

# Greater Bar Water District

## Drinking Water Rate Analysis



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# 1 Introduction

## 1.1 Introduction and Background

Founded in 1978, RCAC provides training, technical and financial resources and advocacy so rural communities can achieve their goals. Since 1978, our dedicated staff and active board, coupled with our key values: leadership, collaboration, commitment, quality and integrity, have helped effect positive change in rural communities across the West.

RCAC's work includes environmental infrastructure (water, wastewater and solid waste facilities); affordable housing development; economic and leadership development; and community development finance. These services are available to communities with populations of fewer than 50,000, other nonprofit groups, Tribal organizations, farmworkers, colonias and other specific populations. Headquartered in West Sacramento, California, RCAC's employees serve rural communities in 13 western states and the Pacific islands.

### 1.1.1 Purpose of this Financial Capacity Analysis/Rate Study

The Washington State Department of Health – Office of Drinking Water (ODW) requested that Rural Community Assistance Corporation (RCAC) complete a financial analysis and an evaluation of current water user rates for post-development planning and financial management assistance to the Greater Bar Water District (GBWD) Bridgeport, Washington. The rate analysis was derived using historical water use data and financial data provided by GBWD, United States Department of Agriculture – Rural Development (USDA-RD) and the ODW, as well as five-year budget projections, which will assist the Board of Commissioners in making prudent financial decisions to ensure the district's long-term viability.

An accurate and useful rate analysis not only identifies the total annual revenue required by a utility to conduct its normal day-to-day operations, but it also anticipates and plans for future operating and capital needs. Furthermore, the analysis attempts to determine whether the projected revenue under existing rates will satisfy those needs. The primary objective of this process is to ensure that the utility has the ability to obtain sufficient funds to develop, construct, operate, maintain, and manage its water system on a continuing basis, in full compliance with federal, state, and local requirements.

GBWD carries a high debt service and will need to complete future water system infrastructure construction projects. GBWD has expressed appreciation and continued support from RCAC and ODW for this opportunity in conducting an in-depth rate study and financial analysis. On March 3, 2020, the Greater Bar Water District Board of Commissioners (Board) committed to the rate analysis and authorized district resources additional time and attendance of meetings to the project. The Board did not establish a Water Rate Steering Committee, which would be advisory to the Board, due to the COVID-19 Pandemic.

The GBWD is a quasi-municipal water purveyor located within the northern part of Douglas County. It owns and operates the water system. The system is governed by a three-member board of

commissioners residing within the District Boundaries. The District makes financial decisions regarding overall operation, major water system improvements and establishment of water rates. The Water System's General Manager is tasked with making decisions regarding daily water system operations, and the district employs a Washington State Certified Contract Operator. The following parties are involved in the operation, maintenance, and planning for the Greater Bar Water District's water production, storage, and distribution facilities:

Greater Bar Water District  
PO Box 215  
Bridgeport, WA 98813  
Phone: (509) 423-3210

Commissioner:	John Scheller
Commissioner:	Sandy Harvey
Commissioner:	Pete Rios
Water System General Manager:	Steve Anderson
Bookkeeper:	Lorraine Taylor
Contract Operator:	Dave Greer (WDM-2)

#### 1.1.2 Board Responsibilities

The GBWD Governing Body has a fiduciary responsibility to set the rates at such a level that the utility will be able to continue to operate in the future, including providing funds to replace all parts of the system as they wear out. While this document recommends certain rates, the ultimate decision rests with the Governing Body.

#### 1.1.3 Disclaimer

The findings, recommendations, and conclusions contained in this financial analysis are based on financial information provided to RCAC by Greater Bar Water District. Although reasonable care was made to assure the reliability of this information, no warranty is expressed or implied as to the correctness, accuracy or completeness of the information contained herein. Any action taken on the basis of such findings, recommendations, or conclusions is undertaken at the discretion of the Greater Bar Water District. In no event will RCAC or its partners, employees, or agents, be liable for any decision made or action taken in reliance on the information contained in this analysis.

## 2 System Basic Statistics

### 2.2 Current rate schedule/structure

#### 2.2.1 Customer base description

The GBWD customer base is currently 134 households, although not all are receiving water, due to either non-payment and/or are held in lien status. There are no commercial or industrial customer classifications.

The district also serves domestic drinking water to the Rock Garden RV Park (Park). The adoption of GBWD Resolution 2011/1024-A established an agreement wherein, The Park and the District have agreed to set the equivalent ERU's of the Park to 14.25, which is based on percentage usage amounts for mobile homes and RV sites. The Park also has its own independent water source for irrigation purposes and has been advised by the district to discontinue its use of the District's domestic drinking water for irrigation, or any other outside purposes and the Park has agreed. The Park's ERU number will be adjusted at any time if the current usage structure changes.

#### 2.2.2 Type of rate structures used by the system

GBWD utilizes a water rate structure known as "Uniform Block Rate Structure" with included water. Wherein, the customers are charged a commodity charge (constant price per 100 cubic feet), regardless of the amount of water used, which is coupled with a minimum charge (or base charge) for having service available. A certain amount of water (2,000 cubic feet per month during the winter months, and 5,000 cubic feet per month during the summer) "included" under the minimum monthly charge. That is to say there is no monthly commodity charge until the seasonal allocation of 2,000 or 5,000 cubic feet has been consumed.

#### 2.2.2 Rate schedule

The last water rate adjustment was made on November 11, 2018, effective December 15, 2018, under GBWD Resolution 2018-11-19-E.

Resolution 2018-11-19-E, requires the GBWD to bill its customers on a monthly basis and for most customers the rate structure incorporates a base charge that depends on the size of the customer's meter, and a commodity charge that is assigned at 100 cubic foot increments used above the specified amount included under the base rate for that meter size. Non-Commercial (Residential) customers with one-inch meters, for example, will pay a \$68.00 per ERU base rate regardless of water used.

The commodity (Use) rate is adjusted seasonally. Customers can use up to 5,000 cubic feet monthly, during the summer months of April 15 through October 15, without incurring any additional charges. They will be charged an additional \$2.00/100 cubic feet for any water used in excess of first 5,000 cubic feet allocated within the summer monthly base rate. During the winter months, October 15 through April 15, customers can use up to 2,000 cubic feet of water per month without incurring any additional charges above the base rate. They will be charged an additional \$2.00/100 cubic feet for any water used in excess of the first 2,000 cubic feet allocated within the winter monthly base rate.

There is also a discounted base rate for the nine (9) residential customers located within the formerly known Rich Acres Water System. Their base rate is discounted \$3.00 per month, and the commodity rate is the same as noted above. The discounted rate is based on an MOU, which was entered into through the GBWD consolidation process in December 2011.

In addition, there are two “Seasonal Downing” rate customers, which currently pay a base rate of \$68.00 per month for 5-months of the year, and \$28.00 per month for the remaining 7-months of the year. There are also 19 – “Standby” connections, which pay a base rate of \$25.00 per month, and 4 “vacant” connections that pay a base rate of \$40.00 per month.

The GBWD reports a total of 137 service connections currently, and not all are receiving water, due to either non-payment and/or are held in lien status.

<b>Current Customer Base Rates</b>	<b># Connections/ERUs</b>	<b>Monthly Rate</b>
Normal Connections/ERUs	134.25	\$68.00
Rich Acres Discounted Rate	9	\$65.00
Seasonal 5 Months of year	2	\$68.00
Seasonal 7 Months of year	2	\$28.00
Standby	19	\$25.00
Vacant	5	\$40.00

<b>Usage charge</b>	<b>CF Included in Base Rate</b>	<b>Per 100 CF over Base</b>
April 15 - October 15	5,000	\$2.00
October 15 - April 15	2,000	\$2.00

### 2.2.3 Customer seasonal and annual water use statistics

When analyzing water rates, it is important to understand existing patterns of consumption among the system’s customers. A large portion of customers may use a small percentage of water, and a small portion of customers may use a large percentage. GBWD does have customer meters and collects detailed water use data about how individual customers and customer classes are using water. Understanding how customers use water is important when considering seasonal operational needs, infrastructure replacement and water use efficiency to name a few.

GBWD bases its rates by ERUs. Base rates for different sized meters are typically different in cost due to the cost of the device and maintenance costs due to the device and amount of water the meter is able to deliver. Base rates also reflect the cost for the infrastructure needed to deliver larger volumes of water to customers with larger meters.

Monthly customer meter readings for the summer and winter periods were evaluated to profile customer usage. Since GBWD has a uniform block type rate, water use plays a key role in how much revenue GBWD takes in.

Customer water use statistics broken out by average monthly water use are shown in the following table:

Monthly water used	Percent of customers/use class		
	Summer	Winter	Annual average
up to 2,000 CF	51.9%	87.8%	69.9%
2000-5000 CF	34.8%	10.4%	22.6%
5000-8000 CF	13.3%	1.8%	7.6%

GBWD water use trends are typical in that the majority of customers use a small amount of water (less than 2,000 CF) and customers use more water in the summer than in the winter months.

Total water used by season is summarized in the following table:

Total CF water used		Average CF/customer/month	Average gal/customer/month
Summer	1,874,400	3,497	26,158
Winter	974,200	909	6,798
Annually	2,848,600	1,772	13,251

The systems customer base uses about 2.8 million cubic feet annually, which breaks down to about 13,251 gallons per customer per month annually, or approximately 442 gallons per household per day. It should be noted that the average Statewide gallons per household per day in Washington is roughly 283 gallons. This high consumption indicates that the system could benefit from an aggressive water conservation program, up to and including changing the rate structure to an “Increasing Block Rate” to promote water conservation. With this rate structure, households would pay a larger commodity charge (charge per 100 CF) as their water use increases.

## 3 Current Financial condition and analysis

### 3.1 Current rate schedule/structure

#### 3.1.1 Analysis of current rates

In working with GBWD, substantial consideration was given to the need to use water more efficiently. GBWD's water supply is a limited ground water resource. Treatment costs are relatively high and will remain so with meeting new drinking water regulatory standards, its current debt service, and the necessity of establishing reserves. In addition, most financing agencies do consider conservation in evaluating financing for new infrastructure improvement projects.

As noted previously, system water use is significantly higher than the Statewide average. The current Uniform Block rate structure does promote water use efficiency to some degree, however changing the rate structure to an Increasing Block rate (Option #4 in this report) would be a much greater step toward improving overall water conservation. Removing or reducing the included water under the base rate is also effective in promoting water use efficiency.

Based on financial information provided to RCAC, current rates are inadequate to cover current system Operation and Maintenance (O&M) expenses, adequate reserve funding, short-lived asset replacement and to finance future (yet to be identified) infrastructure construction projects.

#### 3.1.2 Base rates and flow rates— fixed costs and variable costs:

The premise behind a base rate and a flow rate is that customers must pay a base rate even if they do not use any water at all in a given month; the flow rate covers the actual amount of water they use. The reason for having these two rates is that GBWD, as with all utilities, has fixed costs that will need to be covered, which are integral to the system. GBWD also has variable costs that are directly related to producing water.

We have shared opinions with GBWD about what costs should be considered fixed and what costs should be considered variable, and determining those costs is not always going to be exact. The fixed costs should be covered by the base rate and the variable costs covered by the flow rate, in order to protect the utility against cash flow problems in the event that water sales drop off, as during a unusually wet and cool summer. In review of the budget accounts, we have agreed the fixed cost to be approximately ninety-six (96) percent of the annual budget.

### 3.2 Current budget

#### 3.2.1 Current budget as approved by the board:

<b>GREATER BAR WATER DISTRICT 2021 FINAL BUDGET</b>			
BARS Account		2020 final	2021 projected
		Budget	Budget
	<b>Total Income</b>	\$ 149,142	\$ 131,538
	<b>Total Expenses</b>	\$ <b>68,824</b>	\$ <b>64,606</b>
	<b>Net Operating Income (Loss)</b>	\$ <b>80,318</b>	\$ <b>66,932</b>
	-		
401.591.34.60	USDA Loan - 1999	\$ 5,462	\$ 5,462
	USDA Loan 91-01		\$ 1,716
	USDA Loan 91-04		\$ 156
401.591.34.60	DWSRF Loan DM-11	\$ 52,703	\$ 52,291.14
401.591.34.60	DWSRF Loan DM-16	\$ 4,305	\$ 4,271.25
401.591.34.60	RCAC Loan 0946-GBWD-02	\$ 450	
	<b>Total Debt Service</b>	\$ <b>62,920</b>	\$ <b>63,896</b>
	-		
	Transfer to DWSRF Reserve		
	Transfer to USDA Reserve		
	Transfer to Emergency Reserve		
	Transfer to Asset Reserve	\$ 2,933	\$ 2,933
	<b>Total Transfers to Reserves</b>	\$ <b>2,933</b>	\$ <b>2,933</b>
401.361.10.00	Interest (All checking, savings & reserves)	\$ 1,000	\$ 400
	<b>Total Non-Operating Income</b>	\$ 1,000	\$ 400
401.333.10.00	RCAC Loan 0946-GBWD-02	\$ 26,611	
401.333.10.01	USDA Grant/Loan Funds	\$ 162,050	\$ 27,789
	<b>Total Other Income</b>	\$ 188,661	\$ 27,789
401.594.34.60	Project (Second Pump under USDA funds)	\$ 162,050	\$ 27,789
401.594.34.60	Legal fees	\$ 400	
401.594.34.60	Engineering expenses	\$ 35,604	
401.594.34.60	Misc. Project Expenses	\$ 476	
	Total Capital Improvements	\$ 198,530	\$ 27,789
	<b>Income/(Loss)</b>	\$ <b>5,596</b>	\$ <b>503</b>

### 3.3 Affordability Index

#### 3.3.1 Affordability Ratio for Purposes of Financing

The affordability index compares the average water users annual bill to the annual Median Household Income (MHI) of the community (Annual bill/MHI = affordability index/ratio) and is used by funding agencies to determine grant and low interest loan eligibility. Many funding organizations look for an affordability ratio of 1.5 percent before approving grant money, lower interest rates on loans, loan forgiveness, or other funding package benefits to low-income communities. Washington Department of Health (DOH) State Revolving Fund offers up to a 50% subsidy for communities with rates that produce an affordability index of 2.0 or greater.

The minimum customer bill is currently \$68/Month, or \$816 per year. The minimum annual customer bill of \$816 divided by \$30,431 (MHI) yields, an affordability index/ratio of 2.69. Therefore, the water system rates are already high enough to be considered “unaffordable” and the system will likely be eligible for some improved funding package, depending on individual funding agencies. GBWD should consult with specific funding agencies to determine future funding eligibility.

All the rate options included herein yield affordability ratio of 2.0 or greater.

### 3.4 Current dedicated reserves

#### 3.4.1 Dedicated Reserves

Currently GBWD does not have well defined accounts for the four main types of reserves:

- Emergency reserves

- Operating reserves

- Capital Improvement reserves

- Debt Service reserves (beyond minimum required by funders). GBWD has a debt service funding requirement at this time and currently carries \$69,058 within the debt service reserve fund.

Therefore, this report includes basic recommendations for establishing and supporting reserve account funding and adjustments to the current water rates and rate structure.

### 3.5 Current financial policies

#### 3.5.1 Authority to Act:

The district’s legal counsel will review the district’s legal and organizational documents to ensure that they provide clear authority to levy fees and enforce fees and charges.

#### 3.5.2 Connection Fees:

GBWD has several options for setting connection fees. Connection fees are different from deposits. Deposits are set and collected to ensure that if customers do not pay their bills, the system has money in reserve to cover expenses. Deposits should be set aside in an account so that the money can be

refunded to customers if they discontinue service. Connection fees, (also called tap fees, impact fees, capital-improvement fees, subdivision fees, development fees) are fees that are charged to a customer or group of customers to help the system cover the costs of capital improvements that have already been paid for or are being paid for by current customers or to cover the cost that the system will incur due to the additional connections. These fees are not refundable and do not include the costs of time and material in providing new service connection(s).

#### 3.5.3 Late Fees

If the balance for any utility bill is not received by the due date, the account can be assessed a late fee. Postmark dates do not count; the payment must be received by the due date. Although the late-fee policy is in place, there should be a written guidance document generated for reference in dealing with the policy and current practice.

#### 3.5.4 Delinquency/Shut-off Notice Fee:

If the amount remains past due and a delinquency / shut-off notice is sent, a fee will be assessed to the account. We have found the fee may not be supportive to the true cost of service.

#### 3.5.5 Water Disconnection Fee:

If water service is disconnected/shut off due to non-payment, a fee will be assessed, and the customer is required to pay ALL delinquent balances and fees [including ALL arears.] in order to have the water service restored. As noted above, we have found the fee is not supportive to the true cost of service and should be adjusted accordingly.

#### 3.5.6 Payment Arrangements:

Payment arrangements must be made prior to water service disconnection. They must be made in writing on a district supplied form. Payment arrangements will not be made over the phone. Although this activity may be currently in practice, we have not located policy language in support of the practice.

#### 3.5.7 Bank Bill Payer Users/Services:

All bank payer services mail the district a check and it is not directly deposited. Allow 7-10 business days for the town to receive your payment. It should be noted that the local public utility district is providing utility billing services to the district, based on the meter readings/consumption provided by the district.

#### 3.5.8 Low to Moderate Income Customers:

We have reviewed and discussed this issue as there is no current policy in effect that offers subsidies to low-to-moderate income customers. However, there are other related low-to-moderate income support programs available in the county that would support utility payments.

### 3.6 Analysis of current financial position

### 3.6.1 Revenue sufficiency associated with current rates.

Based on financial information provided to RCAC, current rates are inadequate to cover current system Operation and Maintenance (O&M) expenses, inflation, adequate reserve funding, short-lived asset replacement and to finance future (yet to be identified) infrastructure construction projects.

## 4 Future Financial condition and analysis

### 4.1 Suggested asset management plan/CIP/CRP etc.

A Long-Term Capital Improvement Plan is not included in this report. In most cases, the costs of all needed long-term capital improvements are more than a typical system's customers can afford (in user rates/rate-funded), so other options are evaluated to see how the improvements may be completed using loans or a mix of loans and grants. GBWD should consider developing a long-term Capital Replacement Plan.

### 4.2 Suggested reserve funding

At the time of the writing of this report, it is assumed that GBWD will finance the cost of all short-lived asset replacement projects and as required by its current funders. The longer-lived assets are therefore not included in the CIP, but the funding strategy proposed for the longer-lived water system improvements is based on acquiring grants and loans from the Washington State Public Works Trust Fund, State Revolving Fund, Community Development Block Grants and United States Department of Agriculture- Rural Development RUS Program.

General guidelines for establishing reserve levels may be found in the Appendix 6.4.

Deposits to reserve accounts may be broken into reduced annual installments to minimize the overall impact on rates. Once the target reserve has been met, the contributions can be redirected to capital improvement reserves and/or any other water reserve fund. Operating reserve levels should be adjusted on a regular basis to reflect current costs. The following Table provides the recommended target reserves for GBWD.

<b>Recommended Additional Reserves*</b> <b>(Assuming recommended short term improvement projects are completed)</b>	
<b>Reserves</b>	<b>Water</b>
Debt Service Reserve	\$69,058
Short Term Capital Improvement Plan (CIP) Reserve*	\$2,933
Emergency Reserve	\$10,000
Operating Reserve**	\$2,500
<b>Total Target Reserves</b>	<b>\$84,491</b>

\*Estimated Short Term CIP reserve funding assuming GBWD finances the short-lived system improvements through rate-funding. Any project alternatives not rate-funded should be addressed through additional capital improvement planning. \*\* Operating Reserve should be 12.5 percent of the operating budget. This reserve may be broken into reduced annual installments to reach the targeted level of reserve funds and minimize the overall impact on rates.

#### 4.2.1 Alternatives/Consequences

Failure to grow and maintain appropriate reserve funds could result in multiple problems in the future, including:

- Not having cash funds to respond to emergencies.
- Having to pay to replace infrastructure with more expensive loans versus having cash on hand.
- Waiting to fund replacement of infrastructure with grants and loans may mean that loans may be more costly in the future and grants may become unavailable.
- The utility may not qualify for loans and grants in the future that it is eligible for currently.

#### 4.3 Projected 5-year budget

The table below represents the minimum revenue target for GBWD through 2026, assuming a 3% annual inflation rate, and including minimum recommended funding of reserve accounts.

<b>Operating Expense</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Total Operating Expense	\$ <b>64,606</b>	\$ <b>66,544</b>	\$ <b>68,541</b>	\$ <b>70,597</b>	\$ <b>72,715</b>	\$ <b>74,896</b>
<b>Debt Service</b>	63,896	63,451	63,006	62,560	62,115	62,115
<b>Reserve Funding</b>						
<b>Debt Reserve/Service*</b>	2,000	2,000	2,000	2,000	2,000	2,000
<b>Operating Reserve</b>	1,615	1,664	1,714	1,765	1,818	1,872
<b>Emergency Reserve</b>	2,500	2,500	2,500	2,500	2,500	2,500
<b>Short Lived Asset Reserve</b>	2,933	2,933	2,933	2,933	2,933	2,933
<b>CIP Reserve</b>	5,000	5,000	5,000	5,000	5,000	5,000
<b>Total Debt and Reserve Funding</b>	<b>77,945</b>	<b>77,548</b>	<b>77,152</b>	<b>76,758</b>	<b>76,366</b>	<b>76,420</b>

\* USDA Debt Service requirement met 2000

#### 4.4 Suggested rates

Each of the options described below will cover operational costs and reserve funding minimums. See Appendix 6.1 for a more detailed budget analysis and impact on customers monthly bills for each option.

**Option #1-** Remove all included water under the base rate; decrease base rates by 30%; subsequent years have 1.5% annual increase to both base and usage rates.

**Option #1A-** Remove all included water under the base rate; decrease base rates by 35%; Increase Usage Rate by 3%; subsequent years have 1.5% annual increase to both base and usage rates.

**Option #2-** Include 5000 CF in base rate all year, increase base and usage rates by 5%; subsequent years have annual 1.5% Increase to both base and usage rates.

**Option #3 -** Reduce usage included in base rate to 2,000 CF all year; decrease base and usage rates by 3%; subsequent years have 1.5% annual increase to both usage and base rates.

**Option #4-** remove all included water under the base rate; reduce the base rates by 32% and set consumption tiers at:

Less than 2,000 CF - (\$1.65/100 CF)

2,000 to 5,000 CF - (\$2.48/100 CF)

Over 5,000 CF - (\$3.71/100 CF)

## 5 Recommendations

### 5.1 Recommendations based on information provided to RCAC

Based on financial information provided to RCAC, current rates are inadequate to cover current system Operation and Maintenance (O&M) expenses, inflation, adequate reserve funding, short-lived asset replacement and to finance future (yet to be identified) infrastructure construction projects. It is evident that GBWD does not have clear and defined reserve accounts; therefore, this report includes basic recommendations for reserve account funding and adjustments to the current water rate and its structure.

If the GBWD Board decides to finance future infrastructure improvement projects through long-term financing, a rate adjustment will again be needed. RCAC can work with the GBWD governing board to evaluate the impact of different financing scenarios and rate structure changes on customer bills to assist the board in making informed decisions.

#### 5.1.1 Key points to remember with rate adjustment alternatives:

- Successful utilities are those that strive to be transparent. In day-to-day operations, GBWD should continue to promote its services (highlights and the low points), and continuously educate its customers on why it is necessary to raise and adjust rates, fees, or charges.
- The ability of the rate structure alternatives to generate adequate revenue will depend on maintaining a vigorous collection and shut-off policy to keep delinquent accounts at a minimum.
- In order to achieve and maintain long term financial viability, GBWD should review its rates annually or no less than a minimum of every two years. Keeping track of customer seasonal and annual water demands will help determine operational needs, budget forecasts and rate adjustments.

#### 5.1.2 Reserve Accounts:

GBWD should establish and maintain clearly defined reserve accounts as noted in this report for:

- Short-lived asset replacement (beyond the requirements set forth and directed by the long-term funders).
- Emergencies
- Operations
- Debt service
- Capital Improvement Program

GBWD does not have excess cash in its operating bank account (Douglas County Treasurer's Office); it is recommended the reserve accounts for short-lived asset replacements, rate-funded capital improvements, emergencies and operating be established as soon as possible. If it is not expected that those funds would be accessed for some time, an interest-bearing account is recommended provided any associated fees would not be greater than the interest earned on the account. The GBWD uses the local county treasurer's office as its financial institution, as required by RCW-57. The debt service reserve account shall be continued and maintained, as required by the funders. The reserve obligation should be considered like any other financial obligation in that it should be funded monthly. Whether the reserves are held in separate accounts or not, they should be individually identified, allocated and tracked on the balance sheet. It is recommended that the GBWD Board continue the monitoring of those accounts in the financial statements that are provided as part of their due diligence.

#### 5.1.3 Rate Classifications:

As described above, there are several rate classifications identified. RCAC has provided several rate options for consideration. The district is in process of reviewing each of the options and has adopted a resolution to adopt a rate that will go into effect January 2022. Further, the GBWD is also, concurrently, reviewing its current rate schedule under several scenarios.

#### 5.1.4 Connection Fees:

Adjusting connection fees where appropriate increases revenue without hurting existing ratepayers and charges a price that reflects the previous investment of existing customers. RCAC understands that the district currently charges a sliding fixed fee for the connection charge, which is based on the initial DWSRF loans that are currently in place. The district should review the connection fee, based on the depreciation level of constructed improvements. Plus, time and materials for a new connection fee for water service. Small systems often seem to undervalue the equity they have invested in the system and tend to want to promote growth at the expense of charging adequate connection fees. Connection fee charges should be derived using an identified procedure which will fairly determine the equity existing customers have in the water utility and reviewed periodically.

One common and legally defensible way to set connection fees is to divide the equity (assets minus debts) in the system by the number of available connections. This is relatively easy to do with newer systems but more difficult with older systems, as the useful remaining life must be determined for each asset component and its estimated replacement cost determined. A utility should not provide new service for less than the equity accrued by the customers, plus the cost of any services provided by the utility such as installing a meter.

Connection fees are fees charged to a customer or group of customers to help the system recover the costs of capital improvements that have already been paid for or are being paid for by current customers or to cover the cost that the system will incur due to the additional connections. These fees are not refundable, do not include the costs of time and material in providing new service connection(s) and should be paid in accordance with the current rate schedule at the time of application. A current water system asset management registry, which indicates a book value of fixed assets, based on replacement life, has not been established through this analysis. This additional source of revenue will

not cost existing ratepayers and will provide additional revenue proportional to the value of the level of services provided.

In addition to the discussion on past investment and contributed plant, as noted in the Water System Plan, all assets projected in the capital improvement program in the future planning period must contain the expected level of equity, debt, and contributed plant.

The Connection Fee / System Development Charges is further discussed in Appendix 7: *SDC Overview of Water System Development Charges*.

#### 5.1.5 Billing Cycle and Structure:

GBWD should continue to collect water use data so trends may be further identified. This study evaluated one year of water use data and GBWD should reconsider its continuance of its current base rate allocation of water included, as well as its Uniform Single Block Rate structure.

#### 5.1.6 Revenue Analysis:

**Fixed and Variable Costs:** Fixed Costs refer to all expenses that the utility must cover regardless of the amount of water customers use. Variable costs are those related to the volume of water pumped, treated, and distributed. Generally, fixed costs are recovered through the minimum customer charge (base rate) and variable costs are recovered through water use charges (commodity charge). Whatever the methodology and ratio of volume charges to base rate charges, total revenues (base rate + commodity charge) must meet or exceed total costs (fixed + variable).

#### 5.1.7 Equity and Rates

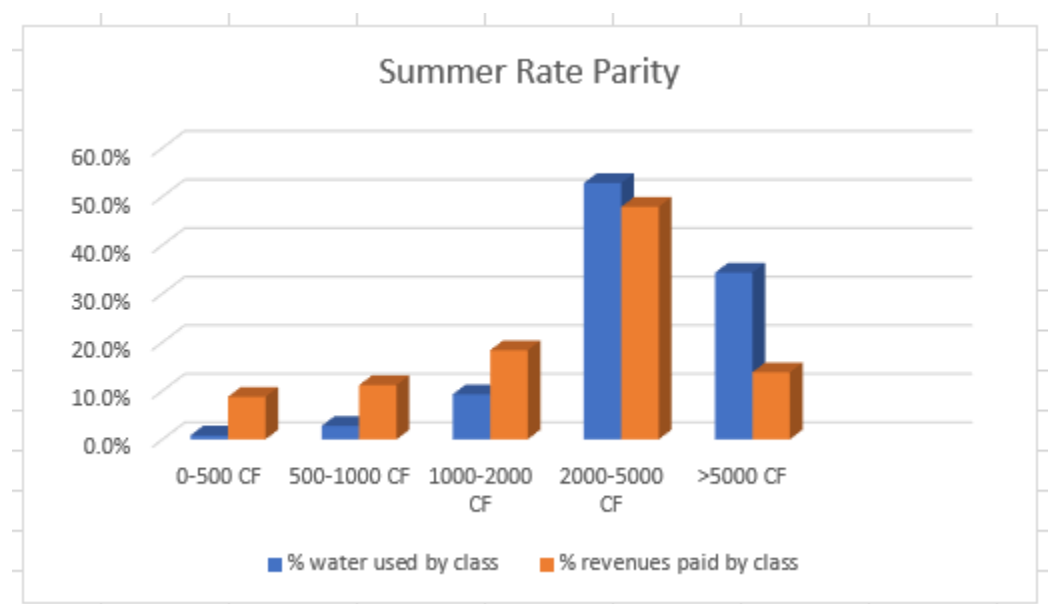
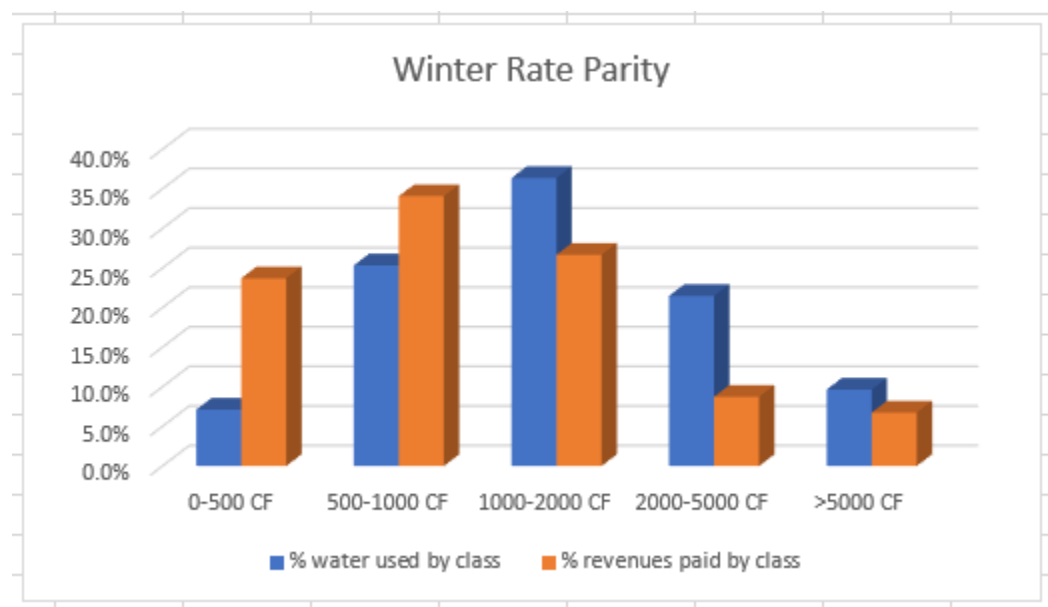
There is no law in the State of Washington requiring fairness or 'equity' amongst water customer charges, and there are many different reasons why a Board would want to make charges disproportionate to water use. GBWD should reevaluate the fairness of their current rate structure on a regular basis; for example, the district may choose to subsidize local industry or provide assistance to low-income individuals in the future.

### 5.2 Rate Equity of Current Rates

#### 5.2.1 Summer and Winter Rate Parity

The two graphs below (Summer Rate Parity and Winter Rate Parity), show the customers broken into classes according to their water use. We have found that ninety-one percent of the customers are using less than 2,000 Cu. Ft. per month, during the winter months. And, that 87 percent of the customers are using less than 5,000 Cu. Ft. per month, during the summer months. The percentage of the total system's water they consume is then compared to the percentage of the total system's revenue they pay. This breakdown shows a trend. Those customers using little water tend to pay a higher and disproportionate percentage of the systems revenues, while customers that use large quantities of water pay a small portion of the revenues relative to their consumption. This trend is typically found when using a rate structure with a base rate. It does not, however indicate any essential fault in the rate

structure, because the system must recover an adequate amount of revenue through the base rate to protect itself from cash flow problems associated with fluctuations in water usage. Consequently, it places a higher total revenue burden upon the smaller water users than the larger water users. Therefore, changes have been recommended in the rate structure.



### 5.3 Recommended Viable Rate Options

RCAC and the GBWD staff have reviewed several viable rate structure options over the past few months, targeting the adopted budget and these recommendations are in consideration of affordability and fairness to its water system customers. All viable options considered are:

Option #1- Remove all included water under the base rate; decrease base rate by 30%; subsequent years have 1.5% annual increase to both base and usage rates

Option #1A- Remove all included water under the base rate; decrease base rates by 35%; Increase Usage Rate by 3%; subsequent years have 1.5% annual increase to both base and usage rates

Option #2- Include 5000 Cu. Ft. in base rate all year, increase base and usage rates by 5%; subsequent years have annual 1.5% Increase to both base and usage rates

Option #3 - Reduce usage included in base rate to 2,000 Cu. Ft. all year; decrease base and usage rates by 3%; subsequent years have 1.5% annual increase to both usage and base rates

Option #4- Remove all included water under the base rate; reduce the base rates by 32% and set consumption tiers at:

Less than 2,000 Cu. Ft. - (\$1.65/100 Cu. Ft.)

2,000 to 5,000 Cu. Ft. - (\$2.48/100 Cu. Ft.)

Over 5,000 Cu. Ft. - (\$3.71/100 Cu. Ft.)

It should be noted that commodity charge revenue may not reach the estimates above if users curb their water use in response to the higher charges. However, RCAC has found this trend to be short-lived in most cases. Further, GBWD should also carefully schedule capital replacements to spread the costs out evenly over the next 6 years and consider loan financing for costs over 20% of annual revenue projections.

#### 5.3.1 Inflation Factor:

The Board should also adopt a fees resolution that increases basic service rates annually by 3% so water utility revenue keeps pace with inflation.

#### 5.3.2 Fees Resolution:

It is highly recommended that the Board provide a single, efficient, and convenient listing of all utility fees. In effect, the Board of Commissioners should adopt a “fees resolution”, which would contain all related utility fees, policies and charges into one organizational document/legal instrument.

#### 5.3.3 System Development Charges/ Connection Fees:

The district should update the actual calculations for the system development charges based on the methodology approved by a resolution setting forth the methodology for system development charges at such time when a new Capital Improvement Plan, Water System Plan, Master Plan, or a comparable plan is approved or updated by the district, or every five years.

## 6 Suggested Rate Options

### 6.1 Suggested rate options

<b>Option #1</b>						
No usage included in base rate; decrease base rate by 30%; subsequent years have 1.5% annual increase to both base and usage rates	# Connections	Monthly Rate	Adjustment	Adjusted Rate	Average Monthly Revenue	Average Annual Base Revenue
			-30.00%			
Normal Connections	135.25	\$ 68.00	\$ (20.40)	\$ 47.60	\$ 6,438	\$ 77,255
Rich Acres Discounted Rate	9	\$ 65.00	\$ (19.50)	\$ 45.50	\$ 410	\$ 4,914
Seasonal 5 Months of year	2	\$ 68.00	\$ (20.40)	\$ 47.60	\$ 95	\$ 476
Seasonal 7 Months of year	2	\$ 28.00	\$ (8.40)	\$ 19.60	\$ 39	\$ 274
Standby	19	\$ 25.00	\$ (7.50)	\$ 17.50	\$ 333	\$ 3,990
Vacant	4	\$ 40.00	\$ (12.00)	\$ 28.00	\$ 112	\$ 1,344
Total Base Revenue	171.25				\$ 7,426	\$ 88,253
Commodity Charge	Total Usage Cubic Feet	Assumed Reduction in Usage	Adjusted Usage	Billable Usage (CCF)	Rate Per CCF	Total Usage Revenue
		-5%				
May 15 - October 15 (No usage Included in Base Rate)	1,874,400	(93,720)	1,780,680	17,807	\$ 2.00	\$ 35,614
October 15 - May 15 (no Usage included in Base rate)	974,200	(48,710)	925,490	9,255	\$ 2.00	\$ 18,510
Total Usage/Commodity Charges	2,848,600	(142,430)	2,706,170	27,062		\$ 54,123
Budget Assuming 3% Inflation per year after year 1	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	Five Year Total
Total Monthly Required Reserves Fund	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	
Total yearly required reserve fund	\$ 14,048	\$ 14,097	\$ 14,198	\$ 14,251	\$ 14,305	\$ 70,899
Debt Service	\$ 63,896	\$ 63,451	\$ 63,006	\$ 62,560	\$ 62,115	\$ 315,028
Fixed Budget	\$ 62,329	\$ 64,199	\$ 66,125	\$ 68,109	\$ 70,152	\$ 330,915
Variable Budget	\$ 2,277	\$ 2,345	\$ 2,415	\$ 2,488	\$ 2,562	\$ 12,087
Total Operating Budget	\$ 142,551	\$ 144,092	\$ 145,744	\$ 147,408	\$ 149,135	\$ 728,929
	12/31/2021	12/31/2022 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2023 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2024 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2025 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	Five Year Total
Estimated Annual Revenue From Base Rate	\$ 88,253	\$ 89,577	\$ 90,921	\$ 92,284	\$ 93,669	\$ 454,704
Estimated Annual Revenue - Usage Charges	\$ 54,123	\$ 54,935	\$ 55,759	\$ 56,596	\$ 57,445	\$ 278,858
Total Operating Revenue	\$ 142,377	\$ 144,512	\$ 146,680	\$ 148,880	\$ 151,113	\$ 733,562
Net Operating Revenue Over/(under) Operating Costs	\$ (174)	\$ 420	\$ 936	\$ 1,472	\$ 1,978	\$ 4,633

<b>Option #1A</b>								
No usage included in base rate; decrease base rate by 35%; Increase Usage Rate by 3%; subsequent years have 1.5% annual increase to both base and usage rates	# Connections	Monthly Rate	Adjustment	Adjusted Rate	Average Monthly Revenue	Average Annual Base Revenue		
			-35.00%					
Normal Connections	135.25	\$ 68.00	\$ (23.80)	\$ 44.20	\$ 5,978	\$ 71,737		
Rich Acres Discounted Rate	9	\$ 68.00	\$ (23.80)	\$ 44.20	\$ 398	\$ 4,774		
Seasonal 5 Months of year	2	\$ 68.00	\$ (23.80)	\$ 44.20	\$ 88	\$ 442		
Seasonal 7 Months of year	2	\$ 68.00	\$ (23.80)	\$ 44.20	\$ 88	\$ 619		
Standby	19	\$ 50.00	\$ (17.50)	\$ 32.50	\$ 618	\$ 7,410		
Vacant	4	\$ 68.00	\$ (23.80)	\$ 44.20	\$ 177	\$ 2,122		
Total Base Revenue	171.25				\$ 7,347	\$ 87,103		
Commodity Charge	Total Usage Cubic Feet	Assumed Reduction in Usage	Adjusted Usage	Billable Usage (CCF)	Current Rate Per CCF	Adjustment	Adjusted Rate	Total Usage Revenue
		-5%				3%		
May 15 - October 15 (No usage included in Base Rate)	1,874,400	(93,720)	1,780,680	17,807	\$ 2.00	\$ 0.06	\$ 2.06	\$ 36,682
October 15 - May 15 (no Usage included in Base rate)	974,200	(48,710)	925,490	9,255	\$ 2.00	\$ 0.06	\$ 2.06	\$ 19,065
Total Usage/Commodity Charges	2,848,600	(142,430)	2,706,170	27,062				\$ 55,747
Budget Assuming 3% Inflation per year after year 1	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	Five Year Total		
Total Monthly Required Reserves Fund	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171			
Total yearly required reserve fund	\$ 14,048	\$ 14,097	\$ 14,198	\$ 14,251	\$ 14,305	\$ 70,899		
Debt Service	\$ 63,896	\$ 63,451	\$ 63,006	\$ 62,560	\$ 62,115	\$ 315,028		
Fixed Budget	\$ 62,329	\$ 64,199	\$ 66,125	\$ 68,109	\$ 70,152	\$ 330,915		
Variable Budget	\$ 2,277	\$ 2,345	\$ 2,415	\$ 2,488	\$ 2,562	\$ 12,087		
Total Operating Budget	\$ 142,551	\$ 144,092	\$ 145,744	\$ 147,408	\$ 149,135	\$ 728,929		
	12/31/2021	12/31/2022 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2023 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2024 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2025 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	Five Year Total		
Estimated Annual Revenue From Base Rate	\$ 87,103	\$ 88,409	\$ 89,735	\$ 91,081	\$ 92,448	\$ 448,776		
Estimated Annual Revenue - Usage Charges	\$ 55,747	\$ 56,583	\$ 57,432	\$ 58,294	\$ 59,168	\$ 287,224		
Total Operating Revenue	\$ 142,850	\$ 144,992	\$ 147,167	\$ 149,375	\$ 151,615	\$ 736,000		
Net Operating Revenue Over/(under) Operating Costs	\$ 299	\$ 901	\$ 1,423	\$ 1,967	\$ 2,481	\$ 7,071		

<b>Option #2</b>								
Include 5000 cf in base rate all year, increase base and usage rates by 3%; subsequent years have annual 1.5% Increase to base and usage rates	# Connections	Monthly Rate	Adjustment	Adjusted Rate	Average Monthly Revenue	Average Annual Base Revenue		
			5.00%					
Normal Connections	135.25	\$ 68.00	\$ 3.40	\$ 71.40	\$ 9,657	\$ 115,882		
Rich Acres Discounted Rate	9	\$ 65.00	\$ 3.25	\$ 68.25	\$ 614	\$ 7,371		
Seasonal 5 Months of year	2	\$ 68.00	\$ 3.40	\$ 71.40	\$ 143	\$ 714		
Seasonal 7 Months of year	2	\$ 28.00	\$ 1.40	\$ 29.40	\$ 59	\$ 412		
Standby	19	\$ 25.00	\$ 1.25	\$ 26.25	\$ 499	\$ 5,985		
Vacant	4	\$ 40.00	\$ 2.00	\$ 42.00	\$ 168	\$ 2,016		
Total Base Revenue	171.25				\$ 11,139	\$ 132,380		
Commodity Charge	Total Usage Cubic Feet	Less: Amount Included in Base Rate (up to 5000 CF)	CF Overage	Billable Usage (CCF)	Rate Per CCF	Adjusted Rate	Adjusted Usage Rate	Total Usage Revenue
						5.00%		
May 15 - October 15 ((5,000 cf in Base Rate)	1,874,400	1,582,700	291,700	2,917	\$ 2.00	\$ 0.10	\$ 2.10	\$ 6,126
October 15 - May 15 (5,000 cf in Base Rate)	974,200	812,800	161,400	1,614	\$ 2.00	\$ 0.10	\$ 2.10	\$ 3,389
Total Usage/Commodity Charges	2,848,600	2,395,500	453,100	4,531				\$ 9,515
Budget Assuming 3% Inflation per year after year 1	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025			
Total Monthly Required Reserves Fund	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171			
Total yearly required reserve fund	\$ 14,048	\$ 14,097	\$ 14,198	\$ 14,251	\$ 14,305	\$ 70,899		
Debt Service	\$ 63,896	\$ 63,451	\$ 63,006	\$ 62,560	\$ 62,115	\$ 315,028		
Fixed Budget	\$ 62,329	\$ 64,199	\$ 66,125	\$ 68,109	\$ 70,152	\$ 330,915		
Variable Budget	\$ 2,277	\$ 2,345	\$ 2,415	\$ 2,488	\$ 2,562	\$ 12,087		
Total Operating Budget	\$ 142,551	\$ 144,092	\$ 145,744	\$ 147,408	\$ 149,135	\$ 728,929		
	12/31/2021	12/31/2022 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2023 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2024 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2025 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	Five Year Total		
Estimated Annual Revenue From Base Rate	\$ 132,380	\$ 134,365	\$ 136,381	\$ 138,427	\$ 140,503	\$ 682,056		
Estimated Annual Revenue - Usage Charges	\$ 9,515	\$ 9,658	\$ 9,803	\$ 9,950	\$ 10,099	\$ 49,024		
Total Operating Revenue	\$ 141,895	\$ 144,023	\$ 146,184	\$ 148,376	\$ 150,602	\$ 731,080		
Net Operating Revenue Over/(under) Operating Costs	\$ (656)	\$ (68)	\$ 440	\$ 969	\$ 1,467	\$ 2,151		

<b>Option #3</b>								
Reduce usage included in base rate to 2,000 cf all year Decrease base and usage rates by 3%; subsequent years have 1.5% annual increase to both usage and base rates	# Connections	Monthly Rate	Adjustment	Adjusted Rate	Average Monthly Revenue	Average Annual Base Revenue		
			-3.00%					
Normal Connections	135.25	\$ 68.00	\$ (2.04)	\$ 65.96	\$ 8,921	\$ 107,053		
Rich Acres Discounted Rate	9	\$ 65.00	\$ (1.95)	\$ 63.05	\$ 567	\$ 6,809		
Seasonal 5 Months of year	2	\$ 68.00	\$ (2.04)	\$ 65.96	\$ 132	\$ 660		
Seasonal 7 Months of year	2	\$ 28.00	\$ (0.84)	\$ 27.16	\$ 54	\$ 380		
Standby	19	\$ 25.00	\$ (0.75)	\$ 24.25	\$ 461	\$ 5,529		
Vacant	4	\$ 40.00	\$ (1.20)	\$ 38.80	\$ 155	\$ 1,862		
<b>Total Base Revenue</b>	<b>171.25</b>				<b>\$ 10,291</b>	<b>\$ 122,294</b>		
<b>Commodity Charge</b>	<b>Total Usage Cubic Feet</b>	<b>Less: Amount Included in Base Rate Up to 2,000 CF</b>	<b>CF Overage</b>	<b>Billable Usage (CCF)</b>	<b>Rate Per CCF</b>	<b>Adjusted Usage Rate</b>	<b>Adjusted Usage Rate</b>	<b>Total Usage Revenue</b>
						-3.0%		
Summer Usage	1,874,400	992,200	882,200	8,822	\$ 2.00	\$ (0.06)	\$ 1.94	\$ 17,115
Winter Usage	974,200	805,000	169,200	1,692	\$ 2.00	\$ (0.06)	\$ 1.94	\$ 3,282
<b>Total Usage/Commodity Charges</b>	<b>2,848,600</b>	<b>1,797,200</b>	<b>1,051,400</b>	<b>10,514</b>				<b>\$ 20,397</b>
<b>Budget Assuming 3% Inflation per year after year 1</b>	<b>12/31/2021</b>	<b>12/31/2022</b>	<b>12/31/2023</b>	<b>12/31/2024</b>	<b>12/31/2025</b>	<b>Five Year Total</b>		
Total Monthly Required Reserves Fund	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171			
Total yearly required reserve fund	\$ 14,048	\$ 14,097	\$ 14,198	\$ 14,251	\$ 14,305	\$ 70,899		
Debt Service	\$ 63,896	\$ 63,451	\$ 63,006	\$ 62,560	\$ 62,115	\$ 315,028		
Fixed Budget	\$ 62,329	\$ 64,199	\$ 66,125	\$ 68,109	\$ 70,152	\$ 330,915		
Variable Budget	\$ 2,277	\$ 2,345	\$ 2,415	\$ 2,488	\$ 2,562	\$ 12,087		
<b>Total Operating Budget</b>	<b>\$ 142,551</b>	<b>\$ 144,092</b>	<b>\$ 145,744</b>	<b>\$ 147,408</b>	<b>\$ 149,135</b>	<b>\$ 728,929</b>		
	<b>12/31/2021</b>	<b>12/31/2022 Assumes 1.5% Increase to Base and Usage Rates over Prior Year</b>	<b>12/31/2023 Assumes 1.5% Increase to Base and Usage Rates over Prior Year</b>	<b>12/31/2024 Assumes 1.5% Increase to Base and Usage Rates over Prior Year</b>	<b>12/31/2025 Assumes 1.5% Increase to Base and Usage Rates over Prior Year</b>	<b>Five Year Total</b>		
Estimated Annual Revenue From Base Rate	\$ 122,294	\$ 124,128	\$ 125,990	\$ 127,880	\$ 129,798	\$ 630,090		
Estimated Annual Revenue - Usage Charges	\$ 20,397	\$ 20,703	\$ 21,014	\$ 21,329	\$ 21,649	\$ 105,092		
<b>Total Operating Revenue</b>	<b>\$ 142,691</b>	<b>\$ 144,831</b>	<b>\$ 147,004</b>	<b>\$ 149,209</b>	<b>\$ 151,447</b>	<b>\$ 735,182</b>		
<b>Net Operating Revenue Over/(under) Operating Cost</b>	<b>\$ 140</b>	<b>\$ 739</b>	<b>\$ 1,260</b>	<b>\$ 1,801</b>	<b>\$ 2,312</b>	<b>\$ 6,252</b>		

<b>Option #4</b>						
Base rate includes no usage, decreases by 32%. Tier usage rates as follows: Tier 1 = up to 2,000 CF Tier 2 = 2,001 - 5,000 CF Tier 3 = Over 5,000 CF	Tier	# Connections	Monthly Rate	Adjustment	Adjusted Rate	Average Monthly Revenue
				-32.00%		
Normal Connections		135.25	\$ 68.00	\$ (21.76)	\$ 46.24	\$ 6,254
Rich Acres Discounted Rate		9	\$ 65.00	\$ (20.80)	\$ 44.20	\$ 398
Seasonal 5 Months of year		2	\$ 68.00	\$ (21.76)	\$ 46.24	\$ 92
Seasonal 7 Months of year		2	\$ 28.00	\$ (8.96)	\$ 19.04	\$ 38
Standby		19	\$ 25.00	\$ (8.00)	\$ 17.00	\$ 323
Vacant		4	\$ 40.00	\$ (12.80)	\$ 27.20	\$ 109
Total Base Revenue		171.25				\$ 7,214
Commodity Charge	Total Usage Cubic Feet	Assumed Reduction in Usage	Adjusted Usage	Billable Usage (CCF)	Rate Per CCF	Total Usage Revenue
		-5%				
Up to 2,000 CF	1,797,200	(89,860)	1,707,340	17,073	\$ 1.65	\$ 28,171
2,001 - 5,000	739,000	(36,950)	702,050	7,021	\$ 2.48	\$ 17,376
Over 5,000 CF	312,400	(15,620)	296,780	2,968	\$ 3.71	\$ 11,018
Total Usage/Commodity Charges	2,848,600	(142,430)	2,706,170	27,062		\$ 56,565
Budget Assuming 3% Inflation per year after year 1	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025	Five Year Total
Total Monthly Required Reserves Fund	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	\$ 1,171	
Total yearly required reserve fund	\$ 14,048	\$ 14,097	\$ 14,198	\$ 14,251	\$ 14,305	\$ 70,899
Debt Service	\$ 63,896	\$ 63,451	\$ 63,006	\$ 62,560	\$ 62,115	\$ 315,028
Fixed Budget	\$ 62,329	\$ 64,199	\$ 66,125	\$ 68,109	\$ 70,152	\$ 330,915
Variable Budget	\$ 2,277	\$ 2,345	\$ 2,415	\$ 2,488	\$ 2,562	\$ 12,087
Total Operating Budget	\$ 142,551	\$ 144,092	\$ 145,744	\$ 147,408	\$ 149,135	\$ 728,929
	12/31/2021	12/31/2022 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2023 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2024 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	12/31/2025 Assumes 1.5% Increase to Base and Usage Rates over Prior Year	Five Year Total
Estimated Annual Revenue From Base Rate	\$ 85,732	\$ 87,018	\$ 88,323	\$ 89,648	\$ 90,992	\$ 441,712
Estimated Annual Revenue - Usage Charges	\$ 56,565	\$ 57,413	\$ 58,274	\$ 59,149	\$ 60,036	\$ 291,437
Total Operating Revenue	\$ 142,296	\$ 144,431	\$ 146,597	\$ 148,796	\$ 151,028	\$ 733,149
Net Operating Revenue Over/(under) Operating Cost	\$ (254)	\$ 339	\$ 853	\$ 1,389	\$ 1,893	\$ 4,220

## 6.2 Fixed Versus Variable Charges

Water must be available to customers at all times whether the customer is using the water or not. A large share of water system costs is associated with bringing the first drop of water to the customer's meter regardless of whether any water is used. Fixed costs are those that must be recovered by GBWD to ensure that drinking water is available to its customers.

Fixed costs are usually recovered from each customer on an equal basis through the use of a minimum fee (a minimum monthly bill). Fixed costs may cover 100 percent of some expenses in a system's budget, but only a portion of other types of expenses. For example, fixed expenses generally include all debt service expenses on construction loans, financial reserves for emergencies or equipment replacement and overhead costs, like insurance and bonding. Fixed costs should also include a portion of other system operating expenses. For example, a percentage of wages and fringe benefits for time spent in reading each meter and preparing each customer's bill.

The method for identifying all or part of some expenses as fixed costs involves determining to what extent each of the line item expenses in the budget benefits every customer of the system regardless of their level of usage. This is a determination that each utility must make for itself. Fixed costs should generally be recovered in a system's minimum bill, the minimum monthly fee charged equally to each customer within each customer classification (residential, multi-residential, commercial, etc.) or by meter size. For small systems with fewer customers to spread costs among, the proportion of fixed costs will be higher than larger systems. Many small systems find it impossible to recover all fixed costs in a monthly minimum, so they tend to shift a certain percentage to the variable side.

Fixed costs for small systems are usually in the range of one-third to one-half of the system's total operating costs. This is not the case with the current budget.

In the case of GBWD, which charges a monthly base rate and a commodity charge, fixed costs are adequately recovered.

Total Costs	\$64,606
Total Fixed Costs	\$62,329
Percentage Fixed Costs	96%
Total Variable Costs	\$2,277
Percentage Variable Costs	4%

Variable costs are system expenses that are more directly related to how much water is pumped, treated, stored and distributed. Most costs for electricity, operator wages and benefits, chemicals and repairs can be classified as variable costs because they are directly related to the amount of water customers' use. To recover variable expenses, rate structures use a "consumption charge" or "flow charge" per volume, such as per thousand gallons or hundred cubic feet.

For GBWD, the following estimates were used to determine fixed and variable:

- Wages, benefits and contract labor: Assumed 100 percent fixed costs
- Liability insurance: Assumed 100 percent fixed costs
- Supplies: Assumed 85 percent fixed costs
- Utilities: Assumed 2 percent fixed costs
- Water sampling and analysis expenses: Assumed 100 percent fixed costs

<i><b>Greater Bar Water</b></i>	<i><b>Budget 2021</b></i>	<i><b>Estimated % Fixed Costs</b></i>	<i><b>Fixed costs</b></i>	<i><b>Variable costs</b></i>
<i><b>Operating Expenses:</b></i>				
<i>Manager</i>	\$ 17,000	100%	\$17,000	\$0
<i>Operator</i>	\$ 9,600	100%	\$9,600	\$0
<i>Operator Assistant</i>	\$ -	100%		
<i>Operator expenses</i>	\$ 50	100%	\$50	\$0
<i>Clerk</i>	\$ 6,000	100%	\$6,000	\$0

DOR excise/public utility tax	\$ 6,500	100%	\$6,500	\$0
Douglas Co real estate taxes	\$ 13	100%	\$13	\$0
Insurance - Bond	\$ 5,000	100%	\$5,000	\$0
SAO audit	\$ -	100%		
PUD Electricity	\$ 2,170	2%	\$43	\$2,127
PUD Billing Services	\$ 8,001	100%	\$8,001	\$0
Water Testing	\$ 841	100%	\$841	\$0
Backflow testing annual	\$ 4,200	100%	\$4,200	\$0
DOH Operating Permit	\$ 400	100%	\$400	\$0
DOH Sanitary Survey	\$ -	100%		
Cell phone	\$ 425	100%	\$425	\$0
Local Tel	\$ 590	100%	\$590	\$0
Lap top office program	\$ 76	100%	\$76	\$0
Post Office Box and postage	\$ 120	100%	\$120	\$0
Dues/Miscellaneous	\$ 1,070	100%	\$1,070	\$0
Public notice	\$ 50	100%	\$50	\$0
Prof/Translation services English Spanish	\$ 500	100%	\$500	\$0
Services/ road spraying	\$ 500	100%	\$500	\$0
Repairs/Rich Acres well	\$ 400	100%	\$400	\$0
Office expenses/supplies	\$ 100	100%	\$100	\$0
Parts/Equipment/Supplies	\$ 1,000	85%	\$850	\$150
Chemicals - chlorine/other	\$ -	100%		
Misc. Expense	\$ -	100%		
<b>Total Operating Costs</b>	<b>\$ 64,606</b>		<b>\$ 62,329</b>	<b>\$ 2,277</b>
Debt Service	\$ 63,896			
Total Operating Costs Plus Debt Service	\$ 128,502			
Debt Reserves (assumes debt reserves already funded)	\$ 2,000			
Reserves-Operating	\$ 1,615			
Emergency Reserves	\$ 2,500			
<b>Short Lived Asset Reserve</b>	\$ 2,933			
Reserves-CIP	\$ 5,000			
Total Reserves	\$ 14,048			
Total Budget	\$ 142,551			
Total Costs	\$64,606			
Total Fixed Costs	\$62,329			
Percentage Fixed Costs	96%			
Total Variable Costs	\$2,277			

Percentage Variable Costs	4%			
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### 6.3 General discussion about types of rate structures

The following are types of rates structures common to drinking water systems:

#### 6.3.1 Uniform Flat Rate:

Customers pay the same amount regardless of the quantity of water used. This type of rate is easiest to administer; however, it is not fair to the lowest water users and can promote high consumption which then may cost the utility more to provide that water.

#### 6.3.2 Single or Uniform Block Rate:

Customers are charged a constant price per volume regardless of the amount of water used. The cost per block of water is often added to a minimum charge for having service available (known as the base rate). This rate tends to be more equitable to customers (Dependent on the amount of water consumption included in the base rate.) as the cost to customer is in direct proportion to the amount use. This is GBWD's current water rate structure.

#### 6.3.3 Inclining or Increasing Block Rate:

This rate is designed to promote water use efficiency, as the price of water increases as the amount used increases.

### 6.4 Rate Guidance

During a series of workshop meetings that RCAC and the GBWD have conducted the following general guidance about setting rates was discussed and deliberated by the Board of Commissioners and staff:

#### 6.4.1 Rate Setting

Rates must be set at a level that covers all of the costs to produce, treat, store, and distribute water to all customers. These functions include other parts of a "business" that are not so visible—servicing debt, funding financial reserves, and other operations, maintenance, and administrative costs, including those associated with regulatory compliance. We have found that the district currently does not fund all required reserves, as noted above.

#### 6.4.2 Rates must be fair and equitable.

Fair means that they are high enough to cover all costs of operating the system. Equitable means that each class (or type) of customer is paying what is rightfully its share of the costs. We have found that the levels of consumption allowed/included within the base rate is cause for a substantial disparity between the residential customers, wherein some residential customers do not use the allocated amounts within the base rate and yet pay for the amount not used.

#### 6.4.3 Customer Outreach.

This is a time when people demand transparency of their governments. The district should post water rates in the district and comply with any other notification or approval requirements. It should be noted that the district has an operating website, and the majority of customer's email addresses. Most of the

communication from the district is funneled through these venues. The rate schedule should be sent to all customers at least once a year and every time there is an adjustment to the rates.

#### 6.4.4 The rate structure should be easy to understand.

In general, the district should have between one and three user classifications and between one and five consumption blocks. The structure in itself is easily understood; however, due to the discontinuity of adopted legislation, which regulates the utility rates, fees and charges, staff has found it difficult in locating specific language relative to the utility's fees and charges, at times. It has been recommended that the district adopt a "fees resolution", which would contain all related utility fees, policies and charges into one organizational document/legal instrument.

#### 6.4.5 Water rates have a short life span.

The existing rate structure should be examined at least once a year as part of the budget-development process to determine if an adjustment needs to be made. If a dramatic change in income or expenses is experienced during the year, an analysis should be done to determine if an adjustment is necessary before the regular budgeting process. This review should include all aspects of the budget, including asset management, short term asset replacement program, capital reserves, inflation, and the like.

#### 6.4.6 Rate Structure.

Good rate structures are based on actual, accurate financial information and good customer records. It's very difficult to develop a fair and equitable rate structure if you're not sure what your income and expenses have been for the last two to three years and how much water you are selling to each customer.

#### 6.4.7 Easily Administered and Understood

The rate structure should be easy to administer. If it is too complex, chances are it is going to be hard for customers to understand and support.

### 6.5 Reserve funding recommendations

Reserves are an accepted way to stabilize and support a utility financial management. Small systems usually fund the operating expenses but do not often consider putting money aside for a specific upcoming financial need or project, or for an amount that can be used to provide rate stabilization in years when revenues are unusually low, or expenditures are unusually high. The rationale for maintaining adequate reserve levels is two-fold. First, it helps to assure that the utility will have adequate funds available to meet its financial obligations in times of varying needs. Secondly, it provides a framework around which financial decisions can be made to determine when reserve balances are inadequate or excessive and what specific actions need to be taken to remedy the situation.

Utility reserve levels can be thought of as a savings account. Reserve balances are funds that are set aside for a specific cash flow requirement, financial need, project, task, or legal covenant. Common reserve balances are established around the following four areas: operating reserve, capital improvement, emergency, and debt service reserve. These balances are maintained in order to meet

short-term cash flow requirements, and at the same time, minimize the risk associated with meeting financial obligations and continued operational needs under adverse conditions.

#### 6.5.1 Operating Reserve

Operating reserves are established to provide the utility with the ability to withstand short term cash-flow fluctuations. There can be a significant length of time between when a system provides a service and when a customer pays for that service. In addition, a system's cash flow can be affected by weather and seasonal demand patterns. A 45-day operating reserve is a frequently used industry norm and a requirement of ODW. Because of potential delays in collecting payment many utilities attempt to keep an amount of cash equal to at least 45 days or one-eighth (12.5%) of their annual cash O&M expenses in an operating reserve to mitigate potential cash flow problems. As noted above, GBWD does not currently carry an operating reserve account.

#### 6.5.2 Capital Improvement Reserve

A capital improvement reserve (also called a repair and replacement reserve) is intended to be used for replacing system assets that have become worn out or obsolete. Annual depreciation is frequently used to estimate the minimum level of funding for this capital reserve. But it is important to understand that depreciation expense is an accounting concept for estimating the decline in useful life of an asset and does not represent the current replacement cost of that asset. As an example, a brand-new system with a construction cost of \$1 million and a service life of 100 years should (in theory) be setting aside \$10,000 per year to fully capitalize the replacement cost of the infrastructure as it wears out. Many smaller systems find this to be impossible because of the effect on rates, which explains the large number of small systems that are falling into disrepair.

To initiate a capital improvement plan (CIP), a small water system will start with a list of assets that includes the remaining service life, theoretical replacement costs in today's dollars and the remaining service life. It then calculates the monthly and annual reserve that must be collected from each customer to fully capitalize the replacement cost of each asset. In reality, the assets will fail and be replaced gradually, but the replacement cost of water system assets is often a shock to small systems who are struggling to keep rates reasonable.

One alternative method is to set-aside an annual amount equal to one-to-two percent of the total original cost asset value of the utility's property. Larger systems often have sufficient non-operating revenue to fund these reserve levels without affecting rates, but smaller systems, like GBWD, often do not, leaving them to fund their CIP reserves from rates alone. An alternative method is to set-aside sufficient reserve funds to cover 100 percent of the cost of replacing short-lived assets, such as pumps, electronic controls, vehicles, etc.

At the time of the writing of this report, it is assumed that GBWD will finance the cost of all short-lived asset replacement projects and as required by its current funders. The longer-lived assets are therefore not included in the CIP, but the funding strategy proposed for the longer-lived water system improvements is based on acquiring grants and loans from the Washington State Public Works Trust Fund, State Revolving Fund, Community Development Block Grants and United States Department of Agriculture- Rural Development WEP Program.

### 6.5.3 Emergency Reserve

In addition to operating reserves, emergency reserves are an important tool for financial sustainability. Emergency reserves are intended to help utilities deal with short-term emergencies which arise from time to time such as main breaks or pump failures. The appropriate amount of emergency reserves will vary greatly with the size of the utilities and should depend on major infrastructure assets. An emergency reserve is intended to fund the immediate replacement or reconstruction of the system's single most critical asset; an asset whose failure will result in an immediate water outage or threat to public safety.

In the case of the GBWD system, the most critical single asset may be the SCADA control panel. The cost of replacing the control panel (\$10,000) in the case of a failure would be a good amount to save in emergency reserves. It is recommended that GBWD set aside \$2,500 annually until \$10,000 is held in an emergency reserve account.

### 6.5.6 Debt Service Reserve

Water utilities that have issued debt to pay for capital assets will often have required reserves that are specifically defined to meet the legal covenants of the debt. Normally, debt service reserve represents an amount equal to one full annual loan payment and can be accumulated to this level over a period of five to ten years. Debt calculations in this document are based on the most current information available from the Washington State Revolving Fund (SRF) and United States Department of Agriculture - Rural Development (USDA-RD). While it is recommended that set-asides for debt service be funded, SRF typically does not require reserves and those calculations are not included in this analysis. However, USDA-RD does require annual reserves and those calculations are included in this analysis.

## 7 Overview of Water System Development Charges

Water System Development Charges (SDC) are known by many names: capacity charges, general facility charges, reimbursement fee, plant investment fees, and most commonly, **connection fees**. The term fee or charge is used interchangeably in literature and may have state law connotations in some states. SDCs may be established to pay back the utility for its previous investments in infrastructure or to establish a fund for *future* capital improvements. There are several methods to arrive at the figure. In small systems, with relatively modest growth, the below method should work most of the time.

The term Connection Fee will be used in this description and implied as a **reimbursement**. Connection fees normally have two components: the reimbursement portion plus a component to pay for actual services rendered. Utilities generally provide new connection inspections of some sort and often install meters and mainline taps with various appurtenances attached. Small utilities typically greatly undercharge for these services.

The formula for determining the reimbursement charge is relatively simple to write: The overall **value** of the utility is first determined. This amount is reduced by any debt or grant funds, yielding the "equity" (remaining value of investment from users). The overall equity is then divided by the number of ERUs

allowed at maximum capacity (this is usually established the original permit). The result is the reimbursement *per* ERU.

System value may be determined by using replacement costs at today's pricing. Herein lays the difficulty in establishing the fees. Each system component group, such as 10" DI pipe, 6" PVC pipe, valves, hydrants, meters, wellhouse, well pump, reservoir, rolling stock, PRVs etc. should be valued individually and adjusted for depreciation (devaluation due to less remaining life). This entails a very detailed and lengthy effort and quite a few arbitrary decisions. Proper installation, for example, can extend the life cycle, where poor installation can reduce it. Cheap components will also reduce life (increase depreciation).

The purpose of system development charges is to bring equity between existing and new customers to the system. The objective is to calculate cost-based fees for new customers connecting to the district's water system. System development charges provide the means of balancing the cost requirements for new utility infrastructure between existing customers and new customers. The portion of existing plant and future capital improvements that will provide service (capacity) to new customers should be included in the system development charges. In contrast to this, the district should address future capital improvement projects that are related to renewal and replacement of existing infrastructure components in service. These infrastructure costs are typically included within the rates charged to the district customers and were not included within the system development charges. By establishing cost-based system development charges, the district will assure that "growth pays for growth" and existing utility customers will, for the most part, be sheltered from the financial impacts of growth.

The system development charges currently in place have not been updated in several years, other than by their sliding scale since the loan inception date and are defined as a surcharge for payment of the two DOH-DWSRF current loans. General industry recommendations are to adjust SDC fees annually for cost changes in construction and to update the fees every three to five years, or whenever comprehensive planning documents for the systems have been updated. Thereby, to bring parity between existing and new utility customers. It is understood by RCAC that the district is in process of updating its water system plan, which will further identify proposed infrastructure construction improvements. The first step in establishing cost-based system development charges is to gain a better understanding of the definition of a system development charge. One definition of a system development charge is as follows:

*"System development charges are one-time charges paid by new development to finance construction of public facilities needed to serve them."*

Simply stated, system development charges are a contribution of capital to either reimburse existing customers for the available system development in the existing system, or to help finance planned future growth-related capacity improvements. At some utilities, system development charges may be referred to as capacity charges, impact fees, connection charges, plant investment fees, etc. Regardless of the label used to identify them, their objective is the same. That is, these charges are intended to provide funds to the utility to

finance all or a part of the capital improvements needed to serve (accommodate) new customer growth.

RCAC bases its recommended system development charges that would be charged to a customer or group of customers to help the system cover the costs of capital improvements that have already been paid for or are being paid for by current customers or to cover the cost that the system will incur due to the additional connections. Essentially, the fee is based on the current plant value alone. These fees are not refundable and do not include the direct costs of time and material in providing new service connection(s). The fees should be further examined and calculated in conformance with regulatory requirements and based on a component-by-component approach in developing the fees, as each component can have different planning and design criteria. Fees must be implemented according to the capacity requirement or impact each new connection has to the system. This way, the charge is related to the impact the new customer has on the system, and to the benefit they derive from the service provided to them.

System development charges are generally imposed as a condition of service. The objective of a system development charge is not merely to generate money for a utility, but to assure that all customers seeking to connect to the utility's system bear an equitable share of the cost of capacity that is invested in both the existing and any future growth-related expansions. Through the implementation of fair and equitable system development charges, existing customers will not be unduly burdened with the cost of new development. By updating its cost-based system development charges, the district would assure adequate infrastructure to meet growth-related needs, while providing this infrastructure to new customers in a cost-based, fair, and equitable manner.

#### 7.1.1 System Development Charge Criteria

In the determination and establishment of the system development charges, several different criteria are often utilized. The criteria often used by utilities to establish system development charges are as follows:

- State/local laws
- System planning criteria
- Financing criteria
- Customer understandings

Many states and local communities have enacted laws that govern the calculation and imposition of system development charges. These laws must be followed in the development of the system development charges. Most statutes require a "reasonable relationship" between the fee charged and the cost associated with providing service (capacity) to the customer. The charges do not need to be mathematically exact but must bear a reasonable relationship to the cost burden imposed. The utilization of the planning criteria and planned and actual costs of construction provide the nexus for the reasonable relationship requirement.

The use of system planning criteria is one of the more important aspects in the determination

of the system development charges. System planning criteria provide the "rational nexus" between the amount of infrastructure necessary to provide service and the charge to the customer. The rational nexus test requires:

- a) establishing a connection (nexus) between new development and the existing or expanded facilities required to accommodate new development, and
- b) apportioning appropriate cost to the new development in relation to benefits reasonably received. An example using system planning criteria is the determination that a single-family residential customer requires 800 gallons per day of water distribution storage. The system development charge methodology then charges the customer for 800 gallons per day of water distribution storage at the cost of storage.

One of the driving forces behind establishing cost-based system development charges is that "growth pays for growth." Therefore, system development charges are typically established as a means of having new customers pay an equitable share of the cost of their required capacity (infrastructure). The financing criteria for establishing system development charges relates to the method used to finance infrastructure on the system and assures that customers are not paying twice for infrastructure - once through system development charges and again through rates. The double payment can come in through the imposition of system development charges and then the requirement to pay debt service within a customer's rates. The financing criteria also reviews the basis under which water main line and line extensions are provided and assures that the customer is not charged for infrastructure that was provided (contributed) by developers.

The component of customer understanding implies that the charge is easy to understand. This criterion has implications for the way the fee is implemented and assessed to the customer. For a water system, the fee is generally based on the size (capacity) of the meter. This makes it easy for the customer to understand that the level of fee is based on the size of the meter required to provide service. In some instances, larger meter sizes are calculated based on actual usage. While this is more complicated, it applies to very few customers, and they are generally more sophisticated commercial/industrial customers. The other implication of this criterion is that the methodology is clear and concise in its calculation of the amount of infrastructure necessary to provide service.

#### 7.1.2 Overview of the System Development Charge Methodology

There are "generally accepted" methodologies used to establish system development charges. Within the "generally accepted" system development charge methodologies, there are a number of different steps undertaken. These steps are as follows:

- Determination of system planning criteria
- Determination of equivalent residential units (ERUs)
- Calculation of system component costs
- Determination of any credits

The first step in establishing system development charges is the determination of the system planning criteria. This implies calculating the amount of water required to serve a single-family residential customer. For a water system, two different criteria are generally

determined due to differences in planning criteria. The first planning criterion is the peak day water usage per ERU and the second is a water storage requirement per ERU. These two different planning criteria are developed since a majority of the water system infrastructure is sized to meet the peak day demand, and water storage is sized to meet equalizing, emergency, and fire flow requirements.

Once the system planning criteria is determined, the number of equivalent residential units (ERUs) the system can accommodate can be determined. For the water system, this is determined by utilizing the peak day water system demand and dividing it by the peak day water usage per ERU. This is an important calculation since it provides the linkage between the amounts of infrastructure necessary to provide service to a set number of customers. This implies that if the system is designed to provide service for demands up to the year 2028 and beyond, then the infrastructure costs are divided by the ERUs in 2028 (and beyond) to determine the cost per ERU.

Once the number of ERUs has been determined, a component-by-component (e.g., source of supply, treatment, storage, etc.) analysis is undertaken to determine the component system development fee in cost (\$) per ERU. Individual plant components are analyzed separately for the water system given that the planning criteria differ for the development of the various system components. The calculation of the component system development charge includes both historical assets and planned future assets. Historical and future asset costs include ten years' worth of interest. This calculation is done to reflect the fact that existing customers have provided for excess capacity in the system and hence need to be reimbursed for not only their initial investment, but also the "carrying cost" on that investment. The reimbursement to existing customers is accomplished by the fact that without system development charges, rates would be higher. Inclusion of interest in future capital costs reflects the method used to finance the plant and hence the "true cost" to construct future infrastructure. Once the total cost of the capital infrastructure is determined, it is then divided by the appropriate number of ERUs the infrastructure will serve to develop the cost per ERU for the specific plant component.

After each plant component is analyzed and a cost per ERU is determined, the cost per ERU for each of the plant components is added together to determine the "gross system development charge." The "gross system development charge" is calculated before any credits for debt service.

The last step in the calculation of the system development charge is the determination of any credits. This is generally a calculation to assure that customers are not paying twice, once through system development charges and again through debt service included within the water, rates. A crediting mechanism is also utilized if general obligation or tax revenue has been used to finance the infrastructure.

The final system development charge is determined by taking the "gross system development charge" and subtracting any credits. This results in a "net system development charge" stated in dollars per ERU. The general basis of this calculation for a water system is the assumption that an ERU is equivalent to a 3/4-inch meter (one inch-meter, in the GBWD service area). Larger meter sizes are then imposed fees based on the number of ERUs assumed for a given meter size. The number of ERUs per meter size is generally based on the safe operating

capacity of the meter. An ERU can be defined as a 3/4-inch meter, or it can be defined as a single-family residential unit. In the latter case, other types of dwellings or businesses are then assigned ERUs based on flow from design manuals or actual flows.

## 7.2 Summary

The above discussed the criteria typically used in determining system development charges. In addition, an overview was provided of the "generally accepted" methodology used in calculating system development charges. Given this background, the next section of this appendix discusses specific legal criteria that must be used by the district in establishing its system development charges.

### 7.2.1 Legal Consideration in establishing System Development Charges.

One key consideration in establishing system development charges is any legal requirements at the state or local level. The legal requirements often establish the methodology around which the system development charges must be calculated or how the funds must be used. Given that, it is important for the district to understand these legal requirements. The following provides an overview of the legal requirements for establishing connection fees or system development charges under Washington State law.

The following is intended to be a summary of RCAC's understanding of the relevant Washington law as it relates to establishing system development charges. It in no way constitutes a legal interpretation of Washington law by RCAC.

### 7.2.2 Requirements under Washington State Law

In establishing system development charges, an important requirement is that they be developed and implemented in conformance with state or local laws. Many states have established specific laws regarding the establishment, calculation, and implementation of system development charges. The main objective of most state laws is to assure that these charges are established in such a manner that they are fair, equitable, and cost-based. In other cases, state legislation may have been needed to provide the legislative powers to the utility to establish the charges.

The Washington State Legislature passed Title 35, Section 35.92.025, (Washington Law), which sets forth requirements for calculations of system development charges for water and sewer systems. Title 35, Section 35.92.025, (Washington Law) states as follows:

*"Authority to make charges for connecting to water or sewerage system – interest charges. Cities, towns and special purpose districts are authorized to charge property owners seeking to connect to the water or sewerage system as a condition to granting the right to so connect. In addition to the cost of such connection, such reasonable connection charge as the legislative body shall determine proper in order that such property owners shall bear their equitable share of the cost of such system. The equitable share may include interest charges applied from the date of construction of the water or sewer system until the connection, or for a period not to exceed ten years, at a rate commensurate with the rate of interest applicable at the time of construction or major rehabilitation of the water or sewer*

*system, or at the time of installation of the water or sewer lines to which the property owner is seeking to connect but not to exceed the equitable share of the cost of the system allocated to such property owners. Connection charges collected shall be considered revenue of such system."*

Additionally, it is useful to look at the provisions under the Growth Management Act with respect to conditions imposed for impact fees in the State. Specifically, Title 82, Section 82.02.060 states as follows:

*"Impact fees - Local ordinances - Required provisions. The local ordinance by which impact fees are imposed:*

*(1) Shall include a schedule of impact fees which shall be adopted for each type of development activity that is subject to impact fees, specifying the amount of the impact fee to be imposed for each type of system improvement. The schedule shall be based upon a formula or other method of calculating such impact fees. In determining proportionate share, the formula or other method of calculating impact fees shall incorporate, among other things, the following:*

- (a) The cost of public facilities necessitated by new development;*
- (b) An adjustment to the cost of the public facilities for past or future payments made or reasonably anticipated to be made by new development to pay for particular system improvements in the form of user fees, debt service payments, taxes, or other payments earmarked for or portable to the particular system improvements;*
- (c) The availability of other means of funding public facility improvements;*
- (d) The cost of existing public facilities improvements; and*
- (e) The methods by which public facilities improvements were financed;*

*(1) May provide an exemption for low-income housing, and other development activities with broad public purposes, from these impact fees, provided that the impact fees for such development activity shall be paid from public funds other than impact fee accounts;*

*(2) Shall provide a credit for the value of any dedication of land for, improvement to, or new construction of any system improvement provided by the developer, to facilities that are identified in the capital facilities plan and that are required by the county, city, or town as a condition of approving the development activity;*

*Shall allow the county, city, or town imposing the impact fees to adjust the standard impact fee at the time the fee is imposed to consider unusual circumstances in specific cases to ensure that impact fees are imposed fairly;*

*Shall include a provision for calculating the amount of the fee to be imposed on a particular development that permits consideration of studies and data submitted by the developer to adjust the amount of the fee;*

*Shall establish one or more reasonable sendee areas within which it shall calculate and impose impact fees for various land use categories per unit of development;*

*May provide for the imposition of an impact fee for system improvement costs previously incurred by a county, city, or town to the extent that new growth and development will be served by the previously constructed improvements provided such fee shall not be imposed to make up for any stem improvement deficiencies [1990 I's' ex.s. c 17 §44.]"*

While Section 82.02.060 applies to streets, parks, schools and fire facilities, it is useful for the district to review these guidelines in the development of water system development charges.

The basic principle that needs to be followed under Washington law is that the charge be based on a proportionate share of the costs of the system required to provide service and that the requirements for adoptions and accounting be followed in compliance with Washington law.

In determining the equitable share, a number of points should be considered. These include:

- Capital improvements planned for construction within the next twenty (20) years should be included.
- The CIP must be contained in an adopted comprehensive plan.
- The cost of existing facilities shall not include those portions of the system, which have been donated or paid for through developers.
- The connection charge can include interest for up to ten (10) years on existing facilities.

The discussion within this portion of this appendix is intended to be a summary of our understanding of the relevant Washington law as it relates to establishing system development charges. It in no way constitutes a legal interpretation of Washington law by RCAC.

Given this broad authority, the district should set system development charges which are cost-based and that are "reasonable".

### 7.2.3 Determination of the District's Water System Development Charges

The following are key assumptions and details used in calculating the district's water system development charge. The calculation of the district's water system development charge

needs to be based upon district-specific accounting and planning information. Specifically, the system development charges are based upon the district's fixed asset records, Capital Improvement Plan (CIP), and planning data from the district's proposed Water System Plan update.

In developing the system development charges for the district's water system, a number of key assumptions need to be utilized that have yet to be determined/established. These are as follows:

- The district's asset records provided to RCAC were used to determine the existing plant assets.
- The district provided the Capital Improvement Plan (CIP) for future improvements.
- The base year for the CIP was assumed to be 2021.
- The district has not yet determined or adopted the portion of future improvements that are growth-related.
- The interest rate used for calculating interest on existing investments has not been established.
- Ten years' worth of interest should be included in the cost of existing facilities, as appropriate.

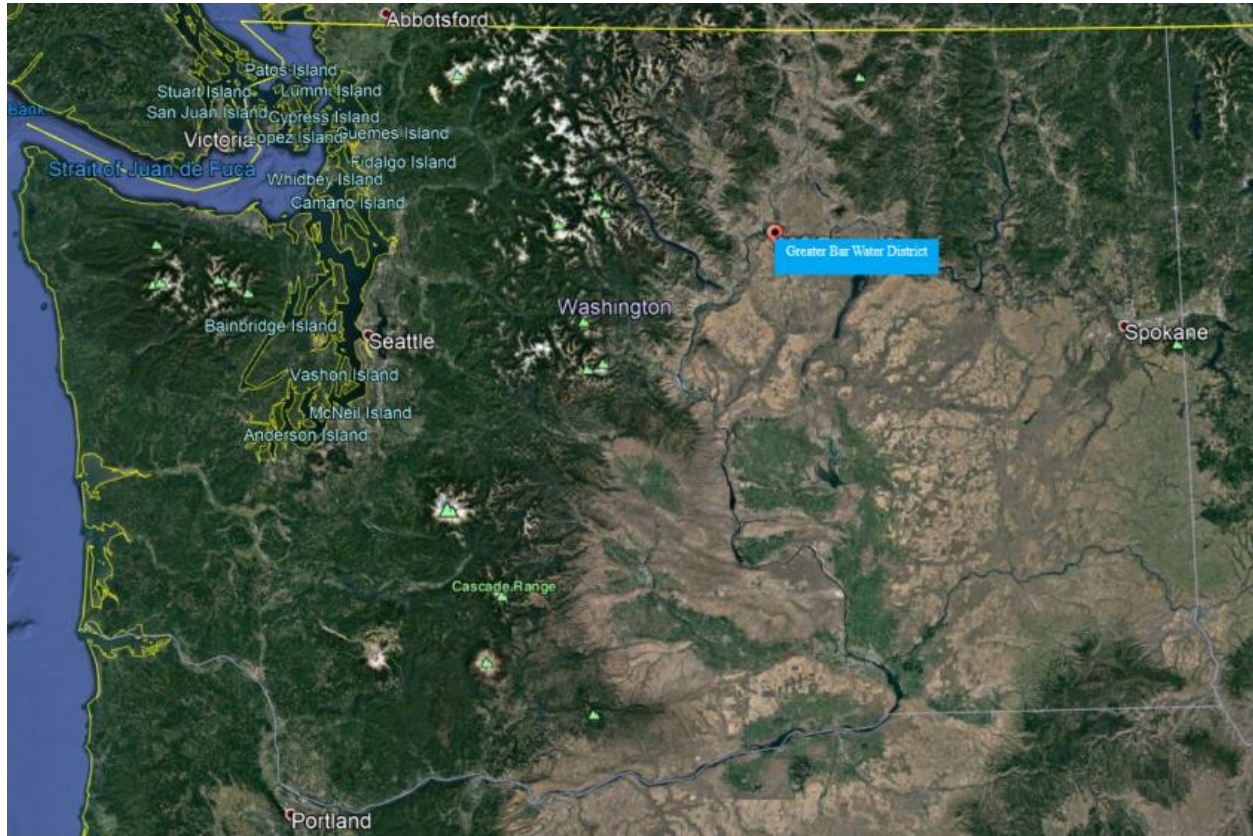
#### 7.2.4 Implementation of the System Development Charges

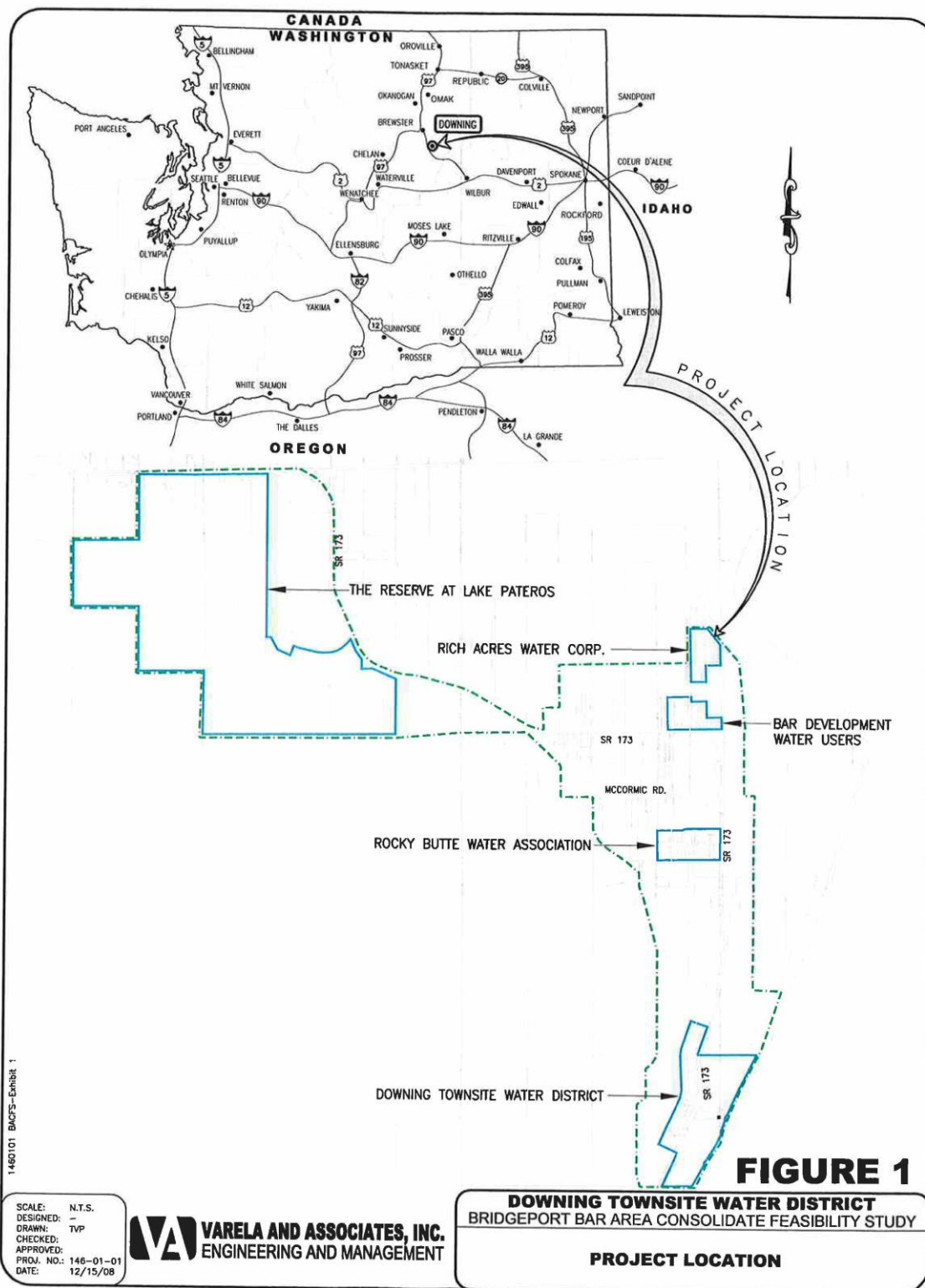
The methodology used to calculate the system development charges needs to take into account the value of money, interest charges, and inflation. Therefore, RCAC recommends that the district evaluate and adjust the system development charges each year by an escalation factor to reflect the cost of interest and inflation. The most frequently used source to escalate system development charges is the *Engineering News-Record (ENR) Construction Cost Index*, which tracks changes in construction costs for municipal utility projects. This method of escalating the district's system development charges should be used for no more than a 4-year to 5-year period. After this time period, RCAC recommends that the district update the charges based on the actual cost of infrastructure and any new planned facilities that would be contained in an updated Water System Plan, Master Plan, Capital Improvement Plan or rate study.

#### 7.2.5 Recommendation on SDCs

The district should update the actual calculations for the system development charges based on the methodology approved by a resolution setting forth the methodology for system development charges at such time when a new Capital Improvement Plan, Water System Plan, Master Plan, or a comparable plan is approved or updated by the district, or every five years.

## 8 Location/Vicinity Maps







Greater Bar V4  
1.15.2021(Rcv1-15-21

\*\*\*\*\*End of Document\*\*\*\*\*