cumbersome and inexact way to handle this function. I recommend removing R&R from the general budgeting process and instead do it as a separate function.

The Council should be involved in decision-making for major R&R items but it should leave smaller items and issues to public works to handle. Likewise, as the Council prepares each year's budget for the system the Council should include the annual annuity shown at the bottom of Chart 17 as an operating cost for the system and deposit that amount into a fund to pay for R&R. The Council should deposit this amount each year until the R&R schedule is revised and a new annuity is calculated.

In the analysis you will find two charts concerning R&R. Chart 17A covers detailed equipment replacement, repair and refurbishment needs as discussed between the public works director and me. Chart 17 is a calculation of the amount that should be set aside each year to fund these replacements. The required annuity is displayed at the bottom on this chart.

You can download the replacement scheduling spreadsheet (free) from <http://www.gettinggreatrates.com/ggrn/store/products.asp> and enter your expected equipment replacement and refurbishment needs. Or if you prefer I can e-mail you the version that I used for this analysis with the data already loaded. As your replacement needs change or you refine what they are you can update data in the schedule and develop a new, more appropriate annual annuity amount each year.

Depreciation and Capital Improvements

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 or they may suddenly fail. 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.

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

Sewer 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.

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 or components when they are needed. Thus, it has limited value for municipal system rate setting. The better course is to do capital improvement planning and set aside some amount each year to pay for a planned part of the expected capital improvements as they come due. You should plan on accumulating 10-20 percent of the expected future costs in cash to pay upfront costs for

engineering, funding acquisition and the like. Chart 2 of the model approaches that fund level over time.

Core 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.

This analysis assumes the City will replace some collection lines for \$3,500,000 (measured in current dollars) in 2014 and fund that project with a USDA Rural Development loan. I have set initial and future inflationary rate increases taking this new debt service into account. Because the system is well configured to last for years without other major capital improvements, no other improvements were modeled.

Judging How Much to Raise Rates in the Future

The model depicts future rate increases of 5.0 percent per year. The model does that by making assumptions about inflation, capital improvement costs and timing and many other things that will surely play out differently as time passes. Therefore, you should decide on future inflationary rate increases using this methodology.

Read Chapter 9 of “How to Get Great Rates” and follow the methodology described there. The balance you will need to use in this calculation is the current position found near the bottom of Chart 4 in the analysis model. As you do this calculation you are welcome to call me to discuss future rate increases you think you need and I will be glad to advise you informally at no cost. In all likelihood, simple inflationary increases will keep your finances on track for several years and you will be able to do those increases yourself. Eventually simple across-the-board increases will not be appropriate. When that happens I will tell you so. That will be the time when you should have me or another rate specialist help you reset your rates so they are both adequate and fairly structured, based upon your needs at that time.

General Discussion of the Analysis Model

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

Chart 2 covers capital improvement projects, new debt service and the like. At the bottom of this chart is the running balance for this reserve.

Chart 3 covers rate and fee adjustments. It shows the test year rate revenues that will be generated while those rates are still in force. It also shows the proposed rates and the revenues those rates will generate during the remainder of the modeling year. Therefore, the modeling year will produce “blended” rate revenues. Some will be at the old rates and some will be at the proposed rates. For the “Inside Residential Customer Class” (in-city residential users) the proposed rates are in a structure that is called, “proportional to use,” as described in the definitions section of the analysis model.

Rates for the “special” customers were modeled differently. Those users’ rates that are based upon the current rates of in-city residential customers, for example, out-of-city residential customers, will see rate adjustments that will keep them in the same proportional relationship with the in-city customer rates. Those customers’ future minimum and unit charges will be set at 50 percent higher than the in-city residential customers’ minimum and unit charges. (Exceptions were a few commercial customers that were close to this rate structure. In those cases I reset those rates to have the same relationship as similar user types.)

Those customers, such as Columbia River Carbonates, which pay a flat fee, will see their rates (flat fee only or a flat fee plus unit charges) go up by the average percentage increase rate of the in-city residential customers. Your service and rate agreement with each of these kinds of special customers may not allow immediate rate adjustments or adjustment in this way, but on average, to achieve the financial results modeled you will need to raise these rates by these percentages.

Chart 4 covers financial indicators and fund balances. Note that near the bottom of the chart there are several fund balances shown. Balances will change through the years. The last line on this chart is the most useful balance for you to track. This line shows the inflation-adjusted purchasing power of your working capital and capital improvement reserves. This balance is at a low point now but it will recover as rates move up. If you do not increase rates, this balance will go below zero in 2011. Your current position, the total net cash and cash equivalents, will go below zero in 2011 or 2012 if you do not adjust rates soon.

The line graph charts 5 through 12 depict financial health indicators under the proposed rates and make it easier to spot trends. In particular, Chart 8 depicts the affordability of your current and the proposed rates. Your current affordability index is 0.61 and it will rise to 0.75 after the proposed rates are adopted. As a point of reference, the national average affordability index is around 1.0 and USDA Rural Development generally will not consider offering a grant to a city until its affordability index exceeds 2.0 percent. With rates that “cheap” you may not qualify for Rural Development’s loans, much less grants. For that reason, you should consider applying for the Clean Water State Revolving Fund (SRF) loan program. The interest rate is currently 2.9 percent for up to 20 years. With those terms your debt payments would probably be near those of the Rural Development loan but for only half as long. I do not do grant and loan application writing. However, when the time comes to consider funding sources, I will be glad to advise you informally and at no cost. I was a Clean Water grant and loan coordinator for the State of Missouri, therefore, I know much about the various programs that are available and how best to acquire them.

Chart 13 depicts user’s bills before and after the adjustments. This chart depicts the more important changes brought about by rate adjustments as far as your users will be concerned.

Note: If you copy only one chart as a handout for the public attending your rate setting meeting, Chart 13 is the most useful chart for them to view.

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.

Notable assumptions and issues include these:

- The analyses use the test year of January 1, 2009 through December 31, 2009. This is the one-year period from which actual cost, revenue, usage and other data were gathered. The test year is the starting point for the analysis. Costs, revenues and all other data will change in future years based upon inflation, growth, the proposed rates and fees and many other things. Essentially the analysis seeks “best fit” rates to satisfy many issues facing the system. Therefore, you cannot look at the analysis charts several years out and view financial predictions like they are accounting records. Future costs, revenues and other data are predictions and estimates only.
- I assumed that you will continue to bill all customers bi-monthly.
- I assumed that future operating costs will rise at varying inflation rates, as shown in Chart 1B. Some costs, like electricity, will rise due to inflation and due to additional use caused by customer growth.
- I assumed that the connection growth rate will be 0.75 percent next year and for following years.

Principles

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

1. Water, sewer and all other utilities are businesses, regardless of who owns them. Businesses must cash flow properly.
2. In addition to functioning in a business-like manner, a utility has a responsibility to its customers to nearly guarantee its long-term prosperity for their benefit. The customers expect the service to be there whenever they want to use it. Thus, a utility must err on the conservative side by maintaining strong reserves that will enable it to weather financial storms.
3. If a service costs the utility money, the utility should recover that cost from the most logical “person” if that makes good business and community administration sense. For example, those customers that cost the utility the most should pay the most in fees.
4. If adjusting a rate, fee or policy will turn currently “good” customers into “bad” customers; consider the necessity of the change carefully before making it. For example, while it may be warranted, raising the minimum charge markedly to your residential customers may make it very difficult for fixed, low-income customers to pay their water bills. That may cause more of them to pay late or not

pay at all. That may trigger the City's processes of having the City'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.

Closing

Your sewer system's current position is weak. Without rate increases, it will go below zero in a year or two. If you raise rates quickly you will be able to prevent the system from going into the "red." Future increases will be moderate, primarily tracking with inflation in the costs to own and operate the system. Those increases will enable the system to establish reasonable reserves near the end of the 10-year modeling period.

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

Woodland, WA, Winter Averaged Sewer Rates Scenario Final Rates Selected by City

This rate adjustment option assumes continuing to borrow from SRF for major improvements. Rates will receive a fairly substantial adjustment initially. Annually thereafter rates will be increased to achieve a reasonable reserve level in 10 years.

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

- The minimum charge for in-city residential users will be set at \$35.55/bi-monthly bill and include no usage allowance.
- Unit charge for in-city residential users will be set at \$3.20/100 cu. ft. for all volume used.
- All in-city residential user's bills will be based upon their winter average use. All others that are now based upon water meter readings will continue to be based upon water usage each bi-monthly billing period.
- Each apartment unit will continue to be charged a base charge.
- A service unit charge of \$2.69 will be charged for each motel room and extra business within a strip mall or similar facility when that unit does not receive a separate sewer bill. The total of these charges will be added to the base charge of the facility that is billed.
- In the future rates will be increased by 5.0% per year on or near the anniversary of the initial rate adjustments.

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

September 10, 2010

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Terms Used in This Report and for Rate Setting Generally

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Affordability Index	The monthly charge for (typically) 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0, meaning a household pays one percent of its income to pay its bill for 5,000 gallons of service, is generally considered affordable.
Capacity Charge, also commonly called an 'Impact Fee' or 'Availability Charge'	A charge that buys a new customer system capacity. This is a charge levied on a new customer that recovers all or part of the capital costs to build capacity to be able to serve that customer's actual or potential demand. This charge may be a few thousand dollars for a residential customer to many thousands of dollars for a large industrial customer.
Capital Improvement Plan or Program (CIP)	Anticipated capital improvements. These are the more expensive items such as water towers, treatment plants and lines, that generally require bond or grant funding. They do not include equipment replacement items.
Capital Improvement Reserves	Cash reserves dedicated to funding the CIP
Comprehensive Rate Analysis	A thorough examination of a system's operating, capital improvement, equipment replacement and all other costs, revenues, current rates, number of users and their use of the system, growth rates and all other issues surrounding the system. This examination will determine how rates and fees should be set in the future to cash-flow the system properly, to build appropriate reserves and to be fair the ratepayers. It also will determine how policies should be adjusted to enable the system to operate well now, operate well in the medium-range future (about 10 years) and prepare for expected and expectable events such as capital improvements and equipment replacement.
Connection Charge	A charge that buys a new customer connection to the system. This charge is levied on a new customer to recover all or part of the costs a system incurs in the course of connecting the new customer to the system. This may include labor costs for staff or others on-site; equipment sold by the system to the new customer for making the connection; equipment, tools and supplies used by system staff for making the connection; and the like. This charge may be a few hundred dollars for a residential customer to thousands of dollars for a large industrial customer.
Conservation (Inclining) Rates	Unit charges that go up as the volume used goes up
Cost to Produce	There are several ways to define cost to produce. Each is acceptable for different purposes. Generally, cost to produce is the total of all variable costs required to get service to a utility's customers during one year divided by the total units of service delivered during that year. In a proportional to use rate structure, this will be the unit charge.
Cost to Serve Rates	Rates where fixed and variable costs generated by each user class are paid by that class with minimum and unit charges, respectively.
Coverage Ratio (CR)	Incomes and reserves available to pay debt divided by the amount of the debt for that year. Most systems should have a CR of 1.25 or higher.
Current Position	For a year, the sum of all incomes and undedicated reserves minus all current financial obligations for that year. Future obligations (next year's loan payments) and depreciation are not included. Current position is a good measure of overall financial health.

Declining Rates	Rates where unit charges go down as the volume used goes up
Flat Rates	Rates where all users pay exactly the same fee regardless of the volume of service they use
Incremental Rate Adjustments	Rate increases done during years between comprehensive rate analyses. The goal of these rate increases is to keep the system's income and reserve levels on track with the system's financial needs. Such increases are usually small, in the two to five percent per year range.
Infrastructure	Hard assets, such as water towers, treatment plants and lines needed to provide service to customers connected to the system
Life-cycle Cost	The total cost to design, build, operate, maintain and eventually dispose of an asset. One asset may cost less to build but be more expensive to operate and maintain, yielding a higher life-cycle cost.
Operating Ratio (OR)	Current incomes and undedicated reserves minus current expenses, not including debt. An OR of 1.0 is "break even." Most systems should have an OR of 1.25 or higher.
Potential Demand	The volume of service that a user could demand for a short period of time at full volume use
Proportional to use Rates	Rates where the minimum charge recovers all fixed costs, the unit charge recovers all variable costs, the unit charge is the same for all volume sold, and there is no usage allowance in the minimum charge.
Replacement Schedule	A timetable that describes equipment replacement and important repairs that are too infrequent and/or too expensive to cover as annual operating costs but not so expensive that they need to be covered as capital improvements.
Replacement Reserves	Cash reserves used to fund the Replacement Schedule
Tap Fee, also called a 'Hook up Fee'	A charge that gives a new customer the <u>right</u> to connect to the system. This fee may include the costs of administering the connection program, such as staff time to 'sign up' new customers, get them into the system's billing program, do an inspection of the service connection to assure that it meets the system's standards and the like. This charge is usually minimal for a residential customer and maybe a few thousand dollars for a large industrial customer. Capacity and connection fees are commonly added to tap fees and the total fee is just called a 'tap' fee.
Test Year	The one year period from which data was gathered to be the basis of the rate analysis
User Fee, User Charge	Fees assessed to customers for use of the system. Does not include tap, capacity or connection fees or other charges assessed when a property is first connected to the system.
Working Capital (Net Income)	The amount left in the operating fund after paying all costs due during that month, year or other time period. Working capital of \$0 is "break even."
Working Capital Goal	The desired percentage above "break even" for the operating fund. Small systems (a few hundred connections) generally should target 35 percent or greater. Larger systems can target less, down to a minimum of about 20 percent for systems with 5,000 or more connections.

Woodland, WA, Winter Averaged Sewer Rates Scenario

Financial Highlights

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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 will go into effect. The last two columns are the fifth and tenth years following the test year.

	Results for Years Ending on			
	12/31/09	12/31/10	12/31/14	12/31/19
Rate revenues collected	\$975,191	\$1,176,058	\$1,687,645	\$2,227,836
Sum of incomes	\$1,315,259	\$1,688,006	\$1,922,232	\$2,522,192
Sum of operating costs	\$1,014,796	\$949,079	\$1,402,761	\$1,643,061
Net income gain or loss (-)	\$300,463	\$738,926	\$519,472	\$879,131
Capital improvement reserves	-\$193,418	\$238,499	\$510,967	\$1,659,509
Replacement reserves	-\$111,761	\$281,143	\$811,193	\$1,531,575
Current position*	\$379,004	\$851,820	\$1,993,273	\$3,946,302
*All current incomes plus reserves minus all current obligations				
Increase or decrease (-) in current position due to this analysis	\$0	-\$56,998	\$2,741,329	\$8,033,776

Return on Investment

Return on investment due to this analysis	N.A.	-1190%	57251%
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Return rate is based upon the following investments:

Fees to Carl Brown Consulting	\$4,288
Estimated value of city staff time and incidentals to assemble needed information	\$500
Total Investment	\$4,788

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.

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Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 1A - 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 1/1/09	Year Starting 1/1/10	Year Starting 1/1/11	Year Starting 1/1/12	Year Starting 1/1/13	Year Starting 1/1/14	Year Starting 1/1/15	Year Starting 1/1/16	Year Starting 1/1/17	Year Starting 1/1/18	Year Starting 1/1/19
User Base												
Average Users for the Year		2293	2309	2324	2340	2356	2372	2388	2404	2420	2437	2453
Users Added (Lost) During the Year		16	16	16	16	16	16	16	16	16	17	17
User Growth (Loss) Rate		0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%	0.68%
Rate Increases Initiated in Future Years Adjusted, Then Annually Readjusted Minimum Charge/Billing Period for Uniform Rates Only		N.A.	19.8%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Adjusted, Then Annually Readjusted Unit Charge/Billable Volume Unit for Uniform Rates Only		N.A.	\$35.55	\$37.33	\$39.19	\$41.15	\$43.21	\$45.37	\$47.64	\$50.02	\$52.52	\$55.15
		N.A.	\$3.20	\$3.36	\$3.53	\$3.70	\$3.89	\$4.08	\$4.29	\$4.50	\$4.73	\$4.96
Operating Incomes												
Actual and Estimated User Fee Collections	NA	\$975,191	\$1,176,058	\$1,428,630	\$1,510,220	\$1,596,470	\$1,687,645	\$1,784,027	\$1,885,914	\$1,993,620	\$2,107,477	\$2,227,836
Operating Fund Interest Earned or Paid	NA	\$9,139	\$7,992	\$7,474	\$11,227	\$10,416	\$10,761	\$11,047	\$11,384	\$11,778	\$12,105	\$12,491
Total Connection Fees % Above		\$66,000	\$66,447	\$70,242	\$74,253	\$78,494	\$82,977	\$87,716	\$92,725	\$98,021	\$103,619	\$109,537
Late Charges, Penalties	NA	\$47,620	\$45,000	\$54,664	\$57,786	\$61,086	\$64,575	\$68,263	\$72,162	\$76,283	\$80,639	\$85,245
Transfers From 302 Fund	NA	\$121,362	\$329,004	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Walt's Sewage Treatment Charges	NA	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097	\$31,097
Sewage Treatment Tax	NA	\$18,051	\$21,718	\$26,330	\$27,820	\$29,394	\$31,059	\$32,819	\$34,679	\$36,646	\$38,725	\$40,922
Sewer Inspections	NA	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
Inspection Fees - Consultant	NA	\$23,445	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Misc	NA	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648	\$1,648
Inspection Fees - City	NA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Additional Sewage Treatment Tax	NA	\$7,842	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Service Unit Charge Revenues	NA	\$0	\$0	\$2,961	\$3,109	\$3,264	\$3,428	\$3,599	\$3,779	\$3,968	\$4,166	\$4,375
Adjustment to end at \$50,000 Current Position*	NA	\$4,822	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Regular Income		\$1,315,259	\$1,688,006	\$1,632,088	\$1,726,202	\$1,820,912	\$1,922,232	\$2,029,258	\$2,142,430	\$2,262,102	\$2,388,519	\$2,522,192

* This balance target excludes the 302 Fund balance.

Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 1B - Operating Costs and Net Income

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

Infla./De-
flation (-)
Factor

		Year Starting 1/1/09	Year Starting 1/1/10	Year Starting 1/1/11	Year Starting 1/1/12	Year Starting 1/1/13	Year Starting 1/1/14	Year Starting 1/1/15	Year Starting 1/1/16	Year Starting 1/1/17	Year Starting 1/1/18	Year Starting 1/1/19
(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%	\$59,065	\$65,927	\$67,905	\$69,942	\$72,041	\$74,202	\$76,428	\$78,721	\$81,082	\$83,515	\$86,020
Operating Supplies	5.0%	\$3,736	\$2,500	\$2,625	\$2,756	\$2,894	\$3,039	\$3,191	\$3,350	\$3,518	\$3,694	\$3,878
Operations Staff Salaries, Benefits & Related Items	5.0%	\$322,414	\$352,561	\$370,189	\$388,699	\$408,134	\$428,540	\$449,967	\$472,466	\$496,089	\$520,893	\$546,938
Operating Supplies - STP	3.0%	\$11,246	\$35,500	\$36,565	\$37,662	\$38,792	\$39,956	\$41,154	\$42,389	\$43,661	\$44,970	\$46,319
Fuel Consumed	5.0%	\$4,694	\$4,929	\$5,175	\$5,434	\$5,706	\$5,991	\$6,290	\$6,605	\$6,935	\$7,282	\$7,646
Professional Services	3.0%	\$49,752	\$20,000	\$20,600	\$21,218	\$21,855	\$22,510	\$23,185	\$23,881	\$24,597	\$25,335	\$26,095
Intergovt Professional Services	5.0%	\$3,594	\$6,500	\$6,825	\$7,166	\$7,525	\$7,901	\$8,296	\$8,711	\$9,146	\$9,603	\$10,084
Communications	5.0%	\$9,463	\$11,000	\$11,550	\$12,128	\$12,734	\$13,371	\$14,039	\$14,741	\$15,478	\$16,252	\$17,065
Utilities	3.0%	\$86,649	\$89,248	\$91,926	\$94,684	\$97,524	\$100,450	\$103,463	\$106,567	\$109,764	\$113,057	\$116,449
Miscellaneous	3.0%	\$284	\$600	\$618	\$637	\$656	\$675	\$696	\$716	\$738	\$760	\$783
Annual Payment to Replacement Fund	0.0%	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433	\$408,433
Rents/Lease	0.0%	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400
Tax on Sewer	5.0%	\$25,893	\$21,718	\$26,330	\$27,820	\$29,394	\$31,059	\$32,819	\$34,679	\$36,646	\$38,725	\$40,922
Travel and Training	5.0%	\$1,957	\$3,000	\$3,150	\$3,308	\$3,473	\$3,647	\$3,829	\$4,020	\$4,221	\$4,432	\$4,654
Contract Bio-solids Removal	3.0%	\$141,661	\$172,968	\$178,157	\$183,502	\$189,007	\$194,677	\$200,517	\$206,533	\$212,729	\$219,111	\$225,684
Contribution to 001/Current Expense	5.0%	\$180,227	\$145,439	\$152,711	\$160,346	\$168,364	\$176,782	\$185,621	\$194,902	\$204,647	\$214,880	\$225,624
User Charge Analysis Services	5.0%	\$0	\$4,288	\$0	\$0	\$4,728	\$0	\$0	\$5,212	\$0	\$0	\$5,747
Debt Service & Fees on Existing Loans	0.0%	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP	CIP
Transfers to 302 Fund	0.0%	\$0	\$0	\$180,146	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Replacement Cost Adjustment	3.5%	-\$296,672	-\$397,933	-\$100,000	-\$103,500	-\$107,123	-\$110,872	-\$114,752	-\$118,769	-\$122,926	-\$127,228	-\$131,681
Total Operating Costs		\$1,014,796	\$949,079	\$1,465,306	\$1,322,634	\$1,366,535	\$1,402,761	\$1,445,577	\$1,495,559	\$1,537,160	\$1,586,115	\$1,643,061
Net Income (or Loss)		\$300,463	\$738,926	\$166,782	\$403,568	\$454,376	\$519,472	\$583,681	\$646,872	\$724,942	\$802,403	\$879,131
Working Capital Goal 35%	In Dollars, That is:	\$355,179	\$332,178	\$512,857	\$462,922	\$478,287	\$490,966	\$505,952	\$523,446	\$538,006	\$555,140	\$575,071

Woodland, WA, Winter Averaged Sewer Rates Scenario
 Chart 2 - Capital Improvement Program

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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	
CIP Spending Plan	1/1/09	1/1/10	1/1/11	1/1/12	1/1/13	1/1/14	1/1/15	1/1/16	1/1/17	1/1/18	1/1/19
Capital Improvements to be Paid With Debt											
Line Replacement (USDA Loan)	\$0	\$0	\$0	\$0	\$0	\$4,016,331	\$0	\$0	\$0	\$0	\$0
Total Capital Improvements to be Paid With Debt	\$0	\$0	\$0	\$0	\$0	\$4,016,331	\$0	\$0	\$0	\$0	\$0
Capital Improvements to be Paid With Cash											
Contribution to 407/Restroom	\$71,400	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineering for USDA Loan Project	\$0	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Cap Imprvmts to be Paid With Cash	\$71,400	\$8,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total CIP Planned Spending	\$71,400	\$8,000	\$0	\$0	\$0	\$4,016,331	\$0	\$0	\$0	\$0	\$0
CIP Funding Plan											
CIP/Impact Account Carryover Plus Transfers in	\$192,139	\$568,509	\$238,499	\$401,298	\$552,641	\$780,678	\$1,079,662	\$1,211,369	\$1,429,111	\$1,729,726	\$2,116,267
CIP/Impact Account Interest Earned (or Paid)	\$0	-\$9,913	\$10,732	-\$1,963	\$5,113	\$12,325	\$22,994	\$26,190	\$32,343	\$42,501	\$56,568
Total Connection Fees Trans From Operating Account	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(Transfers to) Operating Acct for Operating Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contrib From Developers, Customers & Others	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
(Repaymt to) Developers, Customers & Others	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Loan 5th Year	\$0	\$0	\$0	\$0	\$0	\$4,016,331	\$0	\$0	\$0	\$0	\$0
Total CIP Fund Sources	\$192,139	\$558,597	\$249,231	\$399,334	\$557,755	\$4,809,333	\$1,102,656	\$1,237,559	\$1,461,453	\$1,772,227	\$2,172,835
New Debt Payment Plan											
Payments for future loans assume 100 percent financing for projects, term of:						40	years and	5.13%	interest		
Paymts to Debt Reserves for Later Loans	\$0	\$0	\$0	\$0	\$0	\$0	\$2,381	\$2,381	\$2,381	\$2,381	\$2,381
Payments on Existing Loans	\$314,157	\$312,098	\$287,539	\$285,704	\$283,870	\$282,035	\$280,200	\$278,365	\$276,531	\$274,696	\$272,861
Payment Schedule on Loan 5th Year	\$0	\$0	\$0	\$0	\$0	\$0	\$238,084	\$238,084	\$238,084	\$238,084	\$238,084
Total Debt Obligations	\$314,157	\$312,098	\$287,539	\$285,704	\$283,870	\$282,035	\$520,665	\$518,830	\$516,996	\$515,161	\$513,326
Total CIP Spending Plus Debt Repayment	\$385,557	\$320,098	\$287,539	\$285,704	\$283,870	\$4,298,366	\$520,665	\$518,830	\$516,996	\$515,161	\$513,326
CIP Fund Balance	-\$193,418	\$238,499	-\$38,308	\$113,630	\$273,885	\$510,967	\$581,991	\$718,729	\$944,458	\$1,257,066	\$1,659,509
Net CIP Spending This Year	\$385,557	\$320,098	\$287,539	\$285,704	\$283,870	\$282,035	\$520,665	\$518,830	\$516,996	\$515,161	\$513,326

Notes: The only capital improvement expected is a line replacement project that will be paid with a USDA Rural Development Loan at the anticipated interest rate and term period shown above. It is also assumed RD will require payments to a debt coverage reserve that amount to 1% of the payment amount for the next 10 years, building toward a 10% reserve.

Woodland, WA, Winter Averaged Sewer Rates Scenario

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Chart 3A - Rate Adjustments and Incomes for the Modeling Year 1/1/10 Through 12/31/10

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

\$4,250	This is the current average connection fee	1st rate block conservation rates multiplier	100%
\$4,250	Proposed average connection fee	2nd rate block conservation rates multiplier	100%
\$4,250	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	Fee Surcharges		
11/1/10 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 \$35.56 and the unit charge is \$3.20 per 100 Cu Ft. After rate adjustments are made, general customers will be billed every other month.

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 ¹	New Minimum Charge Usage Allowance (100 Cu Ft)	New Unit Charge This Class per 100 Cu Ft	Revenues at Proposed Rates	Total Blended Revenues Projected for Modeling Year
Use per Billing Cycle in Cu Ft							
Inside Residential Customer Class Users							
0	99	\$461	\$35.55	0.000	\$3.20	\$97	\$558
100	199	\$4,973	\$35.55	0.000	\$3.20	\$1,069	\$6,042
200	299	\$5,220	\$35.55	0.000	\$3.20	\$1,156	\$6,376
300	399	\$7,357	\$35.55	0.000	\$3.20	\$1,674	\$9,031
400	499	\$7,686	\$35.55	0.000	\$3.20	\$1,791	\$9,477
500	599	\$12,705	\$35.55	0.000	\$3.20	\$3,025	\$15,730
600	699	\$13,227	\$35.55	0.000	\$3.20	\$3,210	\$16,437
700	799	\$14,865	\$35.55	0.000	\$3.20	\$3,672	\$18,537
800	899	\$17,355	\$35.55	0.000	\$3.20	\$4,356	\$21,711
900	999	\$21,059	\$35.55	0.000	\$3.20	\$5,364	\$26,424
1,000	1,099	\$20,011	\$35.55	0.000	\$3.20	\$5,167	\$25,178
1,100	1,199	\$17,847	\$35.55	0.000	\$3.20	\$4,666	\$22,513
1,200	1,299	\$24,327	\$35.55	0.000	\$3.20	\$6,433	\$30,761
1,300	1,399	\$20,993	\$35.55	0.000	\$3.20	\$5,611	\$26,604
1,400	1,499	\$23,058	\$35.55	0.000	\$3.20	\$6,224	\$29,282
1,500	1,999	\$71,635	\$35.55	0.000	\$3.20	\$19,778	\$91,413
2,000	2,499	\$36,864	\$35.55	0.000	\$3.20	\$10,545	\$47,409
2,500	2,999	\$21,116	\$35.55	0.000	\$3.20	\$6,208	\$27,324
3,000	3,499	\$10,064	\$35.55	0.000	\$3.20	\$3,016	\$13,080
3,500	3,999	\$6,112	\$35.55	0.000	\$3.20	\$1,865	\$7,978
4,000	4,499	\$4,872	\$35.55	0.000	\$3.20	\$1,505	\$6,376
4,500	4,999	\$4,431	\$35.55	0.000	\$3.20	\$1,388	\$5,819
5,000	5,499	\$2,348	\$35.55	0.000	\$3.20	\$741	\$3,089
5,500	5,999	\$1,074	\$35.55	0.000	\$3.20	\$342	\$1,416
6,000	6,499	\$772	\$35.55	0.000	\$3.20	\$248	\$1,020
6,500	6,999	\$837	\$35.55	0.000	\$3.20	\$271	\$1,107
7,000	999,999	\$17,957	\$35.55	0.000	\$3.20	\$6,230	\$24,188
Special Customer Class Users							
Multi-residential		\$54,250	\$35.55	0.000	\$3.20	\$19,285	\$73,535
Multi-residential Living Units		\$128,931	\$35.55	0.000	\$0.00	\$26,741	\$155,671
Senior & Disabled Discount		(\$860)	(\$19.57)	0.000	\$0.00	(\$178)	(\$1,038)
Comm/Ind, Sch, Church		\$190,904	\$35.55	0.000	\$4.80	\$62,970	\$253,874
Hamilton Materials (2)		\$7,829	\$26.67	0.000	\$3.55	\$2,729	\$10,558
Hamilton Materials (1)		\$1,173	\$53.33	0.000	\$7.11	\$408	\$1,581
Columbia River Carbonates		\$2,127	\$570.44	0.000	\$0.00	\$577	\$2,705
Pacific Seafood Sales		\$347	\$46.53	0.000	\$0.00	\$94	\$441
Woodland East MHP		\$13,534	\$35.55	0.000	\$3.20	\$4,792	\$18,326
City		\$347	\$35.55	0.000	\$3.20	\$555	\$902
Motels		\$10,328	\$35.55	0.000	\$4.80	\$3,157	\$13,485
Adjustment		\$4,230	\$35.55	0.000	\$3.20	\$887	\$5,117
In Res Over the Winter Ave		\$146,021	\$0.00	0.000	\$0.00	\$0	\$146,021
Rate Revenues at Current Rates		\$948,387					
						Rate Revenues at Adjusted Rates	\$227,670
						Total Blended Rate Revenues for the Year ²	\$1,176,058

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 10.0 months at the old user charge rates and 1/1/10 through 12/31/10 assume the following: 2.0 months at the new user charge rates.

Woodland, WA, Winter Averaged Sewer Rates Scenario
 Chart 3B - Rate Statistics

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

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

Normally, the % of usage figure will be lower than the % of revenue for the lower volume classes. That will switch for the higher volume classes. Even for declining rate structures, this switch should occur near the volume of the average residential user, typically near 5,000 gallons/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 1,456 Cu Ft 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	% Rev at Proposed Rates
Use per Billing Cycle in Cu Ft					
Inside Residential Customer Class Users					
0	99	0.1%	0.0%	0.0%	0.0%
100	199	1.2%	0.1%	0.5%	0.5%
200	299	1.2%	0.1%	0.6%	0.5%
300	399	1.6%	0.3%	0.8%	0.7%
400	499	1.6%	0.3%	0.8%	0.8%
500	599	2.5%	0.7%	1.3%	1.3%
600	699	2.5%	0.8%	1.4%	1.4%
700	799	2.7%	1.0%	1.6%	1.6%
800	899	3.1%	1.3%	1.8%	1.9%
900	999	3.6%	1.7%	2.2%	2.4%
1,000	1,099	3.3%	1.7%	2.1%	2.3%
1,100	1,199	2.9%	1.7%	1.9%	2.0%
1,200	1,299	3.8%	2.4%	2.6%	2.8%
1,300	1,399	3.2%	2.2%	2.2%	2.5%
1,400	1,499	3.4%	2.5%	2.4%	2.7%
1,500	1,999	9.7%	8.4%	7.6%	8.7%
2,000	2,499	4.4%	5.0%	3.9%	4.6%
2,500	2,999	2.2%	3.1%	2.2%	2.7%
3,000	3,499	1.0%	1.6%	1.1%	1.3%
3,500	3,999	0.5%	1.0%	0.6%	0.8%
4,000	4,499	0.4%	0.8%	0.5%	0.7%
4,500	4,999	0.3%	0.8%	0.5%	0.6%
5,000	5,499	0.2%	0.4%	0.2%	0.3%
5,500	5,999	0.1%	0.2%	0.1%	0.2%
6,000	6,499	0.0%	0.1%	0.1%	0.1%
6,500	6,999	0.0%	0.2%	0.1%	0.1%
7,000	999,999	0.3%	4.3%	1.9%	2.7%
Special Customer Class Users					
Multi-residential		0.0%	13.7%	5.7%	8.5%
Multi-residential Living Units		32.4%	0.0%	13.6%	11.7%
Senior & Disabled Discount		0.4%	0.0%	-0.1%	-0.1%
Comm/Ind, Sch, Church		9.6%	26.0%	20.1%	27.7%
Hamilton Materials (2)		0.1%	1.7%	0.8%	1.2%
Hamilton Materials (1)		0.1%	0.1%	0.1%	0.2%
Columbia River Carbonates		0.0%	8.5%	0.2%	0.3%
Pacific Seafood Sales		0.1%	2.2%	0.0%	0.0%
Woodland East MHP		0.0%	3.4%	1.4%	2.1%
City		0.0%	0.4%	0.0%	0.2%
Motels		0.4%	1.3%	1.1%	1.4%
Totals		100.0%	100.0%	84.6%	100.0%

Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 4 - Indicators

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

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	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting	Year Starting
	1/1/09	1/1/10	1/1/11	1/1/12	1/1/13	1/1/14	1/1/15	1/1/16	1/1/17	1/1/18	1/1/19
Capacity Indicators											
Equivalent Average Monthly Bill Actually Paid by All Customers Throughout the Year	\$35.44	\$42.45	\$51.22	\$53.78	\$56.47	\$59.29	\$62.26	\$65.37	\$68.64	\$72.07	\$75.68
Equivalent Final Monthly Bill for a 5,000 gal per Month Residential User	\$29.35	\$39.17	\$41.12	\$43.18	\$45.34	\$47.61	\$49.99	\$52.49	\$55.11	\$57.87	\$60.76
Annual Median Household Income (AMHI)	\$58,078	\$59,784	\$61,540	\$63,348	\$65,209	\$67,124	\$69,096	\$71,126	\$73,215	\$75,366	\$77,580
Affordability Index for Proposed Rates	0.61%	0.79%	0.80%	0.82%	0.83%	0.85%	0.87%	0.89%	0.90%	0.92%	0.94%
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	1.35	1.35	1.34	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 larger systems and 1.30 or more for smaller systems.											
Estimated Coverage Ratio for Proposed Rates	2.21	3.73	4.51	5.47	6.64	8.07	5.29	5.89	6.64	7.58	8.69
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	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
	12/31/09	12/31/10	12/31/11	12/31/12	12/31/13	12/31/14	12/31/15	12/31/16	12/31/17	12/31/18	12/31/19
Operating Fund	\$355,179	\$332,178	\$498,960	\$462,922	\$478,287	\$490,966	\$505,952	\$523,446	\$538,006	\$555,140	\$575,071
CIP Fund	-\$193,418	\$238,499	-\$38,308	\$113,630	\$273,885	\$510,967	\$581,991	\$718,729	\$944,458	\$1,257,066	\$1,659,509
302 Fund	\$329,004	\$0	\$180,146	\$180,146	\$180,146	\$180,146	\$180,146	\$180,146	\$180,146	\$180,146	\$180,146
Replacement Fund	-\$111,761	\$281,143	\$368,999	\$520,181	\$667,776	\$811,193	\$967,602	\$1,116,236	\$1,254,739	\$1,396,283	\$1,531,575
Current Position (sum of all Reserves)	\$379,004	\$851,820	\$1,009,798	\$1,276,879	\$1,600,095	\$1,993,273	\$2,235,692	\$2,538,557	\$2,917,349	\$3,388,635	\$3,946,302
Working Capital + CIP	\$161,761	\$570,677	\$460,652	\$576,552	\$752,172	\$1,001,934	\$1,087,943	\$1,242,174	\$1,482,464	\$1,812,206	\$2,234,580
Working Capital + CIP Balances Discounted for Inflation	\$161,761	\$570,677	\$444,529	\$536,900	\$675,926	\$868,857	\$910,422	\$1,003,105	\$1,155,248	\$1,362,781	\$1,621,593

Chart 5 - Operating Ratio

Woodland, WA

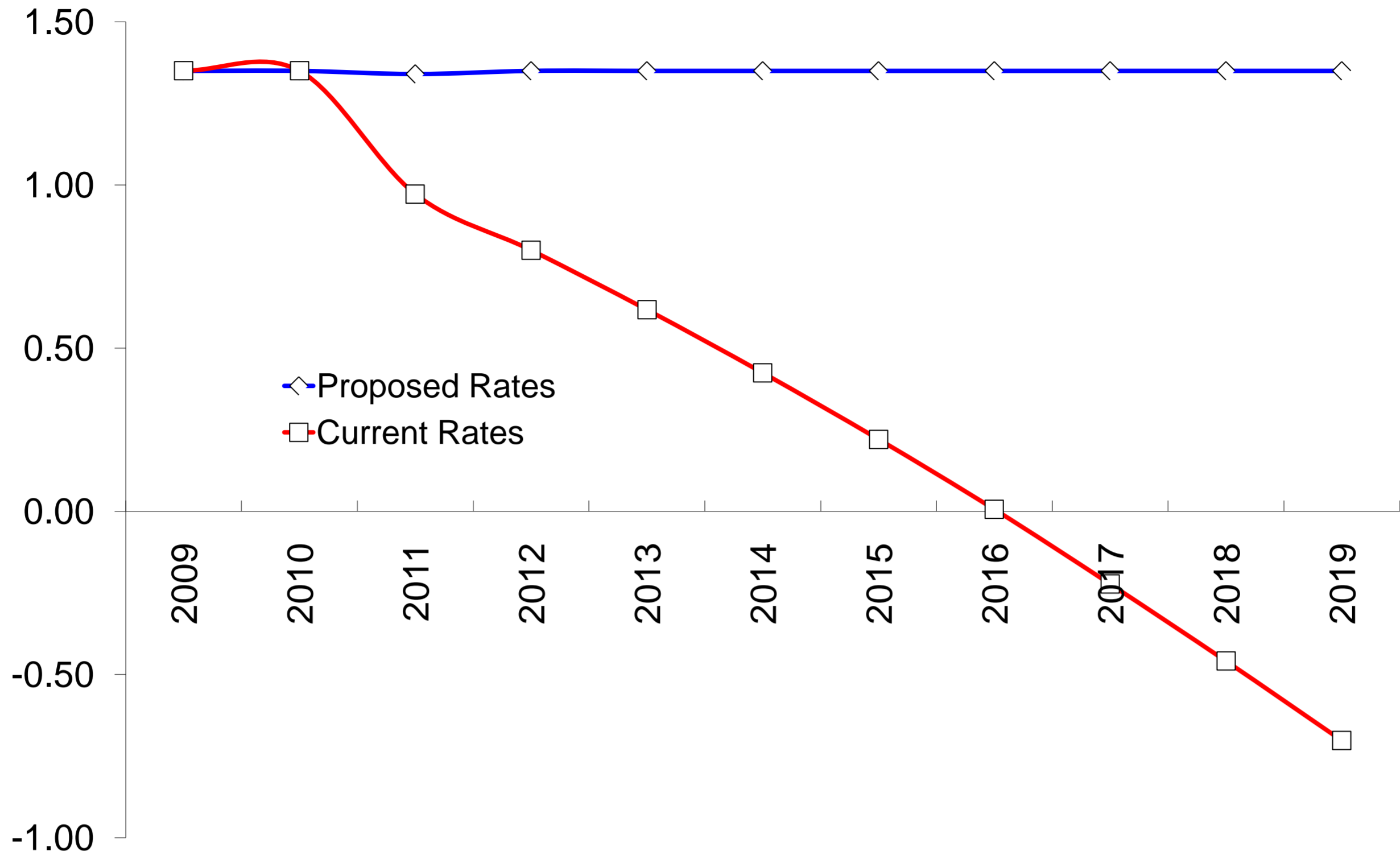


Chart 6 - Coverage Ratio

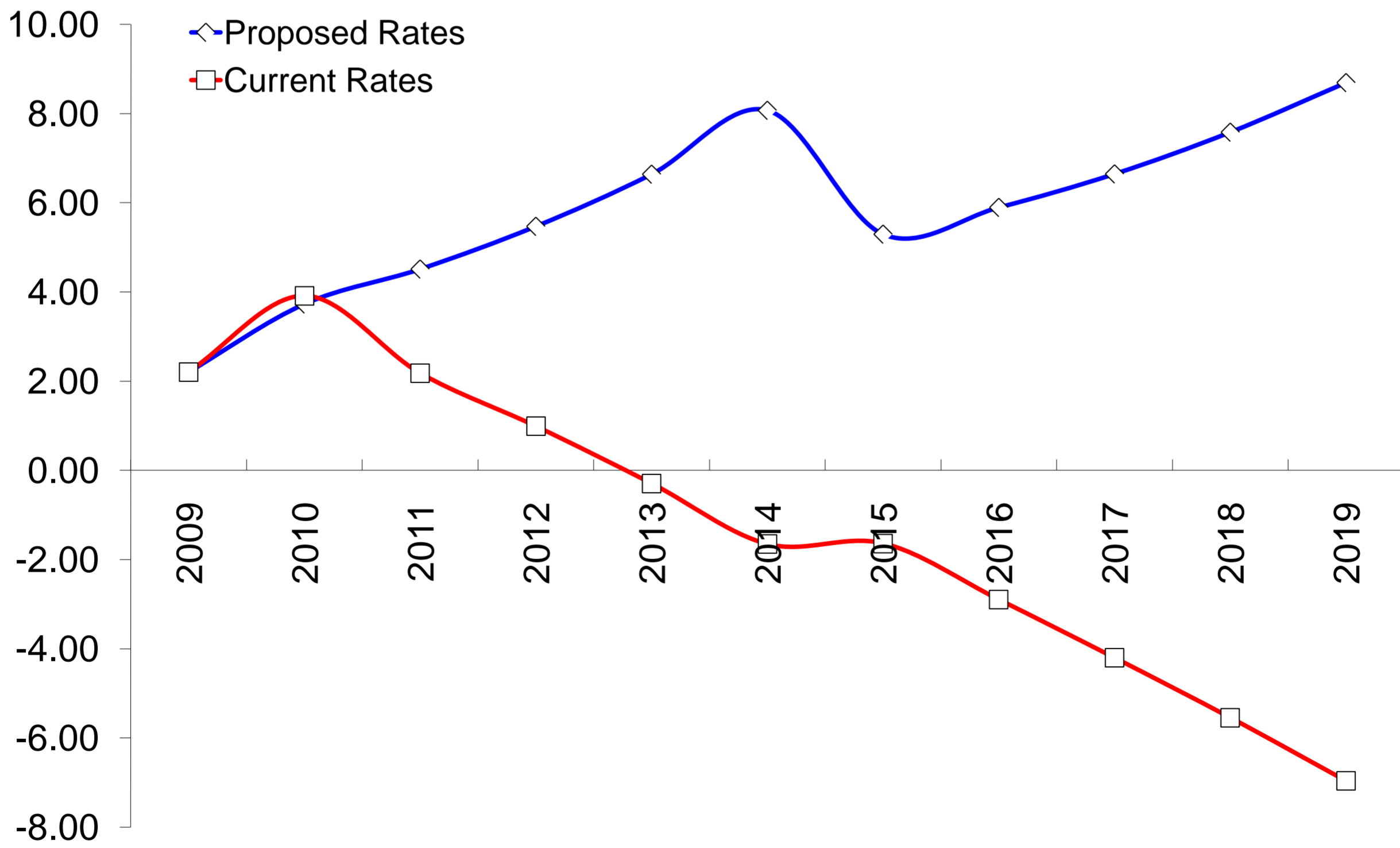


Chart 7 - 5,000 Gal Residential User's Bill

Woodland, WA

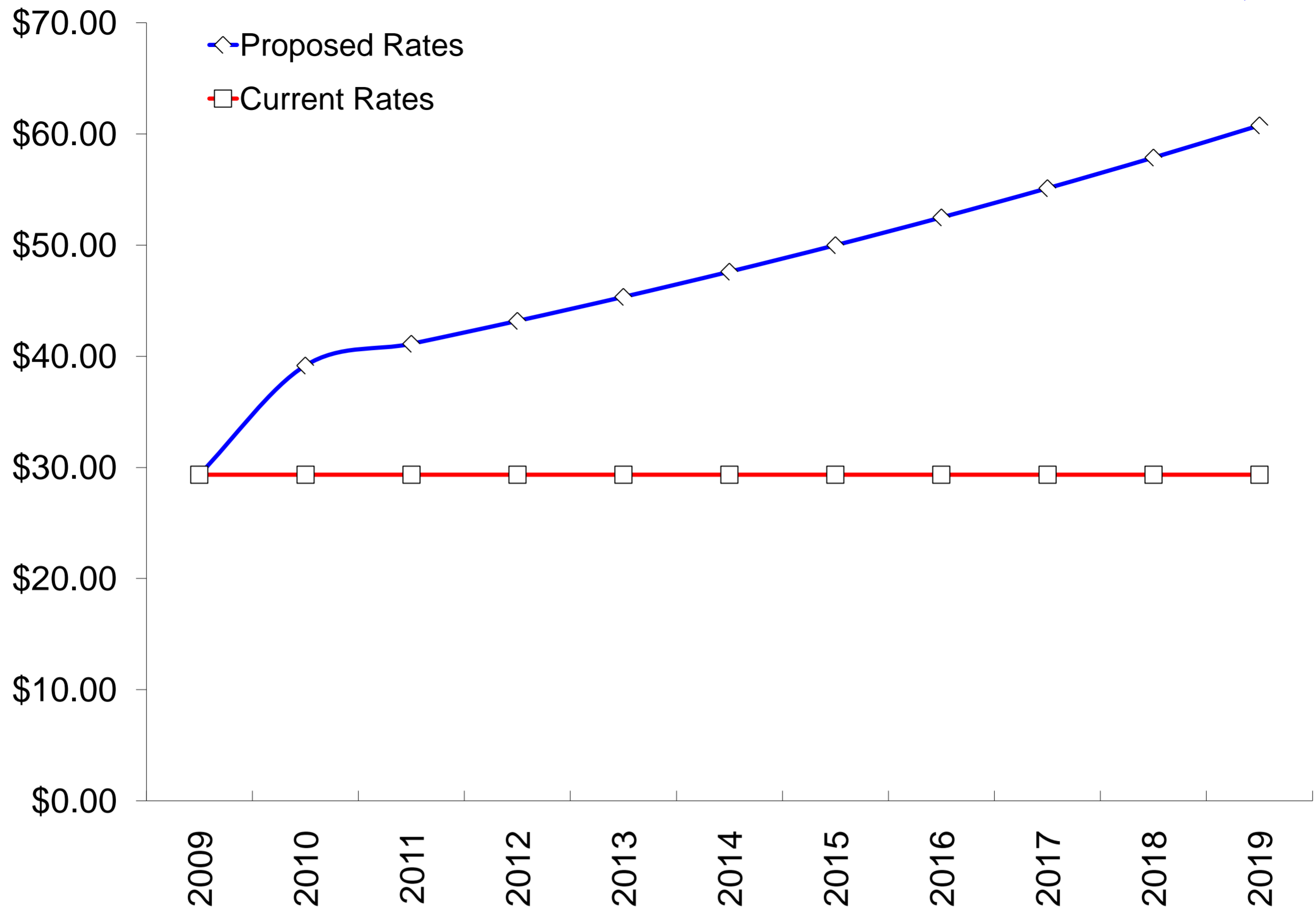


Chart 8 - Affordability Index

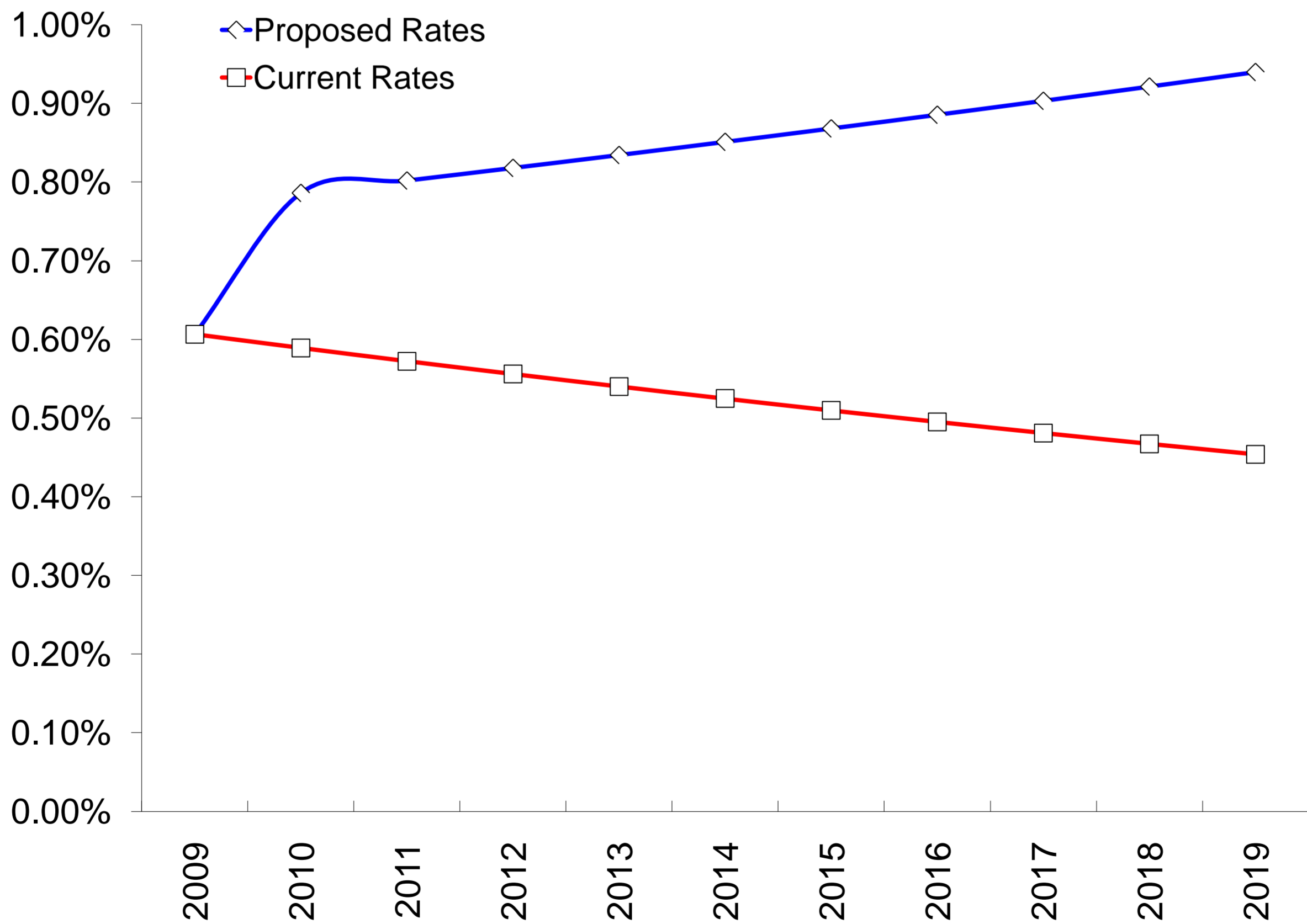


Chart 9 - Working Capital

Woodland, WA

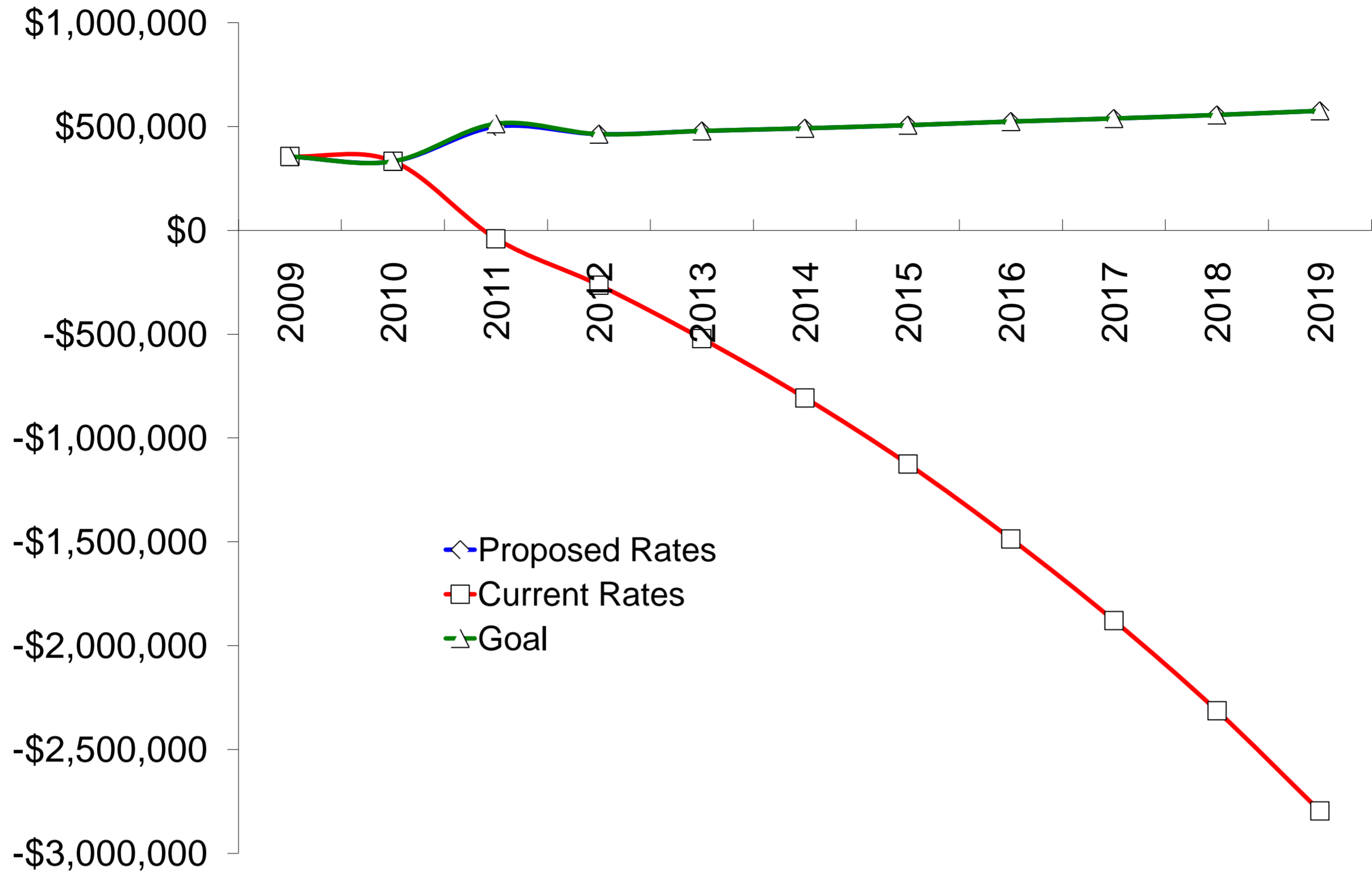


Chart 10 - Working Capital and CIP Reserves Discounted for Inflation

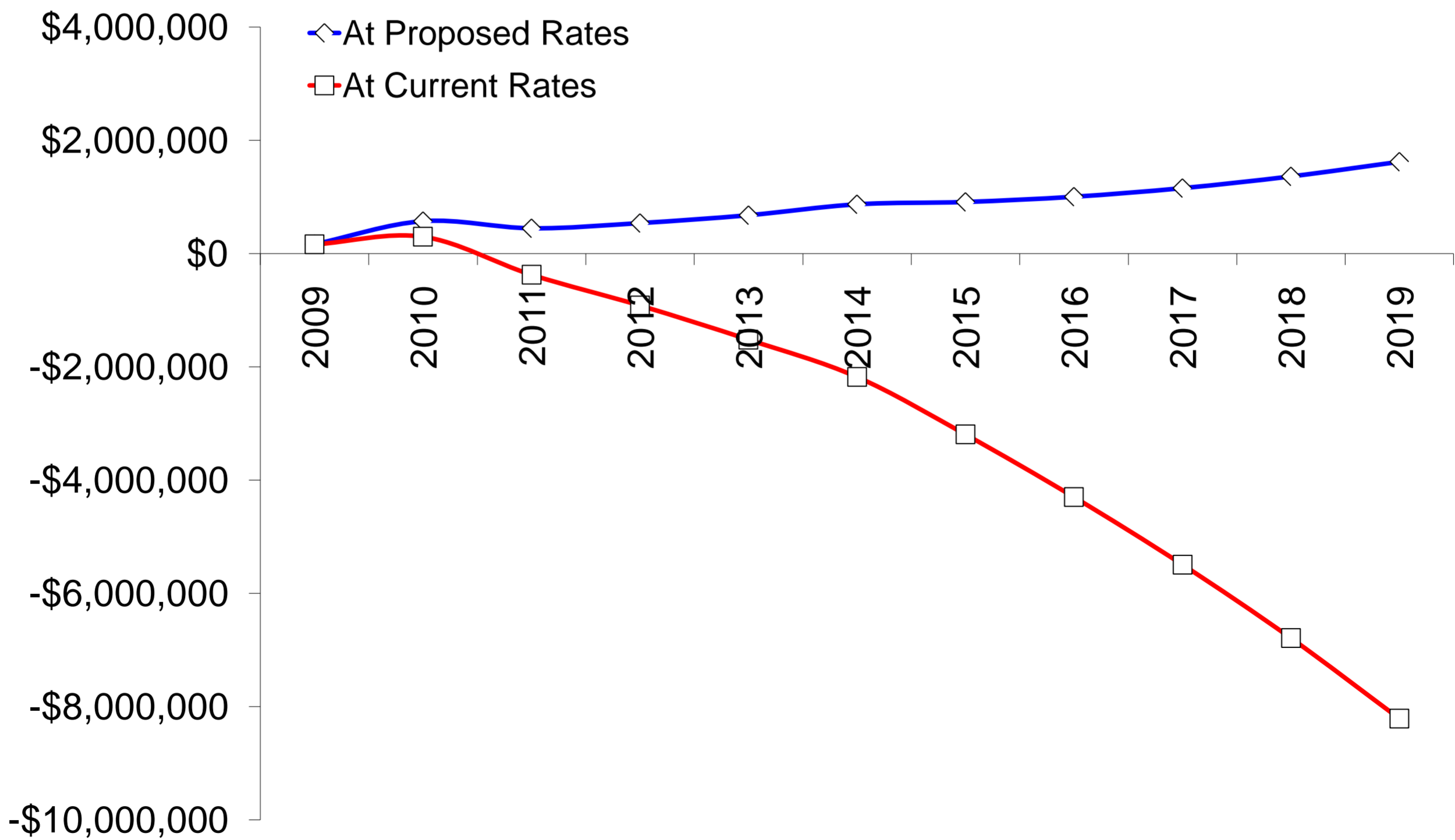


Chart 11 - Use & Revenues

Woodland, WA

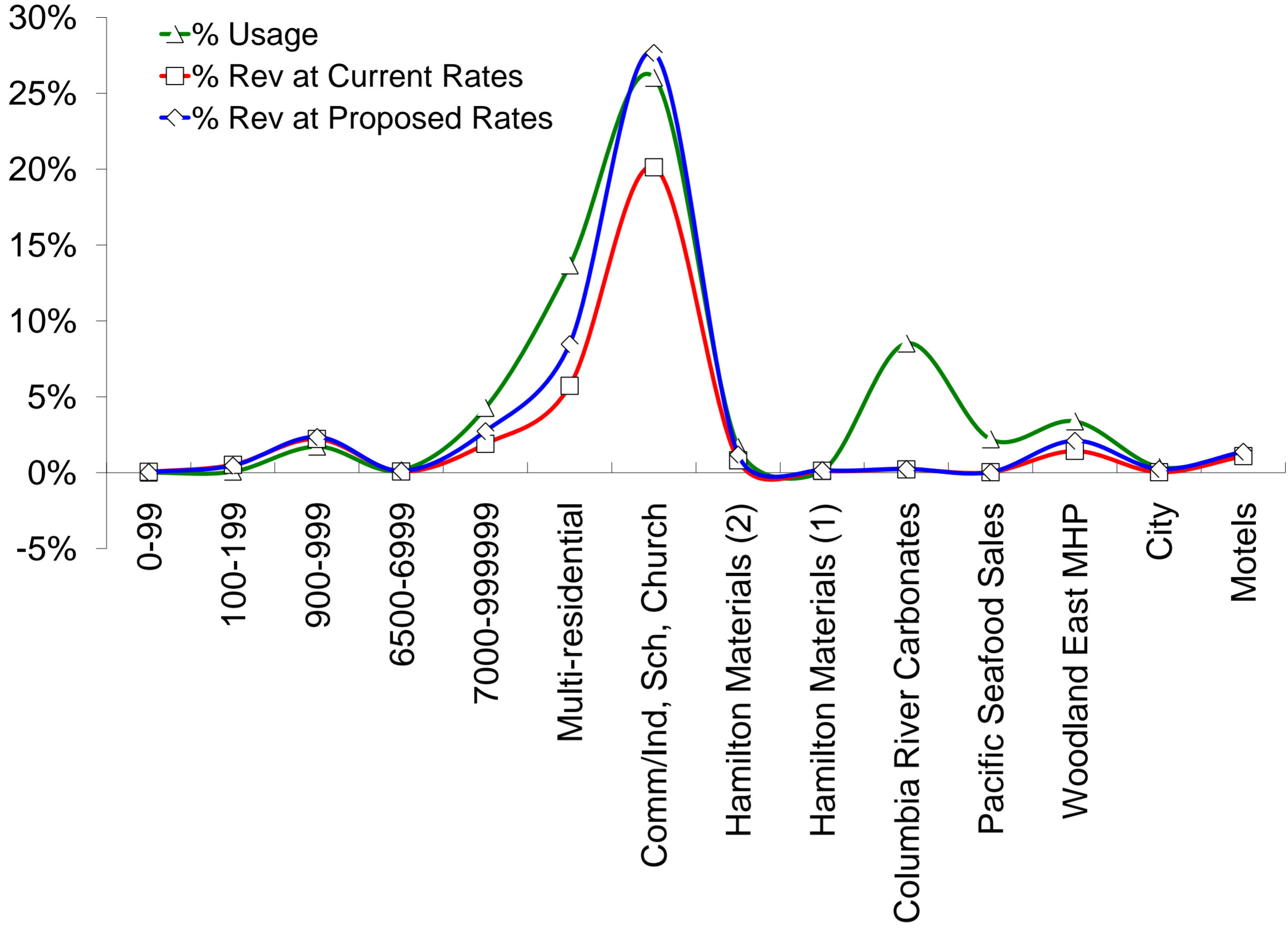
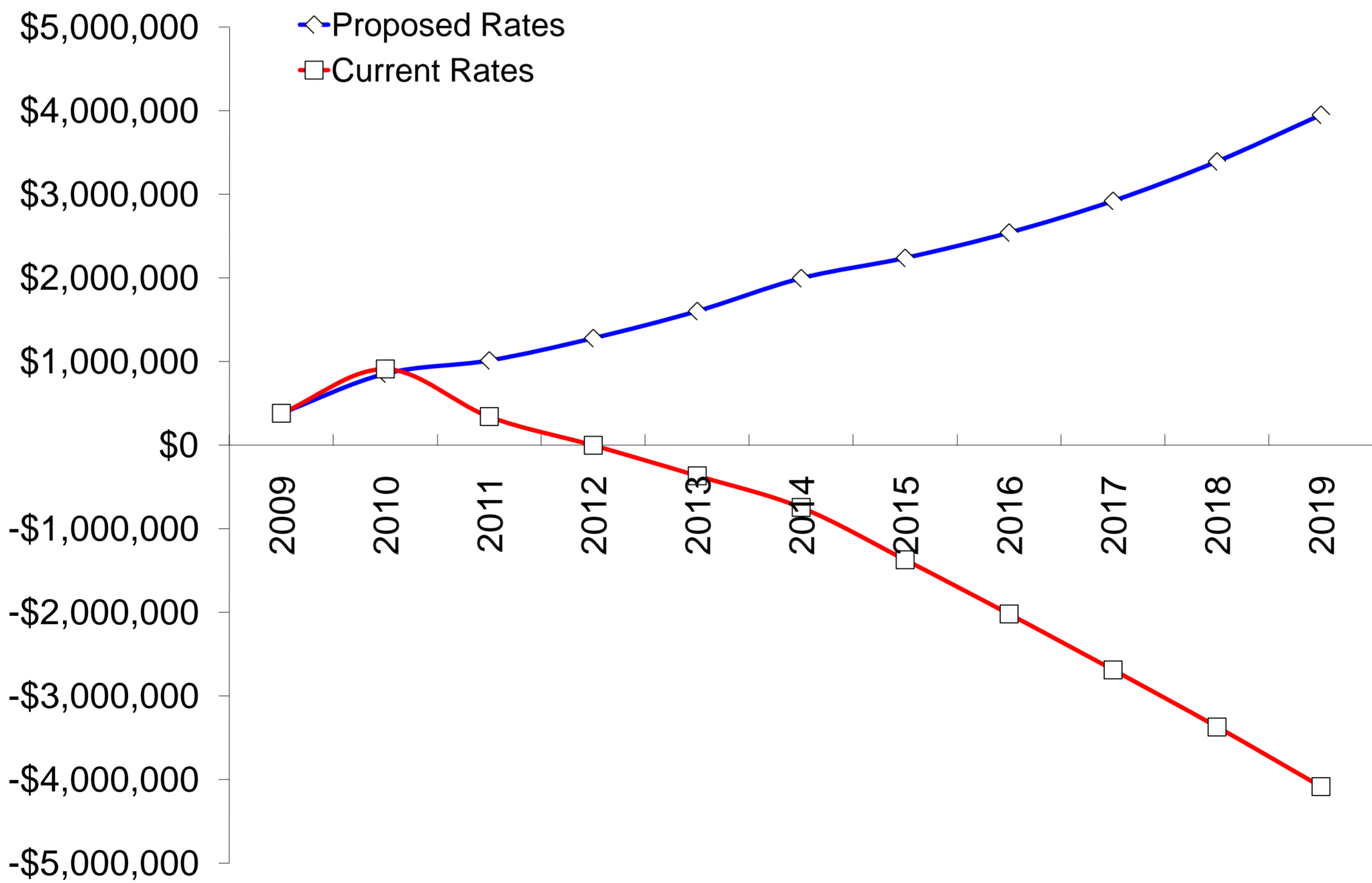


Chart 12 - Current Position



Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 13 - Old Rates, New Rates and Changes

This chart compares current and proposed rates.

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Class Bottom	Class Top	Median or Actual Average use (100 Cu Ft)	Current Average Bill	Proposed Average Bill Starting on 11/1/10	Bill Increase or (Decrease) After Rate Adjustment
Use per Billing Cycle in Cu Ft					
Inside Residential Customer Class Users					
0	99	0.294	\$35.04	\$36.49	\$1.45
100	199	1.022	\$36.34	\$38.79	\$2.45
200	299	2.026	\$38.14	\$41.97	\$3.83
300	399	3.028	\$39.94	\$45.14	\$5.21
400	499	4.023	\$41.72	\$48.30	\$6.58
500	599	5.012	\$43.49	\$51.43	\$7.94
600	699	6.009	\$45.28	\$54.59	\$9.31
700	799	7.008	\$47.07	\$57.75	\$10.68
800	899	8.002	\$48.85	\$60.90	\$12.05
900	999	9.005	\$50.65	\$64.08	\$13.43
1,000	1,099	10.006	\$52.44	\$67.25	\$14.81
1,100	1,199	11.017	\$54.25	\$70.45	\$16.20
1,200	1,299	12.006	\$56.02	\$73.59	\$17.56
1,300	1,399	13.000	\$57.80	\$76.73	\$18.93
1,400	1,499	14.003	\$59.60	\$79.91	\$20.31
1,500	1,999	16.552	\$64.20	\$88.04	\$23.84
2,000	2,499	21.612	\$73.34	\$104.20	\$30.86
2,500	2,999	26.804	\$82.72	\$120.78	\$38.06
3,000	3,499	31.419	\$91.05	\$135.51	\$44.46
3,500	3,999	36.913	\$100.98	\$153.06	\$52.09
4,000	4,499	41.294	\$108.89	\$167.05	\$58.16
4,500	4,999	47.586	\$120.26	\$187.15	\$66.89
5,000	5,499	51.571	\$127.46	\$199.87	\$72.42
5,500	5,999	56.333	\$136.06	\$215.08	\$79.02
6,000	6,499	62.250	\$146.75	\$233.98	\$87.23
6,500	6,999	69.000	\$158.95	\$255.55	\$96.60
7,000	999,999	295.350	\$568.62	\$979.84	\$411.22
Special Customer Class Users					
Multi-residential		5,941.667	\$12,440.81	\$19,048.88	\$6,608.07
Multi-residential Living Units		0.000	\$34.51	\$35.55	\$1.04
Senior & Disabled Discount		0.000	-\$19.00	-\$19.57	-\$0.57
Comm/Ind, Sch, Church		51.273	\$171.92	\$281.66	\$109.74
Hamilton Materials (2)		245.333	\$519.01	\$898.48	\$379.47
Hamilton Materials (1)		41.143	\$199.90	\$345.74	\$145.84
Columbia River Carbonates		3,701.417	\$423.10	\$570.44	\$147.34
Pacific Seafood Sales		476.750	\$34.51	\$46.53	\$12.02
Woodland East MHP		1,468.000	\$2,691.59	\$4,733.15	\$2,041.56
City		160.333	\$69.02	\$548.62	\$479.60
Motels		63.464	\$224.07	\$340.18	\$116.11

Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 14 - Proposed Rate Chart

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

Class Bottom	Class Top	Minimum Charge per Billing Cycle	Minimum Charge Usage Allowance (100 Cu Ft)	Unit Charge This Class per 100 Cu Ft
Use per Billing Cycle in Cu Ft				
Inside Residential Customer Class Users				
0	99	\$35.55	0.000	\$3.20
100	199	\$35.55	0.000	\$3.20
200	299	\$35.55	0.000	\$3.20
300	399	\$35.55	0.000	\$3.20
400	499	\$35.55	0.000	\$3.20
500	599	\$35.55	0.000	\$3.20
600	699	\$35.55	0.000	\$3.20
700	799	\$35.55	0.000	\$3.20
800	899	\$35.55	0.000	\$3.20
900	999	\$35.55	0.000	\$3.20
1,000	1,099	\$35.55	0.000	\$3.20
1,100	1,199	\$35.55	0.000	\$3.20
1,200	1,299	\$35.55	0.000	\$3.20
1,300	1,399	\$35.55	0.000	\$3.20
1,400	1,499	\$35.55	0.000	\$3.20
1,500	1,999	\$35.55	0.000	\$3.20
2,000	2,499	\$35.55	0.000	\$3.20
2,500	2,999	\$35.55	0.000	\$3.20
3,000	3,499	\$35.55	0.000	\$3.20
3,500	3,999	\$35.55	0.000	\$3.20
4,000	4,499	\$35.55	0.000	\$3.20
4,500	4,999	\$35.55	0.000	\$3.20
5,000	5,499	\$35.55	0.000	\$3.20
5,500	5,999	\$35.55	0.000	\$3.20
6,000	6,499	\$35.55	0.000	\$3.20
6,500	6,999	\$35.55	0.000	\$3.20
7,000	999,999	\$35.55	0.000	\$3.20
Special Customer Class Users				
	Multi-residential	\$35.55	0.000	\$3.20
	Multi-residential Living Units	\$35.55	0.000	\$0.00
	Senior & Disabled Discount	(\$19.57)	0.000	\$0.00
	Comm/Ind, Sch, Church	\$35.55	0.000	\$4.80
	Hamilton Materials (2)	\$26.67	0.000	\$3.55
	Hamilton Materials (1)	\$53.33	0.000	\$7.11
	Columbia River Carbonates	\$570.44	0.000	\$0.00
	Pacific Seafood Sales	\$46.53	0.000	\$0.00
	Woodland East MHP	\$35.55	0.000	\$3.20
	City	\$35.55	0.000	\$3.20
	Motels	\$35.55	0.000	\$4.80

Chart 15 - Test Year Usage

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

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

Date this scenario created 7/29/2010

Class Bottom	Class Top	Median or Actual Average use (100 Cu Ft)	January-09	February-09	March-09	April-09	May-09	June-09	July-09	August-09	September-09	October-09	November-09	December-09	Average Number Users in Each Class
Use per Billing Cycle in Cu Ft															
Inside Residential Customer Class Users															
0	99	0.294		3		3									3
100	199	1.022		27		27									27
200	299	2.026		27		27									27
300	399	3.028		37		37									37
400	499	4.023		37		37									37
500	599	5.012		58		58									58
600	699	6.009		58		58									58
700	799	7.008		63		63									63
800	899	8.002		71		71									71
900	999	9.005		83		83									83
1,000	1,099	10.006		76		76									76
1,100	1,199	11.017		65		65									65
1,200	1,299	12.006		86		86									86
1,300	1,399	13.000		72		72									72
1,400	1,499	14.003		77		77									77
1,500	1,999	16.552		222		222									222
2,000	2,499	21.612		100		100									100
2,500	2,999	26.804		51		51									51
3,000	3,499	31.419		22		22									22
3,500	3,999	36.913		12		12									12
4,000	4,499	41.294		9		9									9
4,500	4,999	47.586		7		7									7
5,000	5,499	51.571		4		4									4
5,500	5,999	56.333		2		2									2
6,000	6,499	62.250		1		1									1
6,500	6,999	69.000		1		1									1
7,000	999,999	295.350		6		6									6
														Subtotal:	1,276
Special Customer Class Users															
Multi-residential		5,941.667		1		1		1		1		1		1	1
Multi-residential Living Units		0.000		743		743		743		743		743		743	743
Senior & Disabled Discount		0.000		9		9		9		9		9		9	9
Comm/Ind, Sch, Church		51.273		221		221		221		221		221		221	221
Hamilton Materials (2)		245.333		3		3		3		3		3		3	3
Hamilton Materials (1)		41.143		1		1		1		1		1		1	1
Columbia River Carbonates		3,701.417		1		1		1		1		1		1	1
Pacific Seafood Sales		476.750		2		2		2		2		2		2	2
Woodland East MHP		1,468.000		1		1		1		1		1		1	1
City		160.333		1		1		1		1		1		1	1
Motels		63.464		9		9		9		9		9		9	9
Adjustment		297.404		24		24		24		24		24		24	24
In Res Over the Winter Ave		16,044.000		1		1		1		1		1		1	1
														Subtotal:	1,017
Total Users Each Month and Average for the Year			0	2,292	0	2,292	0	1,016	0	1,016	0	1,016	0	1,016	2,293

Woodland, WA

Chart 16A - Rates During Test Year

CBGreatRates© Version 4.9

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

Class Bottom	Class Top	Median or Actual Average use (100 Cu Ft)	Base Minimum Charge	Minimum Charge Usage Allowance (100 Cu Ft)	Unit Charge This Class per 100 Cu Ft
Use per Billing Cycle in Cu Ft					
Inside Residential Customer Class Users					
0	99	0.294	\$34.51	0.0	\$1.81
100	199	1.022	\$34.51	0.0	\$1.81
200	299	2.026	\$34.51	0.0	\$1.81
300	399	3.028	\$34.51	0.0	\$1.81
400	499	4.023	\$34.51	0.0	\$1.81
500	599	5.012	\$34.51	0.0	\$1.81
600	699	6.009	\$34.51	0.0	\$1.81
700	799	7.008	\$34.51	0.0	\$1.81
800	899	8.002	\$34.51	0.0	\$1.81
900	999	9.005	\$34.51	0.0	\$1.81
1,000	1,099	10.006	\$34.51	0.0	\$1.81
1,100	1,199	11.017	\$34.51	0.0	\$1.81
1,200	1,299	12.006	\$34.51	0.0	\$1.81
1,300	1,399	13.000	\$34.51	0.0	\$1.81
1,400	1,499	14.003	\$34.51	0.0	\$1.81
1,500	1,999	16.552	\$34.51	0.0	\$1.81
2,000	2,499	21.612	\$34.51	0.0	\$1.81
2,500	2,999	26.804	\$34.51	0.0	\$1.81
3,000	3,499	31.419	\$34.51	0.0	\$1.81
3,500	3,999	36.913	\$34.51	0.0	\$1.81
4,000	4,499	41.294	\$34.51	0.0	\$1.81
4,500	4,999	47.586	\$34.51	0.0	\$1.81
5,000	5,499	51.571	\$34.51	0.0	\$1.81
5,500	5,999	56.333	\$34.51	0.0	\$1.81
6,000	6,499	62.250	\$34.51	0.0	\$1.81
6,500	6,999	69.000	\$34.51	0.0	\$1.81
7,000	999,999	295.350	\$34.51	0.0	\$1.81
Special Customer Class Users					
Multi-residential		5,941.667	\$34.51	0.0	\$1.81
Multi-residential Living Units		0.000	\$34.51	0.0	\$0.00
Senior & Disabled Discount		0.000	(\$19.00)	0.0	\$0.00
Comm/Ind, Sch, Church		51.273	\$34.51	0.0	\$2.68
Hamilton Materials (2)		245.333	\$25.89	0.0	\$2.01
Hamilton Materials (1)		41.143	\$34.51	0.0	\$4.02
Columbia River Carbonates		3,701.417	\$423.10	0.0	\$0.00
Pacific Seafood Sales		476.750	\$34.51	0.0	\$0.00
Woodland East MHP		1,468.000	\$34.51	0.0	\$1.81
City		160.333	\$69.02	0.0	\$0.00
Motels		63.464	\$51.77	0.0	\$2.72
Adjustment		0.3	\$34.51	0.0	\$1.81
In Res Over the Winter Ave		16,044.000	\$0.00	0.0	\$1.81

Woodland, WA

Chart 16B - Reserves, Incomes, AMHI

CBGreatRates© Version 4.9

Reserve Starting Balances as of 1/1/09 (Carryover From Prior Year)

\$246,855 Operating Fund

\$0 CIP Fund

\$450,366 302 Fund

\$0 Replacement Fund

Incomes for 1/1/09 Through 12/31/09

\$975,191 Base and Unit User Fees

\$0 Fee Surcharges

16 New Connections

\$4,250 Basic Sewer Service Assessment

\$66,000 Total Connection Fees

\$47,620 Late Charges, Penalties

\$9,139 Interest Earned on Deposits

\$0 Transfers From Capital Improvement Reserves

\$121,362 Transfers From 302 Fund

\$31,097 Other Income Walt's Sewage Treatment Charges

\$18,051 Other Income Sewage Treatment Tax

\$1,200 Other Income Sewer Inspections

\$23,445 Other Income Inspection Fees - Consultant

\$1,648 Other Income Misc

\$0 Other Income Inspection Fees - City

\$7,842 Other Income Additional Sewage Treatment Tax

\$1,302,595 Total Regular Income

The recorded rates and usage predict billable user fees + meter surcharges at:

\$1,063,074

Connection fees dedicated to future capital improvements:

\$66,000

Annual Median Household Income (AMHI)

\$58,078 AMHI for Woodland, WA for the year 2008, by Census estimate

2.9% Rate of growth in AMHI (assumed)

Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 17A - Equipment Replacement Details Chart

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

CBGreatRates© Version 4.9, Replacement Scheduler© Version 1.4

Year Beginning	Lift Stations	Pumps	Sewer/ Lateral Repair	UV Lights	Chemicals/ Brushes	Tools, Blower Filters, Repairs	Vehicles, Collections and Office	Misc R & R	c/o Equipment: Sewer	Service Truck
1/1/09	\$10,000	\$10,000	\$25,134	\$10,000	\$32,000	\$10,000	\$0	\$3,036	\$2,809	\$0
1/1/10	\$0	\$0	\$0	\$0	\$0	\$0	\$7,464	\$3,036	\$0	\$0
1/1/11	\$25,000	\$10,000	\$40,000	\$14,000	\$32,960	\$15,000	\$45,000	\$7,000	\$10,000	\$37,000
1/1/12	\$25,000	\$10,000	\$40,000	\$14,000	\$33,949	\$14,700	\$45,000	\$7,000	\$10,000	\$0
1/1/13	\$25,000	\$10,000	\$40,000	\$14,000	\$34,967	\$14,406	\$45,000	\$7,000	\$10,000	\$0
1/1/14	\$25,000	\$10,000	\$40,000	\$14,000	\$36,016	\$14,118	\$45,000	\$7,000	\$10,000	\$0
1/1/15	\$25,000	\$10,000	\$25,000	\$14,000	\$37,097	\$13,836	\$45,000	\$7,000	\$10,000	\$0
1/1/16	\$25,000	\$10,000	\$25,000	\$14,000	\$38,210	\$13,559	\$45,000	\$7,000	\$10,000	\$0
1/1/17	\$25,000	\$10,000	\$25,000	\$14,000	\$39,356	\$13,288	\$45,000	\$7,000	\$10,000	\$0
1/1/18	\$25,000	\$10,000	\$25,000	\$14,000	\$40,537	\$13,022	\$45,000	\$7,000	\$10,000	\$0
1/1/19	\$25,000	\$10,000	\$25,000	\$14,000	\$41,753	\$12,761	\$45,000	\$7,000	\$10,000	\$0
1/1/20	\$25,000	\$10,000	\$25,000	\$14,000	\$43,005	\$12,506	\$45,000	\$7,000	\$10,000	\$37,000
1/1/21	\$25,000	\$10,000	\$25,000	\$14,000	\$44,295	\$12,256	\$45,000	\$7,000	\$10,000	\$0
1/1/22	\$25,000	\$10,000	\$25,000	\$14,000	\$45,624	\$12,011	\$45,000	\$7,000	\$10,000	\$0
1/1/23	\$25,000	\$10,000	\$25,000	\$14,000	\$46,993	\$11,771	\$45,000	\$7,000	\$10,000	\$0
1/1/24	\$25,000	\$10,000	\$25,000	\$14,000	\$48,403	\$11,535	\$45,000	\$7,000	\$10,000	\$0
1/1/25	\$25,000	\$10,000	\$25,000	\$14,000	\$49,855	\$11,305	\$45,000	\$7,000	\$10,000	\$0
1/1/26	\$25,000	\$10,000	\$25,000	\$14,000	\$51,351	\$11,079	\$45,000	\$7,000	\$10,000	\$0
1/1/27	\$25,000	\$10,000	\$25,000	\$14,000	\$52,891	\$10,857	\$45,000	\$7,000	\$10,000	\$0
1/1/28	\$25,000	\$10,000	\$25,000	\$14,000	\$54,478	\$10,640	\$45,000	\$7,000	\$10,000	\$0
1/1/29	\$25,000	\$10,000	\$25,000	\$14,000	\$56,112	\$10,427	\$45,000	\$7,000	\$10,000	\$37,000
1/1/30	\$25,000	\$10,000	\$25,000	\$14,000	\$57,796	\$10,218	\$45,000	\$7,000	\$10,000	\$0
1/1/31	\$25,000	\$10,000	\$25,000	\$14,000	\$59,529	\$10,014	\$45,000	\$7,000	\$10,000	\$0
1/1/32	\$25,000	\$10,000	\$25,000	\$14,000	\$61,315	\$9,814	\$45,000	\$7,000	\$10,000	\$0
1/1/33	\$25,000	\$10,000	\$25,000	\$14,000	\$63,155	\$9,618	\$45,000	\$7,000	\$10,000	\$0

Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 17A - Equipment Replacement Details Chart

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

Year Beginning	20kW Trailer Mounted Generator	Replace Locate Equipment	Office - Computer, Furniture, etc.	4 Portable Radios	Misc Equipment	c/o Equipment: Sewer	c/o Sewer: Copier	c/o Equipment: Treatment/WWTP Only	Manhole Repair	Treatment Plant Repair
1/1/09	\$0	\$0	\$0	\$0	\$0	\$2,809	\$973	\$5,000	\$0	\$0
1/1/10	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1/1/11	\$20,000	\$2,000	\$7,000	\$1,000	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/12	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/13	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/14	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/15	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/16	\$0	\$2,000	\$0	\$1,000	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/17	\$0	\$0	\$7,000	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/18	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/19	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/20	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/21	\$20,000	\$2,000	\$0	\$1,000	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/22	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/23	\$0	\$0	\$7,000	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/24	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/25	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/26	\$0	\$2,000	\$0	\$1,000	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/27	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/28	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/29	\$0	\$0	\$7,000	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/30	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/31	\$20,000	\$2,000	\$0	\$1,000	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/32	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000
1/1/33	\$0	\$0	\$0	\$0	\$5,000	\$5,000	\$1,000	\$10,000	\$10,000	\$20,000

Woodland, WA, Winter Averaged Sewer Rates Scenario

Chart 17 - Replacement Schedule

CBGreatRates© Version 4.9, 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
1/1/09	Test year replacements	\$111,761	\$0	\$0	-\$111,761	\$995,286
1/1/10	Total of replacements from detailed replacement schedule	\$10,500	\$0	\$0	\$281,143	\$995,286
1/1/11	Total of replacements from detailed replacement schedule	\$321,960	\$0	\$0	\$368,999	\$1,030,120
1/1/12	Total of replacements from detailed replacement schedule	\$255,649	\$0	\$0	\$520,181	\$1,066,175
1/1/13	Total of replacements from detailed replacement schedule	\$256,373	\$0	\$0	\$667,776	\$1,103,491
1/1/14	Total of replacements from detailed replacement schedule	\$257,134	\$0	\$0	\$811,193	\$1,142,113
1/1/15	Total of replacements from detailed replacement schedule	\$242,932	\$0	\$0	\$967,602	\$1,182,087
1/1/16	Total of replacements from detailed replacement schedule	\$246,768	\$0	\$0	\$1,116,236	\$1,223,460
1/1/17	Total of replacements from detailed replacement schedule	\$251,644	\$0	\$0	\$1,254,739	\$1,266,281
1/1/18	Total of replacements from detailed replacement schedule	\$245,559	\$0	\$0	\$1,396,283	\$1,310,601
1/1/19	Total of replacements from detailed replacement schedule	\$246,514	\$0	\$0	\$1,531,575	\$1,356,472
1/1/20	Total of replacements from detailed replacement schedule	\$284,512	\$0	\$0	\$1,607,598	\$1,403,948
1/1/21	Total of replacements from detailed replacement schedule	\$271,552	\$0	\$0	\$1,691,916	\$1,453,087
1/1/22	Total of replacements from detailed replacement schedule	\$249,635	\$0	\$0	\$1,799,270	\$1,503,945
1/1/23	Total of replacements from detailed replacement schedule	\$257,764	\$0	\$0	\$1,885,539	\$1,556,583
1/1/24	Total of replacements from detailed replacement schedule	\$251,938	\$0	\$0	\$1,971,011	\$1,611,063
1/1/25	Total of replacements from detailed replacement schedule	\$253,160	\$0	\$0	\$2,044,009	\$1,667,450
1/1/26	Total of replacements from detailed replacement schedule	\$257,429	\$0	\$0	\$2,098,044	\$1,725,811
1/1/27	Total of replacements from detailed replacement schedule	\$255,748	\$0	\$0	\$2,141,905	\$1,786,215
1/1/28	Total of replacements from detailed replacement schedule	\$257,118	\$0	\$0	\$2,169,131	\$1,848,732
1/1/29	Total of replacements from detailed replacement schedule	\$302,539	\$0	\$0	\$2,093,543	\$1,913,438

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	\$995,286
Minimum Annual Annuity	\$368,433	Minimum Desired Balance in Today's Dollars
Discretionary Annuity	\$40,000	

Required Annual Deposit to Replacement Account \$408,433

Woodland, WA

Chart 18 - All-in Test Year Costs and Rate Structure Calculation

CBGreatRates© Version 4.9

This chart depicts all costs for the test year and distributes those costs to fixed and variable categories to calculate 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	\$59,065	100%	\$59,065	\$59,065	\$0	\$0
Operating Supplies	\$3,736	50%	\$3,736	\$1,868	\$1,868	\$0
Operations Staff Salaries, Benefits & Related Items	\$322,414	0%	\$322,414	\$0	\$322,414	\$0
Operating Supplies - STP	\$11,246	50%	\$11,246	\$5,623	\$5,623	\$0
Fuel Consumed	\$4,694	50%	\$4,694	\$2,347	\$2,347	\$0
Professional Services	\$49,752	67%	\$49,752	\$33,334	\$16,418	\$0
Intergovt Professional Services	\$3,594	100%	\$3,594	\$3,594	\$0	\$0
Communications	\$9,463	100%	\$9,463	\$9,463	\$0	\$0
Utilities	\$86,649	10%	\$86,649	\$8,665	\$77,984	\$0
Miscellaneous	\$284	100%	\$284	\$284	\$0	\$0
Annual Payment to Replacement Fund	\$408,433	0%	\$408,433	\$0	\$408,433	\$0
Surchargeable Sewer Services	N.A.	0%	\$0	\$0	\$0	\$0
Inflow and Infiltration	N.A.	0%	\$0	\$0	\$0	\$0
Rents/Lease	\$2,400	100%	\$2,400	\$2,400	\$0	\$0
Tax on Sewer	\$25,893	0%	\$25,893	\$0	\$25,893	\$0
Travel and Training	\$1,957	100%	\$1,957	\$1,957	\$0	\$0
Contract Bio-solids Removal	\$141,661	0%	\$141,661	\$0	\$141,661	\$0
Contribution to 001/Current Expense	\$180,227	100%	\$180,227	\$180,227	\$0	\$0
User Charge Analysis Services	\$0	0%	\$0	\$0	\$0	\$0
Debt Service & Fees on Existing Loans	\$314,157	67%	\$314,157	\$210,485	\$103,672	\$0
Grand Total All Costs	\$1,625,626		\$1,625,626	\$519,312	\$1,106,314	\$0

Cost Calculations for "Proportional" Rates

Fixed Cost/User Every Other Month =	\$37.74	Surchargeable Services are Estimated at	\$0
Variable Costs/100 Cu Ft Sold =	\$3.40	Inflow and Infiltration is Estimated at*	0%
		As Compared to Service Sold, the Relative Cost of Inflow and Infiltration is Estimated at	50%
		Cost of Inflow and Infiltration is Estimated at	\$0
		Percentage of Inflow and Infiltration to Allocate to Fixed Costs is	0%

*Inflow and infiltration could not be estimated due to lack of actual flow measurements at the discharge points.

Woodland, WA

Chart 18B - Test Year Service Unit Costs

CBGreatRates© Version 4.9

This chart depicts costs that each service unit causes the system to incur. A service unit is a transient living quarter; a motel or hotel room, or an extra unmetered business in a strip mall or other building that houses multiple businesses that are not individually billed.

Fixed Costs

Item	After Adjustment for Special Costs (From Chart 18)	% of This Amount That is an Unavoidable Cost	Unavoidable Costs
Administration Salaries, Benefits, etc. Allocation	\$59,065	11%	\$6,361
Operating Supplies	\$1,868	0%	\$0
Operations Staff Salaries, Benefits & Related Items	\$0	0%	\$0
Operating Supplies - STP	\$5,623	0%	\$0
Fuel Consumed	\$2,347	0%	\$0
Professional Services	\$33,334	0%	\$0
Intergovt Professional Services	\$3,594	0%	\$0
Communications	\$9,463	0%	\$0
Utilities	\$8,665	0%	\$0
Miscellaneous	\$284	0%	\$0
Annual Payment to Replacement Fund	\$0	0%	\$0
One-time Payment to Replacement Fund	\$0	0%	\$0
Surchargeable Sewer Services	\$0	0%	\$0
Inflow and Infiltration	\$0	0%	\$0
Rents/Lease	\$2,400	11%	\$258
Tax on Sewer	\$0	0%	\$0
Travel and Training	\$1,957	11%	\$211
Contract Bio-solids Removal	\$0	0%	\$0
Contribution to 001/Current Expense	\$180,227	0%	\$0
User Charge Analysis Services	\$0	11%	\$0
Debt Service & Fees on Existing Loans	\$210,485	11%	\$22,669
Grand Total All Costs	\$519,312		\$29,500

Avoidable Fixed Cost/Service Unit/Month = \$35.60

Unavoidable Fixed Cost/Service Unit/Month = \$2.14