Water and Sewer Rate Analysis Supplement 1 to the Report Dated June 8, 2021 Richlands, Virginia

Prepared August 30, 2023

Carl Brown, President GettingGreatRates.com, LLC

Table of Contents

Index of Model Tables and Charts	3
What Led to This Report	4
lssues	4
Revised Water CIP Model Discussion	6
Capital Improvement Program (CIP) Costs, Loans and Grants	6
Cost Sharing Among the Members of the Authority	6
Rate Adjustments Should Not Be Phased-in	6
Rate Affordability	7
Recommendations for Adopting the Revised Water CIP Model Rates	8
Table A: In-Town Water Rates From the Revised Water CIP Model	9
Table B: Out-of-Town Water Rates From the Revised Water CIP Model	10
Water Section Closing	10
Revised Sewer CIP Model Rates	11
Capital Improvement Program (CIP) Costs, Loans and Grants	11
Cost Sharing Among the Members of the Authority	11
Rate Adjustments Should Not Be Phased-in	11
Rate Affordability	11
Recommendations for Adopting the Revised Sewer CIP Model Rates	12
Table C: In-Town Sewer Rates From the Revised Sewer CIP Model	13
Table D: Out-of-Town Sewer Rates From the Revised Sewer CIP Model	14
Sewer Section Closing	14

Index of Model Tables

Table	Description	Water Model	Sewer Model
	Cover Page	15	29
1	Current Rates	N.A.	N.A.
2	Volume Usage	N.A.	N.A.
3	Incomes	16	30
4	Costs	17	31
5	CIP	19	33
6	Replacement-Detailed	N.A.	N.A.
7	Replacement Annuity	N.A.	N.A.
8	Cost Classification	N.A.	N.A.
9	Marginal Cost Classification	N.A.	N.A.
10	Rate Calculation	21	35
11	AWWA Meter Study	N.A.	N.A.
12	Capacity Costs	N.A.	N.A.
13	Capacity Fees	N.A.	N.A.
14	Capacity Fee Revenues	N.A.	N.A.
15	Minimum Charge Calculation	N.A.	N.A.
16	Minimum Charge Revenues	N.A.	N.A.
17	Financial Indicators	25	39
18	Bill Comparisons	26	40
18B	Combined Bills Comparison	N.A.	41

What Led to This Report

In 2021, the town of Richlands, later called "the Town" or "you," hired GettingGreatRates.com, later called "me," "we" or "I," to perform rate analysis of its water and sewer utilities; to produce a report of my findings and recommendations; and to provide guidance on rate setting. I did that and you followed up with rate adjustments.

Following that your engineering firm has continued to develop system improvement plans, designs, cost estimates and more. You have applied for grants and loans. Agencies have offered funding packages. As cost estimates were further developed recently, the grant and loan agencies have adjusted their funding packages. All of this is a normal process. But cost-wise, it has probably been upset markedly by Covid-19 and the resulting inflationary and other effects that followed that. What engineer knew Covid was coming and what results it would bring?

Because many things are now different compared to when I did the first analyses and you first adjusted rates, you now see a need to have me update my analyses. You rehired me to do that updating. This supplemental report is the result of that work.

This report is a supplement to the original report. I used the original models as the starting place for assessing your new situation and the rates needed to fund the system improvements and ongoing costs of the utilities. The models included in this report are the original models, just revised to include the new and different data and information.

Said simply, in 2021, I modeled the utilities' then current and projected future costs to arrive at rates and fees to assess to pay those costs and do it fairly. Some of that data and some assumptions have since changed, so I stripped the outdated data and assumptions from the original models and replaced them with recently solidified funding packages, tighter cost estimates, and new conditions. Finally, because several years have passed, I inflated the rates the revised models have now calculated (because they were calculating 2021 rates) to arrive at what those rates need to be now, in Fiscal Year 2024.

As to the structure of this report, it is brief. The goal of these analyses is limited – to find the rates needed now to pay for the new situation. Thus, many of the original models' tables are not included in this report. And I only discuss those things in this supplement that are different from the original report. Some issues for water rates also apply to sewer rates, so in the sewer rates section of the report when that is the situation, I just refer readers back to the water section of the report.

Issues

Everyone needs to keep in mind that you and I can only analyze and set rates based on the data available at the time and the assumptions made about the future at that time. No one can "crystal ball" the future, but rate setting must move ahead anyway. You did the right thing, the responsible thing, by setting rates based on information you had four years ago. You are doing the right thing now by reexamining rates based on better known data. As the future rolls out, examine rates periodically to be sure they are performing as needed and when they are not, and that certainly will happen, adjust them accordingly. Rate setting is always a work in progress.

There have been many changes since the original report I gave you, dated June 8, 2021. Most have the effect of pushing rates higher. Some go the other way.

- CIP costs are higher than originally estimated. But they have also been delayed two years. One somewhat offsets the other.
- Additional loan and grant funds have been secured and loan lengths have been extended, and interest rates reduced, reducing annual debt payments that otherwise would be required. Those partly offset each other.
- Bill effects of new rates are shown in Table 18 of each model, and Table 18B, page 41, which combines water and sewer bills. In brief, compared to the originally recommended rates, water bills now can go down slightly for about 1,500 gallons of use per month or less. Above that, they need to rise. Compared to the originally recommended rates, sewer bills now need to be higher for all volumes of use and much higher overall. And when water and sewer bills are combined (Table 18B), which is what most customers experience, the bill for 1,000 gallons or less must rise only slightly and bill increases are more for higher volumes of use. But even that is not a complete picture of the effect of new rates, mainly because most customers use less sewer service than the water service they use.
- The Town adopted rates in different rate structures than those which I recommended, which is acceptable, but it is a factor in deciding how to model rates for the supplemental report. I chose to stick with the structures I originally recommended rather than try to incorporate the structures you adopted. This way, you will know what rates I recommend and you can choose to adopt those rates. Or you can adjust the structure of the newly recommended rates in the same way as you adjusted structures the first time. How you do that is up to you. There is not a right or wrong answer.

The report covers two models, one for water and one for sewer. Following are the model names and descriptions:

- "Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024," later just called, "Revised Water CIP Model," depicts funding the new water plant, at a higher cost and with a different funding package than assumed in 2021.
- "Richlands, VA, 2020 Sewer Rates Model 1," later just called, "Revised Sewer CIP Model," is the same as the above water model, except it is for sewer.

In the report and printouts of the models that will follow, I will cover the water model and rates first and the sewer model and rates after that. I will be as brief as possible, so if you want to know more about principles, methods, structuring theory, previous recommendations, and other issues, please review the June 8, 2021, report.

Revised Water CIP Model Discussion

Tables 3 and 4, starting on page 16, come from the original model with only a bit of "wordsmithing." Some may wish to have that information for comparison to where the utilities are now, financially.

Capital Improvement Program (CIP) Costs, Loans and Grants

Table 5, page 19, which covers capital improvements, debt and grants, is where the big change drivers are. The Town's new Director of Finance, Ronnie Campbell, sent me critical data, so I could update CIP data in the models. That included new costs and amounts for system improvements, loans and loan terms, and grants; incomes and expenses expected for Fiscal Year 2024; and the current rates.

I updated CIP data in Table 5 accordingly. These changes revealed that the rates originally modeled are not appropriate now. Therefore, in Table 10, page 21, the main rate calculations table, I modeled new rates to generate enough revenue to pay the new costs, the system's ongoing operating costs, build appropriate reserves, and do it fairly.

Cost Sharing Among the Members of the Authority

The Town, plus Tazewell County and Cedar Bluff are members of the authority. They share authority costs on a set percentage basis. The County and Cedar Bluff cost shares for earlier costs are shown in Table 3, page 16. Their shares of debt for the system improvements are included in Table 5, in the "CIP Fund Sources" section. Thus, if the improvements are built soon and debt incurred during the "5th Year" of the Model, and debt repayment begins in the "6th Year" of the Model, those two members would begin contributing their shares of that debt payment. Whether the project happens on this schedule or not, whenever debt payments begin, that is when these two members' share payments should begin, unless the Authority has in place other arrangements.

Rate Adjustments Should Not Be Phased-in

In the models done in 2021, it was assumed the initial rate adjustments would be phased in over three years to ramp rates up to the revenue needed. Back then you had the "luxury" of easing into new rates. That time has passed. It is now time to collect the full share of revenue needed, so the modeled rates assume no phasing in. Rates need to go up in one "jump" and that needs to happen as soon as possible. To delay would put the utilities at financial risk.

Rate Affordability

Rate affordability, often measured by the Affordability Index (AI), is an important indicator to which you should pay attention. In Table 17, near the top, I show the estimated AI.

In the table, the AI calculation for the test year was at 1.17 percent. That means, such a customer paid 1.17 percent of their monthly household income to pay their monthly water bill. The national average is around 1.0 percent and that is considered affordable, so your current rates could reasonably be called slightly less affordable than average.

Under the modeled rates, by the sixth year when debt repayment will probably commence, this customer's AI will have risen to 2.27 percent. That means the bill for 5,000 gallons per month will rise markedly. After that, the AI is projected to rise slowly over the years.

Staff told me the VDH SRF Program considers affordability of the volume of use relevant to the individual borrowing utility. In your case, that is 3,528 gallons per month, not 5,000 gallons. Therefore, I calculated that Affordability Index, as well. That index was 0.91 percent in the test year and would by the sixth year would rise to 1.45 percent.

Affordability Index: The monthly charge for (typically) 5,000 gallons of residential service divided by the median monthly household income for the area served by the system. An index of 1.0, meaning a household pays one percent of its income to pay its bill for 5,000 gallons of service, is generally considered affordable. The Affordability index is a primary factor in determining grant and loan eligibility and grant amount.

Affordability is important because most grant programs that have an AI eligibility criterion try to keep rates, after a capital improvement is completed and debt is in place, below 1.5 to 2.0 percent. The current rates are far from satisfying such a criterion, but the future rates are well above it. Frankly, given these new circumstances, I would have expected you to qualify for more grant funding than 25 percent, but agencies have their eligibility criteria and there are many entities vying for limited funds. Eligibility is one thing. Having enough funds to cover all those that are eligible is another.

The affordability index is useful, but it does not depict how new rates will affect customer types or those using different volumes. Table 18, page 26, shows how customers' bills at different volumes of use and assumed to have a five-eighths inch meter will be affected by the modeled rates. Table 18 gives ratepayers useful information. It is one of the few tables from the Model that I recommend you copy and bring to the board meeting for ratepayer attendees when you discuss rates. Because most customers are concerned about what will happen to their bills, you should give this table to everyone who wants a copy.

There is also a Table 18B which combines water and sewer bills. That is discussed in the sewer rates section.

Recommendations for Adopting the Revised Water CIP Model Rates

In the following, I summarized my rate adjustment recommendations. In two tables that follow, I list the rates and fees you should adopt:

- 1. Tables A and B that follow this list state the modeled rates and fees.
- 2. The calculations assumed you will make these adjustments as soon as possible in Fiscal Year 2024, which is the current fiscal year. In the Model, that year is called, "4th Year Starting 7/1/23." Rate adjustment delay will slow down revenue generation and extreme delay could place the utility at risk. You would need to satisfy all Statutory requirements for making rate adjustments in advance of the adjustment date.
- 3. Approximately one full year after the initial rate adjustments in Fiscal Year 2024, increase the minimum and unit charges by 1.0 percent and do the same each following year. This 1.0 percent increase rate assumes inflation in the utility's operating budget (not including debt service, which has already been accounted for in the initial adjustments) will be 3.0 percent. Therefore, if budget inflation is greater than 3.0 percent, change the adjustment percentage accordingly. However, do not lower rates if the budget inflation factor drops to 2.0 percent or less. Instead, hold rates steady during such a year. Also note: This rate increase factor is different from future sewer rate adjustments that will be needed.
- 4. In addition to instructions for future adjustments in Bullet Point 3 above, examine the costs and incomes the utility experienced during the fifth year of the Model, and that you expect to experience in the sixth year (the projected budget), plus the balances that have accrued and are expected to accrue. Compare those items to the same items in Tables 3, 4, 5 and 17, of the Model.
 - a) If all accrued close to and are expected to stay close to the values in the Model, raise all rates by 1.0 percent, as shown near the top of Table 3, page 16.
 - b) If balances did not accrue as shown at the bottom of Table 17, but they are not egregiously too low, follow the instructions in Chapter 9 of the book, "How to Get Great Rates" for how to make inflationary increases correctly.
 - c) If balances were too low by an amount that is troubling to you, call me to discuss the situation. It is likely I will be able to "talk you through" how to make appropriate rate adjustments to correct the situation.
- 5. From the fifth year on, once you have raised rates and fees by a cumulative 20 percent, have me or another rate analyst of your choice perform a new rate analysis, so rate structure and adequacy can be readjusted. (If all goes as modeled, that will be many years from now.) If your capital improvement costs and funding package turns out to be markedly different than modeled, you will need a new rate analysis or at least a model update at that time.

Table A: In-Town Water Rates From the Revised Water CIP Model

Table A: System Development Fees; Minimum and Unit Charges; With No Usage Allowance; Calculated by the Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

To fund revised and increased system improvements as well as current operating costs, adopt these rates as soon as possible in fiscal year 2024.

In-Town

					1
Water Meter Size in Inches	Meter Type	Fee per New Tap for Peak Costs	Monthly Minimum Charge Each Meter Size	Usage Allowance in Gallons	Unit Charge per 1,000 Gallons
0.625	Displacement	\$400	\$10.19	0	\$3.15
0.750	Displacement	\$400	\$10.19	0	\$3.15
1.000	Displacement	\$1,000	\$13.03	0	\$3.15
1.500	Displacement	\$1,999	\$17.77	0	\$3.15
2.000	Displacement	\$3,199	\$23.45	0	\$3.15
2,500	Displacement	\$4,998	\$31.98	0	\$3.15
3.000	Singlet	\$6,398	\$38.61	0	\$3.15
3,000	Compound, Class I	\$6,398	\$38.61	0	\$3.15
3.000	Turbine, Class I	\$6,997	\$41.45	0	\$3,15
4.000	Singlet	\$9,996	\$55.66	0	\$3,15
4.000	Compound, Class I	\$9,996	\$55.66	0	\$3.15
4.000	Turbine, Class I	\$12,395	\$67.03	0	\$3.15
6.000	Singlet	\$19,993	\$ \$103.03	0	\$3.15
6.000	Compound, Class I	\$19,993	\$103.03	0	\$3.15
6,000	Turbine, Class I	\$25,990	\$131.45	0	\$3.15

Table B: Out-of-Town Water Rates From the Revised Water CIP Model

Table B: System Development Fees; Minimum and Unit Charges; With No Usage Allowance; Calculated by the Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

To fund revised and increased system improvements as well as current operating costs, adopt these rates as soon as possible in fiscal year 2024.

		Out-of-Town			
Water Meter Size in Inches	Meter Type	Fee per New Tap for Peak Costs	Monthly Minimum Charge Each Meter Size	Usage Allowance in Gallons	Unit Charge per 1,000 Gallons
0.625	Displacement	\$533	\$14.14	0	\$4.37
0.750	Displacement	\$533	\$14.14	0	\$4.37
1.000	Displacement	\$1,333	\$18.08	0	\$4.37
1.500	Displacement	\$2,666	\$24.65	0	\$4.37
2,000	Displacement	\$4,265	\$32.54	0	\$4.37
2,500	Displacement	\$6,664	\$44.37	0	\$4.37
3.000	Singlet	\$8,530	\$53.57	0	\$4.37
3.000	Compound, Class I	\$8,530	\$53.57	0	\$4.37
3.000	Turbine, Class I	\$9,330	\$57.51	0	\$4.37
4.000	Singlet	\$13,328	\$77.23	0	\$4.37
4.000	Compound, Class I	\$13,328	\$77.23	0	\$4.37
4.000	Turbine, Class I	\$16,527	\$93.00	0	\$4.37
6.000	Singlet	\$26,657	\$142.95	0	\$4.37
6.000	Compound, Class I	\$26,657	\$142.95	0	\$4.37
6.000	Turbine, Class I	\$34,654	\$182.39	0	\$4.37

Water Section Closing

If you fund the new plant with the funding package presented, I recommend you adopt the rates calculated in the Revised Water CIP Model, which were discussed in several subsections above. Those rates are shown in Tables A and B immediately above. These rates are nearly in a cost-to-serve structure. They will fully fund the utility over the long term. It is important that you examine accrual of balances each year to assure the rates are bringing in adequate revenue. If they are not, increase rates across the board by a percentage that will bring the balances up to where I calculated they need to be each year.

This combination of initial adjustments will result in a modest overall increase in water rate revenues and little change to the average residential customer's water bill. Future inflationary increases are projected to raise all bills by 1.0 percent per year.

Revised Sewer CIP Model Rates

Tables 3 and 4, starting on page 30, come from the original model and may be useful for comparison to where the utilities are now, financially.

Capital Improvement Program (CIP) Costs, Loans and Grants

Like the Water Model, Table 5, page 33, of the Sewer Model covers capital improvements, debt and grants. Sewer system improvements will be a much bigger drivers of higher rates than the water system improvements. Otherwise, I revised this Table 5 in the same ways as I revised the Water Model Table 5. Following that, in Table 10, page 35, I modeled new rates to generate enough revenue to pay the new costs, the system's ongoing operating costs, build appropriate reserves, and do it fairly.

Cost Sharing Among the Members of the Authority

The Town, plus Tazewell County and Cedar Bluff are members of the authority for sewer services, too. Cost sharing for sewer services is done much like that as for water service, but the share percentages are a bit different.

Rate Adjustments Should Not Be Phased-in

As with the new water rates, new sewer rates should be adopted as soon as possible.

Rate Affordability

Rate affordability, often measured by the Affordability Index (AI), is an important indicator to which you should pay attention. In Table 17, near the top, I show the estimated AI. In the table, the AI calculation for the test year was at 1.17 percent. (This is the same as the water rates AI because in 2021, the Town assessed the same rates for water and for sewer. That, by the way, is a structure I do not recommend because the utilities have different total costs and different cost structures, so rates should be tailored to each utility's circumstances.)

Under the modeled rates, by the sixth year when debt repayment will probably commence, this customer's AI will have risen to 4.16 percent. That means the bill for 5,000 gallons per month will rise markedly. After that, the AI is projected to rise significantly over the years.

The VDH SRF Program considers affordability of the volume of use relevant to the individual borrowing utility. In your case, that is 3,528 gallons per month, not 5,000 gallons. Therefore, I calculated that Affordability Index, as well. That index was 0.91 percent in the test year and would by the sixth year would rise to 2.96 percent.

Table 18, page 40, shows how customers' bills at different volumes of use and assumed to have a five-eighths inch meter will be affected by the modeled rates. There is also a Table 18B which combines water and sewer bills. That is discussed in the sewer rates section.

Recommendations for Adopting the Revised Sewer CIP Model Rates

In the following, I summarized my rate adjustment recommendations. In two tables that follow, I list the rates and fees you should adopt:

- 1. Tables C and D that follow this list state the modeled rates and fees.
- 2. The calculations assumed you will make these adjustments as soon as possible in Fiscal Year 2024, which is the current fiscal year. In the Model, that year is called, "4th Year Starting 7/1/23." Rate adjustment delay will slow down revenue generation and extreme delay could place the utility at risk. You would need to satisfy all Statutory requirements for making rate adjustments in advance of the adjustment date.
- 3. Approximately one full year after the initial rate adjustments in Fiscal Year 2024, increase the minimum and unit charges by 4.0 percent and do the same each following year. This 4.0 percent increase rate assumes inflation in the utility's operating budget (not including debt service, which has already been accounted for in the initial adjustments) will be 3.0 percent. Therefore, if budget inflation is greater than 3.0 percent, change the adjustment percentage accordingly. However, even if there is no budget inflation for a year, do not drop the rate inflation factor below 1.0 percent. Also note: This rate increase factor is quite different from future water rate adjustments that will be needed.
- 4. In addition to instructions for future adjustments in Bullet Point 3 above, examine the costs and incomes the utility experienced during the fifth year of the Model, and that you expect to experience in the sixth year (the projected budget), plus the balances that have accrued and are expected to accrue. Compare those items to the same items in Tables 3, 4, 5 and 17, of the Model.
 - a) If all accrued close to and are expected to stay close to the values in the Model, raise all rates by 4.0 percent, as shown near the top of Table 3, page 30.
 - b) If balances did not accrue as shown at the bottom of Table 17, but they are not egregiously too low, follow the instructions in Chapter 9 of the book, "How to Get Great Rates" for how to make inflationary increases correctly.
 - c) If balances were too low by an amount that is troubling to you, call me to discuss the situation. It is likely I will be able to "talk you through" how to make appropriate rate adjustments to correct the situation.
- 5. From the fifth year on, once you have raised rates and fees by a cumulative 20 percent, have me or another rate analyst of your choice perform a new rate analysis, so rate structure and adequacy can be readjusted. (If all goes as modeled, that will happen about five years from now.) If your capital improvement costs and funding package turns out to be markedly different than modeled, you will need a new rate analysis or at least a model update at that time.

Table C: In-Town Sewer Rates From the Revised Sewer CIP Model

Table C: System Development Fees; Minimum and Unit Charges; With No Usage Allowance; Calculated by the Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

To fund revised and increased system improvements as well as current operating costs, adopt these rates as soon as possible in fiscal year 2024.

ln.	LOWE	١

ı						
	Water Meter Size in Inches	Meter Type	Fee per New Tap for Peak Costs	Monthly Minimum Charge Each Meter Size	Usage Allowance in Gallons	Unit Charge per 1,000 Gallons
	0.625	Displacement	\$300	\$23.25	0	\$7.17
	0.750	Displacement	\$300	\$23.25	0	\$7.17
	1.000	Displacement	\$750	\$25.92	0	\$7.17
	1.500	Displacement	\$1,500	\$30.39	0	\$7.17
١	2.000	Displacement	\$2,400	\$35.75	0	\$7.17
	2.500	Displacement	\$3,750	\$43.78	0	\$7.17
	3.000	Singlet	\$4,800	\$50.03	0	\$7.17
	3.000	Compound, Class I	\$4,800	\$50.03	0	\$7.17
	3,000	Turbine, Class I	\$5,250	\$52.71	0	\$7.17
	4.000	Singlet	\$7,500	\$66.10	Ó	\$7.17
	4.000	Compound, Class I	\$7,500	\$66.10	0	\$7.17
	4.000	Turbine, Class I	\$9,300	\$76.82	0	\$7.17
	6.000	Singlet	\$15,000	\$110.75	0	\$7.17
	6.000	Compound, Class I	\$15,000	\$1,10.75	C	\$7.17
	6.000	Turbine, Class I	\$19,500	\$137.54	C	\$7.17

Table D: Out-of-Town Sewer Rates From the Revised Sewer CIP Model

Table D: System Development Fees; Minimum and Unit Charges; With No Usage Allowance; Calculated by the Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

To fund revised and increased system improvements as well as current operating costs, adopt these rates as soon as possible in fiscal year 2024.

Out-of-Town													
Water Meter Size in Inches	Meter Type	Fee per New Tap for Peak Costs	Monthly Minimum Charge Each Meter Size	Usage Allowance in Gallons	Unit Charge per 1,000 Gallons								
0.625	Displacement	\$400	\$36.26	0	\$11.19								
0.750	Displacement	\$400	\$36.26	0	\$11.19								
1.000	Displacement	\$1,000	\$40.44	0	\$11.19								
1.500	Displacement	\$2,000	\$47.40	0	\$11.19								
2.000	Displacement	\$3,200	\$55.76	0	\$11.19								
2.500	Displacement	\$5,000	\$68.29	0	\$11.19								
3.000	Singlet	\$6,400	\$78.04	0	\$11.19								
3.000	Compound, Class I	\$6,400	\$78.04	0	\$11.19								
3.000	Turbine, Class I	\$7,000	\$82.22	0	\$11.19								
4.000	Singlet	\$10,000	\$103.11	0	\$11.19								
4.000	Compound, Class I	\$10,000	\$103.11	0	\$11.19								
4.000	Turbine, Class I	\$12,400	\$119.82	0	\$11.19								
6.000	Singlet	\$20,000	\$172.75	0	\$11.19								
6.000	Compound, Class I	\$20,000	\$172.75	0	\$11.19								
6.000	Turbine, Class I	\$26,000	\$214.53	0	\$11.19								

Sewer Section Closing

Rates for water and sewer both need to rise, but sewer rates need to go up much more. Otherwise, my recommendations are to handle sewer rates as I recommended for water rates.

Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

This model does several things. It uses recently revised system improvement costs and a revised package of DEQ grants and loans to arrive at the rates now needed to fund the system's operating costs, along with the recently refined improvement costs. And, reserves still need to be built up, so the modeled rates do that, too.

August 30, 2023
This rate analysis model was produced by
Carl E. Brown, GettingGreatRates.com
1014 Carousel Drive, Jefferson City, Missouri 65101
(573) 619-3411
https://gettinggreatrates.com

carl1@gettinggreatrates.com

Note: This document is a print out of the spreadsheet model used to calculate new user charge and other rates and fees for the next 10 years. These calculations are complex and are based upon many conditions and assumtions. These issues, and others, are described in a narrative report that accompanies this model.

Table 3 - Operating Incomes and Basic User Data

Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

This table depicts user statistics, customer growth, and system incomes and across the board "inflationary" style rate increases through the 10th year.

Annual Median Household Income (AMHI)

\$30,149 Income used by the VDH SRF Loan Program

Test Year Growth of Customer Base and Average Tap Fee Paid per Connection

2 Number new Water connections made during test year

\$400 Average Water tap or installation fee assessed during the test year

This model is programmed for rates to be reset in the "Analysis Year," also called the "O Year" column below (heading highlighted blue). Revenues will be collected at the now-current rates for the first part of the analysis year and the modeled rates for the last part of the analysis year. Thus, the revenues shown in the last column of that table are "blended" revenues; part collected at the old rates and part collected at the new rates. It was then assumed that all rate adjustments made after the initial (major) adjustment will be done annually on approximately the anniversary of the first adjustment. If rates will not be adjusted during the "O Year," an adjustment (normally a revenue reduction) was calculated below to account for the late start in making the first adjustments.

Total (Revenue Loss (-) Due to Conservation	Revenue Loss (-) or Gain Because Rate Adjustments Made This Number of Months Late	Revenue Reduction Due to COVID-19 (10% of User Charge Fees from March, 2020 to June, 2021)	TZ CO PSA-KENTS RIDGE (Cedar Bluff 10%), Additional Revenues in Table 5	TAZ. PSA WATER COLL (26%), Additional Revenues in Table 5	S	SALE OF SAL	CONTRACT WO	CONTRACT WO	CEDA	CEDAR BL		Meter Size-based System Development Fees (Tables 13,	New Water Taps or Connections (Current Rate Structure)	E	User Charge Fees (Tables 10, 12, 12B, 15, 15B, 16, 16B)	Operating Incomes	Total Calculated Revenues (User Charge Fees)	Additional Sales Revenues From New Customers	Actual or Calcula	How User Charge Fees Were Calculated, Accounting for New Customers and Future Rate Increases	Actual (Test Year) and Projected Service, in Gallons	Customer Gro	Customers Added o	Average N	Customers Added o.			Data Increases Drainated for Dittira Vacan		(riist year balances and incomes are <u>actual,</u> subsequent years are <u>projected.)</u>	i
Total Operating Incomes	Due to Conservation	or Gain Because Rate Adjustments Made This Number of Months Late	/ID-19 (10% of User 2020 to June, 2021)	Bluff 10%), Additional Revenues in Table 5	ditional Revenues in Table 5	SERVICE CHARGES	SALE OF SALVAGE & SURPLUS	CONTRACT WORK-WATER PLANT	CONTRACT WORK-SEW/WAT LIN	CEDAR BLUFF-Wat Debt	CEDAR BLUFF WATER COLL	Interest Income	ent Fees (Tables 13, 14)	rrent Rate Structure)	Late Payment Charge	.B, 15, 15B, 16, 16B)		(User Charge Fees)	rom New Customers	Actual or Calculated Sales Revenues	ed, Accounting for New	d Service, in Gallons	Customer Growth or Loss (-) Rate	Customers Added or Lost (-) Each Year	Average Number of Customers	r Lost (-) Each Year		2 101 - 41010	d for Disting Voors		<u>ictual,</u> subsequent	
)	5.0%	12.0	N.	N A	N >	A.N	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	% Above	% Above	N.A.	N.A.			ı		/ Customers and	N.A.		Ą.	N.A.	Ą.	<u>.</u>	5	2	(-) Factor	Inflation/	
\$1,395,968	\$0	\$0	\$0	\$2,598	\$478,710	\$4,964	\$711	\$57	\$406	\$996	\$67,524	\$3,172	\$0	\$800	\$13,479	\$822,551		\$864,354		\$864,354	d Future Rate Inci	155,733,869		2.0	2,495	2.0		N.	77 17 10	Starting	Test Year	
\$1,370,650	\$0	\$0	-\$27,412	\$2,598	\$478,710	\$4,964	\$711	\$57	\$406	\$996	\$67,524	\$5,454	\$2	\$798	\$13,490	\$822,352		\$864,146	\$2	\$864,144	reases	155,858,701		2.0	2,497	2.0		7.7.7	81717	Starting	0 Year	
\$1,339,927	\$0	\$77,003	-\$74,987	\$2,655	\$489,273	\$4,964	\$711	\$57	\$406	\$996	\$69,014	\$5,663	\$800	\$0	\$13,501	\$749,872		\$787,981	\$630	\$787,351		155,983,534	0.08%	2.0	2,499	2.0	e across-the-boa	he row above ch	// //20	Starting	1st Year	
\$1,546,391	-\$405	\$77,003	\$0	\$3,241	\$597,110	\$4,964	\$711	\$57	\$406	\$996	\$84,225	\$5,788	\$808	\$0	\$13,512	\$757,977		\$796,498	\$637	\$795,861		156,108,366	0.08%	2.0	2,501	2.0	ard increases to a	owe the rate at w	111121	Starting	2nd Year	
\$1,502,518	-\$410	\$0	\$0	\$3,353	\$617,737	\$4,964	\$711	\$57	\$406	\$996	\$87,134	\$7,064	\$816	\$0	\$13,523	\$766,168		\$805,106	\$643	\$804,463		156,233,199	0.08%	2.0	2,503	2.0	Il rates and fees	hich rear charge	111122	Starting	3rd Year	
\$1,525,754	-\$414	\$0	\$0	\$3,422	\$630,557	\$4,964	\$711	\$57	\$406	\$996	\$88,943	\$7,308	\$824	\$0	\$13,533	\$774,448		\$813,806	\$649	\$813,157		156,358,032	0.08%	2.0	2,505	2.0	and that should o	fees should be in	//1/23	Starting	4th Year	
\$1,554,333	-\$418	\$0	\$0	\$3,517	\$648,040	\$4,964	\$711	\$57	\$406	\$996	\$91,409	\$7,459	\$832	\$0	\$13,544	\$782,816		\$822,600	\$656	\$821,944		156,482,864	0.08%	2.0	2,507	2.0	ontinue until a ne	7.0%	//1/24	Starting	5th Year	
\$1,587,498	-\$423	\$0	\$0	\$3,552	\$654,521	\$4,964	\$711	\$57	\$406	\$996	\$109,378	\$7,666	\$840	\$0	\$13,555	\$791,275		\$831,488	\$662	\$830,826		156,607,697	0.08%	2.0	2,509	2.0	w rate analysis is	7.0%	7/1/25	Starting	6th Year	
\$1,604,622	-\$427	\$0	\$0	\$3,588	\$661,066	\$4,964	\$711	\$57	\$406	\$996	\$111,350	\$7,674	\$849	\$0	\$13,566	\$799,824		\$840,472	\$669	\$839,803		156,732,529	0.08%	2.0	2,511	2.0	done.	1.0%	7/1/26	Starting	7th Year	
\$1,622,469	-\$432	\$0	\$0	\$3,624	\$667,677	\$4,964	\$711	\$57	\$406	\$996	\$114,046	\$7,523	\$857	\$0	\$13,576	\$808,465		\$849,552	\$676	\$848,877		156,857,362	0.08%	2.0	2,513	2.0	meni yedi. Omes	1.0%	7/1/27	Starting	8th Year	
\$1,640,995	-\$437	\$0	\$0	\$3,660	\$674,353	\$4,964	\$711	\$57	\$406	\$996	\$117,535	\$7,098	\$866	\$0	\$13,587	\$817,199		\$858,730	\$682	\$858,048		156,982,195	0.08%	2.0	2,515	2.0	be across-the-board increases to all rates and that should continue until a new rate analysis is done.	1.0%	7/1/28	Starting	9th Year	
\$1,657,942	-\$441	\$0	\$0	\$3,696	\$681,097	\$4,964	\$711	\$57	\$406	366\$	\$119,684	\$6,273	\$875	\$0	\$13,598	\$826,027		\$868,007	\$689	\$867,317	- Control of the second	157,107,027	0.08%	2.0	2,517	0.0	e, these should	1.0%	7/1/29	Starting	10th Year	

Note: The yellow highlighted revenues above are fees collected from Richland's cooperating utilities and service areas. By agreements, those areas participate in the utility's costs by set percentages. Therefore, in future years these revenues were increased or decreased by the same percentage rates that Richland's operating and capital costs (debt) will increase or decrease each year.

Table 4 - Operating Costs and Net Income

Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

This table depicts expenses during the test year, this year and for the next 10 years. Some future costs will experience inflation. Those costs that go up as use goes up are increased by the cost inflation factor plus the growth rate in users

Analysis

(First year costs and net incomes are actual, subsequent years are projected.) INS WORKMENS COMPENSATION CARD PROCESSING CHGS/FEES BUILDING REPAIRS/ADDITION LEASE PROP & RIGHT OF WAY MAINS, LINES & VALVE MAINT MACHINERY AND EQUPMENT CHEMICALS / SUPPLIES-LAB HEALTH DEPT ASSESSMENT HAND TOOLS & EQUIPMENT BIRMINGHAM LIFT STATION EQUIPMENT MAINTENANCE INSTRUMENT CALIBRATION CEDAR BLUFF BD-Wat Debt DEPRECIATION EXP-PROF INFRASTRUCTURE, DEPR CORR OF I/I SEWER LINE CHEMICALS-TREATMENT INS GEN LIABILITY/BLDG METERS & RELATED EC INS.-RETIREMENT PLAN GROUNDS & FACILITIES INS SOCIAL SECURITY DUES & MEMBERSHIP CASH OVER & SHORT CLEANING SUPPLIES BIRM WATER DEBT AUDITING & LEGAL MISCELLANEOUS FIRE HYD/LINES GRAVEL/STONE IT SERVICE/EC ENGINEERING ELECTRICITY EQUIPMENT INS HEALTH GARBAGE INS AUTO INS.-LIFE Deflation 3.0% \$127,491 Test Year \$127,986 \$11,098 \$21,901 \$69,114 Starting \$10,155 \$27,619 \$11,592 \$1,358 \$1,633 \$7,375 \$61,733 \$1,464 \$7,699 \$1,233 \$1,316 \$3,775 \$1,357 7/1/18 \$5,774 \$135 \$335 \$618 \$131,420 \$131,825 \$28,448 \$11,939 \$22,558 \$71,245 \$10,460 \$11,43 Starting \$63,585 \$1,398 \$1,399 \$1,682 \$7,596 0 Year \$9,563 \$1,508 \$7,930 \$1,270 \$1,355 \$3,888 \$2,207 7/1/19 \$5,947 \$2,206 \$803 \$226 \$139 \$346 \$636 \$876 \$135,780 \$135,471 1st Year \$12,297 \$73,441 \$10,774 \$11,774 \$23,235 Starting \$29,301 \$1,440 \$1,441 \$2,274 \$1,553 \$8,168 \$4,005 \$2,272 \$9,850 \$1,308 \$1,396 \$144 \$828 \$139,647 2nd Year \$139,853 \$12,666 \$23,932 \$12,128 \$30,180 \$75,704 \$11,097 \$67,458 \$10,145 \$8,413 \$4,125 \$1,483 \$1,484 \$2,342 Starting \$1,600 \$1,347 \$1,438 \$2,340 \$240 \$148 \$367 \$675 Years Following the Analysis Year (for Which Results Have Been Projected) \$143,952 \$13,046 \$24,650 \$11,430 \$144,049 \$12,491 \$78,038 \$69,481 \$31,086 \$10,450 \$1,527 \$8,301 \$4,249 \$1,528 \$2,412 \$1,838 \$2,410 \$1,648 \$8,666 \$1,388 \$1,481 7/1/22 \$6,499 \$152 \$378 \$148,388 \$25,390 \$148,37 \$80,443 \$32,018 \$11,773 \$12,866 \$10,763 \$13,438 \$71,566 \$4,376 \$1,573 \$1,574 \$1,893 \$1,697 \$1,525 \$8,926 \$1,429 7/1/23 \$6,425 \$6,694 \$2,483 \$389 \$716 \$152,962 5th Year Starting 7/1/24 \$152,822 \$13,841 \$26,151 \$11,086 \$12,126 \$73,713 \$13,252 \$32,979 \$82,923 -\$10,309 \$1,571 \$4,508 \$1,620 \$1,622 \$1,950 \$1,015 \$1,748 \$1,472 \$6,895 \$9,194 \$162 \$738 \$401 \$157,677 \$157,406 \$13,650 \$14,256 \$26,936 \$75,924 \$33,968 \$11,419 \$12,490 \$1,670 \$1,516 \$1,669 \$2,008 \$1,045 \$2,634 \$1,801 \$9,469 \$1,618 \$4,643 \$760 \$413 \$162,536 \$162,129 \$2,713 \$78,202 \$34,987 \$14,059 \$11,761 \$14,684 \$27,744 \$88,113 \$12,865 \$1,719 \$9,753 \$1,562 \$4,782 \$1,720 \$9,342 \$7,020 \$1,855 \$1,666 \$7,314 \$1,077 \$783 \$425 \$278 \$171 \$166,992 \$167,545 8th Year Starting \$14,481 \$10,046 \$15,124 \$28,576 \$1,770 \$90,828 \$13,250 \$36,037 \$80,548 \$12,114 \$7,231 \$7,534 \$1,109 \$2,794 \$1,910 \$1,609 \$1,716 \$4,926 \$1,018 \$1,772 \$9,623 \$177 \$438 \$286 \$806 \$172,709 \$172,002 \$15,578 \$13,648 \$14,915 \$37,118 \$12,478 \$10,347 \$29,434 \$93,628 \$1,048 \$1,824 \$1,825 \$7,448 \$1,142 \$1,768 \$5,073 \$2,880 \$2,195 \$2,878 \$1,967 \$1,657 \$451 \$295 \$182 \$830 \$178,032 \$177,162 \$10,658 \$16,045 \$30,317 \$14,057 \$96,513 \$15,363 \$38,231 \$10,209 \$85,453 \$12,852 \$1,080 \$1,880 Starting \$7,671 \$2,964 \$1,707 \$1,821 \$5,226 \$1,878 \$2,966 \$7,993 \$1,177 \$2,027 \$304 \$464 \$187 \$855

Table 4 - Operating Costs and Net Income

_	<																																				ı	,	
Notes: The Town will extend somion to approximately	Working Capital Goal: 50% In Dollars, That is:	Net Income (or Loss)	Total Operating	Total CIP-related Payouts	User Charge Analysis Services	Annual Payment to R&R Reserve (Table 7)	One-time Reduction of R&R Annuity	Payment in Lieu of Taxes (PILOT)	Salaries and Wages (Meter Reading)	Salaries and Wages (Billing, Office Staff)	WATER QUALITY TESTING	WATER DEBT BOND	WATER	VRS-VLDP	VEHICLE MAINT-OUTISDE	VEHICLE MAINT-INSIDE	UNIFORMS	TZ CO PSA BD-KENTS RIDGE	TRAINING EXPENSE	TOWN MANAGER SALARY	TOWN BD-KENTS RIDGE	TOWN ATTORNEY	TELEPHONE/INTERNET/COMM	SUPPLIES & MATERIALS	SEWER	SALARIES AND WAGES (Operations)	PRINTING & BINDING	POSTAGE	PLANT PARTS	OFFICE SUPPLIES	OFFICE FURN & FIXTURES	OFFICE FURN & COMPUTER EQ	NEW MANHOLES & SEWER LINE	NEW MAINS, LINES & VALVES	MOTOR FUEL & LUBRICATION	MISS UTILITY SERVICE FEES	TOTAL		
	That is:	or Loss)	Costs	N.A.	5.0%	0.0%	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	Factor		Inflation/
÷	\$545,399	\$305,170	\$1,090,798	Table 5	\$0	\$120,214	-\$120,214	\$0	\$20,289	\$51,496	\$12,006	\$0	\$2,216	\$468	\$4,735	\$4,838	\$1,156	\$0	\$543	\$11,610	\$0	\$7,444	\$6,484	\$7,813	\$59,950	\$318,785	\$2,143	\$8,801	\$130	\$844	\$0	\$0	\$130	\$560	\$6,651	\$0	7/1/18	Starting	Test Year
7. Thanks.	\$566,310	\$238,031	\$1,132,619	Table 5	\$8,911	\$120,214	-\$120,214	\$0	\$20,914	\$53,041	\$12,366	\$0	\$2,283	\$482	\$4,877	\$4,983	\$1,191	\$0	\$559	\$11,958	\$0	\$7,668	\$6,679	\$8,047	\$61,749	\$328,348	\$2,207	\$9,072	\$134	\$869	\$0	\$0	\$134	\$577	\$6,850	\$0	7/1/19	Starting	0 Year
	\$578,805	\$182,316	\$1,157,611	Table 5	\$0	\$120,214	-\$120,214	\$0	\$21,559	\$54,632	\$12,737	\$0	\$2,351	\$497	\$5,024	\$5,133	\$1,227	\$0	\$576	\$12,317	\$0	\$7,898	\$6,879	\$8,289	\$63,601	\$338,198	\$2,273	\$9,352	\$138	\$895	\$0	\$0	\$138	\$594	\$7,056	\$0	7/1/20	Starting	1st Year
	\$706,375	\$133,640	\$1,412,751	Table 5	\$0	\$120,214	\$0	\$100,000	\$22,224	\$56,271	\$13,119	\$0	\$2,422	\$512	\$5,175	\$5,287	\$1,263	\$0	\$593	\$12,687	\$0	\$8,135	\$7,086	\$8,537	\$65,509	\$348,344	\$2,342	\$9,640	\$142	\$922	\$0	\$0	\$142	\$612	\$7,267	\$0	7/1/21	Starting	2nd Year
	\$730,778	\$40,963	\$1,461,555	Table 5	\$9,824	\$120,214	\$0	\$103,000	\$22,909	\$57,959	\$13,513	\$0	\$2,494	\$527	\$5,330	\$5,446	\$1,301	\$0	\$611	\$13,067	\$0	\$8,379	\$7,298	\$8,794	\$67,475	\$358,795	\$2,412	\$9,937	\$146	\$950	\$0	\$0	\$147	\$631	\$7,485	\$0	7/1/22	Starting	3rd Year
	\$745,943	\$33,868	\$1,491,886	Table 5	\$0	\$120,214	\$0	\$106,090	\$23,615	\$59,698	\$13,918	\$0	\$2,569	\$543	\$5,490	\$5,609	\$1,340	\$0	\$629	\$13,459	\$0	\$8,630	\$7,517	\$9,057	\$69,499	\$369,559	\$2,484	\$10,243	\$151	\$978	\$0	\$0	\$151	\$650	\$7,710	\$0	7/1/23	Starting	4th Year
	\$766,626	\$21,082	\$1,533,252	Table 5	\$0	\$120,214	\$0	\$109,273	\$24,343	\$61,489	\$14,336	\$0	\$2,646	\$559	\$5,654	\$5,777	\$1,380	\$0	\$648	\$13,863	\$0	\$8,889	\$7,743	\$9,329	\$71,584	\$380,645	\$2,559	\$10,559	\$155	\$1,008	\$0	\$0	\$156	\$669	\$7,941	\$0	7/1/24	Starting	5th Year
		\$802	\$1,586,697	Table 5	\$10,831	\$120,214	\$0	\$112,551	\$25,093	\$63,334	\$14,766	\$0	\$2,726	\$576	\$5,824	\$5,950	\$1,422	\$0	\$668	\$14,279	\$0	\$9,156	\$7,975	\$9,609	\$73,731	\$392,065	\$2,636	\$10,885	\$160	\$1,038	\$0	\$0	\$160	\$689	\$8,180	\$0	7/1/25	Starting	Ath Year
		-\$15,141	,619,764	Table 5	\$0	\$120,214	\$0	\$115,927	\$25,866	\$65,234	\$15,209	\$0	\$2,808	\$593	\$5,999	\$6,129	\$1,465	\$0	\$688	\$14,707	\$0	\$9,430	\$8,214	\$9,897	\$75,943	\$403,827	\$2,715	\$11,220	\$ 165	\$1,069	\$0	\$0	\$165	\$710	\$8,425	\$0	7/1/26	Starting	7th Year
	\$832,493	-\$42,517	\$1,664,986	Table 5	\$0	\$120,214	\$0	\$119,405	\$26,663	\$67,191	\$15,665	\$0	\$2,892	\$611	\$6,179	\$6,313	\$1,508	\$0	\$708	\$15,148	\$0	\$9,713	\$8,460	\$10,194	\$78,221	\$415,941	\$2,796	\$11,566	\$169	\$1,101	\$0	\$ 0	\$170	\$731	\$8,678	\$0	7/1/27	Starting	8th Year
	\$861,757	-\$82,519	\$1,723,514	Table 5	\$11,942	\$120,214	\$0	\$122,987	\$27,485	\$69,206	\$16,135	\$0	\$2,978	\$629	\$6,364	\$6,502	\$1,554	\$0	\$730	\$15,603	\$ 0	\$10,005	\$8,714	\$10,500	\$80,568	\$428,420	\$2,880	\$11,922	\$175	\$1,134	\$0	\$0	\$175	\$753	\$8.938	\$0	7/1/28	Starting	D+h <>>2
	\$879,781	-\$101,621	\$1,759,563	Table 5	\$0	\$120,214	\$0	\$126,677	\$28,332	\$71,283	\$16,619	\$0	\$3,068	\$648	\$6,555	\$6,697	\$1,600	\$0	\$752	\$16,071	\$0	\$10,305	\$8,976	\$10,815	\$82,985	\$441.272	\$2.966	\$12.290	9120	\$1.168		\$0	\$180	\$776	\$9.206	\$0	7/1/29	Starting	*************************************

Notes: The Town will extend service to approximately 2 new customers per year. Therefore, the yellow highlighted cost items above will rise due to inflation and due to the additional cost of serving new customers,

Table 5 - Capital Improvement Program (CIP)

Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

This table depicts capital improvements and their funding. Test Year Costs reflect inflation. Test Year Costs stanting Starting
ital improvements and their funding. Test Year 0 Year 1st Year 2nd Year 3nd Year 4th Year 5th Year 6th Year Starting St
sital improvements and their funding. Test Year 0 Year 1st Year 2nd Year 3rd Year 4th Year 5th Year 6th Year Starting S

Table 5 - Capital Improvement Program (CIP)

Debt and CIP Reserves Ending Balances	Total CIP-related Payouts	Total Available Funds	Outcomes	Total Available Funds	Total Available External Funds	Loan Originated in 10th Year	Loan Originated in 9th Year	Loan Originated in 8th Year	Loan Originated in 7th Year	Loan Originated in 6th Year	Loan Originated in 5th Year (Payment Estimated by SRF Program)	Loan Originated in 4th Year	Loan Originated in 3rd Year	Ω	SWV W,		Fotal Available Internal Funds Grant and Loan Proceeds (External Funds)	Annualized Share of Debt, TCPSA (20%)	Annualized Share of Debt, Cedar Bluff (6%)	Debt and CIP Reserves Interest Earned (or Paid)	Working Capital Transferred in	Cash Reserves (Internal Funds) Debt and CIP Reserves Starting Balance \$0 \$289,405 \$12,314 \$692,380 \$7	CIP Flind Soliross (Following are th		Costs reflect inflation.	This table depicts capital improvements and their funding.
Balances	d Payouts	ble Funds	3	ble Funds	mal Funds	1 10th Year	in 9th Year	in 8th Year	in 7th Year	in 6th Year	nt Estimated by SRF Program)	in 4th Year	in 3rd Year	CDBG Grant	SWV W/WW Grant	DEQ Grant	ernal Funds al Funds)	PSA (20%) —	r Bluff (6%)	ed (or Paid)	ansferred in	ing Balance	o solitore and			eir funding.
\$289,405	\$0	\$289,405	his CIP spendi	\$289,405	\$0									\$0	\$0	\$0	\$289,405	\$0	\$0	\$0	\$289,405	\$0	7/1/18	otarung	Test Year	 >
\$512,314	\$0	\$512,314	ng and funding	\$512,314	\$0			•	Marka Amarona					\$0	\$0	\$0	\$512,314	\$0	\$0	\$5,788	\$217,121	\$289,405	7/1/19	Statrung	0 Year	Analysis Year
\$692,380	\$0	\$692,380	plan will result	\$692,380	\$0									\$0	\$0	\$0	\$692,380	\$0	\$0	\$10,246	\$169,820	\$512,314	7/1/20	Starting	1st Year	
\$712,297	\$0	\$712,297	in the following	\$712,297	\$0									\$0	\$0	\$0	\$712,297	\$0	\$0	\$13,848	\$6,070	\$692,380	7/1/21	Starting	2nd Year	Years Follow
\$743,104	\$0	\$743,104	ı cash needs ar	\$743,104	\$0								\$0	\$0	\$0	\$0	\$743,104	\$0	\$0	\$14,246	\$16,561	\$712,297	7/1/22	Starting	3rd Year	ing the Analysis
\$776,669	\$0	\$776,669	าd ending bala	\$776,669	\$0						A	\$0	\$0	\$0	\$0	\$0	\$776,669	\$0	\$0	\$14,862	\$18,703	\$743,104	7/1/23	Starting	4th Year	s Year (for Wh
\$792,601	\$5,818,962	\$6,611,563	(This CIP spending and funding plan will result in the following cash needs and ending balances each year.)	\$6,611,563	\$5,818,962						\$5,403,962	\$0	\$0	\$0	\$0	\$415,000	\$792,601	\$0	\$0	\$15,533	\$399	\$776,669	7/1/24	Starting	5th Year	Years Following the Analysis Year (for Which Improvement Projects, Costs, Funding, etc. Have Been Projected)
\$743,980	\$247,972	\$991,952)	\$991,952	\$0					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$991,952	\$158,702	\$24,797	\$15,852	\$0	\$792,601	7/1/25	Starting	6th Year	it Projects, Cos
\$694,387	\$247,972	\$942,359		\$942,359	\$0				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$942,359	\$158,702	\$24,797	\$14,880	\$0	\$743,980	7/1/26	Starting	7th Year	ts, Funding, et
\$643,802	\$247,972	\$891,774		\$891,774	\$0			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$891,774	\$158,702	\$24,797	\$13,888	\$0	\$694,387	7/1/27	Starting	8th Year	c. Have Been F
\$592,205	\$247,972	\$840,177		\$840,177	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$840,177	\$158,702	\$24,797	\$12,876	\$0	\$643,802	7/1/28	Starting	9th Year	rojected)
\$539,576	\$247,972	\$787,548		\$787,548	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$787,548	\$158,702	\$24,797	\$11,844	\$0	\$592,205	7/1/29	Starting	10th Year	

Notes: In 2020, when the original rate analysis was done, it was known that Richlands needed major system improvements. The design engineer gave an estimate of those costs at that time, with many unknowns yet to be determined. Over the past three years, much has changed. The cost estimates are much firmer, and unfortunately higher, and DEQ has since offered revised grant and loan amounts. Those grants and loans for the revised costs are included in this table highlighted in gold.

Table 10 - Initial Rate Adjustments and Resulting Revenues Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

This table calculates a new set of user charge rates and the revenues they would generate.

Premium for Out-of-Town Service

133%

Conservation Rate Block Multiplier

100%

Other Multiplier

6/30/20

Date when fees will first be collected at adjusted rates. Actual adjustment should occur one billing cycle earlier.

If there are no special costs to consider and before capacity costs are added, if appropriate, rates for a 5/8" meter would be in a "cost-to-serve" structure when: there is no usage allowance,

the base minimum charge is \$7.97 Monthly, and the unit charge is set at

\$3.03

per 1,000 Gallons.

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

Following are Blended Sales Revenues: Sales at the current (Test Year) rates (gray highlighted column) will apply until rates are adjusted. Sales at the modeled rates (yellow highlighted column) would apply after the modeled rates are adopted. Adding both together, the "blended" sales revenues show in the right-most column.

Customer Class, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Sales This Year at Current Rates	Basic Minimum Charge	New Usage Allowance in 1,000s	New Unit Charge per 1,000 Gallons	Sales This Year at Modeled Rates	Total "Blended" Sales This Year
	0	999	\$63,506	\$7.97	0.000	\$3.03	\$286	\$63,792
	1,000	1,999	\$92,116	\$7.97	0.000	\$3.03	\$285	\$92,401
	2,000	2,999	\$147,385	\$7.97	0.000	\$3.03	\$230	\$147,615
	3,000	3,999	\$106,097	\$7.97	0.000	\$3.03	\$163	\$106,260
	4,000	4,999	\$65,717	\$7.97	0.000	\$3.03	\$101	\$65,818
	5,000	5,999	\$39,240	\$7.97	0.000	\$3.03	\$61	\$39,301
	6,000	6,999	\$23,201	\$7.97	0.000	\$3.03	\$36	\$23,237
	7,000	9,999	\$30,220	\$7.97	0.000	\$3.03	\$48	\$30,268
	10,000	14,999	\$14,662	\$7.97	0.000	\$3.03	\$24	\$14,686
In Town Residential	15,000	19,999	\$5,380	\$7.97	0.000	\$3.03	\$9	\$5,389
Resideritiai	20,000	24,999	\$2,523	\$7.97	0.000	\$3.03	\$4	\$2,527
	25,000	29,999	\$1,704	\$7.97	0.000	\$3.03	\$3	\$1,707
	30,000	49,999	\$3,371	\$7.97	0.000	\$3.03	\$6	\$3,377
	50,000	74,999	\$1,249	\$7.97	0.000	\$3.03	\$2	\$1,251
	75,000	99,999	\$675	\$7.97	0.000	\$3.03	\$1	\$677
	100,000	124,999	\$320	\$7.97	0.000	\$3.03	\$1	\$321
	125,000	149,999	\$189	\$7.97	0.000	\$3.03	\$0	\$190
	150,000			\$7.97	0.000	\$3.03	\$0	\$225
	200,000		A CONTRACTOR OF STREET	\$7.97	0.000	\$3.03	\$0	\$37

Table 10 - Initial Rate Adjustments and Resulting Revenues

0			ggijan iginijang in					
Customer Class, Rate	Volume Range	Volume Range	Sales This	Basic	New Usage	New Unit Charge	Sales This Year at	Total "Blended"
Class or Meter	Bottom	Тор	Year at Current Rates	Minimum Charge	Allowance in 1,000s	per 1,000	Modeled	Sales This
Size	(in Gallons)	(in Gallons)		o,a,go	1,0003	Gallons	Rates	Year
	0	999	\$17,823	\$7.97	0.000	\$3.03	\$42	\$17,865
	1,000	1,999	\$7,787	\$7.97	0.000	\$3.03	\$22	\$7,809
	2,000	2,999	\$8,737	\$7.97	0.000	\$3.03	\$14	\$8,751
	3,000	3,999	\$5,184	\$7.97	0.000	\$3.03	\$9	\$5,193
	4,000	4,999	\$4,397	\$7.97	0.000	\$3.03	\$8	\$4,405
	5,000	5,999	\$4,026	\$7.97	0.000	\$3.03	\$7	\$4,033
	6,000	6,999	\$3,558	\$7.97	0.000	\$3.03	\$6	\$3,565
	7,000	9,999	\$9,848	\$7.97	0.000	\$3.03	\$17	\$9,865
	10,000	14,999	\$13,151	\$7.97	0.000	\$3.03	\$23	\$13,174
I T	15,000	19,999	\$9,251	\$7.97	0.000	\$3.03	\$16	\$9,268
In Town Commercial	20,000	24,999	\$7,298	\$7.97	0.000	\$3.03	\$13	\$7,310
Commordia	25,000	29,999	\$5,333	\$7.97	0.000	\$3.03	\$10	\$5,342
	30,000	49,999	\$15,044	\$7.97	0.000	\$3.03	\$27	\$15,071
	50,000	74,999	\$11,609	\$7.97	0.000	\$3.03	\$21	\$11,630
	75,000	99,999	\$6,840	\$7.97	0.000	\$3.03	\$13	\$6,852
	100,000	124,999	\$5,583	\$7.97	0.000	\$3.03	\$10	\$5,593
	125,000	149,999	\$4,504	\$7.97	0.000	\$3.03	\$8	\$4,512
	150,000	199,999	\$7,890	\$7.97	0.000	\$3.03	\$15	\$7,904
	200,000	399,999	\$20,254	\$7.97	0.000	\$3.03	\$37	\$20,291
	400,000	499,999	\$5,730	\$7.97	0.000	\$3.03	\$11	\$5,741
	500,000	999,999	\$12,875	\$7.97	0.000	\$3.03	\$24	\$12,898
	0	999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	1,000	1,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	2,000	2,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	3,000	3,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	4,000	4,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	5,000	5,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	6,000	6,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	7,000	9,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	10,000	14,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	15,000	19,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	20,000	24,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
Bulk Water	25,000	29,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	30,000	49,999	\$0	\$7.97	0.000	\$3.03	\$2	\$2
	50,000	74,999	\$0	\$7.97	0.000	\$3.03	\$2	\$2
	75,000	99,999	\$0	\$7.97	0.000	\$3.03	\$2	\$2
	100,000	124,999	\$0	\$7.97	0.000	\$3.03	\$2	\$2
	125,000	149,999	\$0	\$7.97	0.000	\$3.03	\$2	\$2
	150,000	199,999	\$0	\$7.97	0.000	\$3.03	\$5	\$5
	200,000	399,999	\$0	\$7.97	0.000	\$3.03	\$20	\$20
	400,000	499,999	\$0	\$7.97	0.000	\$3.03	\$10	\$10
	500,000	999,999	\$0	\$7.97	0.000	\$3.03	\$50	\$50
	1,000,000	1,999,999	\$798	\$7.97	0.000	\$3.03	\$92	\$890
	2,000,000	4,999,999	\$399	\$7.97	0.000	\$3.03	\$2	\$401

Table 10 - Initial Rate Adjustments and Resulting Revenues

Cuctor	\/aluma	Valuma				New Unit	Sales This	Total
Customer Class, Rate	Volume Range	Volume Range	Sales This	Basic	New Usage	Charge	Year at	"Blended"
Class or Meter	Bottom	Тор	ear at Current/ Rates	Minimum Charge	Allowance in 1,000s	per 1,000	Modeled	Sales This Year
Size	(in Gallons)	(in Gallons)		_		Gallons	Rates	rear
	0	999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	1,000	1,999	\$0	\$7.97	0.000	\$3.03	\$0	\$0
	2,000	2,999	\$36	\$7.97	0.000	\$3.03	\$0	\$36
	3,000	3,999	\$36	\$7.97	0.000	\$3.03	\$0	\$36
	4,000	4,999	\$36	\$7.97	0.000	\$3.03	\$0	\$36
	5,000	5,999	\$36	\$7.97	0.000	\$3.03	\$0	\$36
	6,000	6,999	\$36	\$7.97	0.000	\$3.03	\$0	\$36
	7,000	9,999	\$108	\$7.97	0.000	\$3.03	\$0	\$108
	10,000	14,999	\$180	\$7.97	0.000	\$3.03	\$0	\$180
	15,000	19,999	\$180	\$7.97	0.000	\$3.03	\$0	\$180
Water Plant	20,000	24,999	\$180	\$7.97	0.000	\$3.03	\$0	\$180
Backwash	25,000	29,999	\$180	\$7.97	0.000	\$3.03	\$0	\$180
	30,000	49,999	\$718	\$7.97	0.000	\$3.03	\$1	\$719
	50,000	74,999	\$898	\$7.97	0.000	\$3.03	\$2	\$899
	75,000	99,999	\$898	\$7.97	0.000	\$3.03	\$2	\$899
	100,000	124,999	\$854	\$7.97	0.000	\$3.03	\$2	\$855
	125,000	149,999	\$785	\$7.97	0.000	\$3.03	\$1	\$787
	150,000	199,999	\$1,571	\$7.97	0.000	\$3.03	\$3	\$1,574
	200,000	399,999	\$6,283	\$7.97		\$3.03	\$12	\$6,294
	400,000	499,999	\$3,141	\$7.97		\$3.03	l .	
	500,000	999,999		\$7.97				1
	1,000,000	1,999,999	\$5,435	\$7.97	0.000	\$3.03	F 3	1
	0	999	\$941	\$7.97	0.000		1	
	1,000	1,999	\$287	\$7.97			1	Į.
	2,000	2,999		\$7.97				1
	3,000	3,999	And the state of t	\$7.97			l .	
	4,000	4,999		\$7.97			1	1
	5,000	5,999		\$7.97			1	1
	6,000	6,999		\$7.97			ı	
	7,000		\$1.9 CHEST AND A PARTY OF SERVICE AND A SERV	\$7.97			ł .	1
	8,000			\$7.97			1	į.
	9,000			\$7.97			;	
	10,000			\$7.97			1	1
	15,000			\$7.97			ł	
Town	20,000			\$7.97			1	I
Departments	25,000			\$7.97			1	
	30,000		45/23/35/35/35/35/35/35/35	\$7.97			1	1
	35,000			\$7.97				1
	45,000		Printed and a service seasons.	\$7.9			1	1
	55,000		100000000000000000000000000000000000000	\$7.9			I	
	65,000		Carlot Salary Control Salary Control	\$7.9			1	l .
	75,000						l .	
	85,000		1	\$7.9				1
	95,000		1	\$7.9				1
	105,000		The state of the s	\$7.9			i i	1
	115,000		10 A	\$7.9				1
	125,000		45.4 (11.5 + 12.5	1				l l
	135,000		4	1			1	1
	145,000	1,000,00	0 \$193	\$7.9	7 0.00	0 \$3.03	3 \$1	nl

Table 10 - Initial Rate Adjustments and Resulting Revenues

Customer Class, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Sales This Year at Current Rates	Basic Minimum Charge	New Usage Allowance in 1,000s	New Unit Charge per 1,000 Gallons	Sales This Year at Modeled Rates	Total "Blended" Sales This Year
	0	999	\$2,678	\$10.63	0.000	\$4.04	\$11	\$2,690
	1,000	1,999	\$3,251	\$10.63	0.000	\$4.04	\$11	\$3,261
	2,000	2,999	\$6,296	\$10.63	0.000	\$4.04	\$10	\$6,306
	3,000	3,999	\$3,740	\$10.63	0.000	\$4.04	\$6	\$3,746
County	4,000	4,999	\$2,376	\$10.63	0.000	\$4.04	\$4	\$2,380
Residential	5,000	5,999	\$753	\$10.63	0.000	\$4.04	\$1	\$754
	6,000	6,999	\$469	\$10.63	0.000	\$4.04	\$1	\$470
	7,000	9,999	\$849	\$10.63	0.000	\$4.04	\$1	\$851
	10,000	14,999	\$298	\$10.63	0.000	\$4.04	\$0	\$299
	15,000	19,999	\$39	\$10.63	0.000	\$4.04	\$0	\$40
	0	999	\$491	\$10.63	0.000	\$4.04	\$2	\$493
	1,000	1,999	\$368	\$10.63	0.000	\$4.04	\$1	\$369
	2,000	2,999	\$709	\$10.63	0.000	\$4.04	\$1	\$711
	3,000	3,999	\$483	\$10.63	0.000	\$4.04	\$1	\$484
	4,000	4,999	\$468	\$10.63	0.000	\$4.04	\$1	\$469
	5,000	5,999	\$374	\$10.63	0.000	\$4.04	\$1	\$375
Countr	6,000	6,999	\$353	\$10,63	0.000	\$4.04	\$1	\$354
County Commercial	7,000	9,999	\$818	\$10,63	0.000	\$4.04	\$1	\$819
	10,000	14,999	\$1,130	\$10.63	0.000	\$4.04	\$2	\$1,132
	15,000	19,999	\$1,128	\$10.63	0.000	\$4.04	\$2	\$1,130
	20,000	24,999	\$1,152	\$10.63	0.000	\$4.04	\$2	\$1,154
	25,000	29,999	\$653	\$10.63	0.000	\$4.04	\$1	\$654
	30,000	49,999	\$782	\$10.63	0.000	\$4.04	\$1	\$783
	50,000	74,999	\$222	\$10.63	0.000	\$4.04	\$0	\$222
	75,000	99,999	\$62	\$10.63	0.000	\$4.04	\$0	\$62
Total Rate R			\$861,992		e Revenue at	Rates	\$1,957	
Pro	orated capac	ity surcharge	es from Table 16	(minimum cl	narges above	do not inc	lude them)	\$194
				Total Blo	nded Rate R	ovonuon fo	r the Veer	\$064 144

Total Blended Rate Revenues for the Year \$864,144

Note: New Minimum Charge Base Rates: If meter size-based minimum charges are to be used, and the user classes modeled above include meter or connection sizes, the amounts shown in this column include meter size surcharges as calculated in Table 16. Either way, the narrative report includes the rates and surcharges to assess.

	ı	P	
12.0 months at the old user charge rates		0.0	
12.0 months at the old user charge rates	and	10.0	months at the new user charge rates.
	i	1	

Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024 Table 17 - Financial Capacity Indicators and Reserves

ncial health of the system and the ending balances in various (assumed) accounts for the test year and the next 10 years.

Test Ye Starti acity Indicators 7/1/ Monthly Bill for a 5.000 gal per Month, Small Meter Residential Customer AMHI Within Service Area \$30,1 Affordability Index: Current Rates First Column, Modeled Rates After That Affordability Index (Al) goes to the willingness and ability of cur	(vey). Ivaice from	(vey). Ivaico near troto are estimated	VOV)		CAN Dates near 11% are in in in in o.u. and are governing of incident		mon) Bates near 1.0% are common in the U.S. and are generally considered and dable: wost grant agen	Attordability Index (Al) goes to the willing reason at the common of the U.S. and are generally considered affordable. Most grant agencies will not o	Total Date near 1 1% are common in the C.C. and are goldenly concluding the contraction with the contraction with the contraction with the contraction of the contraction with the contraction of the contraction with the contraction of the con	Way) Pates near 1 0% are common in the U.S. and are generally considered and dates in ast grant agentics
Test Year 0 Year Starting Starting 7/1/19 7/1/19 \$29.50 \$54.37 \$30,149 \$30,149	is the co	st of 60 commo	st of 60,000 gallons o	st of 60,000 gallons of residential se	st of 60,000 gallons of residential service per year	Affordability Index (Al) goes to the willingness and ability of customers to pay. Al is the cost of 60,000 gallons of residential service per year (5,000 gallon Affordable) when the U.S. and are generally considered affordable. Means page 10% are common in the U.S. and are generally considered affordable.	st of 60,000 gallons of residential service per year (5,000 gallons per month) on the service per year (5,000 gallons per month) on the service per year (5,000 gallons per month) of the service pe	ast of 60,000 gallons of residential service per year (5,000 gallons per month) divided by the	st of 60,000 gallons of residential service per year (5,000 gallons per month) divided by the Annual Mediar service per year (5,000 gallons per month) divided by the Annual Mediar	ost of 60,000 gallons of residential service per year (5,000 gallons per month) divided by the Annual Median Household income
Test Year 0 Year Starting Starting 7/1/18 7/1/19 \$29.50 \$54.37 \$30,149	2.16%	6%	16% 2.19%		2.19%	2.19% 2.21% 2.23%	2.19% 2.21% 2.23%	2.19% 2.21% 2.23%	2.19% 2.21% 2.23%	2.19% 2.21% 2.23%
Test Year 0 Year Starting Starting 7/1/18 7/1/19 \$29.50 \$54.37	\$30,149	49	49 \$30,149		\$30,149	\$30,149 \$30,149	\$30,149 \$30,149 \$30,149	\$30,149 \$30,149 \$30,149	\$30,149 \$30,149 \$30,149 \$30,149	\$30,149 \$30,149 \$30,149 \$30,149 \$30,149
0 Year Starting 7/1/19	\$54.37	.37	.37 \$54.92		\$54.92	\$54.92 \$55.47	\$54.92 \$55.47 \$56.02	\$54.92 \$55.47 \$56.02 \$56.58	\$54.92 \$55.47 \$56.02 \$56.58 \$57.15	\$54.92 \$55.47 \$56.02 \$56.58 \$57.15 \$57.72
0 Year Starting	7/:	7/1/20	1/20 7/1/21		7/1/21	7/1/21 7/1/22	7/1/21 7/1/22 7/1/23	7/1/21 7/1/22 7/1/23 7/1/24	71/121 71/122 71/123 71/124 71/125	71/1/21 71/1/22 71/1/23 71/1/24 71/1/25 71/1/26 71/1/27
	1st Year Starting	ear ing	ear 2nd Year ing Starting		2nd Year Starting	2nd Year 3rd Year 4th Year 5t Starting Starting Starting S	2nd Year 3rd Year 4th Year 5th Year 6t Starting Starting Starting S	2nd Year 3rd Year 4th Year 5th Year 6th Year 7t Starting Starting Starting Starting S	2nd Year 3rd Year 4th Year 5th Year 6th Year 7th Year 8t Starting Starting Starting Starting S	2nd Year 3rd Year 4th Year 5th Year 6th Year 7th Year 8th Year 9t Starting Starting Starting Starting Starting S

		Afford	ability Inde	ex, VDF	
Coluliii, Modeled (Arcs) (10)	Estimated Operating Ratio: Current Rates First	This additional indicator of affordability assumes a residential customer using the VDH benchmark volume each month.	Affordability Index: Current Rates First Column, Modeled Rates After That	AMHI Within Si	Monthly Bill for a 3,528 gal per Month Residential Customer
	1.28	dential custom	0.91%	\$30,149	\$22.88
	1.21	er using the	1.38%	\$30,149	\$34.58
	1.16	VDH benchma	1.38%	\$30,149 \$30,149	\$34.58
	1.09	rk volume eac	1.39%	\$30,149	\$34.92
	1.03	ch month.	1.40%	\$30,149	\$35.27
	1.02		1.42%	\$30,149	\$35.62
	1.01		1.43%	\$30,149	\$35,98
s a series and the series of the series of the constant of the	1.00		1.45%	\$30,149 \$30,149	\$36.34
	0.99		1.46%	\$30,149	\$36.70
on the state of	0.97		1.48%	\$30,149	\$37.07
TD should be	0.95		1.49%	\$30,149	\$37.44
at leaset	0.94		1.51%	\$30,149	\$37.81

Operating ratio (OR) is a measure of the utility's ability to pay its operating expenses using only current incomes. A 1.0 OR is break even. Below 1.0 indicates operating in the "red." Generally, the OR should be at least 1.15 for large systems, 1.30 or more for medium-sized systems and perhaps as high as 2.0 for small systems. Note: This utility has reserves (shown below). This gives the utility more ability to pay its operating costs than the OR would imply.

Estimated Coverage Ratio: Current Rates First N.A. N.A. N.A. N.A. N.A. N.A. N.A. N.A	Coverage Ratio (CR) goes to the ability of the utility to	Estimated Coverage Ratio: Current Rates First Column, Modeled Rates After That
0.00 break even. Generally, t	pay its debt pa	N.A.
0.00 break even. Generally, t	yments ou	N.A.
0.00 break even. Generally, t	t of current incorr	Z. 2 .
0.00 break even. Generally, t	ies. OR applies	N.A.
0.00 break even. Generally, t	s only to years	Z.Þ
0.00 break even. Generally, t	with debt servi	Z P
enerally, t	ice. 1.0 is brea	N.A
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	ık even. Gene	0.00
0.00 0.00 0.00 0.00 nould be at least 1.25. <u>Note: This</u>	rally, the CR sr	0.00
0.00 0.00 st 1.25. <u>Note: This</u>	nould be at lea	0.00
0.00 <u>[his</u>	ISI 1.25. NOTE.	0.00
	S	0.00

ic .	1
: =:	7
=	2
12	ŕ
_	2
12	٢
ယ္က	u
los	(
וַת	,
100	3
100	
12	•
lm	-
ăíl	1
10,	•
100	d
124	Ĵ
lõ	C
12	
15	
IL.	
m	
15	
19	
>	
1.	
r.	
1-4	
15	
120.	•
10,	
Ω	
1=	
12	
μv	
let.	
12	
Įω	
-	
12	
15	:
-10	
-	
ા⊐	
ᄩ	
-14	
lo	
100	
122	
JO	
- 1=	÷
- [7	۲
Γ	
15	•
19	
to	
10.	١
1/2	
10	
12	٠
100	۲.
12	,
- 10	_
- 15	÷
li.	Ś
1=	š
- 1-	1
1	*
17	1
- 14	•
. Ic	7
12	4
-	u
- 1<	2
13	ξ
IC.	2
İč	÷
16	ō
1.	_
15	ż
ıβ	2
. 15	2
. 1	2
<u>utility has reserves (shown below). This give the utility more ability to bay debt بنامانا الله كان سكاناتا الله الله الله الله الله الله الله ا</u>	<

	Sum of All R	Debt and CIP Reserves	Repair & Replacement	(Future Unrestricted Purchasing Power)	Total Cash Assets Discounted for Inflation	Total Undedicated Cash Assets \$529,634	Other Liquid Assets	Cash and Cash Equivalents \$529,634	Reserves							
100 0 30 0 100 0 1	Sum of All Reserves \$529,634 \$725,804	eserves \$0	cement \$0	Power) \$529,534	Inflation area cal	1 Assets \$529,634	Assets \$0	ivalents \$529,634	0/30/10	E/20/18	Ending on	000000	Balance	Balance	Balance	Balance
	\$725,804	\$289,405	-\$109,000	ф0 4 0,099	9 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	\$545,399	\$0	\$545,399	0,00	8/30/19	Ending on		Daigino	Balance	Balance	Balance
	\$978,657	\$512,314	-\$99,966	0 00,010	4556 310	\$566,310	\$0	\$566,310	0,00		Ending on					
	\$978,657 \$1,180,434 \$1,337,320 \$1,402,116 \$1,460,625 \$1,	\$692,380	-\$90,751	0	\$578 805	\$578,805	\$0	\$5/8,805	20 001	6/30/21	Enging on			1 0 0	Daratica	Dalance
	\$1,337,320	\$712,297	-\$81,352	1	\$706.375	\$706,375	\$0	\$700,373	3700 375	6/30/22	Elight on	1	1		T Daile 100	Dalatice
	\$1,402,116	\$743,104	-\$/1,/65	1	\$730,778	\$730,778	\$0	\$1.00,110	\$720 778	6/30/23	Ling Grid			2	n ding of	
	\$1,460,625	\$776,669	-\$61,98/	200	\$745,943	\$745,943	\$0	# 10,010 010,010	\$745 Q43	6/30/24	1	II nding on	II nding on	II nding on	II nding on	Ending on
	\$1,507,215	\$792,601	710,700	9 00 00 00 00 00 00 00 00 00 00 00 00 00	\$766,626	\$/66,626	, E	0	\$788 626	6/30/25	1	Tinding on	Ending on	Ending on	Ending on	Ending on
	\$1,469,569	\$/43,980	144-,000	820	\$767,428	\$/6/,428	3 3 3 3 3 3 3 3 3 3		\$767,428	6/30/26			Ending on			
	,507,215 \$1,469,569 \$1,419,212 \$1,332,693 \$1,209,313 \$1,000,130	\$694,387	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	\$31 489	\$752,286	\$102,200	# TES 000	9	\$752.286	6/30/27		Enging on	Ending on	Ending on	Ending on	Ending on
	\$1,332,000	3043,002	9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	-\$20.877	\$709,770	⊕/\08,//O	#700 770 \$0	#	\$709,770	6/30/28		חמותם כו	Ending on	Ending on	Ending on	Ending on
	\$1,205,575	\$4 000 075		-\$10.080	\$627,251	0047,201	6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	# O	\$627,251	6/30/29		חומוומ	Ending on	Ending on	Ending on	Ending on
	\$ 1,000,100	64 OSS 138	8730 576 1000	\$932	\$525,630	\$U£U,000	# # # # # # # # # # # # # # # # # # #	# O	\$525,630	6/30/30		חומווט	Ending on	Ending on	Ending on	Ending on

Table 18 - Bills Before and After Rate Adjustments Richlands, VA, 2020 Water Rates Model 1, CIP Revised in FY 2024

This table shows how bills needed going into Fiscal Year 2024, now that system improvement costs have been better determined, compare to what bills were four-plus years ago at the end of Fiscal Year 2019, when those costs were still largely unknown.

Rate Classes With 5/8 Inch Meter	Gallons of Use	Customers at or Above This Volume But Below the Next	Customers Using This Volume or Less	Customers Using This Volume or More	Bill as of 6/30/2019	Modeled Bill for FY 2024	Modeled Bill Increase or Decrease (-)
	0	332	332	2,175	\$16.00	\$10.19	-\$5.81
	1,000	481	813	1,844	\$16.00	\$13.34	-\$2.66
	2,000	452	1,265	1,363	\$16.00	\$19.34	\$3.34
	3,000	351	1,616	910	\$20.50	\$27.23	\$6.73
	3,528				\$22.88	\$34.58	\$11.70
	4,000	219	1,835	559	\$25.00	\$44.59	\$19.59
	5,000	129	1,965	340	\$29.50	\$54.37	\$24.87
In-Town	6,000	74	2,038	211	\$34.00	\$57.53	\$23.53
111 104411	7,000	85	2,124	137	\$38.50	\$63.52	\$25.02
	10,000	33	2,157	52	\$52.00	\$87.19	\$35.19
	15,000	10	2,166	19	\$74.50	\$102.96	\$28.46
	20,000	3	2,169	9	\$97.00	\$130.09	\$33.09
	25,000	1	2,171	6	\$119.50	\$181.86	\$62.36
	30,000	3	2,174	5	\$142.00	\$197.62	\$55.62
	50,000	1	2,175	1	\$232.00	\$289.10	\$57.10
	75,000	0	2,175	1	\$344.50	\$390.11	\$45.61
	0	93	93	230	\$20.50	\$14.14	-\$6.36
	1,000	41	134	137	\$20.50	\$18.51	-\$1.99
	2,000	22	156	96	\$20.50	\$26.83	\$6.33
	3,000	7	163	74	\$26.50	\$37.78	\$11.28
	4,000	5	168	67	\$32.50	\$50.04	\$17.54
	5,000	4	172	62	\$38.50	\$66.24	\$27.74
	6,000	3	175	58	\$44.50	\$79.82	\$35.32
Out-of-Town	7,000	8	183	55	\$50.50	\$84.19	\$33.69
	10,000	13	197	47	\$68.50	\$101.26	\$32.76
	15,000	8	204	33	\$98.50	\$142.85	\$44.35
	20,000	7	211	26	\$128.50	\$164.72	\$36.22
	25,000	3	214	19	\$158.50	\$202.37	\$43.87
	30,000	6	220	17	\$188.50	\$274.19	\$85.69
	50,000	5	225	10	\$308.50	\$361.69	\$53.19
	75,000	1	226	6	\$458.50	\$510.49	\$51.99

Table 18 - Bills Before and After Rate Adjustments

Rate Classes With 5/8 Inch Meter	Gallons of Use	Customers at or Above This Volume But Below the Next	Customers Using This Volume or Less	Customers Using This Volume or More	Bill as of 6/30/2019	Modeled Bill for FY 2024	Modeled Bill Increase or Decrease (-)
	0	0	0	1	\$100.00	\$9.79	-\$90.21
Bulk Water	500,000	0	0	1	\$100.00	\$1,524.79	\$1,424.79
	1,000,000	1	1	1	\$100.00	\$3,039.79	\$2,939.79
	0	0	0	1	\$16.00	\$9.79	-\$6.21
Water Plant	500,000	0	0	1	\$2,257.00	\$1,524.79	-\$732.21
Backwash	1,000,000	0	1	0	\$4,507.00	\$3,039.79	-\$1,467.21
	0	5	5	15	\$16.00	\$9.79	-\$6.21
	1,000	2	6	10	\$16.00	\$12.82	-\$3.18
	2,000	2	9	8	\$16.00	\$15.85	-\$0.15
	3,000	2	11	6	\$20.50	\$18.88	-\$1.62
	4,000	1	11	4	\$25.00	\$21.91	-\$3.09
	5,000	0	12	3	\$29.50	\$24.94	-\$4.56
	6,000	0	12	3	\$34.00	\$27.97	-\$6.03
	7,000	0	12	2	\$38.50	\$31.00	-\$7.50
	8,000	0	12	2	\$43.00	\$34.03	-\$8.97
	9,000	0	13	2	\$47.50	\$37.06	-\$10.44
	10,000	0	13	2	\$52.00	\$40.09	-\$11.91
	15,000		13	2	\$74.50	\$55.24	-\$19.26
	20,000		13	1	\$97.00	\$70.39	-\$26.61
Town	25,000		13	1	\$119.50	\$85.54	-\$33.96
Departments	30,000		13	1	\$142.00	\$100.69	-\$41.31
	35,000		13	1	\$164.50	\$115.84	-\$48.66
	45,000		13	1	\$209.50	\$146.14	-\$63.36
	55,000		14	1	\$254.50	\$176.44	-\$78.06
	65,000		14	1	\$299.50	\$206.74	-\$92.76
	75,000		14	1	\$344.50	\$237.04	-\$107.46
	85,000		14	1	\$389.50	\$267.34	-\$122.16
	95,000		14	0	\$434.50	\$297.64	-\$136.86
	105,000		14	0	\$479.50	\$327.94	-\$151.56
	115,000		14		\$524.50	\$358.24	-\$166.26
	125,000		14		\$569.50		-\$180.96
	135,000		14		\$614.50	\$418.84	-\$195.66
	145,000		15		\$659.50	\$449.14	-\$210.36

Table 18 - Bills Before and After Rate Adjustments

Rate Classes With 5/8 Inch Meter	Gallons of Use	Customers at or Above This Volume But Below the Next	Customers Using This Volume or Less	Customers Using This Volume or More	Bill as of 6/30/2019	Modeled Bill for FY 2024	Modeled Bill Increase or Decrease (-)
	0	11	11	64	\$20.50	\$13,86	-\$6.64
	1,000	13	24	53	\$20.50	\$17.90	-\$2.60
	2,000	17	41	39	\$20.50	\$21.94	\$1.44
	3,000	10	51	23	\$26.50	\$25.98	-\$0.52
County Residential	4,000	7	58	13	\$32.50	\$30.02	-\$2.48
	5,000	2	60	6	\$38.50	\$34.06	-\$4.44
	6,000	1	61	4	\$44.50	\$38.10	-\$6.40
	7,000	2	63	3	\$50.50	\$42.14	-\$8.36
	10,000	1	64	1	\$68.50	\$54.26	-\$14.24
	0	2	2	10	\$20.50	\$13.86	-\$6.64
	1,000	2	4	8	\$20.50	\$17.90	-\$2.60
	2,000	1	5	7	\$20.50	\$21.94	\$1.44
	3,000	1	5	5	\$26.50	\$25.98	-\$0.52
	4,000	1	6	5	\$32.50	\$30.02	-\$2.48
County	5,000	0	6	4	\$38.50	\$34.06	-\$4.44
Commercial	6,000	0	6	4	\$44.50	\$38.10	-\$6,40
	7,000	0	7	4	\$50.50	\$42.14	-\$8.36
	10,000	0	7	3	\$68.50	\$54.26	-\$14.24
	15,000	0	7	3	\$98.50	\$74.46	-\$24.04
	20,000	1	8	3	\$128.50	\$94.66	-\$33.84
	25,000	1	9	2	\$158.50	\$114.86	-\$43.64
	30,000	1	10	1	\$188.50	\$135.06	-\$53.44

Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

This model does several things. It uses recently revised system improvement costs and a revised package of DEQ grants and loans to arrive at the rates now needed to fund the system's operating costs, along with the recently refined improvement costs. And, reserves still need to be built up, so the modeled rates do that, too.

August 30, 2023
This rate analysis model was produced by
Carl E. Brown, GettingGreatRates.com
1014 Carousel Drive, Jefferson City, Missouri 65101
(573) 619-3411
https://gettinggreatrates.com
carl1@gettinggreatrates.com

Note: This document is a print out of the spreadsheet model used to calculate new user charge and other rates and fees for the next 10 years. These calculations are complex and are based upon many conditions and assumtions. These issues, and others, are described in a narrative report that accompanies this model.

Table 3 - Operating Incomes and Basic User Data

Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

This table depicts user statistics, customer growth, and system incomes and across the board "inflationary" style rate increases through the 10th year.

Annual Median Household Income (AMHI)

\$30,149 Income used by the VDH SRF Loan Program

Test Year Growth of Customer Base and Average Tap Fee Paid per Connection

2 Number new Sewer connections made during test year

\$375 Average Sewer tap or installation fee assessed during the test year

This model is programmed for rates to be reset in the "Analysis Year," also called the "O Year" column below (heading highlighted blue). Revenues will be collected at the now-current rates for the first part of the analysis year and the modeled rates for the last part of the analysis year and the modeled rates for the last part of the analysis year. Thus, the revenues shown in the last column of that table are "blended" revenues; part collected at the old rates and part collected at the new rates. It was then assumed that all rate adjustments made after the initial (major) adjustment will be done annually on approximately the anniversary of the first adjustment. If rates will not be adjusted during the "O Year," an adjustment (normally a revenue reduction) was calculated below to account for the late start in making the first adjustments.

Total Ope	Revenue Loss (-) or Gain Because Rate Adjustments Made This Number of Months Late	Revenue Reduction Due to COVID-19 (10% of User Charge Fees from March, 2020 to June, 2021)	CONTRACT WORK-SEW/WAT LIN	TZ CO PSA (20%), Additional Revenues in Table 5	CEDAR BLUFF (6%), Additional Revenues in Table 5	SALE OF SALVAGE & SURPLUS	SER)	WWTP-LAB TEST/SEPTIC TRET		Meter Size-based System Development Fees (Tables 13, 14)	New Sewer Taps or Connections (Current Rate Structure)	Late.	User Charge Fees (Tables 10, 12, 12B, 15, 15B, 16, 16B)	Operating Incomes	Total Calculated Revenues (User Charge Fees)	Additional Sales Revenues From New Customers	Actual or Calculated Sales Revenues	How User Charge Fees Were Calculated, Accounting for New Customers and Future Rate Increases	Actual (Test Year) and Projected Service, in Gallons	Customer Growth or Loss (-) Rate	Customers Added or Lost (-) Each Year	Average Num		Kate increases Projected for Future Years			(First year balances and incomes are <u>actual</u> , subsequent years are <u>projected.)</u>	Basic User (Customer) Data
Total Operating Incomes	use Rate Adjustments Made This Number of Months Late	6 of User Charge 20 to June, 2021)	K-SEW/WAT LIN	enues in Table 5	enues in Table 5	GE & SURPLUS	SERVICE CHARGES	ST/SEPTIC TRET	Interest Income	s (Tables 13, 14)	it Rate Structure)	Late Payment Charge	15, 15B, 16, 16B)		ser Charge Fees)	New Customers	Sales Revenues	inting for New Cust	ervice, in Gallons	or Loss (-) Rate	st (-) Each Year	Average Number of Customers		or Future Years			bsequent years	
	12.0	N.A.	Ņ.Ą.	Z.A	Ņ.	N.A.	N.A	Ņ.	N.A.	% Above	% Above	N.A.	N.A.			1		omers and Futu	N.A.	N.A.	N.A.	N.A.		N.A.		(-) Factor	Inflation/	
\$1,213,549	\$0	\$0	\$406	\$228,324	\$127,656	\$711	\$3,429	\$5,451	\$1,869	\$0	\$750	\$13,684	\$831,268		\$802,723		\$802,723	ire Rate Increase	121,479,544	0.08%	2.0	2,407		N.A.	7/1/18	Starting	Test Year	1 ~
\$1,178,980	\$0	-\$27,760	\$406	\$228,324	\$127,656	\$711	\$3,429	\$5,451	-\$6,478	\$2	\$748	\$13,696	\$832,795		\$804,198	\$2	\$804,196	<i></i>	121,580,480	0.08%	2.0	2,409		Z.Þ.	7/1/19	Starting	0 Year	Analysis Year
\$1,127,179	-\$539,040	-\$139,063	\$406	\$254,975	\$142,557	\$711	\$3,429	\$5,451	-\$7,183	\$600	\$0	\$13,707	\$1,390,629		\$1,342,876	\$1,113	\$1,341,763		121,681,415	0.08%	2.0	2,411	The row above shows the rate at which user charge fees should be increased for each year beyond the initial rate adjustment year. Unless stated otherwise, these should be across-the-board increases to all rates and fees and that should continue until a new rate analysis is done.		7/1/20	Starting	1st Year	
\$1,867,213	\$0	\$0	\$406	\$261,352	\$146,122	\$711	\$3,429	\$5,451	-\$12,054	\$624	\$0	\$13,718	\$1,447,454		\$1,397,750	\$1,158	\$1,396,591		121,782,350	0.08%	2.0	2,413	ows the rate at ward increases to a	4.0%	7/1/21	Starting	2nd Year	
\$1,948,426	\$0	\$0	\$406	\$269,595	\$150,730	\$711	\$3,429	\$5,451	-\$2,874	\$649	\$0	\$13,730	\$1,506,599		\$1,454,864	\$1,204	\$1,453,660		121,883,285	0.08%	2.0	2,415	hich user charge ill rates and fees	4.0%	7/1/22	Starting	3rd Year	Years Following
\$2,024,320	\$0	\$0	\$406	\$274,688	\$153,578	\$711	\$3,429	\$5,451	\$3,482	\$675	\$0	\$13,741	\$1,568,159		\$1,514,310	\$1,252	\$1,513,058		121,984,220	0.08%	2.0	2,417	fees should be in and that should c	4.0%	7/1/23	Starting	4th Year	ollowing the Ana
\$2,103,253	\$0	\$0	\$406	\$281,659	\$157,476	\$711	\$3,429	\$5,451	\$7,432	\$702	\$0	\$13,752	\$1,632,234		\$1,576,185	\$1,302	\$1,574,883		122,085,155	0.08%	2.0	2,419	ncreased for each ontinue until a ne	4.0%	7/1/24	Starting	5th Year	alysis Year (for
\$2,187,754	\$0	\$0	\$406	\$292,926	\$163,775	\$711	\$3,429	\$5,451	\$7,637	\$730	\$0	\$13,764	\$1,698,926		\$1,640,586	\$1,354	\$1,639,232		122,186,090	0.08%	2.0	2,421	ould be increased for each year beyond the initial should continue until a new rate analysis is done.	4.0%	7/1/25	Starting	6th Year	the Analysis Year (for Which Results Have Been Projected)
\$2,275,743	\$0	\$0	\$406	\$304,643	\$170,326	\$711	\$3,429	\$5,451	\$7,902	\$759	\$0	\$13,775	\$1,768,341		\$1,707,618	\$1,408	\$1,706,210		122,287,025	0.08%	2.0	2,423	initial rate adjust done.	4.0%	7/1/26	Starting	7th Year	Have Been Pro
\$2,367,197	\$0	\$0	\$406	\$316,828	\$177,139	\$711	\$3,429	\$5,451	\$8,065	\$790	\$0	\$13,786	\$1,840,591		\$1,777,387	\$1,465	\$1,775,923		122,387,960	0.08%	2.0	2,425	ment year. Unles	4.0%	7/1/27	Starting	8th Year	jected)
\$2,462,423	\$0	\$0	\$406	\$329,502	\$184,224	\$711	\$3,429	\$5,451	\$8,289	\$821	\$0	\$13,798	\$1,915,792		\$1,850,006	\$1,523	\$1,848,483		122,488,895	0.08%	2.0	2,427	s stated otherwis	4.0%	7/1/28	Starting	9th Year	
\$2,561,578	\$0	\$0	\$406	\$342,682	\$191,593	\$711	\$3,429	\$5,451	\$8,579	\$854	\$0	\$13,809	\$1,994,064		\$1,925,590	\$1,584	\$1,924,006		122,589,830	0.08%	2.0	2,429	e, these should	4.0%	7/1/29	Starting	10th Year	

Note: The yellow highlighted revenues above are fees collected from Richland's cooperating utilities and service areas. By agreements, those areas participate in the utility's costs by set percentages. Therefore, in future years these revenues were increased or decreased by the same percentage rates that Richland's operating and capital costs (debt) will increase or decrease each year.

Table 4 - Operating Costs and Net Income

Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

This table depicts expenses during the test year, this year and for the next 10 years. Some future costs will experience inflation. Those costs that go up as use goes up are increased by the cost inflation factor plus the growth rate in users.

(First year costs and net incomes are actual, subsequent

Analysis |
Year Following the Analysis Year (for Which Results Have Been Projected)

Year |

| MISCELLANEOUS | METERS & RELATED E | MAINS, LINES & VALVE MAIN | MACHINERY AND EQUPMENT | LEASE PROP & RIGHT OF WAY | IT SERVICE/E | | וועטבוד | INS WORKINENS COMPENSATION | CLUSTON OF STANCE OF STANC | | ואס סבוא בוסטוביי ייעדעי |
 | INS ALLES | HAND LOOKS REGOT MEN | | | | | המסוד אורוער ואי מוער בייטן ואורוער | DONALLA WANTENDE
 | |

 | EI ECTRICITY-LIFT STATION

 | ELECTRICITY | | DEBRECIATION EXP-PROF | | CI FANING SUPPLIES | CHEMICAL STREATMENT

 | CHEMICAL S I PPILIES-LAB
 | CARD FROCESSING CLOSS FF.
 |
 | BUILDING REPAIRS/ADDITION
 | BIIII DING & BLDG, IMPROVEMENTS | BIRMINGHAM WAT/SEW DEBT | BIRMINGHAM LIFT STATION | AUDITING & LEGAL | |
 | | ears are <u>projected.</u>) |
|------------------|--|--|--|--|---|--|---|--|--|---
---|---|---|---|---|--|---
---|---|---|---
--
--

--
--
---|---|---|---|--

--
--
--
--|---
--
--
--
--|---|--|--|--|--|---|------------
--|
| S 3.0% | Q 3.0% | | • | • | - | | | - | _ | |
 | | | | | | | |
 | | |

 |

 | • | - | _ | | |

 |

 | |
 | _
 | | • | |
 | Factor | Deflation (-) | Inflation/ | |
| -\$9,663 | \$44,372 | \$2,203 | \$0 | \$5,542 | \$5,904 | 670,-1 | \$70 112 | \$2 189 | \$7.162 | \$31,789 | \$127.547
 | \$15.208 | \$2,396 | \$30.161 | \$618
\$618 | \$1.657 | \$1.316 | \$828 | \$3.775
 | \$14,843 | \$1,656 | \$44,282

 | \$13,907

 | \$177,179 | \$600 | \$0 | \$220 | \$2,503 | \$592

 | \$25,273

 | \$40 | \$2,023
 | \$3,382
 | \$0 | \$0 | \$135 | \$7,375
 | 7/1/18 | Starting | Test Year | ı |
| -\$9,952 | \$45,703 | \$2,270 | \$0 | \$5,708 | \$5,081 | 90,000 | \$72 215 | \$2.254 | \$7.377 | \$32,743 | \$131,374
 | \$15,664 | \$2,468 | \$31.066 | \$636 | \$1,707 | \$1,355 | \$853 | \$3,888
 | \$15,288 | \$1,706 | \$45,610

 | \$14,324

 | \$182,646 | \$618 | \$ | \$226 | \$2,578 | \$610

 | \$26,031

 | \$41 | \$2,084
 | \$3,484
 | \$0 | \$0 | \$139 | \$7,596
 | 7/1/19 | Starting | 0 Year | Year |
| -\$10,251 | \$47,074 | \$2,338 | \$0 | \$5,679 | \$6,20 4 | \$ 084
100; | \$74.382 | \$2,322 | \$7,598 | \$33,725 | \$135,315
 | \$16,134 | \$2,542 | \$31,997 | \$655 | \$1,758 | \$1,396 | \$878 | \$4,005
 | \$15,747 | \$1,757 | \$46,979

 | \$14,754

 | \$188,281 | \$637 | \$0 | \$233 | \$2,656 | \$629

 | \$26,812

 | \$42 | \$2,146
 | \$3,588
 | \$0 | \$0 | \$144 | \$7,824
 | 7/1/20 | Starting | 1st Year | |
| -\$10,559 | \$48,486 | \$2,408 | . 40 | 0,000
0,000 | 90,404 | #8 450 | \$76.613 | \$2,392 | \$7,826 | \$34,737 | \$139,374
 | \$16,618 | \$2,618 | \$32,957 | \$675 | \$1,811 | \$1,438 | \$905 | \$4,125
 | \$16,220 | \$1,809 | \$48,388

 | \$15,197

 | \$194,090 | \$656 | \$0 | \$240 | \$2,735 | \$649

 | \$27,617

 | \$44 | \$2,211
 | \$3,696
 | \$0 | \$0 | \$148 | \$8,059
 | 7/1/21 | Starting | 2nd Year | |
| -\$10,875 | \$49,941 | \$2,480 | \$ \$0
\$0 | ÷ 0 | \$6.037 | \$6.645 | \$78,911 | \$2,463 | \$8,061 | \$35,779 | \$143,556
 | \$17,116 | \$2,697 | \$33,946 | \$695 | \$1,865 | \$1,481 | \$932 | \$4,249
 | \$16,706 | \$1,864 | \$49,840

 | \$15,652

 | \$200,079 | \$675 | \$0 | \$247 | \$2,817 | \$669

 | \$28,445

 | \$45 | \$2,277
 | \$3,807
 | \$0 | \$0 | \$152 | \$8,301
 | 7/1/22 | Starting | 3rd Year | |
| -\$11,202 | \$51,439 | \$2,554 | 9 | , id | \$6,425 | \$6.845 | \$81,279 | \$2,537 | \$8,302 | \$36,853 | \$147,862
 | \$17,630 | \$2,778 | \$34,964 | \$716 | \$1,921 | \$1,525 | \$960 | \$4,376
 | \$17,207 | \$1,920 | \$51,335

 | \$16,122

 | \$206,252 | \$696 | \$0 | \$255 | \$2,902 | \$689

 | \$29,299

 | \$46 | \$2,345
 | \$3,921
 | \$0 | \$0 | \$157 | \$8,550
 | 7/1/23 | Starting | 4th Year | |
| -\$11,538 | \$52,982 | \$K,001 | 3 | #D | \$6.617 | \$7,050 | \$83,717 | \$2,613 | \$8,551 | \$37,958 | \$152,298
 | \$18,159 | \$2,861 | \$36,013 | \$738 | \$1,978 | \$1,571 | \$989 | \$4,508
 | \$17,724 | \$1,977 | \$52,875

 | \$16,606

 | \$212,615 | \$716 | \$0 | \$262 | \$2,989 | \$710

 | \$30,178

 | \$48 | \$2,416
 | \$4,039
 | \$0 | \$ | \$162 | \$8,806
 | 7/1/24 | Starting | 5th Year | |
| -\$11,884
*** | \$34,574 | \$5,710 | \$3 740
\$0 | 9 0 | \$6.816 | \$7,261 | \$86,229 | \$2,692 | \$8,808 | \$39,097 | \$156,867
 | \$18,703 | \$2,947 | \$37,094 | \$760 | \$2,038 | \$1,618 | \$1,018 | \$4,643
 | \$18,255 | \$2,037 | \$54,461

 | \$17,104

 | \$219,174 | \$738 | \$0 | \$270 | \$3,079 | \$732

 | \$31,083

 | \$49 | \$2,488
 | \$4,160
 | ₩ | # 5 | \$166 | \$9,070
 | 7/1/25 | Starting | 6th Year | |
| 0.42,210 | \$20,209 | e 2000 | ¢2 701 | | \$7,020 | \$7,479 | \$88,815 | \$2,773 | \$9,072 | \$40,270 | \$161,573
 | \$19,264 | \$3,035 | \$38,207 | \$783 | \$2,099 | \$1,666 | \$1,049 | \$4,782
 | \$18,803 | \$2,098 | \$56,095

 | \$17,617

 | \$225,936 | \$760 | \$0 | \$278 | \$3,171 | \$755

 | \$32,015

 | \$51 | \$2,563
 | \$4,285
 |)
)
)
() | . € | \$171 | \$9,342
 | 7/1/26 | Starting | 7th Year | |
| 7,007 | 607,080 | \$57,070 | \$2 875 | ⊕
O | \$7,231 | \$7,704 | \$91,480 | \$2,856 | \$9,344 | \$41,478 | \$166,420
 | \$19,842 | \$3,126 | \$39,353 | \$806 | \$2,162 | \$1,716 | \$1,080 | \$4,926
 | \$19,367 | \$2,161 | \$57,778

 | \$18,145

 | \$232,906 | \$783 | \$0 | \$286 | \$3,266 | \$778

 | \$32,976

 | \$52 | \$2,640
 | \$4,413
 |)
(1)
(1) | 9 6 | \$1// | \$9,623
 | 12/17/ | Starting | 8th Year | |
| 0.90 | 8470,007 | ##0 ##00 - | \$2 961 | \$0 | \$7,448 | \$7,935 | \$94,224 | \$2,941 | \$9,625 | \$42,722 | \$171,413
 | \$20,438 | \$3,220 | \$40,533 | \$830 | \$2,227 | \$1,768 | \$1,113 | \$5,073
 | \$19,948 | \$2,225 | \$59,511

 | \$18,590

 | \$240,090 | \$806 | \$ 65
0 | \$295 | \$3,364 | \$802

 | \$33,965

 | \$54 | \$2,719
 | \$4,546
 | 9 | 9 6 | #1
00
N | #W. W. T.
 | 0.022 | Starting | 9th Year | |
| | \$13.375 | \$61.421 | \$3.050 | \$0 | \$7,671 | \$8,173 | \$97,051 | \$3,030 | \$9,913 | \$44,004 | \$176,555
 | \$21,051 | \$3,317 | \$41,749 | \$855 | \$2,294 | \$1,821 | \$1,146 | \$5,226
 | \$20,546 | \$2,292 | \$61,296

 | \$19,251

 | \$247,497 | \$837 | \$ 60 | \$304 | \$3,465 | \$827

 | \$34,984

 | \$55 | \$2,800
 | \$4,582
 | ÷ 6 | 9 6 | # <u>i</u> | \$10,208
 | 671177 | Starting | 10th Year | |
| | 3.0% -\$9,663 -\$9,952 -\$10,251 -\$10,559 -\$10,875 -\$11,202 -\$11,535 -\$11,664 -\$12,240 -\$12,200 | 3.0% \$44,372 \$45,703 \$47,074 \$48,486 \$49,941 \$51,439 \$52,862 \$54,572 \$50,409 \$77,000 \$ | 3.0% \$2,203 \$2,270 \$2,338 \$2,408 \$2,480 \$4,504 \$4,504 \$4,707 \$41,70 \$41, | 3.0% \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 | 3.0% \$5,542 \$5,705 \$0,75 \$0,105 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 | 3.0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 3.0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 3.0% \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 | 3.0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,479 \$7,704 \$7,935 \$3.0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 \$3.0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 \$3.0% \$5,542 \$5,708 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 | 3.0% \$70,112 \$72,215 \$74,382 \$76,613 \$78,911 \$81,279 \$83,717 \$86,229 \$88,815 \$91,480 \$94,224 \$3.0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,479 \$7,704 \$7,935 \$3.0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 \$3.0% \$5,542 \$5,708 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 | 3.0% \$2,189 \$2,254 \$2,322 \$2,392 \$2,463 \$2,537 \$2,613 \$2,692 \$2,773 \$2,856 \$2,941 \$3,0% \$70,112 \$72,215 \$74,382 \$76,613 \$78,911 \$81,279 \$83,717 \$86,229 \$88,815 \$91,480 \$94,224 \$3,0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,479 \$7,704 \$7,935 \$3,0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 \$3,0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 \$3,0% \$5,240 \$5,233 \$2,270 \$5,236 \$5,455 \$5,455 \$5,455 \$5,617 \$6,816 \$7,020 \$7,231 \$7,448 \$3,0% \$2,203 \$2,270 \$5,338 \$2,408 \$2,448 \$2,480 \$2,554 \$2,631 \$2,710 \$2,791 \$2,875 \$2,961 \$3,0% \$44,372 \$45,703 \$47,074 \$48,486 \$49,941 \$51,439 \$52,982 \$54,572 \$56,209 \$57,895 \$59,632 \$3,0% \$49,952 \$45,702 \$51,286 \$49,941 \$51,439 \$52,982 \$54,572 \$56,209 \$57,895 \$59,632 \$3,0% \$49,952 \$45,075 \$41,202 \$41,538 \$41,202 \$41,538 \$41,202 | 3.0% \$7,162 \$7,377 \$7,598 \$7,826 \$8,061 \$8,302 \$8,551 \$8,808 \$9,072 \$9,344 \$9,625 3.0% \$2,189 \$2,254 \$2,322 \$2,392 \$2,463 \$2,537 \$2,613 \$2,692 \$2,773 \$2,856 \$2,941 3.0% \$70,112 \$72,215 \$74,382 \$76,613 \$78,911 \$81,279 \$83,717 \$86,229 \$88,815 \$91,480 \$94,224 3.0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,774 \$7,935 3.0% \$5,542 \$5,708 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 3.0% \$5,542 \$5,708 \$6,956 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 3.0% \$2,203 \$2,270 \$2,338 \$2,408 \$2,480 \$2,554 \$2,631 \$2,710 \$2,875 | 3.0% \$31,789 \$32,743 \$33,725 \$34,737 \$35,779 \$36,853 \$37,958 \$39,097 \$40,270 \$41,478 \$42,722 3.0% \$7,162 \$7,377 \$7,588 \$7,826 \$8,061 \$8,302 \$8,551 \$8,808 \$9,072 \$9,344 \$9,625 3.0% \$2,189 \$2,254 \$2,322 \$2,392 \$2,463 \$2,537 \$2,692
 \$2,773 \$2,856 \$2,941 3.0% \$70,112 \$72,215 \$74,382 \$76,613 \$78,911 \$81,279 \$83,717 \$86,229 \$88,815 \$91,480 \$94,224 3.0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,479 \$7,704 \$7,935 3.0% \$5,542 \$5,879 \$6,065 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,231 \$7,448 3.0% \$5,242 \$5,879 \$6,056 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020 \$7,23 | 3.0% \$127,547 \$131,374 \$135,315 \$139,374 \$143,556 \$147,862 \$152,298 \$156,867 \$161,573 \$166,420 \$171,413 3.0% \$31,789 \$32,743 \$33,725 \$34,737 \$35,779 \$36,853 \$37,958 \$39,097 \$40,270 \$41,478 \$42,722 3.0% \$7,162 \$7,377 \$7,598 \$7,826 \$8,061 \$8,302 \$8,551 \$8,808 \$9,072 \$9,344 \$9,625 3.0% \$2,189 \$2,254 \$2,322 \$2,392 \$2,463 \$2,537 \$2,692 \$2,773 \$2,856 \$2,941 3.0% \$70,112 \$72,215 \$74,382 \$76,613 \$78,911 \$81,279 \$83,717 \$86,229 \$88,815 \$91,480 \$94,224 3.0% \$5,904 \$6,081 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,479 \$7,704 \$7,935 3.0% \$5,542 \$5,879 \$6,645 \$6,237 \$6,425 \$6,617 \$6,816 \$7,020< | 3.0% \$15,208 \$15,664 \$16,134 \$16,618 \$17,116 \$17,630 \$18,159 \$18,703 \$19,264 \$19,842 \$20,438 3.0% \$127,547 \$131,374 \$135,315 \$139,374 \$143,556 \$147,862 \$152,298 \$156,867 \$161,573 \$166,420 \$171,413 3.0% \$31,789 \$32,743 \$33,725 \$34,737 \$35,779 \$36,853 \$37,958 \$39,097 \$40,270 \$41,478 \$42,722 3.0% \$7,162 \$7,377 \$7,598 \$7,826 \$8,061 \$8,302 \$8,551 \$8,808 \$9,072 \$9,344 \$9,625 3.0% \$2,189 \$2,254 \$2,322 \$2,392 \$2,463 \$2,537 \$2,613 \$2,692 \$2,773 \$2,866 \$2,941 3.0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$6,845 \$7,050 \$7,261 \$7,479 \$7,704 \$7,935 3.0% \$5,542 \$5,879 \$6,656 \$6,237 \$6,645 \$6,617< | 3.0% \$2,386 \$2,448 \$2,542 \$2,618 \$2,697 \$2,778 \$2,861 \$2,947 \$3,035 \$3,126 \$3,220 3.0% \$15,208 \$15,664 \$16,134 \$16,618 \$17,116 \$17,630 \$18,159 \$18,703 \$19,264 \$19,842 \$20,438 3.0% \$127,547 \$131,374 \$135,315 \$139,374 \$143,556 \$147,882 \$152,298 \$161,573 \$166,420 \$171,413 3.0% \$31,789 \$32,743 \$33,725 \$34,737 \$35,779 \$36,863 \$37,958 \$39,097 \$40,270 \$41,478 \$42,722 3.0% \$31,789 \$2,254 \$2,322 \$2,392 \$2,463 \$2,537 \$5,613 \$2,692 \$2,773 \$2,866 \$2,941 3.0% \$7,112 \$72,215 \$74,382 \$76,613 \$78,911 \$81,279 \$83,717 \$86,229 \$2,773 \$2,866 \$2,941 3.0% \$5,904 \$6,081 \$6,264 \$6,452 \$6,645 \$7,050 \$ | 3.0% \$30,161 \$31,096 \$31,997 \$32,957 \$33,946 \$34,964 \$36,013 \$37,094 \$38,207 \$39,353 \$40,533 3.0% \$2,396 \$2,468 \$2,542 \$2,618 \$2,697 \$2,778 \$2,861 \$2,947 \$3,035 \$3,126 \$3,220 3.0% \$15,208 \$15,664 \$16,134 \$16,618 \$17,116 \$17,630 \$18,159 \$18,703 \$19,264 \$19,842 \$20,438 3.0% \$127,547 \$131,374 \$16,618 \$17,116 \$17,630 \$18,159 \$16,753 \$166,420 \$171,413 3.0% \$17,767 \$13,725 \$34,737 \$35,779 \$36,853 \$37,968 \$161,573 \$166,420 \$171,413 3.0% \$7,162 \$7,377 \$7,826 \$8,061 \$8,302 \$8,551 \$8,808 \$9,072 \$41,478 \$42,722 3.0% \$7,012 \$7,221 \$7,382 \$7,826 \$8,061 \$8,302 \$8,551 \$8,808 \$9,072 \$9,344 \$9 | 3.0% \$618 \$636 \$655 \$675 \$695 \$716 \$738 \$760 \$783 \$806 \$830 3.0% \$30,161 \$31,066 \$31,997 \$32,957 \$33,946 \$34,964 \$36,013 \$37,094 \$38,207 \$39,353 \$40,533 3.0% \$2,396 \$2,468 \$2,242 \$2,618 \$2,2697 \$2,778 \$2,661 \$2,947 \$3,035 \$3,126 \$3,220 3.0% \$15,208 \$15,664 \$16,134 \$16,613 \$17,116 \$17,630 \$18,159 \$18,703 \$19,264 \$19,942 \$20,438 3.0% \$127,547 \$131,374 \$16,613 \$17,116 \$17,630 \$16,703 \$19,264 \$19,942 \$20,438 3.0% \$127,547 \$133,374 \$16,618 \$17,166 \$17,630 \$16,567 \$16,733 \$166,420 \$17,413 3.0% \$21,789 \$32,743 \$33,725 \$34,737 \$35,779 \$36,853 \$37,958 \$39,097 \$40,270 \$41,478 | 3.0% \$1,657 \$1,707 \$1,758 \$1,811 \$1,865 \$1,921 \$1,978 \$2,038 \$2,099 \$2,162 \$2,227 3.0% \$618 \$636 \$655 \$675 \$695 \$716 \$738 \$760 \$783 \$806 \$830 3.0% \$30,161 \$31,066 \$31,997 \$32,957 \$33,946 \$34,064 \$36,013 \$37,094 \$38,207 \$39,353 \$40,533 3.0% \$2,396 \$2,468 \$2,542 \$2,618 \$2,897 \$2,778 \$30,935 \$31,220 \$33,220 3.0% \$15,208 \$15,664 \$16,134 \$16,618 \$17,116 \$17,500 \$18,159 \$18,733 \$19,244 \$30,220 3.0% \$127,547 \$131,374 \$135,315 \$139,374 \$143,556 \$147,862 \$152,298 \$166,420 \$171,413 3.0% \$21,789 \$32,725 \$33,727 \$35,779 \$35,853 \$37,958 \$39,097 \$40,270 \$41,478 \$42,722 3. | 3.0% \$1,316 \$1,356 \$1,396 \$1,438 \$1,431 \$1,525 \$1,571 \$1,666 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$2,278 \$2,208 \$2,099 \$2,162 \$2,227 3.0% \$618 \$636 \$655 \$675 \$33,946 \$34,964 \$36,013 \$37,094 \$39,257 \$33,946 \$34,964 \$36,013 \$37,094 \$39,353 \$40,533 \$40,533 \$30,03 \$15,208 \$15,664 \$16,134 \$16,618 \$17,116 \$17,368 \$31,997 \$32,547 \$33,946 \$34,946 \$36,013 \$37,094 \$39,235 \$40,533 | 3,0% \$828 \$878 \$905 \$932 \$960 \$989 \$1,048 \$1,040 \$1,080
\$1,113 3,0% \$1,316 \$1,355 \$1,396 \$1,438 \$1,481 \$1,525 \$1,771 \$1,666 \$1,716 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$1,768 \$2,227 \$2,227 \$1,578 \$2,038 \$2,162 \$2,227 \$2,227 \$2,238 \$2,066 \$31,987 \$22,987 \$33,946 \$36,013 \$37,094 \$38,207 \$39,338 \$40,533 \$30,08 \$2,396 \$15,664 \$16,134 \$16,618 \$17,116 \$17,330 \$18,753 \$31,035 \$31,220 \$30,203 \$31,264 \$30,220 \$30,220 \$30,236 \$31,234 \$31,534 \$31,534 \$31,534 \$31,534 \$31,534 \$31,534 \$31,534 \$31,534 \$31,534 \$31,534 \$31,536 \$31,716 \$31,530 \$318,759 \$31,684 | 3.0% \$3,775 \$3,888 \$4,005 \$4,125 \$4,249 \$4,376 \$4,508 \$4,643 \$4,782 \$4,926 \$5,073 3.0% \$823 \$853 \$878 \$806 \$8932 \$960 \$989 \$1,018 \$1,049 \$1,020 \$1,133 \$1,133 \$1,133 \$1,618 \$1,049 \$1,018 \$1,049 \$1,018 \$1,049 \$1,018 \$1,133 \$1,133 \$1,618 \$1,048 \$1,049 \$1,133 \$1,133 \$1,525 \$1,577 \$1,518 \$1,666 \$1,716 \$1,718 \$2,268 \$2,248 \$2,248 \$1,613 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,618 \$1,716 \$1,834 \$1,818 \$2,947 \$3,035 \$3,126 \$3,220 \$3,220 \$3,249 \$3,40,433 \$3,794 \$3,249 \$3,40,433 \$3,126 \$3,220 \$3,249 \$2,241 \$3,035 \$4,0,533 \$40,533 \$3,796 \$3,249 | 3.0% \$14,843 \$15,288 \$15,747 \$16,220 \$16,706 \$17,724 \$18,265 \$18,803 \$19,348 3.0% \$3,775 \$3,888 \$4,005 \$4,125 \$4,249 \$4,376 \$4,508 \$4,632 \$5,073 3.0% \$3,225 \$3,888 \$4,005 \$4,249 \$4,249 \$4,643 | 3.0% \$1,656 \$1,756 \$1,757 \$1,809 \$1,864 \$1,920 \$1,977 \$2,037 \$2,083 \$2,151 \$2,253 \$2,083 \$2,151 \$2,253 \$2,151 \$2,252 \$2,083 \$2,151 \$2,252 \$2,083 \$2,151 \$2,253 \$2,153 \$2,254 \$2,248 \$2,248 <th>3.0% \$44,282 \$45,610 \$46,679 \$48,388 \$49,840 \$51,335 \$52,877 \$44,461 \$56,095 \$54,767 \$1,608 \$1,577 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,408 \$1,777 \$1,508 \$1,608 \$1,748 \$1,608 \$1,774 \$1,608 \$1,408 \$1,774 \$1,608 \$1,408 \$1,608 <th< th=""><th>3.0% \$13,907 \$14,324 \$14,724 \$15,197 \$15,620 \$16,122 \$16,000 \$17,104 \$17,677 \$18,140 \$10,400 \$10,400 \$17,104 \$17,677 \$18,140 \$10,400 \$17,104 \$17,104 \$17,104 \$17,104 \$17,104 \$17,104 \$10,100 \$</th><th>3.0% \$177,779 \$182,646 \$188,281 \$194,090 \$200,079 \$226,522 \$212,616 \$219,174 \$225,936 \$230,006 \$240,090 3.0% \$13,907 \$14,324 \$41,757 \$41,697 \$48,879 \$48,879 \$48,879 \$48,879 \$48,879 \$48,888 \$49,000 \$51,335 \$22,875 \$84,461 \$50,050 \$57,778 \$50,511 3.0% \$14,843 \$15,288 \$41,055 \$41,252 \$16,706 \$17,207 \$2,037 \$2,098 \$2,161 \$2,225 3.0% \$31,4843 \$15,288 \$41,055 \$41,252 \$16,706 \$17,207 \$17,724 \$18,255 \$18,803 \$19,987 \$19,948 3.0% \$31,4843 \$15,288 \$41,025 \$41,255 \$41,838 \$41,843 \$41,843 \$41,838 \$41,843 \$41,843 \$41,255 \$41,255 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41</th><th>3.0% \$500 \$510 \$537 \$566 \$776 \$798 \$790 \$783 \$806 3.0% \$177,179 \$142,545 \$194,090 \$200,079 \$200,279 \$200,207 \$200,207 \$143,617 \$145,617 \$155,682 \$161,122 \$16,006 \$17,114 \$225,936 \$240,000 3.0% \$44,282 \$44,617 \$48,388 \$49,640 \$51,335 \$25,2875 \$54,461 \$56,005 \$57,778 \$59,511 3.0% \$44,282 \$44,617 \$16,200 \$16,706 \$17,274
 \$12,000 \$1,767 \$20,000 \$1,767 \$10,000 \$1,767 \$10,000 \$1,767 \$10,000 \$1,760 \$20,000 \$20,000 \$20,000 \$1,760 \$11,760 \$20,000 \$20,000 \$20,000 \$1,760 \$1,760 \$1,760 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000</th><th>3.0% 50 5</th><th>3.0% \$220 \$220 \$220 \$220 \$220 \$200 \$247 \$255 \$260 \$270 \$220 \$220 \$200 \$217,074 \$212,090 \$200 \$21,020</th><th>3.0% 82,503 82,565 82,765 82,765 82,765 82,765 82,765 82,775 82,805 82,007 83,777 83,266 83,374 82,202 82,903 83,077 83,265 82,767 82,767 82,767 82,767 82,767 82,767<th>3.0% \$5520 \$610 \$620 \$640 \$680 \$280 \$710 \$712 <t< th=""><th>3.0% \$25,273 \$26,031 \$26,912 \$27,817 \$28,445 \$29,098 \$31,085 \$32,015 \$32,676 \$32,685 \$32,015 \$</th><th>5.00 541 542 544 546 557 522 5275 523 525 5276 523 525 5776 530 3.0% \$25,260 \$22,266 \$27,266 \$22,33 \$240 \$22,67 \$22,680 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,08 \$20 <td< th=""><th>3.0% \$2,2023 \$2,204 \$4,70 \$2,211 \$2,271 \$2,346 \$2,446 \$2,446 \$2,446 \$2,446 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,277 \$23,075 <t< th=""><th>3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$4,400
\$4,400 \$4,400 \$4,400 \$4,400 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$</th><th>200% 50 5</th><th>2006 50 5</th><th>30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100 <</th><th>3,0% 87,375 87,586 57,624 80,099 83,000 98,000</th></t<><th> Findstore 771/19 771/20</th><th> </th><th>Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0</th></th></td<></th></t<></th></th></th<></th> | 3.0% \$44,282 \$45,610 \$46,679 \$48,388 \$49,840 \$51,335 \$52,877 \$44,461 \$56,095 \$54,767 \$1,608 \$1,577 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,747 \$1,608 \$1,408 \$1,777 \$1,508 \$1,608 \$1,748 \$1,608 \$1,774 \$1,608 \$1,408 \$1,774 \$1,608 \$1,408 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608 \$1,608
 \$1,608 \$1,608 <th< th=""><th>3.0% \$13,907 \$14,324 \$14,724 \$15,197 \$15,620 \$16,122 \$16,000 \$17,104 \$17,677 \$18,140 \$10,400 \$10,400 \$17,104 \$17,677 \$18,140 \$10,400 \$17,104 \$17,104 \$17,104 \$17,104 \$17,104 \$17,104 \$10,100 \$</th><th>3.0% \$177,779 \$182,646 \$188,281 \$194,090 \$200,079 \$226,522 \$212,616 \$219,174 \$225,936 \$230,006 \$240,090 3.0% \$13,907 \$14,324 \$41,757 \$41,697 \$48,879 \$48,879 \$48,879 \$48,879 \$48,879 \$48,888 \$49,000 \$51,335 \$22,875 \$84,461 \$50,050 \$57,778 \$50,511 3.0% \$14,843 \$15,288 \$41,055 \$41,252 \$16,706 \$17,207 \$2,037 \$2,098 \$2,161 \$2,225 3.0% \$31,4843 \$15,288 \$41,055 \$41,252 \$16,706 \$17,207 \$17,724 \$18,255 \$18,803 \$19,987 \$19,948 3.0% \$31,4843 \$15,288 \$41,025 \$41,255 \$41,838 \$41,843 \$41,843 \$41,838 \$41,843 \$41,843 \$41,255 \$41,255 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41</th><th>3.0% \$500 \$510 \$537 \$566 \$776 \$798 \$790 \$783 \$806 3.0% \$177,179 \$142,545 \$194,090 \$200,079 \$200,279 \$200,207 \$200,207 \$143,617 \$145,617 \$155,682 \$161,122 \$16,006 \$17,114 \$225,936 \$240,000 3.0% \$44,282 \$44,617 \$48,388 \$49,640 \$51,335 \$25,2875 \$54,461 \$56,005 \$57,778 \$59,511 3.0% \$44,282 \$44,617 \$16,200 \$16,706 \$17,274 \$12,000 \$1,767 \$20,000 \$1,767 \$10,000 \$1,767 \$10,000 \$1,767 \$10,000 \$1,760 \$20,000 \$20,000 \$20,000 \$1,760 \$11,760 \$20,000 \$20,000 \$20,000 \$1,760 \$1,760 \$1,760 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000</th><th>3.0% 50 5</th><th>3.0% \$220 \$220 \$220 \$220 \$220 \$200 \$247 \$255 \$260 \$270 \$220 \$220 \$200 \$217,074 \$212,090 \$200 \$21,020</th><th>3.0% 82,503 82,565 82,765 82,765 82,765 82,765 82,765 82,775 82,805 82,007 83,777 83,266 83,374 82,202 82,903 83,077 83,265 82,767 82,767 82,767 82,767 82,767 82,767<th>3.0% \$5520 \$610 \$620 \$640 \$680 \$280 \$710 \$712 <t< th=""><th>3.0% \$25,273 \$26,031 \$26,912 \$27,817 \$28,445 \$29,098 \$31,085 \$32,015 \$32,676 \$32,685 \$32,015
 \$32,015 \$</th><th>5.00 541 542 544 546 557 522 5275 523 525 5276 523 525 5776 530 3.0% \$25,260 \$22,266 \$27,266 \$22,33 \$240 \$22,67 \$22,680 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,08 \$20 <td< th=""><th>3.0% \$2,2023 \$2,204 \$4,70 \$2,211 \$2,271 \$2,346 \$2,446 \$2,446 \$2,446 \$2,446 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,277 \$23,075 <t< th=""><th>3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$</th><th>200% 50 5</th><th>2006 50 5</th><th>30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100 <</th><th>3,0% 87,375 87,586 57,624 80,099 83,000 98,000</th></t<><th> Findstore 771/19 771/20
771/20 771/20</th><th> </th><th>Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0</th></th></td<></th></t<></th></th></th<> | 3.0% \$13,907 \$14,324 \$14,724 \$15,197 \$15,620 \$16,122 \$16,000 \$17,104 \$17,677 \$18,140 \$10,400 \$10,400 \$17,104 \$17,677 \$18,140 \$10,400 \$17,104 \$17,104 \$17,104 \$17,104 \$17,104 \$17,104 \$10,100 \$ | 3.0% \$177,779 \$182,646 \$188,281 \$194,090 \$200,079 \$226,522 \$212,616 \$219,174 \$225,936 \$230,006 \$240,090 3.0% \$13,907 \$14,324 \$41,757 \$41,697 \$48,879 \$48,879 \$48,879 \$48,879 \$48,879 \$48,888 \$49,000 \$51,335 \$22,875 \$84,461 \$50,050 \$57,778 \$50,511 3.0% \$14,843 \$15,288 \$41,055 \$41,252 \$16,706 \$17,207 \$2,037 \$2,098 \$2,161 \$2,225 3.0% \$31,4843 \$15,288 \$41,055 \$41,252 \$16,706 \$17,207 \$17,724 \$18,255 \$18,803 \$19,987 \$19,948 3.0% \$31,4843 \$15,288 \$41,025 \$41,255 \$41,838 \$41,843 \$41,843 \$41,838 \$41,843 \$41,843 \$41,255 \$41,255 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41,254 \$41 | 3.0% \$500 \$510 \$537 \$566 \$776 \$798 \$790 \$783 \$806 3.0% \$177,179 \$142,545 \$194,090 \$200,079 \$200,279 \$200,207 \$200,207 \$143,617 \$145,617 \$155,682 \$161,122 \$16,006 \$17,114 \$225,936 \$240,000 3.0% \$44,282 \$44,617 \$48,388 \$49,640 \$51,335 \$25,2875 \$54,461 \$56,005 \$57,778 \$59,511 3.0% \$44,282 \$44,617 \$16,200 \$16,706 \$17,274 \$12,000 \$1,767 \$20,000 \$1,767 \$10,000 \$1,767 \$10,000 \$1,767 \$10,000 \$1,760 \$20,000 \$20,000 \$20,000 \$1,760 \$11,760 \$20,000 \$20,000 \$20,000 \$1,760 \$1,760 \$1,760 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 \$20,000 | 3.0% 50 5 | 3.0% \$220 \$220 \$220 \$220 \$220 \$200 \$247 \$255 \$260 \$270 \$220 \$220 \$200 \$217,074 \$212,090 \$200 \$21,020 | 3.0% 82,503 82,565 82,765 82,765 82,765 82,765 82,765 82,775 82,805 82,007 83,777 83,266 83,374 82,202 82,903 83,077 83,265 82,765
 82,765 82,767 82,767 82,767 82,767 82,767 82,767 <th>3.0% \$5520 \$610 \$620 \$640 \$680 \$280 \$710 \$712 <t< th=""><th>3.0% \$25,273 \$26,031 \$26,912 \$27,817 \$28,445 \$29,098 \$31,085 \$32,015 \$32,676 \$32,685 \$32,015 \$</th><th>5.00 541 542 544 546 557 522 5275 523 525 5276 523 525 5776 530 3.0% \$25,260 \$22,266 \$27,266 \$22,33 \$240 \$22,67 \$22,680 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,08 \$20 <td< th=""><th>3.0% \$2,2023 \$2,204 \$4,70 \$2,211 \$2,271 \$2,346 \$2,446 \$2,446 \$2,446 \$2,446 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,277 \$23,075 <t< th=""><th>3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$</th><th>200% 50 5</th><th>2006 50 5</th><th>30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100
 \$100 <</th><th>3,0% 87,375 87,586 57,624 80,099 83,000 98,000</th></t<><th> Findstore 771/19 771/20</th><th> </th><th>Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0</th></th></td<></th></t<></th> | 3.0% \$5520 \$610 \$620 \$640 \$680 \$280 \$710 \$712 <t< th=""><th>3.0% \$25,273 \$26,031 \$26,912 \$27,817 \$28,445 \$29,098 \$31,085 \$32,015 \$32,676 \$32,685 \$32,015 \$</th><th>5.00 541 542 544 546 557 522 5275 523 525 5276 523 525 5776 530 3.0% \$25,260 \$22,266 \$27,266 \$22,33 \$240 \$22,67 \$22,680 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,08 \$20 <td< th=""><th>3.0% \$2,2023 \$2,204 \$4,70 \$2,211 \$2,271 \$2,346 \$2,446 \$2,446 \$2,446 \$2,446 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,277 \$23,075
 \$23,075 <t< th=""><th>3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$</th><th>200% 50 5</th><th>2006 50 5</th><th>30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100 <</th><th>3,0% 87,375 87,586 57,624 80,099 83,000 98,000</th></t<><th> Findstore 771/19 771/20</th><th> </th><th>Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0</th></th></td<></th></t<> | 3.0% \$25,273 \$26,031 \$26,912 \$27,817 \$28,445 \$29,098 \$31,085 \$32,015 \$32,676 \$32,685 \$32,015 \$32,015 \$32,015 \$32,015 \$32,015
 \$32,015 \$ | 5.00 541 542 544 546 557 522 5275 523 525 5276 523 525 5776 530 3.0% \$25,260 \$22,266 \$27,266 \$22,33 \$240 \$22,67 \$22,680 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,07 \$23,08 \$20 <td< th=""><th>3.0% \$2,2023 \$2,204 \$4,70 \$2,211 \$2,271 \$2,346 \$2,446 \$2,446 \$2,446 \$2,446 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,277 \$23,075 <t< th=""><th>3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$</th><th>200% 50 5</th><th>2006 50 5</th><th>30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100 <</th><th>3,0% 87,375 87,586 57,624 80,099 83,000 98,000</th></t<><th> Findstore 771/19 771/20 771/20 771/20
771/20 771/20</th><th> </th><th>Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0</th></th></td<> | 3.0% \$2,2023 \$2,204 \$4,70 \$2,211 \$2,271 \$2,346 \$2,446 \$2,446 \$2,446 \$2,446 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,466 \$2,277 \$23,075 <t< th=""><th>3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$</th><th>200% 50 5</th><th>2006 50 5</th><th>30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100 <</th><th>3,0% 87,375 87,586 57,624 80,099 83,000 98,000
 98,000 98,000</th></t<> <th> Findstore 771/19 771/20</th> <th> </th> <th>Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0</th> | 3.0% \$3,382 \$3,484 \$3,586 \$3,680 \$3,680 \$4,600 \$4,400 \$5,500 \$5,22976 \$5,22977 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$5,22976 \$ | 200% 50 5 | 2006 50 5 | 30.0% \$1936 \$139 \$144 \$110 \$122 \$177 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$170 \$100 < | 3,0% 87,375 87,586 57,624 80,099 83,000 98,000 | Findstore 771/19 771/20 771/20 771/20 771/20 771/20 771/20 771/20 771/20 771/20 771/20
771/20 771/20 | | Inflation/Inflation/Inflation/C+) Test Year O Year Tist Year 2nd Year 3nd Year Defiation/C+) Starting T/1/22 7/1/21 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/22 7/1/21 7/1/22 5/1 3,0% \$0 |

Table 4 - Operating Costs and Net Income

Working C					Anr			ဟ																												•	
Working Capital Goal: 50% in Dollars, That is: \$585,040				User	Annual Payment to R&R Reserve (Table 7)	One-time	Salaries an	Salaries and Wages (Billing, Office Staff,					≤				7T		TELEP			SALARIES /				PLAN				오	OFFICE	NEW MA	NEW	MOTO			
50%			Total CIP-related Payouts	User Charge Analysis Services	to R&R Reser	One-time Reduction of R&R Annuity	Salaries and Wages (Meter Reading	ages (Billing,	WATER-LIFT STATION			VEHICLES, BOATS, ETC	VEHICLE MAINT-OUTISDE	VEHICLE MAINT-INSIDE		TRAININ	TOWN MANAGER SALARY	NWOT	TELEPHONE/INTERNET/COMN	SUPPLIES & MATERIALS		SALARIES AND WAGES (Operations)	PRINTING		밀	PLANT METERING & INSTRU	P	OUTSIDE LAB TESTING	OFFIC	OFFICE FURN & FIXTURES	OFFICE FURN & COMPUTER EQ	NEW MANHOLES & SEWER LINE	NEW MAINS, LINES & VALVES	MOTOR FUEL & LUBRICATION			
In Dollars	Net Income (or Loss)	Total Operating Costs	ited Payouts	sis Services	ve (Table 7)	R&R Annuity	ter Reading)	Office Staff)	T STATION	WATER	VRS-VLDP	OATS, ETC.	IT-OUTISDE	VINT-INSIDE	UNIFORMS	TRAINING EXPENSE	ER SALARY	TOWN ATTORNEY	NET/COMM	MATERIALS	SEWER	(Operations)	PRINTING & BINDING	POSTAGE	PLANT PARTS	& INSTRU.	PERMIT FEES	AB TESTING	OFFICE SUPPLIES	& FIXTURES	MPUTER EQ	EWER LINE	S & VALVES	JBRICATION			
In Dollars, That is:	(or Loss)		N.A.	5.0%	0.0%	0.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	Factor	(<u> </u>	Inflation/
\$585,040	\$43,469	\$1,170,079	Table 5	\$0	\$129,037	-\$129,037	\$20,289	\$48,656	\$463	\$3,768	\$641	\$0	\$8,030	\$7,765	\$1,516	\$841	\$10,719	\$7,444	\$3,434	\$10,738	\$3,770	\$356,937	\$1,820	\$7,614	\$11,583	\$4,018	\$9,027	\$3,717	\$795	\$0	\$0	\$130	\$560	\$8,677	7/1/18	Starting	Test Year
\$607,134	-\$35,289	\$1,214,269	Table 5	\$8,911	\$129,037	-\$129,037	\$20,915	\$50,116	\$477	\$3,881	\$660	\$0	\$8,270	\$7,998	\$1,562	\$866	\$11,041	\$7,668	\$3,537	\$11,060	\$3,883	\$367,645	\$1,875	\$7,849	\$11,931	\$4,138	\$9,298	\$3,828	\$819	\$0	\$0	\$134	\$577	\$8,938	7/1/19	Starting	0 Year
\$685,368	-\$243,558	\$1,370,737	Table 5	\$0	\$129,037	\$0	\$21,560	\$51,619	\$492	\$3,997	\$680	\$0	\$8,519	\$8,238	\$1,609	\$892	\$11,372	\$7,898	\$3,643	\$11,392	\$3,999	\$378,675	\$1,931	\$8,091	\$12,289	\$4,262	\$9,577	\$3,943	\$843	\$0	\$0	\$138	\$594	\$9,206	7/1/20	Starting	1st Year
\$685,368 \$704,087 \$728,283 \$743,235	\$459,039	\$1,408,174	Table 5	\$0	\$129,037	\$0	\$22,226	\$53,168	\$506	\$4,117	\$701	\$0	\$8,774	\$8,485	\$1,657	\$919	\$11,713	\$8,135	\$3,752	\$11,734	\$4,119	\$390,035	\$1,989	\$8,341	\$12,657	\$4,390	\$9,864	\$4,062	\$869	\$0	\$0	\$142	\$612	\$9,482	7/1/21	Starting	2nd Year
\$728,283	\$491,861	\$1,456,565	Table 5	\$9,824	\$129,037	\$0	\$22,911	\$54,763	\$522	\$4,241	\$722	\$0	\$9,037	\$8,739	\$1,707	\$947	\$12,064	\$8,379	\$3,865	\$12,086	\$4,243	\$401,736	\$2,049	\$8,598	\$13,037	\$4,522	\$10,160	\$4,183	\$895	\$0	\$0	\$147	\$631	\$9,767	7/1/22	Starting	3rd Year
\$743,235	\$537,851	\$1,486,470	Table 5	\$0	\$129,037	\$0	\$23,618	\$56,406	\$537	\$4,368	\$743	\$0	\$9,308	\$9,002	\$1,758	\$975	\$12,426	\$8,630	\$3,981	\$12,448	\$4,370	\$413,788	\$2,110	\$8,864	\$13,428	\$4,658	\$10,465	\$4,309	\$922	\$0	\$0	\$151	\$650	\$10,060	7/1/23	Starting	4th Year
\$763,698	\$575,856	\$1,527,396																																1			
\$790,194		- 1																																1			
\$806,495	\$662,754	\$1,612,989	Table 5	\$0	\$129,037	\$0	\$25,872	\$61,636	\$587	\$4,773	\$812	\$0	\$10,172	\$9,836	\$1,921	\$1,065	\$13,579	\$9,430	\$4,350	\$13,603	\$4,775	\$452,157	\$2,306	\$9,709	\$14,673	\$5,089	\$11,435	\$4,708	\$1,007	\$0	\$0	\$165	\$710	\$10,992	7/1/26	Starting	7th Year
\$828,865		\$1,657,731																																- 1			
\$857,881		\$1,715,763																																			
\$875,650	\$810,278	\$1,751,301	Table 5	\$0	\$129,037	\$0	\$28,341	\$67,351	\$642	\$5,215	\$888	\$0	\$11,115	\$10,748	\$2,099	\$1,164	\$14,838	\$10,305	\$4,754	\$14,864	\$5,218	\$494,085	\$2,520	\$10,636	\$16,034	\$5,561	\$12,495	\$5,145	\$1,100	\$0	\$0	\$180	\$776	\$12,012	7/1/29	Starting	10th Year

Notes: The Town will extend service to approximately 2 new customers per year. Therefore, the yellow highlighted cost items above will rise due to inflation and due to the additional cost of serving new customers.

Table 5 - Capital Improvement Program (CIP)

Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

	1	Total Debt Payments	Loan Originated in 5th Year (Payment Estimated by SRF Program)	New Debt Payments (Following are payments for projects to be paid with new debt. It is assumed these will be loan/lease-financed	WSL-20-03	WSL-20-03	Project C-515436-02 (Birmingham Sewer Extension)	Debt Repayments (Following is debt that was initiated during the test year or earlier.)	Total CIP Costs	Total Cash-paid Portion of Projects	Plant Upgrade Project, Revised Costs and Funding Package, 75% Loan, 25% Grant	Planned Spending, Cash-paid Portion of Projects (CIP costs to be funded from reserves are shown here.)	Total Grant-paid Portion of Projects	Plant Upgrade Project, Principal Forgiveness by VRLF Program	Planned Spending, Grant-paid Portion of Projects (CIP costs to be grant-funded are shown here.)	Total Debt-paid Portion of Projects	Plant Upgrade Project, Revised Costs and Funding Package, 75% Loan, 25% Grant	Planned Spending, Debt-paid Portion of Projects (CIP costs to be funded with loans are shown in this section.)			This table depicts capital improvements and their lunuing. Costs reflect inflation.	
his is the total	\$126,205	\$126,205	-	ents for projects	\$14,601	\$66,760	\$44,844	as initiated du	\$0	\$0	\$6	ojects (CIP co	\$0	\$0	ojects (CIP co	\$0	\$0	jects (CIP cos	7/1/18	Starting	Test Year	2
cash required f	\$126,205	\$126,205	:	to be paid with	\$14,601	\$66,760	\$44,844	ring the test ye	\$0	\$0	\$0	sts to be funde	\$0	\$0	sts to be grant	\$0	\$0	sts to be funded	7/1/19	Starting	0 Year	Analysis Year
(This is the total cash required for this CIP and debt payment schedule. These amounts m	\$126,205	\$126,205		h new debt. It is	\$14,601	\$66,760	\$44,844	ar or earlier.)	\$ 0	\$0	\$0	ed from reserve	\$0	\$0	t-funded are sh	\$0	\$ 0	d with loans are	7/1/20	Starting	1st Year	
debt payment	\$126,205	\$126,205		s assumed thes	\$14,601	\$66,760	\$44,844		&	\$0	\$0	s are shown he	\$0	\$0	own here.)	\$0	\$0	shown in this	7/1/21	Starting	2nd Year	Legio i Ollowi
schedule. The	\$126,205	\$126,205		se will be loan/l	\$14,601	\$66,760	\$44,844		÷	\$0	\$0	re.)	\$0	\$0		\$0	\$0	section.)	7/1/22	Starting	3rd Year	region offenting and analysis from the
se amounts mu	\$126,205	\$126,205			\$14,601	\$66,760	\$44,844		é	1	\$0		\$0	\$0		\$0	\$0		7/1/23	Starting	4th Year	
ist come from u	\$16,092,048	\$126,205		for a term of:	\$14,601	\$66,760	\$44,844		\$10,000,0 10	\$0	\$0		\$4,003,503	\$4,003,503		\$11,962,340	\$11,962,340		7/1/24	Starting	5th Year	The state of the s
tility income, re	\$636,421	\$636,421	\$510,216	25 y	\$14,601	\$66,760	\$44,844			\$0	\$0		\$0	\$0		\$0	\$0		7/1/25	Starting	6th Year	
serves or outs	\$636,421	\$636,421	\$510,216	years at a	\$14,601	\$66,760	\$44,844			6 S	\$0		\$0	\$0		\$0	\$0		7/1/26	Starting	7th Year	
ust come from utility income, reserves or outside sources, as sriown in the next section.	\$636,421	\$636,421	\$510,216	0.50% ir	\$14,601	\$66,760	\$44,844		;	8 8	\$0		80	\$0		\$0	\$0		7/1/27	Starting	8th Year	
snown in the r	\$636,421	\$535,421	\$510,216	interest rate.)	\$14,601	\$66,760	\$44,844		;	\$0	\$0		÷	\$0		\$0	\$0		7/1/28	Starting	9th Year	
lext section.)	\$636,427	\$555,421	\$510,216		\$14,601	\$66,760	\$44,844		:	\$0	\$0		&	\$0		6	\$0		7/1/29	Starting	10th Year	- Caramona

Table 5 - Capital Improvement Program (CIP)

This table denicts capital improvements and their funding	ъ	Analysis Year		Years Follow	Years Following the Analysis Year (for Whi	s Year (for Wh	ich Improvement Projects, Costs, Funding, etc. Have Been Projected)	it Projects, Cos	ts. Fundina, et	c. Have Been F	oroiected)	
Costs reflect inflation.	Test Year	0 Year	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting	Starting
	7/1/18	7/1/19	7/1/20	7/1/21	7/1/22	7/1/23	7/1/24	7/1/25	7/1/26	7/1/27	7/1/28	7/1/29
CIP Fund Sources (Following are the sources and amounts of funds expected to pay for the above CIP schedule.)	d amounts of fu	nds expected	to pay for the al	bove CIP sched	dule.)							
Cash Reserves (Internal Funds)												
Debt and CIP Reserves Starting Balance	\$0	-\$126,205	-\$254,934	-\$386,237	-\$520,167	-\$656,775	-\$653,322	-\$237,201	-\$164,840	-\$25,449	\$157.373	\$374,400
Working Capital Transferred in	\$0	\$0	\$0	\$0	\$0	\$142,793	\$555,393	\$580,869	\$646,453	\$687,095	\$717.644	\$792.509
Debt and CIP Reserves Interest Earned (or Paid)	\$0	-\$2,524	-\$5,099	-\$7,725	-\$10,403	-\$13,136	-\$13,066	-\$4,744	-\$3,297	-\$509	\$3,147	\$7,488
Annualized Share of Debt, Cedar Bluff (6%)	\$0	\$0	\$0	\$ 0	\$0	\$ 0	\$0	\$30.613	\$30.613	\$30.613	\$30 613	\$30.613
Annualized Share of Debt, TCPSA (20%)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$102,043	\$102,043	\$102,043	\$102,043	\$102,043
Internal Income Source (Name it)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$	\$6	\$0	\$	\$ 0
Internal Income Source (Name it)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Internal Income Source (Name it)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Available Internal Funds	\$0	-\$128,729	-\$260,032	-\$393,962	-\$530,570	-\$527,117	-\$110,996	\$471,580	\$610,972	\$793,794	\$1,010,821	\$1,307,052
Grant and Loan Proceeds (External Funds)												
DEQ Grant	\$0	\$0	\$0	\$0	\$0	\$0	\$4,003,503	\$0	\$0	\$0	\$0	\$0
Loan Originated in 5th Year (Payment Estimated by SRF Program)							\$11,962,340	\$0	\$0	\$0	\$0	\$0
Total Available External Funds	\$0	\$0	\$0	\$0	\$0	\$0	\$15,965,843	\$0	\$0	\$0	\$0	\$0
Total Available Funds	\$0	-\$128,729	-\$260,032	-\$393,962	-\$530,570	-\$527,117	\$15,854,847	\$471,580	\$610,972	\$793,794	\$1,010,821	\$1,307,052
Outcomes (T	his CIP spendi	ng and funding	This CIP spending and funding plan will result in the following cash needs and ending balar,	in the following) cash needs a	nd ending bala	inces each year.)	•				
Total Available Funds	\$0	-\$128,729	-\$260,032	-\$393,962	-\$530,570	-\$527,117	\$15,854,847	\$471,580	\$610,972	\$793,794	\$1,010,821	\$1,307,052
Total CIP-related Payouts	\$126,205	\$126,205	\$126,205	\$126,205	\$126,205	\$126,205	\$16,092,048	\$636,421	\$636,421	\$636,421	\$636,421	\$636,421
Debt and CIP Reserves Ending Balances	-\$126,205	-\$254,934	-\$386,237	-\$520,167	-\$656,775	\$653,322	\$237,201	-\$164,840	-\$25,449	\$157,373	\$374,400	\$670,632
						1						

Notes: In 2020, when the original rate analysis was done, it was known that Richlands needed major system improvements. The design engineer gave an estimate of those costs at that time, with many unknowns yet to be determined. Over the past three years, much has changed. The cost estimates are much firmer, and unfortunately higher, and DEQ has since offered revised grant and loan amounts. Those grants and loans for the revised costs are included in this table highlighted in gold.

Table 10 - Initial Rate Adjustments and Resulting Revenues Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

This table calculates a new set of user charge rates and the revenues they would generate.

Premium for Out-of-Town

Service

133%

Conservation Rate Block

Multiplier 100%

Other Multiplier

100%

6/30/20

Date when fees will first be collected at adjusted rates. Actual adjustment should occur one billing cycle earlier.

If there are no special costs to consider and before capacity costs are added, if appropriate, rates for a 5/8" meter would be in a "cost-to-serve" structure when: there is no usage allowance,

the base minimum charge is

\$18.34

Monthly, and the unit charge is set at

\$6.13

per 1,000 Gallons.

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

Following are Blended Sales Revenues: Sales at the current (Test Year) rates (gray highlighted column) will apply until rates are adjusted. Sales at the modeled rates (yellow highlighted column) would apply after the modeled rates are adopted. Adding both together, the "blended" sales revenues show in the right-most column.

Customer Class, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Sales This Year at Current Rates	Basic Minimum Charge	New Usage Allowance in 1,000s	New Unit Charge per 1,000 Gallons	Sales This Year at Modeled Rates	Total "Blended" Sales This Year
	0	999	\$59,485	\$18.34	0.000	\$6.13	\$580	\$60,065
	1,000	1,999	\$90,201	\$18.34	0.000	\$6.13	\$599	\$90,800
	2,000	2,999	\$143,886	\$18.34	0.000	\$6.13	\$487	\$144,373
	3,000	3,999	\$103,248	\$18.34	0.000	\$6.13	\$347	\$103,595
	4,000	4,999	\$64,010	\$18.34	0.000	\$6.13	\$215	\$64,224
	5,000	5,999	\$38,544	\$18.34	0.000	\$6.13	\$129	\$38,674
	6,000	6,999	\$22,718	\$18.34	0.000	\$6.13	\$77	\$22,794
	7,000	9,999	\$29,256	\$18.34	0.000	\$6.13	\$100	\$29,355
t - 55	10,000	14,999	\$13,986	\$18.34	0.000	\$6.13	\$49	\$14,035
In Town Residential	15,000	19,999	\$5,035	\$18.34	0.000	\$6.13	\$18	\$5,053
Residential	20,000	24,999	\$2,365	\$18 <i>.</i> 34	0.000	\$6.13	\$8	\$2,373
	25,000	29,999	\$1,577	\$18.34	0.000	\$6.13	\$6	\$1,583
	30,000	49,999	\$3,260	\$18.34	0.000	\$6.13	\$12	\$3,272
	50,000	74,999	\$1,249	\$18.34	0.000	\$6.13	\$5	\$1,254
	75,000	99,999	\$675	\$18.34	0.000	\$6.13	\$2	\$678
	100,000	124,999	\$320	\$18.34	0.000	\$6.13	\$1	\$322
	125,000	149,999	\$189	\$18.34	0.000	\$6.13	\$1	\$190
	150,000	199,999	\$224	\$18.34	0.000	\$6.13	\$1	\$225
	200,000	399,999	\$37	\$18.34	0.000	\$6.13	\$0	\$37

Table 10 - Initial Rate Adjustments and Resulting Revenues

		ī	.a.c.a.a.a.a.da.a.wa.a.a.a.a.a.a.a.			9		
Customer Class, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Sales This Year at Current Rates	Basic Minimum Charge	New Usage Allowance in 1,000s	New Unit Charge per 1,000 Gallons	Sales This Year at Modeled Rates	Total "Blended" Sales This Year
	0	999	\$16,977	\$18.34	0.000	\$6.13	\$87	\$17,065
	1,000	1,999	\$7,627	\$18.34	0.000	\$6.13	\$46	\$7,673
	2,000	2,999	\$8,486	\$18.34	0.000	\$6.13	\$29	\$8,516
	3,000	3,999	\$5,006	\$18.34	0.000	\$6.13	\$18	\$5,024
	4,000	4,999	\$4,258	\$18.34	0.000	\$6.13	\$15	\$4,273
	5,000	5,999	\$3,875	\$18.34	0.000	\$6.13	\$14	\$3,889
	6,000	6,999	\$3,424	\$18.34	0.000	\$6.13	\$12	\$3,436
	7,000	9,999	\$9,423	\$18.34	0.000	\$6.13	\$34	\$9,457
	10,000	14,999	\$12,501	\$18.34	0.000	\$6.13	\$45	\$12,547
l- T	15,000	19,999	\$8,690	\$18.34	0.000	\$6.13	\$32	\$8,722
In Town Commercial	20,000	24,999	\$6,737	\$18.34	0.000	\$6.13	\$24	\$6,761
Gommoroidi	25,000	29,999	\$4,770	\$18.34	0.000	\$6.13	\$17	\$4,788
	30,000	49,999	\$13,056	\$18.34	0.000	\$6.13	\$48	\$13,104.
	50,000	74,999	\$9,328	\$18.34	0.000	\$6.13	\$34	\$9,363
	75,000	99,999	\$5,187	\$18.34	0.000	\$6.13	\$19	\$5,207
	100,000	124,999	\$4,340	\$18.34	0.000	\$6.13	\$16	\$4,356
	125,000	149,999	\$3,572	\$18.34	0.000	\$6.13	\$13	\$3,586
	150,000	199,999	\$6,249	\$18.34	0.000	\$6.13	\$23	\$6,272
	200,000	399,999	\$15,649	\$18.34	0.000	\$6.13	\$58	\$15,707
	400,000	499,999	\$4,670	\$18.34	0.000	\$6:13	\$17	\$4,688
	500,000	999,999	\$12,522	\$18.34	0.000	\$6.13	\$47	\$12,569
Meter by PSA	0	999	\$191	\$18.34	0.000	\$6.13	\$1	\$192
Meter by FOA	1,000	1,999	\$176	\$18.34	0.000	\$6.13	\$1	\$176
	0	999	\$162	\$18.34	0.000	\$6.13	\$1	\$162
	1,000	1,999	\$190	\$18.34	0.000	\$6.13	\$1	\$191
	2,000	2,999	\$280	\$18.34	0.000	\$6.13	\$1	\$281
	3,000	3,999	\$207	\$18.34	0.000	\$6.13	\$1	\$207
No Meter	4,000	4,999	\$151	\$18.34	0.000	\$6.13	\$1	\$151
NO Meter	5,000	5,999	\$98	\$18.34	0.000	\$6.13	\$0	\$98
	6,000	6,999	\$45	\$18.34	0.000	\$6.13	\$0	\$45
	7,000	9,999	\$144	\$18.34	0.000	\$6.13	\$1	\$144
	10,000	14,999	\$202	\$18.34	0.000	\$6.13	\$1	\$202
	15,000	19,999	\$21	\$18.34	0.000	\$6.13	\$0	\$21

Table 10 - Initial Rate Adjustments and Resulting Revenues

Customer	Volume	Volume				New Unit	Sales This	Total
Class, Rate	Range	Range	Sales This Year at	Basic Minimum	New Usage Allowance in	Charge	Year at	"Blended"
Class or Meter	Bottom	Top	Current Rates	Charge	1,000s	per 1,000 Gallons	Modeled Rates	Sales This Year
Size	(in Gallons)	(in Gallons)				Gallons	Natos	roai
	0	999	\$878	\$18.34	0.000	\$6.13	\$5	\$882
	1,000	1,999	\$191	\$18.34	0.000	\$6.13	\$2	\$194
	2,000	2,999	\$804	\$18.34	0.000	\$6.13	\$3	\$806
	3,000	3,999	\$640	\$18.34	0.000	\$6.13	\$2	\$642
	4,000	4,999	\$302	\$18.34	0.000	\$6.13	\$1	\$303
	5,000	5,999	\$224	\$18.34	0.000	\$6.13	\$1	\$225
	6,000	6,999	\$231	\$18.34	0.000	\$6.13	\$1	\$232
	7,000	9,999	\$437	\$18.34	0.000	\$6.13	\$2	\$438
	10,000	14,999	\$625	\$18.34	0.000	\$6.13	\$2	\$627
	15,000	19,999	\$530	\$18.34	0.000	\$6.13	\$2	\$532
Richlands Town	20,000	24,999	\$468	\$18.34	0.000	\$6.13	\$2	\$469
Departments	25,000	29,999	\$449	\$18.34	0.000	\$6.13	\$2	\$450
_ op 0	30,000	49,999	\$1,773	\$18.34	0.000	\$6.13	\$7	\$1,780
	50,000	74,999	\$1,892	\$18.34	0.000	\$6.13	\$7	\$1,899
	75,000	99,999	\$1,074	\$18.34	0.000	\$6.13	\$4	\$1,078
	100,000	124,999	\$665	\$18.34	0.000	\$6.13	\$2	\$667
	125,000	149,999	\$561	\$18.34	0.000	\$6.13	\$2	\$563
	150,000	199,999	\$1,068	\$18.34	0.000	\$6.13	\$4	\$1,072
	200,000	399,999	\$3,590	\$18.34	0.000	\$6.13	\$13	\$3,604
	400,000	499,999	\$1,795	\$18.34	0.000	\$6.13	\$7	\$1,802
	500,000	999,999	\$8,898	\$18.34	0.000	\$6.13	\$33	\$8,931
	1,000,000	1,999,999	\$1,434	\$18.34	0.000	\$6.13	\$5	\$1,440
	0	999	\$2,535	\$24.46	0.000	\$8.17	\$19	\$2,554
	1,000	1,999	\$2,351	\$24.46	0.000	\$8.17	\$16	\$2,367
	2,000	2,999	\$4,252	\$24.46	0.000	\$8.17	\$15	\$4,267
	3,000	3,999	\$2,606	\$24.46	0.000	\$8.17	\$9	\$2,615
County	4,000	4,999	\$1,481	\$24.46	0.000	\$8.17	\$5	\$1,486
Residential	5,000	5,999	\$450	\$24.46	0.000	\$8.17	\$2	\$452
	6,000	6,999	\$235	\$24.46	0.000	\$8.17	\$1	\$236
	7,000	9,999		\$24.46	0.000	\$8.17	\$2	\$480
	10,000	14,999	\$212	\$24.46	0.000	\$8.17	\$1	\$213
	15,000	19,999	9 \$39	\$24.46	0.000	\$8.17	\$0	\$40

Table 10 - Initial Rate Adjustments and Resulting Revenues

Customer Class, Rate Class or Meter Size	Volume Range Bottom (in Gallons)	Volume Range Top (in Gallons)	Sales This Year at Current Rates	Basic Minimum Charge	New Usage Allowance in 1,000s	New Unit Charge per 1,000 Gallons	Sales This Year at Modeled Rates	Total "Blended" Sales This Year
	0	999	\$491	\$24.46	0.000	\$8.17	\$4	\$495
	1,000	1,999	\$368	\$24.46	0.000	\$8.17	\$3	\$371
	2,000	2,999	\$709	\$24.46	0.000	\$8.17	\$3	\$712
	3,000	3,999	\$483	\$24.46	0.000	\$8.17	\$2	\$485
	4,000	4,999	\$468	\$24.46	0.000	\$8.17	\$2	\$470
	5,000	5,999	\$374	\$24.46	0.000	\$8.17	\$1	\$376
County	6,000	6,999	\$353	\$24.46	0.000	\$8.17	\$1	\$355
County Commercial	7,000	9,999	\$818	\$24.46	0.000	\$8.17	\$3	\$821
	10,000	14,999	\$1,130	\$24.46	0.000	\$8.17	\$4	\$1,134
	15,000	19,999	\$1,128	\$24.46	0.000	\$8.17	\$4	\$1,133
	20,000	24,999	\$1,152	\$24.46	0.000	\$8.17	\$4	\$1,156
	25,000	29,999	\$653	\$24.46	0.000	\$8.17	\$2	\$655
	30,000	49,999	\$561	\$24.46	0.000	\$8.17	\$3	\$564
	50,000	74,999	\$145	\$24.46	0.000	\$8.17	\$1	\$146
	75,000	99,999	\$46	\$24.46	0.000	\$8.17	\$0	\$46
Total Rate Ro			\$800,530		e Revenue at	Rates	\$3,509	
Pro	rated capacit	y surcharge:	s from Table 16	(minimum ch	arges above	do not incl	ude them)_	\$157

Total Blended Rate Revenues for the Year \$804,196

Note: New Minimum Charge Base Rates: If meter size-based minimum charges are to be used, and the user classes modeled above include meter or connection sizes, the amounts shown in this column include meter size surcharges as calculated in Table 16. Either way, the narrative report includes the rates and surcharges to assess.

12.0 months at the old user charge rates	and	0.0	months at the new user charge rates.

Table 17 - Financial Capacity Indicators and Reserves

Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

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

to Affordability		ability Ir		Capacity Indicators		
Afficiently Index (Al) noes to the willingness and ability of customers to pay. Al is the cost of 60,000 gallons of residential service per year (5,000 gallons per month) divided by the Annual Median Household Income	Affordability Index: Current Rates First Column, Modeled Rates After That	AMHI Within Service Area	Monthly Bill for a 5,000 gal per Month, Small Meter Residential Customer	ators		
things outstands	1.17%	\$30,149	\$29.50	7/1/18	Test Year Starting	
	3.42%	\$30,149	\$85.89	7/1/19	0 Year Starting	
	3.42%	\$30,149	\$85.89	7/1/20	1st Year Starting	
	3.56%	\$30,149	\$89.32	7/1/21	2nd Year Starting	
	3.70%	\$30,149	\$92.90	7/1/22	3rd Year Starting	
	3.85%	\$30,149	\$96.61	7/1/23	4th Year Starting	
	4.00%	\$30,149	\$100.48	7/1/24	5th Year Starting	
	4.16%	\$30,149	\$104.50	7/1/25	6th Year Starting	
	4.33%	\$30,149	\$108.68	7/1/26	7th Year Starting	
	4.50%	\$30,149	\$113.02	7/1/27	8th Year Starting	
	4.68%	\$30,149	\$117.55	7/1/28	9th Year Starting	
(5,000 gallons per month) divided by the Annual Median Household Income	4.87%	\$30,149	\$122.25	7/1/29	10th Year Starting	

less than 1.5 to 2.0%.

oility Index		ethodol	
Affordability Index for Combined Water and Sewer Bill: Current Rates First Column, Modeled Rates After	Affordability Index: Current Rates First Column, Modeled Rates After That	AMHI Within Service Area	Monthly Bill for a 3,528 gal per Month Residential Customer
1.55%	0.64%	\$30,149	\$16.00
3.29%	2.43%	\$30,149	\$61.05
3.26%	2.43%	\$30,149	\$61.05
3.33%	2.43% 2.53%	\$30,149 \$30,149	\$63.49
3.40%	2.63%	\$30,149	\$66.03
3.52%	2.73%	\$30,149	\$68.67
3.63%	2.84%	\$30,149 \$30,149	\$71.42
3.76%	2.96%	\$30,149	\$74.27 \$77.24
3.88%	3.07%	\$30,149	\$77.24
4.01%	3.20%	\$30,149	\$80.33
4.15%	3.33%	\$30,149	\$83.55
4.29%	3.46%	\$30,149	\$86,89

Afford This additional indicator of affordability assumes a residential customer using the VDH benchmark volume each month. The index shown in bright yellow highlight is for combined water and sewer of use. The VDH SRF loan is likely to go into repayment in the third year (2022), and rate adjustments are modeled to "ramp up" through that year, so that year's Al is the index to focus on.

Operating ratio (OR) is a measure of the utility's ability to pay its operating expenses using only current incomes. A 1.0 OR is break even. Below 1.0 indicates operating in the "red." Generally, the OR should be at least 1.15 for large systems, 1.30 or more for medium-sized systems and perhaps as high as 2.0 for small systems. Note: This utility will soon have reserves (shown below). This will give the utility more ability to pay its operating costs than the OR would imply. Modeled Rates After That

Estimated Operating Ratio: Current Rates First Column,

1.04

0.97

0.82

1.33

1.34

1.36

1.38

1.38

1.41

1.43

1.44

1.46

Estimated Coverage Ratio: Current Rates First Column, Modeled Rates After That 0.00 0.00 0.00 0.00 0.00 1.13 4.40 0.91 1.02 1.08 1. 13 1.25

Coverage Ratio (CR) goes to the ability of the utility to pay its debt payments out of current incomes. OR applies only to years with debt service. 1.0 is break even. Generally, the CR should be at least 1.25. Note: This utility will soon have reserves (shown below). This will give the utility more ability to pay debt than the CR would imply.

Reserves Total Cash Assets Discounted for Inflation (Future Unrestricted Purchasing Power) Total Undedicated Cash Assets Cash and Cash Equivalents Debt and CIP Reserves Repair & Replacement Sum of All Reserves Other Liquid Assets -\$367,345 -\$367,345 -\$367,345 -\$367,345 Ending on 6/30/18 Balance \$ \$0 \$0 Balance Ending on -\$567,080 -\$126,205 -\$117,000 -\$323,876 -\$323,876 -\$323,876 6/30/19 \$0 Balance Ending on -\$721,401 -\$1,086,371 -\$359,164 -\$359,164 -\$254,934 -\$107,303 -\$359,164 6/30/20 -\$602,722 Ending on -\$602,722 -\$602,722 -\$386,237 -\$97,412 6/30/21 Balance -\$143,683 Ending on -\$143,683 -\$143,683 \$751,173 -\$520,167 -\$87,323 6/30/22 Balance \$0 Ending on -\$656,775 \$348,177 \$348,177 \$348,177 \$385,630 -\$77,033 Balance 6/30/23 Ending on \$743,235 \$743,235 -\$653,322 \$743,235 6/30/24 -\$66,536 Balance \$23,377 \$0 -\$237,201 \$763,698 \$763,698 Ending on \$763,698 \$470,668 -\$55,830 6/30/25 Balance \$0 Ending on -\$164,840 \$790,194 \$790,194 \$790,194 \$580,444 -\$44,909 6/30/26 Balance \$0 Ending on \$747,275 -\$25,449 \$806,495 \$806,495 \$806,495 -\$33,771 Balance 6/30/27 80 Ending on \$157,373 \$828,865 \$828,865 \$963,829 \$828,865 -\$22,409 Balance 6/30/28 \$0 \$1,221,461 Ending on \$857,881 \$374,400 \$857,881 \$857,881 -\$10,820 6/30/29 Balance 80 \$1,547,282 Ending on \$670,632 \$875,650 \$875,650 \$875,650 Balance \$1,000 6/30/30 \$0

Table 18 - Bills Before and After Rate Adjustments Richlands, VA, 2020 Sewer Rates Model 1, CIP Revised in FY 2024

This table shows how bills needed going into Fiscal Year 2024, now that system improvement costs have been better determined, compare to what bills were four-plus years ago at the end of Fiscal Year 2019, when those costs were still largely unknown.

Rate Classes With 5/8 Inch Meter	Gallons of Use	Customers at or Above This Volume But Below the Next	Customers Using This Volume or Less	Customers Using This Volume or More	Bill as of 6/30/2019	Modeled Bill for FY 2024	Modeled Bill Increase or Decrease (-)
	0	311	311	2,111	\$16.00	\$23.25	\$7.25
	1,000	471	782	1,800	\$16.00	\$30.42	\$14.42
	2,000	442	1,224	1,329	\$16.00	\$40.27	\$24.27
	3,000	341	1,565	887	\$20.50	\$51.90	\$31.40
	3,528				\$22.88	\$61.05	\$38.17
	4,000	213	1,778	546	\$25.00	\$72.47	\$47.47
	5,000	127	1,906	332	\$29.50	\$85.89	\$56.39
In-Town	6,000	73	1,978	205	\$34.00	\$93.06	\$59.06
111 10411	7,000	83	2,061	132	\$38.50	\$102.91	\$64.41
	10,000	32	2,093	49	\$52.00	\$137.82	\$85.82
	15,000	9	2,102	18	\$74.50	\$173.67	\$99.17
	20,000	3	2,105	9	\$97.00	\$220.24	\$123.24
	25,000	1	2,106	6	\$119.50	\$290.03	\$170.53
	30,000	3	2,109	4	\$142.00	\$325.89	\$183.89
	50,000	1	2,110	1	\$232.00	\$496.10	\$264.10
	75,000	0	2,110	1	\$344.50	\$678.31	\$333.81
	0	89	89	222	\$20.50	\$36.26	\$15.76
	1,000	40	129	133	\$20.50	\$47.45	\$26.95
	2,000	22	150	93	\$20.50	\$62.81	\$42.31
	3,000	7	157	72	\$26.50	\$80.96	\$54.46
	4,000	5	162	64	\$32.50	\$100.50	\$68.00
Out-of-Town	5,000	4	166	60	\$38.50	\$124.22	\$85.72
	6,000	3	169	55	\$44.50	\$145.16	\$100.66
	7,000	8	177	53	\$50.50	\$156.34	\$105.84
	10,000	13	190	44	\$68.50	\$194.08	\$125.58
	15,000	8	198	31	\$98.50	\$270.90	\$172.40
	20,000	7	204	24	\$128.50	\$326.83	\$198.33
	25,000	3	207	17	\$158.50	\$399.47	\$240.97
	30,000	6	213	15	\$188.50	\$508.32	\$319.82
	50,000	5	217	9	\$308.50	\$732.04	\$423.54
	75,000	1	218	4	\$458.50	\$1,053.46	\$594.96

Table 18B - Combined Water and Sewer Bills Before and After Rate Adjustments Richlands, VA

This table combines water and sewer bills for the same volumes of use. This is a better indicator of the effect of bill adjstments on most customers. But note, most residential customers use less sewer service some months (summer) than the water they use, so their actual combined bills will likely be less than what this table shows.

Rate Classes With 5/8 Inch Meter	Gallons of Use	Average Customers at or Above This Volume But Below the Next	Average Customers Using This Volume or Less	Average Customers Using This Volume or More	Combined Bill as of 6/30/2019	Modeled Combined Bill for FY 2024	Modeled Co,bomed Bill Increase or Decrease (-)
	0	321	321	2,143	\$32.00	\$33.43	\$1.43
	1,000	476	797	1,822	\$32.00	\$43.76	\$11.76
	2,000	447	1,244	1,346	\$32.00	\$59.60	\$27.60
	3,000	346	1,590	899	\$41.00	\$79.13	\$38.13
	3,528				\$45.75	\$95.62	\$49.87
	4,000	216	1,807	552	\$50.00	\$117.06	\$67.06
	5,000	128	1,935	336	\$59.00	\$140.26	\$81.26
In-Town	6,000	73	2,008	208	\$68.00	\$150.59	\$82.59
	7,000	84	2,092	135	\$77.00	\$166.43	\$89.43
	10,000	32	2,125	51	\$104.00	\$225.01	\$121.01
	15,000	9	2,134	18	\$149.00	\$276.63	\$127.63
	20,000	3	2,137	9	\$194.00	\$350.34	\$156.34
	25,000	1	2,139	6	\$239.00	\$471.89	\$232.89
	30,000	3	2,142	4	\$284.00	\$523.51	\$239.51
	50,000	1	2,142	1	\$464.00	\$785.20	\$321.20
	75,000	0	2,143	1	\$689.00	\$1,068.42	\$379.42
	0	91	91	226	\$41.00	\$50.40	\$9.40
	1,000	40	131	135	\$41.00	\$65.96	\$24.96
	2,000	22	153	95	\$41.00	\$89.64	\$48.64
Out-of-Town	3,000	7	160	73	\$53.00	\$118.73	\$65.73
	4,000	5	165	66	\$65.00	\$150.54	\$85.54
	5,000) 4	169	61	\$77.00	\$190.46	\$113.46
	6,000	3	172	57	\$89.00	\$224.97	\$135.97
	7,000	8	180	54	\$101.00	\$240.53	\$139.53
	10,000) 13	193	46	\$137.00	\$295.34	\$158.34
	15,000	8	201	32	\$197.00	\$413.75	\$216.75
	20,000	7	208	25	\$257.00	\$491.55	\$234.55
	25,000	3	210	18	\$317.00	\$601.84	\$284.84
	30,000) 6	216	16	\$377.00	\$782.51	\$405.51
	50,000	5	221	10	\$617.00	\$1,093.72	\$476.72
	75,000) 1	222	5	\$917.00	\$1,563.95	\$646.95

			,	
	*			
·				