BUDGET

FISCAL YEAR 2022-2023



May 11, 2022

Table of Contents

FY2022-2023 Budget Letter	1
REVENUES	3
Water Rates	3
Table 1. Water Rates 2019-2023	3
Water Sales	
Figure 1. Annual Water Sales FY2015-2022	4
Figure 2. Average Water Sales by Customer in Million Gallons 2014-2021	5
Proposed FY2022-2023 Revenue Budget	6
Table 2. FY2022-2023 Revenue Budget	6
EXPENSES	6
Salaries/Staffing	6
Electrical Service	6
Chemicals and Testing	7
VRS Retirement	7
Insurance	7
Proposed FY2022-2023 Expense Budget	7
Table 3. FY2022-2023 Expense Budget	8
Table 4. Recommended FY2022-2023 Budget Summary	9
APPENDICES	
APPENDIX A: NRV REGIONAL WATER AUTHORITY	
CASH FLOW PROJECTIONS & WHOLESALE WATER RATES	
APPENDIX B: 2021 ANNUAL WATER and WASTEWATER RATE REPORT	
APPENDIX C: FY2022-2023 PAY SCALE	

155 WALTON ROAD

RADFORD, VA 24141



P: 540.639.2575 • F: 540.639.0229

WWW.NRVWATER.ORG

MEMBERS OF THE BOARD

William R. Knocke, Chairman Marc A. Verniel, Vice-Chairman Wayne O.Nelson, Secretary F. Craig Meadows, Treasurer Christopher H. Kiwus Caleb M. Taylor, P.E. Executive Director

The enclosed *Recommended FY2022-2023 Budget* for the NRV Regional Water Authority was presented and passed by the Members of the Board at the regularly scheduled Board Meeting held on May 11, 2022 at 4PM.

William R. Knocke, Chairman	F. Craig Meadows, Treasurer
5/11/22	Date Date
Calel M. Jank	Shain Huff
Caleb M. Taylor, Executive Director	Attest
5/11/2022	5 (11/2022
Date	Date

P: 540.639.2575 • F: 540.639.0229

RADFORD, VA 24141



WWW.NRVWATER.ORG

MEMBERS OF THE BOARD

William R. Knocke, Chairman Marc A. Verniel, Vice-Chairman Wayne O.Nelson, Secretary F. Craig Meadows, Treasurer Christopher H. Kiwus

May 11, 2022

Caleb M. Taylor, P.E. Executive Director

FY2022-2023 Budget Letter

Dear NRV Regional Water Authority Board Members:

We are pleased to submit for your review the *Recommended FY2022-2023 Budget* for the period beginning July 1, 2022 through June 30, 2023. This year's budget is balanced and meets the strategic goals of the Water Authority.

The purpose of our budget is to plan necessary operating and capital expenditures for the next fiscal year to meet Water Authority Board expectations and maintain the level of service that has been provided to its customers while servicing the Water Authority's debt. Quality water service will continue to be offered at a reasonable cost. Highlights of the *Recommended FY2022-2023 Budget* include:

- 1. A water rate increase from \$3.96 to \$4.05 per 1,000 gallons (or a 2.0% increase) as adopted by the NRV Regional Water Authority Board of Directors on October 27, 2021.
- 2. The proposed budget assumes a 0.5% increase in sales in the coming year. This is analogous to the 0.5% increase in sales as projected in the revised cash flow projection analysis dated September 17, 2021. Attached to the budget is the 2021 Water and Wastewater Rate Study performed by Draper Aden Associates.
- 3. A compensation increase of 7.5% for Authority employees. This is comprised of a 5.0% COLA and a 2.5% Merit for those eligible.
- 4. VRS rate remains at 18.30% with insurance at 1.34%.
- 5. Health Insurance premiums increased by 11% for FY2022-2023.
- 6. Capital Improvement expenditures have been projected to be \$12,635,000 paid from the reserve account, and approximately \$36 million paid from debt.

This budget incorporates the annual operations and maintenance as well as capital improvement needs identified by engineering studies and NRVRWA staff. The fiscal condition of the Water Authority remains sound as shown in the *Recommended FY2022-2023 Budget*. We look forward to the next year and continued success at the NRV Regional Water Authority.

Sincerely,

Caleb M. Taylor
Caleb M. Taylor, P.E.

Executive Director

CMT/sh

REVENUES

Water Rates

Historical water rates for the Authority's customers are shown in Table 1.

Table 1. Water Rates 2019-2023

Fiscal Year	Water Rate	Percent Increase
2019-2020	3.70	2.5
2020-2021	3.77	1.9
2021-2022	3.96	5.0
2022-2023	4.05	2.0

As shown in Table 1, water rates have increased on average 2.9% annually. The increase is the result of increases in operations and maintenance costs due to inflation as well as the debt service obligations associated with the following:

- 1. 2013 Bond for Prices Fork Transmission Main (Joinder Project)
- 2. 2014 (refinanced 2005 bond) bond
- 3. 2019 Bond for Plum Creek Transmission Main (Joinder Project)
- 4. 2020 Water Treatment Plant Modernization/Upgrade

The NRV Regional Water Authority's Cash Flow Projections that outline the existing and proposed water rates is provided in Appendix A.

The NRV Regional Water Authority's proposed rate of \$4.05/1,000 gallons is a comparable rate when considering other wholesale water providers in the Commonwealth. More information on the wholesale water rates along with information on each of the Authorities is provided in Appendix A.

Water Sales

Annual water sales for the NRV Regional Water Authority from 2015-2022 are shown in Figure 1.

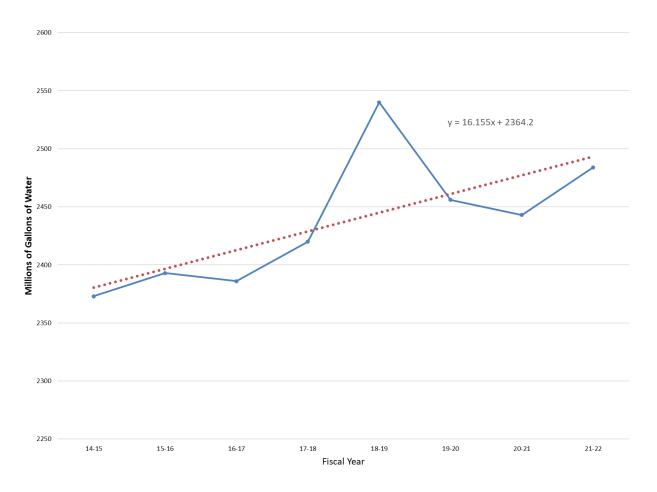


Figure 1. Annual Water Sales FY2015-2022

The annual water sales in the last eight (8) years for the Water Authority since the Joinder Study have risen during that time. In evaluating the trend for where anticipated water sales would be for FY2022-2023, many variables come into play such as weather patterns and economic growth. While weather is unpredictable for determining water sales, these historical numbers suggest that there will be little change in the annual water sales. Additionally, there is not any significant growth projected in the Water Authority's service area within the next year.

For the Water Authority, the financial analysis assumed a one-half (0.5) percent increase in water sales for the 2022-2023 fiscal year. In evaluating the trends seen in Figure 1, a 0.5% increase in water sales was projected for 2022-2023. The global pandemic that impacted this region beginning in March of 2020 resulted in reduced water sales. However, things have changed and appeared to normalize from the perspective of the average daily volume of water consumed by the Authority's service area. While water consumption has slowly started to rise, we do not anticipate a significant change in the upcoming year with respect to water sales. This assumption provides a conservative estimate to the projected annual water sales for the Water Authority in 2022-2023.

Average water sales by customer are shown in Figure 2.

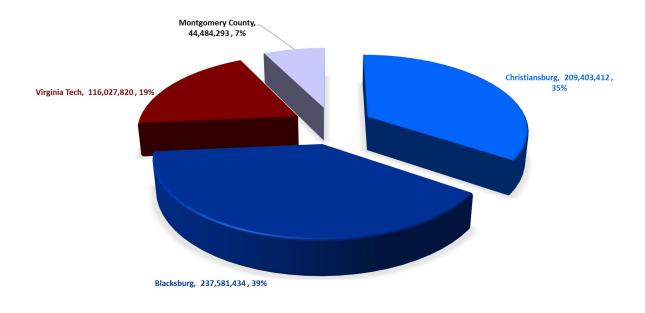


Figure 2. Average Water Sales by Customer in Million Gallons 2014-2021

Of the four customers (Blacksburg, Christiansburg, Virginia Tech and Montgomery County), approximately 74% of the water is being sold to the Towns of Blacksburg and Christiansburg while Virginia Tech and Montgomery County comprises approximately 19% and 7% of the total sales respectively. The percentages presented in Figure 2 follow historical usage.

The 2021 Water and Wastewater Rate Report prepared by Draper Aden Associates identifies trends in water rates for residential customers as well as other factors contributing to the water rates across the commonwealth. The towns and the county participate in this report. A copy of the 2021 Water and Wastewater Rate Report is provided in Appendix B.

Proposed FY2022-2023 Revenue Budget

The Recommended FY2022-2023 Revenue Budget based on the water rates and sales presented is shown in Table 2.

Table 2. FY2022-2023 Revenue Budget

DEVENUE	Proposed Budget		Budget		Estimated Year End	(De	crease ecrease)
REVENUE		Y22-23	FY21-22	FY2	2 to FY23		
VIRGINIA TECH	\$	1,893,000					
MONTGOMERY COUNTY	\$	725,000					
TOWN OF BLACKSBURG	\$	3,877,000					
TOWN OF CHRISTIANSBURG	\$	3,417,000					
INTEREST INCOME	\$	60,000					
MEMBERSHIP INTEREST	\$	47,522					
TRANSER IN-CAPITAL CONTRIBUTION		-					
MISCELLANEOUS	\$	5,000					
GAIN/LOSS ON SALE OF ASSETS		-					
TOTAL REVENUE =	\$	10,024,500	\$ 9,753,500	\$	271,000		

The Recommended FY2022-2023 Revenue Budget is \$10,024,500. This represents a 2.8% increase in revenue from FY2021-2022. The revenue increase is the net result of the water rate increase. The recommended revenue budget for FY2022-2023 takes a conservative but realistic approach of what the Water Authority could expect over the upcoming year.

EXPENSES

Salaries/Staffing

Salaries are the single largest operating expense for the Water Authority at 33% of the total operating budget. This is typical for most utilities that provide a similar type of service such as the Water Authority.

Electrical Service

Electrical service is the Water Authority's second largest expense in the operating budget. It comprises approximately 16% of the total operating budget.

Chemicals and Testing

Chemicals and Testing are the Water Authority's third largest expense in the operating budget at a little over 7% of the total operating budget. In the first quarter of 2022, all of the chemicals utilized by the Water Authority in the treatment of water were renewed for competitive pricing. Most of the cost increases associated with the chemicals are due to supply and raw material price increases as well as freight and fuel to have them delivered to the site. We have seen a dramatic increase in chemical prices due to the pandemic.

VRS Retirement

VRS retirement percentages for the Authority remained the same in 2022-2023 due to VRS's two-year audit of staffing, staff age, anticipated retirements, and risk analysis. Based on the information of the existing staff, the VRS insurance percentage is 1.34% while the VRS pension percentage remained the same at 18.30% for fiscal years 2023 and 2024.

Insurance

Insurance premiums for the Water Authority increased by approximately 11% in the upcoming fiscal year through our provider The Local Choice.

Proposed FY2022-2023 Expense Budget

The Recommended FY2022-2023 Expense Budget based on the anticipated operational and maintenance expenses is shown in Table 3.

Table 3. FY2022-2023 Expense Budget

Proposed Current Increase %									
	Budget Budget					ecrease)	Increase		
<u>EXPENSES</u>		FY22-23		FY21-22		22 to FY23	(Decrease)		
ELECTRICAL SERVICES	\$	870,000	\$	800,000	\$	70,000	8.8		
CHEMICALS AND TESTING	\$	390,000	\$	350,000	\$	40,000	11.4		
LEGAL SERVICES	\$	25,000	\$	10,000	\$	15,000	250		
SALARIES-REGULAR	\$	1,770,000	\$	1,580,000	\$	190,000	12.0		
SALARIES-OVERTIME	\$	140,000	\$	135,000	\$	5,000	3.7		
FICA	\$	149,000	\$	134,000	\$	15,000	11.2		
VRS RETIREMENT	\$	344,000	\$	305,000	\$	39,000	12.8		
EMPLOYEE BENEFITS	\$	139,000	\$	128,000	\$	11,000	8.6		
GENERAL LIABILITY INSURANCE	\$	100,000	\$	90,000	\$	10,000	11.1		
HEALTH INSURANCE	\$	365,000	\$	350,000	\$	15,000	4.3		
OTHER POSTEMPLOYMENT BENEFITS	\$	34,000	\$	34,000	\$	0	0		
ENGINEERING AND ARCH. SERVICES	\$	250,000	\$	210,000	\$	40,000	19		
OTHER PROFESSIONAL SERVICES	\$	177,000	\$	124,000	\$	53,000	42.7		
LAB SUPPLIES	\$	52,000	\$	60,000	\$	(8,000)	(13.3)		
ADVERTISING	\$	7,500	\$	7,500	\$	0	0		
OFFICE SUPPLIES	\$	17,000	\$	12,500	\$	4,500	36.0		
POSTAGE	\$	4,000	\$	3,500	\$	500	14.3		
JANITORIAL SUPPLIES	\$	15,000	\$	15,000	\$	0	0		
DUES AND MEMBERSHIPS	\$	22,000	\$	19,000	\$	3,000	15.8		
WEARING APPAREL	\$	18,000	\$	16,000	\$	2,000	12.5		
EXPENDABLE EQUIPMENT	\$	15,000	\$	22,000	\$	(7,000)	(31.8)		
MAINTENANCE OF LINES	\$	55,000	\$	50,000	\$	5,000	10.0		
MAINTENANCE OF EQUIPMENT	\$	20,000	\$	30,000	\$	(10,000)	(33.3)		
MAINTENANCE OF BOOSTER STATIONS	\$	35,000	\$	55,000	\$	(20,000)	(36.4)		
MAINTENANCE OF TANKS	\$	30,000	\$	20,000	\$	10,000	50		
MAINTENANCE OF INSTRUMENTATION	\$	25,000	\$	20,000	\$	5,000	25		
NON-PROFESSIONAL SERVICES	\$	70,000	\$	49,000	\$	21,000	42.9		
SAMPLING, TESTING, AND MONITORING	\$	10,000	\$	10,000	\$	0	0		
METERS	\$	20,000	\$	15,000	\$	5,000	33.3		
MILEAGE	\$	1,000	\$	1,000	\$	0	0		
MEALS AND LODGING	\$	8,000	\$	7,500	\$	500	6.7		
MAINTENANCE OF AUTO EQUIPMENT	\$	40,000	\$	45,000	\$	(5,000)	(11.1)		
HEATING SERVICES-GAS, OIL,									
KEROSENE	\$	15,000	\$	15,000	\$	0	0		
COMMUNICATION SERVICES	\$	70,000	\$	71,000	\$	(1,000)	(1.4)		
EDUCATION/REGISTRATION	\$	10,000	\$	10,000	\$	0	0		
UTILITIES	\$	5,000	\$	5,000	\$	0	0		
MISCELLANEOUS	\$	20,000	\$	21,000	\$	(1,000)	(4.8)		
PERMITS	\$	20,000	\$	20,000	\$	0	0		
SOLIDS HANDLING AND DISPOSAL	\$	30,000	\$	30,000	\$	0	0		
MAINTENANCE OF BUILDING AND	æ	25 000	φ	25 000	\$	0	0		
GROUNDS DEBT SERVICE	\$ \$	35,000 2,025,850	\$ \$	35,000		0 1,038,000	0		
OPERATIONS & MAINTENANCE TOTAL a	Ф	2,020,000	Ф	987,850	Ф	1,030,000			
=	\$	5,422,500	\$	4,920,000	\$	502,500	10.2		
a Operations and Maintenance Total does not include Debt Service									

^a Operations and Maintenance Total does not include Debt Service.

The Recommended FY2022-2023 Expense Budget is \$5,422,500. This represents a 10.2% increase in expenses from FY2021-2022. The increase in expenses is the result of inflation coupled with needs identified by staff to maintain a safe working environment and properly functioning equipment. The Financial Analysis projected FY2022-2023 total expenses of \$5,241,000 which is 3.5% less than the recommended expense budget of \$5,422,500. The recommended expense budget for FY2022-2023 takes into account the identified needs of the Water Authority operations over the upcoming year while building the necessary days of cash on hand that the Authority needs to have as recommended by its financial advisors as well as pay for the debt service obligations associated with the capital improvement plan needs of the Authority.

The difference between the Recommended Revenues and Expenses are the funds available for capital improvements. Table 4 presents the Recommended FY2022-2023 Budget summary.

	P	roposed	In	crease		
		Budget	E	Budget	(De	ecrease)
	ı	FY22-23	F	Y21-22	FY2	2 to FY23
TOTAL REVENUE =	\$	10,024,500	\$	9,753,500	\$	271,000
OPERATIONS & MAINTENANCE TOTAL =	\$	5,422,500	\$	4,920,000	\$	477,500
FY2021-2022 180 DAYS CASH ON HAND ^a =	\$	2,674,110	\$	2,426,310		
TOTAL AVAILABLE FOR IMPROVEMENTS b =	\$	2,328,350	\$	2,407,190		
PROPOSED IMPROVEMENTS =	\$	12.635.000	\$	32.600		

Table 4. Recommended FY2022-2023 Budget Summary

(10,306,650)

The total available funds for capital improvements in FY2022-2023 is \$2,328,350. The total proposed capital improvements for FY2022-2023 totals \$12,635,000. The proposed capital improvements funded through cash reserves include: The remaining project balance of the WTP Modernization project, Route 114 pump station improvements and Route 460 pump station improvements. Major capital improvement projects that will be funded through bonds and low interest rate loans through programs such as the Virginia Department of Health's State Revolving Loan Fund Program include:

1. Water Treatment Plant Modernization Phase 2 Project

SURPLUS/RESERVE PAYMENT =

We anticipate FY2022-2023 to be a capital improvements year with the projects identified above progressing through construction. The Authority will continue to plan in the upcoming fiscal year to review and update the capital outlay using the latest information along with staff input and an overall master plan to build a solid path towards continued sustainability.

^a Cash on Hand is fully funded for FY2022. Therefore, \$247,800 of revenue will be used to fund for FY2023.

^b Accounts for debt service payment of \$2,025,850 for FY22-23 and \$987,850 for FY21-22.

APPENDICES

APPENDIX A: NRV REGIONAL WATER AUTHORITY CASH FLOW PROJECTIONS & WHOLESALE WATER RATES



Memorandum

To: Caleb Taylor, PE

From: Brian Houston, PE

Date: April 25, 2022

Project Number: 2200803

Subject: Projections for FY24 – FY29 and Wholesale Rates/Other Authorities

Purpose:

The purpose of this memorandum is to provide:

- Revised revenue and expense projections for the fiscal years 2024 2029, and
- Wholesale water rates in effect for other authorities in Virginia.

Revised Revenue and Expense Projections:

The cashflow projection developed in 2021 was updated using the following assumptions:

- Water sales continue to increase at 0.5% per year.
- The following wholesale rates are used:

Table 1: Projected Wholesale Rates (FY2022 – 2029)

FY		Ado	pted					
FI	2022	2023	2024	2025	2026	2027	2028	2029
Rate	\$3.96	\$4.05	\$4.13	\$4.21	\$4.30	\$4.38	\$4.47	\$4.56
% increase	5.0%	2.3%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%

- Most operating expenses increase at 4% per year.
- Debt service on the water treatment plant upgrade is based on a construction cost of \$45.7 million. Including a 2% contingency, the total is \$46.818 million. The project is funded using VDH funds and cash reserves:
- VDH funding is \$36.7 million; 30 years; 2.5% interest, annual debt service of \$1.76 million. Interest on the construction draws is paid in FY2023 and debt service starts in FY 2024.
- The balance of the water treatment plant project cost (\$10,118,000), is funded with reserves.

- As per conversations with Virginia Resources Authority, the VDH funds are utilized first, and the Authority's reserve funds are used only after all VDH funds have been used.
- Based on contractor's estimates, the VDH funds will be fully utilized by August 2022.
 Assuming a construction schedule of 30 months; the reserve funds of \$10.1 million will be expended by March 2023.
- There is no additional "New Debt" during this 5-year period.
- During the 6-year period, the following projects are funded using cash reserves:
 - o WTP Upgrade, \$10,118,000 in FY2023 (described above)
 - Route 460 Pump Station and Route 114 Pump Station Upgrade, totaling \$2,560,000
 - The pump station upgrades are designed and bid in FY2022, and a portion of the construction is completed in FY2022; the balance of the construction is completed in FY2023
 - o Flocculation Project \$2,916,000 in FY 2024

Summary:

Based on the adopted rates through FY 2023:

- Debt coverage exceeds the "target" of 150% each year.
- Days Cash on Hand exceeds the target of 180 days.
- Reserves are projected to be approximately \$7.6 million at the end of FY23.
- The projection includes 2% annual increases in the wholesale rate each subsequent year.

The 7-year projection is shown in **Table 2** on the following page.

Recommendation:

Until the near-term capital projects are complete, it is recommended that the NRV Regional Water Authority maintain the adopted wholesale rates through FY2025. Further, the Authority may need to continue to increase the wholesale rates in the years following FY2024, depending on future operating costs, the final cost of the capital projects, and costs of capital projects not yet projected from FY2026 – FY2029.

Table 2: NRV Cashflow Projection – FY2024 - FY2029

	2023	2024	2025	2026	2027	2028	2029
Wholesale Rate (\$/1,000 gallons)	\$4.05	\$4.13	\$4.21	\$4.29	\$4.38	\$4.47	\$4.56
Revenue	,	, , ,					
Revenue from Water Sales	\$9,912,000	\$10,158,332	\$10,406,879	\$10,657,657	\$10,935,651	\$11,216,158	\$11,499,196
Other Income	\$112,522	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Total Revenue	\$10,024,522	\$10,233,332	\$10,481,879	\$10,732,657	\$11,010,651	\$11,291,158	\$11,574,196
Expenses							
Operating Expenses	\$5,397,500	\$5,718,878	\$6,011,393	\$6,321,263	\$6,649,686	\$6,997,956	\$7,367,466
Existing Debt Service	\$392,031	\$388,253	\$384,569	\$385,175	\$390,166	\$389,891	\$389,153
Plum Creek/Chrisman Mill Debt Service	\$504,713	\$506,256	\$507,288	\$507,806	\$507,813	\$507,306	\$506,288
Projected Debt Service:							
Upgrade of Water Plant (VDH - \$36.7 M)	<u>\$1,129,592</u>	<u>\$1,766,120</u>	<u>\$1,766,120</u>	<u>\$1,766,120</u>	<u>\$1,766,120</u>	<u>\$1,766,120</u>	<u>\$1,766,120</u>
Total Expenses	\$7,423,836	\$8,379,508	\$8,669,370	\$8,980,365	\$9,313,785	\$9,661,273	\$10,029,027
Net Surplus/Contribution to Capital	\$2,600,686	\$1,853,824	\$1,812,509	\$1,752,293	\$1,696,866	\$1,629,884	\$1,545,169
Analysis of Capital Reserve:							
Beginning Capital Reserve (estimated 7/1/19)	\$15,755,595	\$7,638,281	\$5,896,104	\$7,708,613	\$9,460,906	\$11,157,771	\$12,787,656
Additions to Reserve	\$2,600,686	\$1,853,824	\$1,812,509	\$1,752,293	\$1,696,866	\$1,629,884	\$1,545,169
Projects Funded with Cash/Reserves:							
Administration and Shop Bldgs.	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Upgrade of Water Plant	\$(10,118,000)	\$-	\$-	\$-	\$-	\$-	\$-
Rt. 460 Pump Station – Design/Construction	\$(200,000)	\$(440,000)	\$-	\$-	\$-	\$-	\$-
Rt. 114 Pump Station- Design/Construction	\$(400,000)	\$(240,000)	\$-	\$-	\$-	\$-	\$-
WTP - Flocculation		\$(2,916,000)	\$-	\$-	\$-	\$-	\$-
Route 114 Transmission Upgrade	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Bburg S. Main St. Transmission Main Replacement	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Prices Fork II	<u>\$-</u>						
Ending Reserve	\$7,638,281	\$5,896,104	\$7,708,613	\$9,460,906	\$11,157,771	\$12,787,656	\$14,332,825
Debt Coverage:							
Total Revenue Available for Debt Service	\$4,627,022	\$4,514,453	\$4,470,485	\$4,411,394	\$4,360,964	\$4,293,202	\$4,206,730
Debt Coverage	2.28	1.70	1.68	1.66	1.64	1.61	1.58
Does Coverage = 150% or more?	Yes						
Days Cash on Hand:							
Total Operating Expenses / 365 Days	\$14,788	\$15,668	\$16,470	\$17,319	\$18,218	\$19,172	\$20,185
DCOH (Ending Reserve)/(Total Operating Exp./365)	517	376	468	546	612	667	710
Does DCOH Exceed 180 days?	Yes						

Wholesale Water Rates:

The following table details the historic and current wholesale water rates for select wholesale water providers in Virginia:

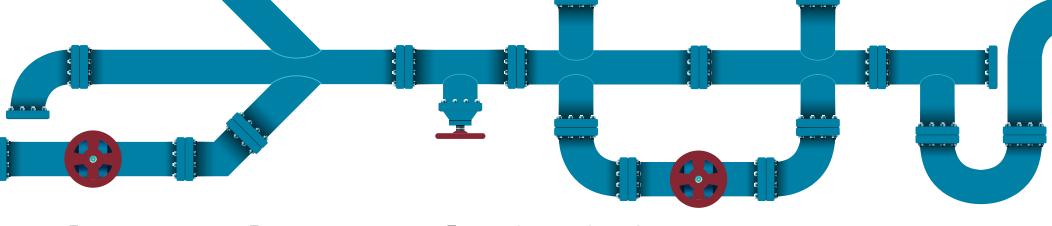
Table 3: Wholesale Rates FY2019 - FY2023 (\$/1,000 gallons)

Authority – Locality	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year	Fiscal Year
	2019	2020	2021	2022	2023
NRV Regional Water Authority	\$3.61	\$3.70	\$3.77	\$3.96	\$4.05
Appomattox River WA - Chesterfield	\$1.00	\$0.98	\$1.03	\$0.99	\$0.99
Appomattox River WA - Colonial Heights	\$0.98	\$1.01	\$1.06	\$1.02	\$1.02
Appomattox River WA – Dinwiddie	\$1.58	\$1.45	\$1.48	\$1.43	\$1.42
Appomattox River WA - Petersburg	\$1.00	\$0.98	\$1.03	\$0.99	\$0.99
Appomattox River WA - Prince George	\$1.45	\$1.37	\$1.38	\$1.34	\$1.33
Maury SA - City of Lexington	\$2.72	\$3.32	\$3.70	\$4.00	1
Maury SA - Rockbridge PSA	\$2.72	\$3.32	\$3.70	\$4.00	1
Rivanna W&SA - Albemarle Co. SA (see note below)	-	\$3.59	\$4.61	\$5.18	1, 2
Rivanna W&SA – Charlottesville (see note below)	-	\$4.63	\$3.64	\$4.26	1, 2
Roanoke River Service Authority	\$3.77	\$3.77	\$3.77	\$3.98	\$4.38

Notes:

- 1. FY 2023 rates not available at the time of this report.
- 2. The rates shown for Rivanna Water and Sewer Authority are estimated. As of July 1, 2015, the debt service charged to the City and to the Service Authority is billed as a "lump sum" on a monthly basis. The rates shown in the table are the estimated cost per thousand gallons when the operating charge (\$2.095 and \$2.346 per 1,000 gallons in 2021 and 2022) and the projected annual debt service charges are added together and divided by the projected volume of water sold to each wholesale customer.

APPENDIX B: 2021 ANNUAL WATER and WASTEWATER RATE REPORT



The 33rd Annual Virginia Water and Wastewater Rate Report 2021











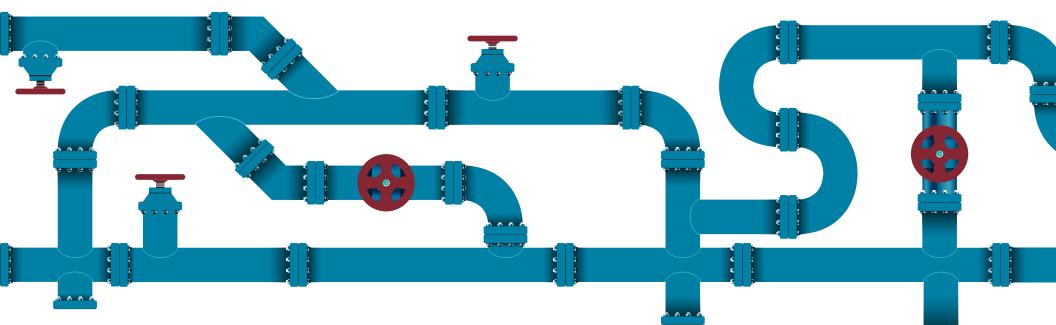
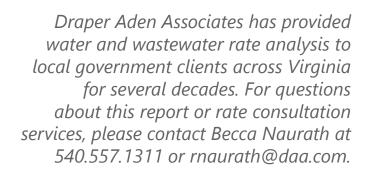


Table of Contents

About Our Survey	3
Water and Wastewater Rates	
Connection Fees and Capital Recovery Charges	
Water Data	
Wastewater Data	11



About Our Survey

For 33 years, Draper Aden Associates has provided the Annual Virginia Water and Wastewater Rate Report as a service to our clients and to water and sewer providers across the Commonwealth. Earlier this year, Draper Aden Associates conducted a survey to request water and wastewater rate information from 259 water and sewer providers; data from fifty-one percent (51%), or 132 utilities is included in this report. The information summarized herein includes:

- approximate number of residential and non-residential connections
- billing frequency (monthly, bi-monthly, or quarterly)
- the charge for residential customers using 3,000, 4,000, and 5,000 gallons of water per month
- the charge for non-residential customers using 1,000,000 gallons per month
- the current residential connection fee and capital recovery charge
- the year that rates and fees were last changed.

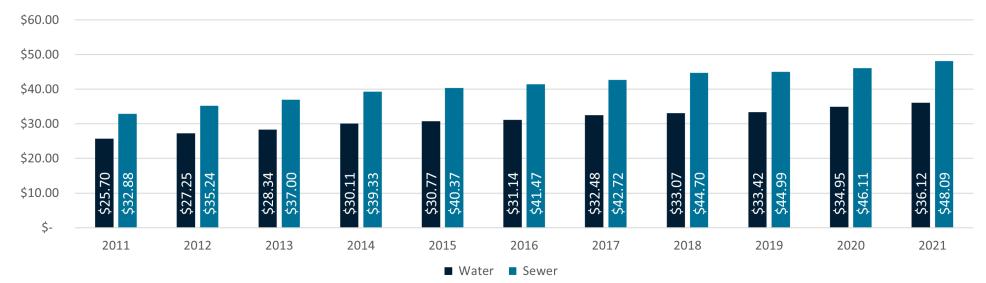
We are pleased to share these results and express our gratitude to all who participated in this effort.

Control Group Data

For over 20 years, Draper Aden's survey has tracked a select group comprised of 20 water and wastewater providers who represent a cross section of utilities across the Commonwealth. We have consistently tracked the monthly residential charges of these 20 utilities to provide an indication of trends in water and wastewater rates in Virginia – and to provide an indication of average increases over time.

The average water rate increased by 3.3% in 2021 and the average sewer rate increased by 4.3%. Since 2011, water rates have increased by approximately 3.5% per year and wastewater rates have increased by approximately 3.9% per year.

AVERAGE WATER AND SEWER BILLS (BASED ON 5,000 GALLONS OF USAGE)



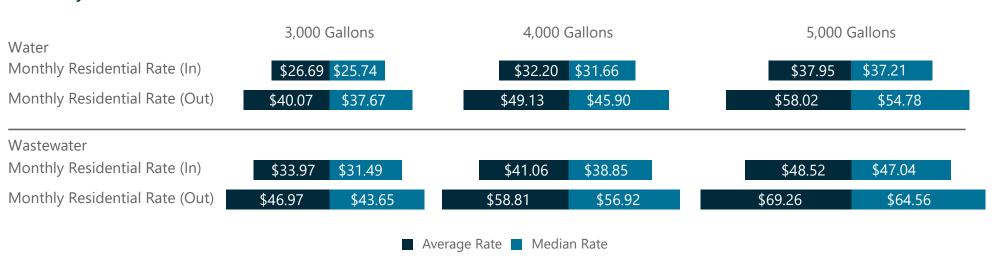
Water and Wastewater Rates

Utilities were asked to calculate the charges for residential customers using 3,000, 4,000 and 5,000 gallons of water per month. Utilities that bill on a bimonthly or quarterly basis provided rates based on equivalent usage and the rates were normalized to monthly rates. Respondents were asked to use the rates in effect on July 1, 2021.



Residential Connections	ial Connections # of Replies		Largest System # of Connections	Average # of Connections	Median # of Connections	
Water	126	7	363,809	11,190	2,199	
Wastewater	122	38	119,240	8,020	1,765	

Monthly Residential Rates

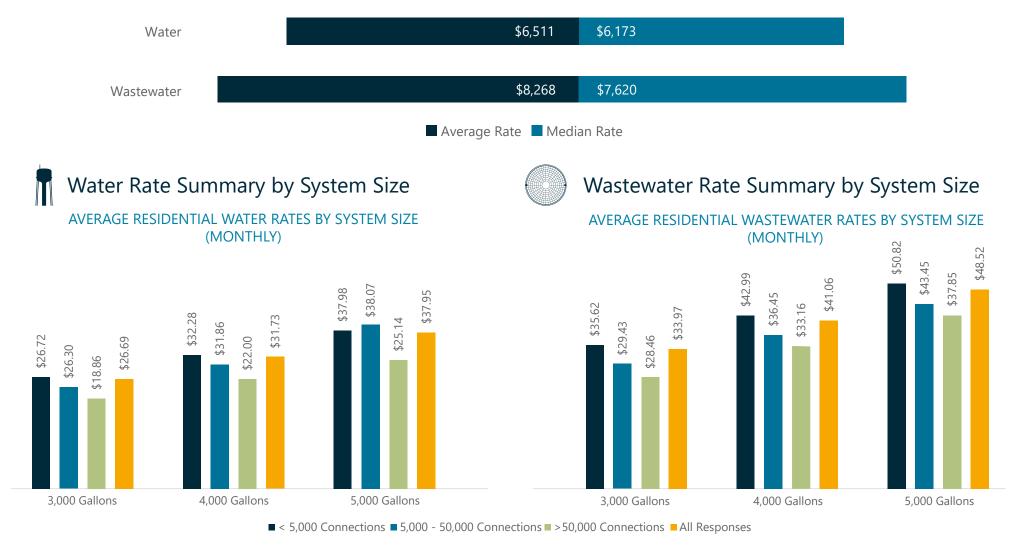


Utilities were also asked to provide the rate for a non-residential customer that uses 1,000,000 gallons per month. If the size of the meter influences the charges, the utility was to assume a 4-inch meter.



Non-residential Connections	# of Replies	Smallest System # of Connections	Largest System # of Connections	Average # of Connections	Median # of Connections	
Water	126	3	12,737	713	187	
Wastewater	122	4	7,139	609	175	

Monthly Non-residential Rates (per 1 million gallons)



Connection Fees and Capital Recovery Charges

Residential connection fees and capital recovery charges are shown below. Connection fees are charges for tapping into the water main and running a line to the water meter or for tapping into the sewer line and running a lateral to the property line. Capital recovery charges are capital charges for buying into the existing system or charges that recognize the Cost of adding capacity to the system. Providers were asked to furnish the charges for a residential connection using a 5/8- or 3/4-inch meter.

	Connect	ion Fees	Capital Reco	very Charges	Combined	d Charges
	Water	Wastewater	Water	Wastewater	Water	Wastewater
Average	\$2,395	\$3,367	\$4,686	\$4,978	\$4,014	\$4,886
Median	\$1,500	\$2,000	\$3,854	\$4,500	\$3,000	\$4,000
High	\$18,100	\$14,863	\$24,010	\$16,200	\$27,990	\$16,200
Low	\$80	\$25	\$500	\$450	\$240	\$25

^{*}Fees and charges in this table are for residential connections using a 5/8- or 3/4-inch meter



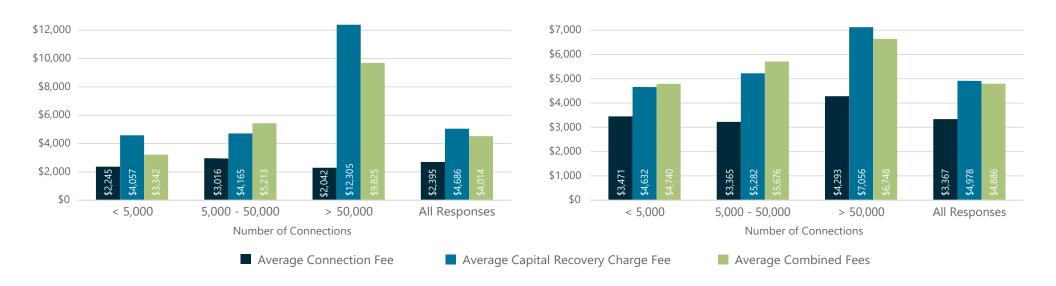
Water Connection and Capital Recovery Charges by System Size

CONNECTION FEES AND CAPITAL RECOVERY CHARGES WATER SYSTEMS



Wastewater Connection and Capital Recovery Charges by System Size

CONNECTION FEES AND CAPITAL RECOVERY CHARGES **WASTEWATER SYSTEMS**



Water Data	# Residential Water Units	# Non-Residential Water Units	Residential Water Rate Inside (3,000 gal./mo.)¹	Residential Water Rate Outside (3,000 gal./mo.)¹	Residential Water Rate Inside (4,000 gal./mo.)	Residential Water Rate Outside (4,000 gal./mo.)	Residential Water Rate Inside (5,000 gal./mo.)	Residential Water Rate Outside (5,000 gal./mo.)	Billing Frequency	Water Rate - Business Inside (1 million gal./mo.)	Last Water Rate Change	Water Source ²	Residential Connection Fee ³	Last Water Connection Fee Change	Residential Capital Recovery Charge ³	Last Water CRC Rate Change
Albemarle County Service Authority	32,702	1,512	\$23.10		\$32.53		\$41.96		М	\$9,232	2021	S	\$1,026	2013	\$6,656	2017
Alleghany County	2,588	187	\$47.00		\$47.00		\$47.00		М	\$9,797	2021	S	\$1,000	2000		
Altavista, Town of	1,744	69	\$15.56	\$24.62	\$18.58	\$30.66	\$21.60	\$36.70	Q	\$3,123	2021	С	\$1,500	2018		
Amelia County	294	147	\$22.50		\$27.00		\$31.50		М	\$4,725	2015	G	COST+100%	2007	\$3,000	2013
Amherst County Service Authority	5,972	422	\$34.66		\$42.23		\$49.86		В	\$7,583	2021	S	\$1,500	2021	\$3,000	2021
Amherst, Town of	1,131	164	\$38.85	\$77.70	\$46.60	\$93.20	\$54.35	\$108.70	М	\$12,250	2019	S			\$1,700	
Appomattox, Town of	944	231	\$17.50		\$23.70		\$29.90		М	\$6,199	2020	S	\$1,500		\$2,500	
Arlington County	35,663	1,946	\$14.73		\$19.64		\$24.55		Q	\$4,910	2021	S	\$4,350	2021	95/dfu	2021
Augusta County Service Authority	13,852	1,051	\$25.77		\$31.82		\$37.87		В	\$6,279	2021	С	\$1,350	2019	\$2,645	
Bedford Regional Water Authority	13,457	1,052	\$38.40	\$39.40	\$43.20	\$44.20	\$48.00	\$49.00	М	\$5,300	2021	С	\$1,500	2021	\$5,000	2021
Berryville, Town of	1,751	27	\$31.58	\$37.67	\$39.73	\$47.85	\$47.88	\$58.03	М		2020	S	\$13,838	2020		
Blacksburg, Town of	10,022	319	\$25.47	\$44.59	\$32.93	\$57.65	\$40.39	\$70.71	М	\$7,463	2021	S	\$675	2021	\$1,725	2021
Blackstone, Town of			\$25.40	\$38.10	\$33.87	\$50.81	\$42.34	\$63.51	М	\$8,212	2021	S				
Bland County Service Authority	550	55	\$32.50		\$39.75		\$47.00		М	\$8,267	2014	G	\$1,300	2018		
Bluefield, Town of	2,300	100	\$34.58	\$51.87	\$42.96	\$64.44	\$51.34	\$77.01	М	\$10,669	2021	S	\$450	2017		
Boones Mill, Town of			\$58.00	\$78.00	\$64.00	\$84.00	\$70.00	\$90.00	М	\$6,020	2018	G	\$3,000			
Boydton, Town of			\$21.90	\$31.90	\$26.90	\$41.90	\$31.90	\$51.90	М			S				
Bridgewater, Town of	2,199	124	\$17.16	\$29.98	\$21.17	\$33.99	\$25.18	\$38.00	М	\$4,785	2021	С	\$2,988	2021		
Bristol Virginia Utilities Authority	6,931	955	\$25.21	\$37.79	\$28.91	\$43.33	\$32.61	\$48.87	М	\$3,321	2021	S	\$990	2019		
Broadway, Town of	1,546	155	\$18.31		\$23.40		\$28.49		В		2018	S	\$2,500	2018		
Brookneal, Town of			\$29.30		\$36.10		\$42.90		М			S				
Buckingham County	321	95	\$26.12		\$26.12		\$39.72		М	\$13,572	2020	S	\$2,000	1994		
Buena Vista, City of	2,620	199	\$25.74		\$34.32		\$42.90		М	\$8,580	2020	G	\$2,500	2019		
Campbell County Utility & Service Auth.	10,702	565	\$26.81		\$33.07		\$39.34		В	\$6,344	2012	С	\$1,500	2010	\$1,900	2010
Cape Charles, Town of	1,160	110	\$36.09		\$38.72		\$41.35		М		2021	G	\$875	2021	\$4,000	2012
Caroline County	1,652	138	\$25.73		\$27.33		\$29.25		М	\$2,179	2021	G	\$1,500	2021	\$5,000	2018
Carroll County PSA	3,689	165	\$41.59		\$51.99		\$62.39		М	\$5,254	2021	С	\$1,250	2019		
Charlotte Court House, Town of	200	61	\$37.00		\$41.00		\$45.00		М		2015	S	\$1,450			
Chatham, Town of	717	216	\$15.42	\$25.65	\$20.56	\$34.20	\$25.70	\$42.75	Q	\$5,140	2018	S	\$1,000	2018		
Chase City, Town of	1,076	101	\$26.10	\$33.41	\$32.00	\$40.96	\$37.90	\$48.51	М		2020	S	\$800	2014		

¹"Inside" refers to inside of municipal boundary. "Outside" rates are listed where the utility has implemented higher rates to users outside of the municipal boundary.

²Water Source: S = surface water, G = groundwater, and C = combination.

³Connection and Capital Recovery Charge (CRC) Fees: "Cost" = customer pays the Cost of making the connection; "Cost +" = the customer pays the Cost to make the connection, plus additional charges, "Fixture" or DFU means the customer is charged that fee per the number of drainage fixture units in the structure. Min = Minimum charge is dollar amount cited.

Water Data	# Residential Water Units	# Non-Residential Water Units	Residential Water Rate Inside (3,000 gal./mo.)¹	Residential Water Rate Outside (3,000 gal./mo.)¹	Residential Water Rate Inside (4,000 gal./mo.)	Residential Water Rate Outside (4,000 gal./mo.)	Residential Water Rate Inside (5,000 gal./mo.)	Residential Water Rate Outside (5,000 gal./mo.)	Billing Frequency	Water Rate - Business Inside (1 million gal./mo.)	Last Water Rate Change	Water Source ²	Residential Connection Fee ³	Last Water Connection Fee Change	Residential Capital Recovery Charge³	Last Water CRC Rate Change
Chesterfield County	134,935	5,688	\$19.51		\$22.52		\$25.53		В	\$3,209	2021	S	\$2,100	2021	\$5,725	2018
Chilhowie, Town of	2,100	144	\$26.59	\$50.18	\$31.90	\$60.24	\$37.21	\$70.30	М	\$5,591	2021	G	\$900	2016		
Chincoteague, Town of	2,500	1,095	\$14.03		\$18.39		\$22.75		Q	\$5,521	2012	G	\$670	2012	\$3,708	2012
Christiansburg, Town of	11,197	1,116	\$31.00	\$46.50	\$42.00	\$63.00	\$53.00	\$79.50	М	\$8,386	2021	S	\$3,000	2015		
Clarke County Sanitary Authority	445	34	\$38.70		\$51.60		\$64.50		В	\$12,900	2019	G			\$13,800	2006
Clarksville, Town of			\$30.90	\$61.55	\$38.11	\$75.92	\$45.32	\$90.29	В	\$7,219	2021	S				
Coeburn, Town of	1,550	165	\$25.74	\$37.02	\$31.68	\$45.90	\$37.62	\$54.78	М		2015	S	COST+\$50			
Courtland, Town of	668	48	\$11.00	\$13.00	\$11.00	\$13.00	\$11.00	\$13.00	М		1994	G	\$1,200			
Craigsville, Town of			\$37.00		\$37.00		\$37.00		М	\$9,490		G	\$2,000			
Culpeper, Town of	6,841	747	\$19.17		\$25.56		\$31.95		М	\$3,973	2019	G	COST	2019	\$6,500	2006
Danville, City of	17,500	2,500	\$19.50		\$22.75		\$26.25		М	\$2,486	2016	S	\$1,500	2021	\$0	
Dinwiddie County Water Authority	3,545	185	\$15.70		\$20.01		\$24.32		М	\$3,902	2017	С	\$1,618	2015		2015
Dublin, Town of	2,441	206	\$33.95	\$49.44	\$40.96	\$58.19	\$47.97	\$66.94	М	\$8,466	2021	S	\$1,500		\$0	
Dungannon, Town of	256	4	\$27.00	\$31.00	\$44.00	\$52.00	\$49.00	\$57.00	М		2021	G	\$88	2021		
Edinburg, Town of	630	51	\$29.55	\$44.33	\$36.55	\$54.83	\$36.55	\$54.83	М	\$732	2021	G	\$5,000	2009		
Fairfax Water	363,809	12,737	\$14.94		\$18.27		\$21.60		Q	\$3,379	2021	S	\$1,430	2021	\$24,010	2021
Farmville, Town of	3,086	597	\$16.81	\$25.22	\$20.49	\$30.74	\$24.17	\$36.26	М	\$5,240	2018	S	\$1,000	2020		
Fauquier County Water and Sanitation Authority	6,618	217	\$46.07		\$52.72		\$59.37		М	\$11,230	2021	G				
Ferrum Water & Sewer Authority	195	30	\$24.00		\$29.50		\$35.00		М	\$5,570	2017	G	COST+\$500	2017	\$1,500	2017
Fincastle, Town of	200	50	\$28.18		\$32.28		\$36.38		М	\$5,256	2021	G	\$2,500	2021	\$3,500	2021
Franklin, City of	3,270	252	\$23.82	\$29.86	\$27.02	\$33.82	\$30.22	\$37.78	М	\$3,214	2016	G	\$3,500			
Galax, City of	3,200	500	\$16.00	\$32.00	\$20.50	\$41.00	\$25.00	\$50.00	В	\$4,503	2020	S	\$1,000	2010		
Gate City, Town of	1,087	140	\$36.05	\$44.96	\$43.95	\$52.05	\$51.85	\$59.95	М	\$7,912	2014	S	\$650	2014		
Gloucester, County of	5,906	934	\$30.18		\$40.18		\$50.18		М	\$10,397	2013	С	\$3,500	2008	\$500	2008
Goochland, County of	1,750	287	\$26.30		\$33.03		\$39.76		В	\$9,665	2021	S	\$4,600	2021		
Gordonsville, Town of	915	10	\$47.31	\$73.15	\$55.11	\$84.85	\$62.91	\$96.55	М	\$7,541	2020		\$1,000		\$5,000	
Greensville County WSA			\$19.99		\$26.65		\$33.31		М	\$6,980	2021	С	\$960			
Gretna, Town of	585	105	\$28.21	\$56.42	\$37.61	\$75.22	\$47.01	\$94.03	В	\$5,547	2021	G	\$300			
Halifax County Service Authority	4,500	445	\$25.00		\$30.00		\$35.00		В	\$4,158	2021	S			\$1,250	2015
Hamilton, Town of	701	29	\$17.13	\$23.13	\$22.84	\$30.84	\$35.59	\$48.05	В		2019	G	\$18,100	2010		
Hanover County	20,642	1,828	\$14.24		\$19.53		\$24.82		В	\$4,252	2021	С			\$6,595	2021
Harrisonburg, City of	18,923	5,479	\$12.77	\$18.98	\$14.36	\$24.64	\$19.95	\$30.30	М	\$3,385	2019	S	\$2,500	2010		
Henry Co. Public Service Authority	12,414	938	\$30.00		\$30.00		\$34.70		М	\$7,017	2013	С	\$1,750	2013		
Highland County - McDowell Water System	56	21	\$35.00		\$35.00		\$42.50		В	\$7,470	2006	G	\$200			

Water Data	# Residential Water Units	# Non-Residential Water Units	Residential Water Rate Inside (3,000 gal./mo.)¹	Residential Water Rate Outside (3,000 gal./mo.)¹	Residential Water Rate Inside (4,000 gal./mo.)	Residential Water Rate Outside (4,000 gal./mo.)	Residential Water Rate Inside (5,000 gal./mo.)	Residential Water Rate Outside (5,000 gal./mo.)	Billing Frequency	Water Rate - Business Inside (1 million gal./mo.)	Last Water Rate Change	Water Source ²	Residential Connection Fee³	Last Water Connection Fee Change	Residential Capital Recovery Charge³	Last Water CRC Rate Change
Honaker, Town of	649	70	\$28.44	\$36.86	\$33.94	\$42.26	\$39.44	\$47.86	М	\$5,527	2018		\$1,200	2018		
Isle of Wight County	4,106	156	\$50.17		\$61.37		\$72.57		В	\$1,108	2020	С	\$4,000			
James City Service Authority	22,395	1,031	\$16.66		\$20.41		\$27.22		М	\$6,083	2021	G	\$3,219	2020	\$1,436	2020
Kenbridge, Town of	473	97	\$15.15	\$28.11	\$20.15	\$36.15	\$26.15	\$44.19	М		2012	G				
Kilmarnock, Town of	788	256	\$14.50	\$21.75	\$18.96	\$28.43	\$21.93	\$32.88	В	\$5,963	2021	G	\$2,055	2006		
King George County Service Authority	4,118	2,406	\$36.79		\$42.18		\$47.57		В	\$5,877	2021	G	\$8,662	2013		
La Crosse, Town of	378	42	\$27.52	\$49.50	\$31.62	\$53.60	\$35.72	\$57.70	М	\$4,116	2017		\$1,000	2017		
Lawrenceville, Town of	979	151	\$12.42	\$21.66	\$16.56	\$28.88	\$20.70	\$36.10	М		2010	S	\$400	2010		
Lexington, City of	2,500	600	\$23.74	\$32.04	\$31.66	\$42.72	\$39.57	\$53.41	М	\$16,837	2021	S	MIN \$1965	2021	\$729	2021
Loudoun Water	78,773	4,850	\$20.32		\$23.01		\$25.70		Q	\$3,782	2021	С	\$80		\$7,180	2021
Louisa Co. Water Authority Northeast Creek	97	72	\$20.13		\$26.84		\$33.55		М	\$6,710	2021	С	\$3,750	2004	\$5,250	2021
Louisa Co. Water Authority Zion Crossroads	732	71	\$20.13		\$26.84		\$33.55		М	\$6,710	2021	G	\$3,750	2004	\$5,250	2021
Luray, Town of	2,193	126	\$39.71	\$59.57	\$45.50	\$68.25	\$51.29	\$76.94	М	\$6,268	2021	G	\$3,320	2010	\$1,200	2010
Lynchburg, City of	23,000	2,000	\$13.92		\$17.50		\$21.09		М	\$3,633	2017	S	\$1,150	2017	\$1,220	2000
Manassas, City of	10,142	1,395	\$19.63		\$22.84		\$26.05		М	\$3,712	2021	S	\$957	2012	\$4,887	2015
Marion, Town of	3,505	455	\$23.85	\$47.62	\$32.84	\$65.54	\$41.82	\$83.46	М	\$8,983		S	\$900	2016		
Martinsville, City of	7,000	500	\$25.31	\$31.50	\$25.31	\$31.50	\$28.50	\$35.68	М	\$2,675	2016	S	\$900	2014		
Mineral, Town of	263	51	\$26.50	\$30.00	\$34.50	\$39.00	\$42.50	\$48.00	М	\$8,003	2013	С	\$4,000	2007		
Montross, Town of	235	86	\$25.00	\$36.50	\$25.00	\$36.50	\$25.00	\$36.50	М		2021	G	\$500			
Mount Jackson, Town of	742	101	\$22.47	\$33.66	\$29.96	\$44.88	\$37.45	\$56.10	М	\$7,490	2021	G	\$5,000	2019		
Nelson County	103	14	\$29.90		\$29.90		\$36.00		М		2013	S	\$2,000	2013		
Nelson County Service Authority	2,875	60	\$46.00		\$46.00		\$58.00		М	\$11,952	2019	С	\$4,000			
New Kent County	3,239	215	\$23.81		\$30.96		\$38.11		В	\$8,535	2021	G	\$4,650	2017	\$2,500	2017
Norton, City of	1,864	340	\$29.25	\$44.45	\$35.40	\$56.75	\$44.05	\$71.55	М	\$6,168	2019	S	\$240			
Onancock, Town of	618	60	\$29.21		\$38.80		\$48.39		В		2020	G	\$1,500			
Orange, Town of	1,805	336	\$19.20	\$52.30	\$23.40	\$59.10	\$27.60	\$65.90	М	\$4,213	2020	S	\$3,000	2014		
Powhatan County	7	114	\$32.03		\$39.10		\$41.67		В	\$7,340	2021	С	\$4,100			
Prince William County Service Authority	120,725	3,747	\$17.20		\$20.65		\$24.10		М	\$3,972	2020	S	\$4,600	2012		
Radford, City of	5,200	461	\$16.32		\$16.32		\$20.40		М	\$3,760	2014	S	\$1,500	2014		
Rapidan Service Authority	7,957	502	\$21.51		\$27.68		\$33.85		М	\$6,173	2021	S	\$10,000			
Rockbridge County PSA (Rivermont and Riveria))			\$37.52		\$46.17		\$54.82		В	\$8,790	2021	G	\$1,025	2007	\$4,000	2007
Rockingham County	4,064	322	\$15.50		\$15.50		\$19.50		М	\$4,000	2021	G	\$625	2009	\$2,650	2009
Rocky Mount, Town of	2,446	542	\$17.85	\$35.70	\$21.37	\$42.74	\$24.89	\$49.78	М	\$3,381	2019	S	\$1,000	2016		
Round Hill, Town of	1,700	30	\$21.51	\$32.26	\$28.68	\$43.02	\$35.85	\$53.76	В		2020		\$500	2015	\$11,500	2021

Water Data	# Residential Water Units	# Non-Residential Water Units	Residential Water Rate Inside (3,000 gal./mo.)¹	Residential Water Rate Outside (3,000 gal./mo.)¹	Residential Water Rate Inside (4,000 gal./mo.)	Residential Water Rate Outside (4,000 gal./mo.)	Residential Water Rate Inside (5,000 gal./mo.)	Residential Water Rate Outside (5,000 gal./mo.)	Billing Frequency	Water Rate - Business Inside (1 million gal./mo.)	Last Water Rate Change	Water Source ²	Residential Connection Fee ³	Last Water Connection Fee Change	Residential Capital Recovery Charge³	Last Water CRC Rate Change
Rural Retreat, Town of			\$28.70	\$49.96	\$35.15	\$61.03	\$41.60	\$72.10	М	\$8,564	2021	G	\$1,000	2017		
Saint Paul, Town of	563	87	\$25.22	\$42.42	\$32.37	\$53.62	\$39.52	\$64.57	М	\$7,166	2021	S	\$750			
Salem, City of	8,275	1,515	\$30.91		\$36.71		\$42.51		М	\$6,836	2021	S	\$1,500	2016	\$2,000	2016
Scott County Public Service Authority	5,214	109	\$40.87		\$51.39		\$61.91		М	\$10,575	2021	С	\$1,500	2015		
Shenandoah, Town of	1,045	60	\$26.65	\$39.50	\$31.15	\$47.00	\$35.65	\$54.50	М	\$4,316	2021	G	\$6,000	2020		
Smithfield, Town of	3,263	487	\$25.39	\$30.31	\$31.94	\$38.50	\$38.49	\$46.69	В	\$6,556	2021	G	\$660	1999	\$2,720	2007
South Hill, Town of	2,241	484	\$21.49	\$42.98	\$28.32	\$56.64	\$34.65	\$69.30	М	\$4,975	2021	S	\$1,000	1991		
Southampton County	814	26	\$29.00		\$29.00		\$36.00		М	\$7,001	2021	G	\$1,000	2009	\$4,000	2009
Spotsylvania County	30,990	2,050	\$19.03		\$25.74		\$32.45		М	\$10,868	2019	S	\$1,290	2008	\$4,920	2008
Stafford County	37,536	1,863	\$22.69		\$26.54		\$31.82		М	\$5,286	2021	S	\$1,450	2005	\$6,900	2010
Stanley, Town of	1,545	91	\$22.00	\$29.00	\$35.50	\$32.50	\$25.00	\$36.00	М		2017	G	\$3,825	2018		2018
Stoney Creek Sanitary District	1,400	45	\$39.00		\$44.00		\$49.00		В	\$6,540	2013	G	\$4,000	2010		
Stuart, Town of	627	150	\$25.33	\$35.98	\$29.55	\$41.83	\$33.77	\$47.68	М		2020	S	\$600			
Tazewell, Town of	1,766	258	\$40.00	\$59.75	\$50.75	\$76.35	\$61.50	\$92.95	М	\$10,758	2021	S	\$540	2011		
Timberville, Town of	1,406	49	\$15.13	\$22.46	\$18.52	\$26.57	\$21.91	\$30.68	В	\$4,645	2021		\$4,500	2014		
Troutdale, Town of	80	3	\$26.50		\$35.00		\$43.75		М		2021		\$1,000	2020		
Victoria, Town of	850	25	\$30.50		\$35.67		\$40.84		М	\$6,080	2020	S	\$275	2019		
Vienna, Town of	9,462	495	\$27.53		\$35.23		\$41.43		Q	\$11,347	2021	S	\$17,230	2021	\$10,760	2021
Washington County Service Authority	20,052	1,836	\$43.16	\$50.48	\$51.73	\$58.79	\$60.30	\$67.10	М	\$7,067	2021		\$1,628			
West Point, Town of	1,153	192	\$22.45		\$22.45		\$22.45		В	\$5,694	2018	G	\$500	2007	\$3,500	2007
Western Virginia Water Authority (Botetourt Co.)	1,701	118	\$26.50		\$31.25		\$36.00		М	\$6,905	2021	G	\$2,000	2020		
Western Virginia Water Authority (Franklin Co.)	3,066	79	\$30.00		\$30.00		\$30.00		М	\$5,400	2009	С	\$2,000	2020		
Western Virginia Water Authority (Roanoke City/County)	55,199	2,615	\$22.35		\$25.55		\$28.75		М	\$4,758	2021	С	\$2,000	2020		
Westmoreland County	56	9	\$22.50		\$22.50		\$22.50		В		2018	G				
Winchester, City of	9,448	1,765	\$37.44	\$56.15	\$44.82	\$67.22	\$52.20	\$78.29	В	\$8,273	2021	S	\$5,300	2018		
Windsor, Town of	1,032	55	\$27.13	\$28.63	\$31.00	\$33.00	\$38.75	\$41.25	В	\$7,750	2021	G	\$1,000	2008	\$5,000	2008
Wise, Town of	2,395	258	\$29.33	\$42.65	\$35.85	\$52.13	\$42.37	\$61.10	М	\$6,530	2019	S	\$500	2000		
Wytheville, Town of	4,098	688	\$26.47	\$52.94	\$35.24	\$70.48	\$44.01	\$88.02	М	\$4,202	2021	S	\$1,500+METER	2005		

Wastewater Data ⁴	# Residential Wastewater Units	# Non-Residential Wastewater Units	Residential WW Rate Inside (3,000 gal./mo.)	Residential WW Rate Outside (3,000 gal./mo.)	Residential WW Rate Inside (4,000 gal./mo.)	Residential WW Rate Outside (4,000 gal./mo.)	Residential WW Rate Inside (5,000 gal./mo.)	Residential WW Rate Outside (5,000 gal./mo.)	Billing Frequency	WW Rate Business Inside (1 million gal./ mo.)	Last WW Rate Change	Residential Connection Fee Wastewater	Last WW Connection Fee Change	Residential Capital Recovery Charge	Last WW CRC Rate Change
Abingdon, Town of	4,202	708	\$29.62	\$53.38	\$34.05	\$60.84	\$38.48	\$68.30	М	\$5,932	2021	\$1,500	2018	\$2,200	2018
Albemarle County Service Authority	29,595	1,188	\$29.82		\$39.76		\$49.70		М	\$9,940	2021		2013	\$6,820	2017
Alexandria Renew / City of Alexandria	23,099	3,490	\$45.25		\$56.22		\$67.19		М	\$11,896	2021	\$9,446	2021		
Alleghany County	1,929	134	\$47.00		\$47.00		\$47.00		М	\$11,297	2021	\$1,000	2000		
Altavista, Town of	1,113	40	\$9.26	\$18.49	\$12.34	\$24.65	\$15.43	\$30.81	Q	\$3,162	2021	\$2,000	2018		
Amelia County	239	119	\$30.00		\$36.00		\$42.00		М	\$6,300	2021	COST+100%	2007	\$4,000	2013
Amherst County Service Authority	897	202	\$36.93		\$48.26		\$59.68		В	\$11,339	2021	\$1,500	2021	\$4,500	2021
Amherst, Town of	680	142	\$47.90	\$95.80	\$54.75	\$109.50	\$61.60	\$123.20	М	\$15,265	2019	\$2,200			
Appomattox, Town of	754	188	\$47.27		\$67.04		\$84.81		М	\$17,766	2020	\$2,200	2013	\$3,000	2019
Arlington County	35,307	1,642	\$28.32		\$37.76		\$47.20		Q	\$9,440	2021	\$0	2021		2021
Augusta County Service Authority	8,332	720	\$42.33		\$52.55		\$62.77		В	\$10,514	2021	\$1,250		\$4,900	
Bedford Regional Water Authority	4,869	697	\$45.70	\$47.30	\$52.90	\$55.20	\$60.10	\$63.10	М	\$7,092	2021	\$1,500	2021	\$5,900	2021
Berryville, Town of	1,725	11	\$56.63	\$69.56	\$73.90	\$91.14	\$91.17	\$112.72	М		2020	\$14,863	2020		
Blacksburg, Town of	9,404	299	\$21.56	\$37.73	\$27.71	\$48.49	\$33.86	\$59.25	М	\$6,153	2021	\$1,115	2021	\$2,500	2021
Blackstone, Town of			\$25.47	\$38.21	\$33.95	\$50.93	\$42.43	\$63.65	М	\$8,480	2021				
Bland County Service Authority	330	35	\$26.50		\$31.00		\$37.50		М	\$11,953	2014	\$400	2018		
Boones Mill, Town of			\$58.00	\$78.00	\$64.00	\$84.00	\$70.00	\$90.00	М	\$6,020	2018	\$4,000			
Boydton, Town of			\$26.90	\$36.90	\$31.90	\$46.90	\$36.90	\$56.90	М						
Bridgewater, Town of	2,142	119	\$31.47		\$39.29		\$47.11		М	\$9,187	2021	\$7,772	2021		
Bristol Virginia Utilities Authority	6,703	966	\$26.48	\$34.05	\$30.26	\$39.72	\$34.04	\$45.39	М	\$3,587	2021	\$2,250			
Broadway, Town of	1,488	95	\$13.82		\$17.64		\$21.46		В		2018	\$4,600	2018		
Brookneal, Town of			\$17.16		\$19.82		\$22.48		М						
Buckingham County	178	42	\$42.08		\$42.08		\$56.09		М	\$13,996	2020	\$2,500	1994		
Buena Vista, City of	2,535	167	\$25.62		\$34.16		\$42.70		М	\$8,540	2020	\$2,000	2019		
Campbell County Utility & Service Auth.	3,435	306	\$25.82		\$32.41		\$39.03		В	\$6,610	2012	\$1,900	2010	\$2,200	2010
Cape Charles, Town of	1,160	110	\$67.23		\$71.34		\$75.45		М		2021	\$875	2012	\$6,600	2012
Caroline County	993	114	\$57.03		\$67.06		\$77.40		М	\$11,172	2021	\$2,000	2021	\$6,000	2018
Carroll County PSA	891	210	\$46.20		\$57.20		\$68.20		М	\$8,301	2021	\$1,250	2019		
Chatham, Town of	428	123	\$19.17	\$35.70	\$25.56	\$47.60	\$31.95	\$59.50	Q	\$6,390	2018	\$1,000	2018		
Chase City, Town of	1,076	69	\$19.90	\$25.47	\$22.49	\$28.79	\$25.08	\$32.10	М			\$600	2014		
Chesterfield County	117,934	3,848	\$25.99		\$29.10		\$32.20		В	\$3,458	2021	\$0	2021	\$5,400	2018
Chilhowie, Town of	1,040	121	\$26.85	\$56.83	\$32.22	\$67.68	\$37.59	\$78.98	М	\$6,983	2021	\$900	2016		
Christiansburg, Town of	10,658	563	\$30.50	\$45.47	\$40.75	\$61.13	\$51.00	\$76.50	М	\$10,250	2018	\$3,000	2015		
Clarke County Sanitary Authority	338	30	\$58.50		\$58.50		\$65.96		В	\$14,924	2019			\$16,200	2006
Clarksville, Town of			\$47.38	\$107.12	\$61.57	\$128.87	\$75.76	\$150.62	В	\$14,195	2021				

Wastewater Data ⁴	# Residential Wastewater Units	# Non-Residential Wastewater Units	Residential WW Rate Inside (3,000 gal./mo.)	Residential WW Rate Outside (3,000 gal./mo.)	Residential WW Rate Inside (4,000 gal./mo.)	Residential WW Rate Outside (4,000 gal./mo.)	Residential WW Rate Inside (5,000 gal./mo.)	Residential WW Rate Outside (5,000 gal./mo.)	Billing Frequency	WW Rate Business Inside (1 million gal./ mo.)	Last WW Rate Change	Residential Connection Fee Wastewater	Last WW Connection Fee Change	Residential Capital Recovery Charge	Last WW CRC Rate Change
Coeburn, Town of	995	130	\$33.46	\$55.53	\$41.18	\$68.85	\$48.91	\$82.17	М		2015	COST+\$50			
Craigsville, Town of			\$34.00		\$34.00		\$34.00		М	\$6,999		\$3,000			
Culpeper, Town of	6,602	653	\$24.15		\$32.20		\$40.25		М	\$7,273	2019	COST	2019	\$10,000	2006
Danville, City of	16,250	2,300	\$23.52		\$26.61		\$29.95		Monthly	\$2,862	2016	\$1,234	2021	\$0	
Dinwiddie County Water Authority	3,450	140	\$20.82		\$26.82		\$32.82		М	\$5,805	2017	\$3,910	2015		2015
Dublin, Town of	1,091	150	\$23.65	\$30.70	\$30.81	\$39.90	\$37.97	\$49.10	М	\$7,827	2021	\$1,500		\$0	
Dungannon, Town of	211	4	\$27.00	\$31.00	\$44.00	\$52.00	\$49.00	\$57.00	М		2021	\$88	2012		
Edinburg, Town of	586	41	\$36.40	\$54.60	\$47.40	\$71.10	\$47.40	\$71.10	М	\$1,070	2021	\$10,000	2009		
Farmville, Town of	2,062	592	\$20.17	\$30.26	\$24.58	\$36.88	\$29.00	\$43.51	М	\$6,288	2018	\$1,000	2020		
Fauquier County Water and Sanitation Authority	4,466	294	\$59.96		\$69.87		\$79.78		М	\$10,817	2021				
Ferrum Water & Sewer Authority	148	30	\$31.50		\$39.00		\$46.50		М	\$7,620	2017	COST+500	2017	\$2,500	2017
Fincastle, Town of	200	50	\$39.19		\$45.88		\$52.57		М	\$7,264	2021	\$2,500	2021	\$3,500	2021
Franklin, City of	4,270	252	\$32.30	\$36.95	\$36.73	\$45.62	\$41.16	\$51.29	М	\$4,449	2016	\$4,500			
Galax, City of	3,200	500	\$16.00	\$32.00	\$20.50	\$41.00	\$25.00	\$50.00	В	\$4,503	2020				
Gate City, Town of	803	131	\$38.25		\$47.65		\$57.05		М	\$10,958	2018	\$900	2014		
Gloucester, County of	1,780	694	\$41.72		\$55.27		\$68.40		М	\$12,156	2013	\$5,335	2008	\$1,200	2008
Goochland, County of	1,467	195	\$41.58		\$49.15		\$56.72		В	\$14,777	2021	\$6,600	2021		
Gordonsville, Town of	756	4	\$45.61	\$48.38	\$54.15	\$56.92	\$62.92	\$65.46	М	\$8,551	2017				
Greensville County WSA			\$37.30		\$37.30		\$44.77		М	\$8,699	2021	\$1,320			
Gretna, Town of			\$17.90	\$35.79	\$23.86	\$47.72	\$29.83	\$59.65	В	\$3,807	2021	\$400			
Halifax County Service Authority	4,395	445	\$37.10		\$42.80		\$48.50		В	\$5,385	2021			\$1,500	2015
Hamilton, Town of	608	29	\$32.64	\$44.04	\$43.52	\$58.72	\$69.77	\$94.16	В		2019	\$5,000	2010		
Hampton, City of	43,324	90	\$20.60		\$20.57		\$20.55		М						
Hanover County	20,208	1,710	\$32.26		\$40.17		\$48.10		В	\$5,975	2021			\$6,778	2021
Harrisonburg, City of	17,591	4,861	\$17.31	\$25.74	\$23.08	\$34.32	\$28.85	\$42.90	М	\$5,620	2019	\$4,500	2010		
Henry Co. Public Service Authority	6,912	7,139	\$30.00		\$30.00		\$34.70		М	\$7,017	2013	\$1,750	2013		
Honaker, Town of	655	70	\$31.01	\$41.64	\$36.51	\$47.14	\$42.01	\$52.64	М	\$5,530	2018	\$500	2018		
Hopewell Regional Wastewater Treatment Facility	8,877	569	\$16.18		\$19.98		\$23.78		М	\$3,166	2017	\$2,026	2018		
Isle of Wight County	3,357	86	\$21.00		\$28.00		\$35.00		В	\$700	2020	\$3,700			
James City Service Authority	24,018	1,158	\$36.96		\$51.72		\$60.26		М	\$11,702	2019	\$3,583	2020	\$1,818	2020
Kenbridge, Town of	417	144	\$54.19		\$65.19		\$77.19		М		2021				
Kilmarnock, Town of	780	252	\$30.50	\$43.25	\$40.45	\$58.16	\$47.08	\$68.10	В	\$13,295	2021	\$8,040	2006		
King George County Service Authority	242	183	\$70.65		\$83.23		\$95.81		В	\$13,374	2021	\$11,183	2013		
La Crosse, Town of	269	35	\$23.48	\$31.50	\$28.88	\$36.90	\$34.28	\$42.30	М	\$5,413	2017	\$1,000	2017		

Wastewater Data ⁴	# Residential Wastewater Units	# Non-Residential Wastewater Units	Residential WW Rate Inside (3,000 gal./mo.)	Residential WW Rate Outside (3,000 gal./mo.)	Residential WW Rate Inside (4,000 gal./mo.)	Residential WW Rate Outside (4,000 gal./mo.)	Residential WW Rate Inside (5,000 gal./mo.)	Residential WW Rate Outside (5,000 gal./mo.)	Billing Frequency	WW Rate Business Inside (1 million gal./ mo.)	Last WW Rate Change	Residential Connection Fee Wastewater	Last WW Connection Fee Change	Residential Capital Recovery Charge	Last WW CRC Rate Change
Lawrenceville, Town of	809	131	\$33.00	\$57.75	\$44.00	\$77.00	\$55.00	\$96.25	М		2010	\$400	2010		
Lexington, City of	2,500	550	\$47.20	\$63.76	\$62.94	\$85.02	\$78.67	\$106.28	М	\$33,520	2021	\$1,908	2021	\$450	2021
Loudoun Water	78,773	4,850	\$28.05		\$33.32		\$38.59		Q	\$5,535	2021	\$80		\$8,711	2021
Louisa Co. Water Authority Northeast Creek	38	48	\$29.79		\$39.72		\$49.65		М	\$9,930	2021	\$5,250	2004	\$6,750	2021
Louisa Co. Water Authority Zion Crossroads	732	56	\$29.79		\$39.72		\$49.65		М	\$9,930	2021	\$5,250	2004	\$6,750	2021
Luray, Town of	2,131	73	\$48.81	\$73.22	\$56.13	\$84.20	\$63.45	\$95.18	М	\$7,918	2021	\$5,940	2010	\$1,200	2010
Lynchburg, City of	19,000	2,000	\$29.14		\$37.35		\$45.56		М	\$8,290	2020	\$1,330	2017	\$1,950	2000
Manassas, City of	10,097	1,302	\$19.63	\$19.63	\$22.84	\$22.84	\$26.05	\$26.05	М	\$10,904	2021			\$10,952	2015
Marion, Town of	2,705	345	\$23.85	\$47.62	\$32.84	\$64.54	\$41.82	\$83.46	М	\$9,422	2016	\$900	2016		
Martinsville, City of	7,000	500	\$23.64		\$23.64		\$26.37		М	\$2,743	2016	\$850	2014		
Mineral, Town of	115	34	\$35.40		\$44.25		\$53.10		М	\$8,859	2013	\$8,000	2007		
Mount Jackson, Town of	733	95	\$39.48	\$59.28	\$52.64	\$79.04	\$65.80	\$98.80	М	\$13,160	2021	\$10,000	2019		
Nelson County	183	18	\$38.60		\$38.60		\$45.45		М		2013	\$2,000	2013		
Nelson County Service Authority	2,493	54	\$60.60		\$60.60		\$71.90		М	\$11,255	2021	\$4,000			
New Kent County	2,526	150	\$33.08		\$42.99		\$52.90		В	\$12,136	2021	\$9,250	2017	\$2,500	2017
Norton, City of	1,579	320	\$42.44	\$78.90	\$53.20	\$103.50	\$63.96	\$128.10	М	\$10,773	2019	\$175			
Onancock, Town of	618	61	\$67.59		\$90.41		\$112.90		В		2020	\$1,200			
Orange, Town of	1,455	301	\$41.88	\$83.52	\$47.38	\$91.62	\$52.88	\$99.72	М	\$5,564	2014	\$12,330	2014		
Powhatan County	126	110	\$34.63		\$41.63		\$48.63		В	\$7,341	2021	\$8,100			
Prince William County Service Authority	119,240	3,387	\$32.05		\$38.70		\$45.35		М	\$7,553	2020	\$10,800	2012		
Fairlawn Sewer Authority (Previously PCSA)	845	107	\$26.50		\$27.75		\$29.00		М	\$4,425	2019	\$500	2010		
Radford, City of	5,200	461	\$18.36		\$24.48		\$30.60		М	\$6,120	2014	\$1,500	2014		
Rapidan Service Authority	6,582	355	\$38.30		\$48.38		\$58.46		М	\$10,088	2021	\$10,000			
Rappahannock County Water & Sewer Authority	159	53	\$50.00		\$50.00		\$50.00		Q	\$50	2018	\$7,500	2009		
Rockbridge County PSA (Rivermont and Riveria))			\$50.03		\$60.78		\$71.53		В	\$10,945	2021	\$825	2021	\$4,500	2007
Rockingham County	3,664	225	\$17.80		\$23.20		\$28.60		М	\$5,402	2021	\$625	2009	\$5,300	2009
Rocky Mount, Town of	1,749	384	\$17.85	\$35.70	\$21.32	\$42.64	\$24.79	\$49.58	М	\$3,328	2019	\$1,000	2016		
Round Hill, Town of	1,700	30	\$32.26	\$48.42	\$43.01	\$64.56	\$53.76	\$80.70	В		2020	\$850	2015	\$13,897	2021
Rural Retreat, Town of			\$30.48		\$36.54		\$42.79		М	\$8,203	2021	\$400			
Saint Paul, Town of	408	73	\$27.74	\$46.66	\$35.60	\$58.98	\$43.47	\$71.02	М	\$7,882	2021	\$350			
Salem, City of	7,977	1,293	\$38.87		\$44.26		\$49.65		М	\$5,435	2016	\$2,100	2016	\$1,000	2016
Scott County Public Service Authority	1,201	70	\$45.76		\$59.62		\$73.48								
Shenandoah, Town of	870	60	\$26.65	\$39.50	\$31.15	\$47.00	\$35.65	\$54.50	М	\$4,316	2021	\$7,000	2020		
Smithfield, Town of	3,172	469	\$44.04	\$46.83	\$55.61	\$59.33	\$67.18	\$71.83	В	\$11,583	2021	\$1,580	1999	\$4,120	2007

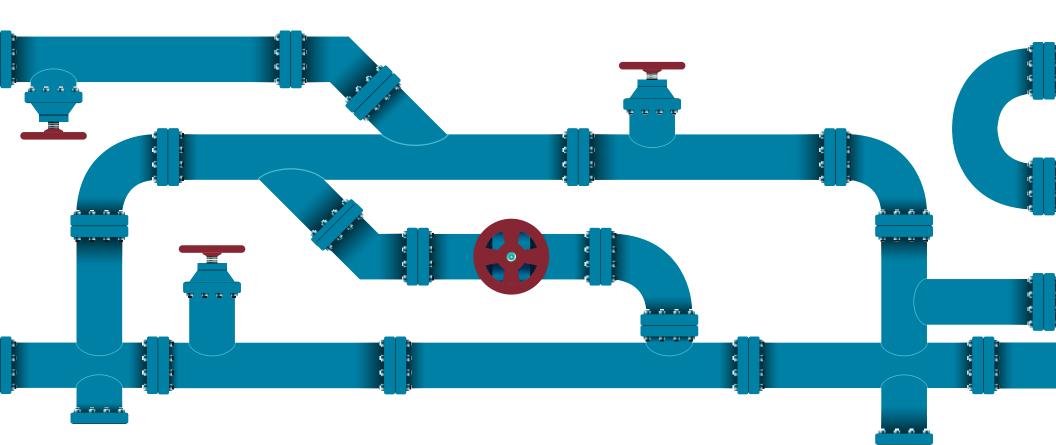
Wastewater Data ⁴	# Residential Wastewater Units	# Non-Residential Wastewater Units	Residential WW Rate Inside (3,000 gal./mo.)	Residential WW Rate Outside (3,000 gal./mo.)	Residential WW Rate Inside (4,000 gal./mo.)	Residential WW Rate Outside (4,000 gal./mo.)	Residential WW Rate Inside (5,000 gal./mo.)	Residential WW Rate Outside (5,000 gal./mo.)	Billing Frequency	WW Rate Business Inside (1 million gal./ mo.)	Last WW Rate Change	Residential Connection Fee Wastewater	Last WW Connection Fee Change	Residential Capital Recovery Charge	Last WW CRC Rate Change
South Hill, Town of	1,960	436	\$23.64	\$47.28	\$31.15	\$62.30	\$38.12	\$76.24	М	\$5,473	2021	\$1,500	1991		
Southampton County	1,387	80	\$37.00		\$37.00		\$46.00		М	\$9,001	2021	\$1,800	2009	\$6,000	2009
Spotsylvania County	30,068	1,781	\$20.28		\$26.00		\$31.72		М	\$6,287	2019	\$2,220	2008	\$4,920	2008
Stafford County	34,422	1,486	\$36.30		\$42.86		\$49.42		М	\$6,907	2021	\$2,100	2005	\$3,500	2010
Stanley, Town of	1,420	70	\$29.40	\$31.00	\$30.70	33,5	\$32.50	\$36.00	М		2017	\$4,025	2017		2018
Stoney Creek Sanitary District	1,385	45	\$51.00		\$56.00		\$61.00		В	\$6,527	2013	\$6,000	2010		
Stuart, Town of	364	100	\$24.16	\$27.69	\$29.74	\$33.99	\$35.32	\$40.29	М		2020	\$600			
Tazewell, Town of	1,678	234	\$41.35	\$60.75	\$52.20	\$76.00	\$63.05	\$91.25	М	\$10,858	2021	\$540			
Timberville, Town of	1,257	61	\$20.53	\$29.64	\$24.41	\$34.36	\$28.29	\$39.08	В	\$5,187	2021	\$4,500	2014		
Victoria, Town of	850	25	\$20.50		\$27.04		\$33.58		М	\$6,505	2021	\$25	2019		
Vienna, Town of	9,533	571	\$26.25		\$37.80		\$47.25		Q	\$10,950	2021	\$8,340	2021	\$7,625	2021
Washington County Service Authority	2,209	255	\$58.08		\$67.07		\$76.06		М	\$10,571	2021	\$3,225			
Western Virginia Water Authority (Botetourt Co.)	2,997	167	\$27.75		\$31.50		\$35.25		М	\$4,195	2021	\$2,000	2020		
Western Virginia Water Authority (Franklin Co.)	88	19	\$27.75		\$31.50		\$35.25		М	\$4,195	2021	\$2,000	2020		
Western Virginia Water Authority (Roanoke City/County)	51,199	2,619	\$27.75		\$31.50		\$35.25		М	\$4,195	2021	\$2,000	2020		
Westmoreland County	2,910	298	\$37.00	\$40.00	\$37.00	\$40.00	\$37.00	\$40.00	М		2018	\$10,022	2018	\$1,539	2018
Winchester, City of	8,830	1,654	\$43.44		\$57.92		\$72.40		В	\$14,480	2021	\$7,200	2018		
Wise, Town of	1,984	194	\$36.66	\$53.31	\$44.81	\$65.16	\$52.96	\$77.01	М	\$8,162	2019	\$500	2000		
Wytheville, Town of	3,888	688	\$18.43	\$36.86	\$24.56	\$49.12	\$30.69	\$61.38	М	\$6,452	2019	\$1,500	2005		

⁴Participants provided wastewater treatment services by the Hampton Roads Sanitation District (HRSD): Gloucester County, Isle of Wight County, James City Service Authority, Town of Smithfield, and the City of Virginia Beach included the HRSD wastewater charges in their responses. As a result, the data listed in the wastewater section of this report includes the HRSD wastewater treatment charges as follows: 3,000 gallons per month (or 401 cubic feet) - \$23.50; 4,000 gallons per month (or 535 cubic feet) - \$31.33; 5,000 gallons per month (or 668 cubic feet) - \$39.17 and 1,000,000 gallons per month (or 133,681 cubic feet) - \$7,833.68.



Lasting Positive Impact®

1030 Wilmer Avenue Suite 100 Richmond, VA 23227



APPENDIX C: FY2022-2023 PAY SCALE

Grade Position	<u>Step</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u> </u>	<u>G</u>	<u>H</u>	1	ī	<u>K</u>	<u>L</u>	<u>M</u>	<u>N</u>	<u>0</u>	<u>P</u>	<u>Q</u>	<u>R</u>	<u>s</u>	I	<u>U</u>	<u>v</u>	<u>w</u>	<u>X</u>
8 Chief WTP Operator	Annual	\$70 366 40	\$72 134 40	\$73 944 00	\$75 795 20	\$77 688 00	\$79 622 40	\$81 619 20	\$83,657,60	\$85 758 40	\$87 900 80	\$90 105 60	\$92 352 00	\$94 660 80	\$97.032.00	\$99 465 60	\$101 961 60	\$104 520 00	\$107 140 80	\$109,824.00	\$112 569 60	\$115.377.60	\$118 268 80	\$121,222.40	\$124 259 20
c cine. Wit operator	Monthly	\$5,863.87		\$6,162.00	· · ·	\$6,474.00		· /			\$7,325.07		· ,			\$8,288.80	\$8,496.80	· · ·	· /	\$9,152.00	\$9,380.80	\$9,614.80	\$9,855.73	\$10,101.87	\$10,354.93
	Bi-Weekly	\$2,706.40	\$2,774.40	\$2,844.00	\$2,915.20	\$2,988.00	\$3,062.40	\$3,139.20	\$3,217.60	\$3,298.40	\$3,380.80	\$3,465.60	\$3,552.00	\$3,640.80	\$3,732.00	\$3,825.60	\$3,921.60	\$4,020.00	\$4,120.80	\$4,224.00	\$4,329.60	\$4,437.60	\$4,548.80	\$4,662.40	\$4,779.20
	Weekly	\$1,353.20	\$1,387.20	\$1,422.00	\$1,457.60	\$1,494.00	\$1,531.20	\$1,569.60	\$1,608.80	\$1,649.20	\$1,690.40	\$1,732.80	\$1,776.00	\$1,820.40	\$1,866.00	\$1,912.80	\$1,960.80	\$2,010.00	\$2,060.40	\$2,112.00	\$2,164.80	\$2,218.80	\$2,274.40	\$2,331.20	\$2,389.60
	Hourly	\$33.83	\$34.68	\$35.55	\$36.44	\$37.35	\$38.28	\$39.24	\$40.22	\$41.23	\$42.26	\$43.32	\$44.40	\$45.51	\$46.65	\$47.82	\$49.02	\$50.25	\$51.51	\$52.80	\$54.12	\$55.47	\$56.86	\$58.28	\$59.74
7 Utility Mechanic Supervisor	Annual				· · ·	· ·		· /	· /				· ,	· ·			· · ·	· · ·	· /	\$104,395.20	· /		· · ·	\$115,232.00	
	Monthly	\$5,577.87	\$5,716.53	. ,	\$6,006.00	\$6,156.80	. ,	\$6,468.80	\$6,630.00	. ,	\$6,966.27	. ,	. ,	\$7,501.87		\$7,881.47	\$8,079.07	\$8,281.87	\$8,488.13	\$8,699.60	\$8,916.27	\$9,139.87	\$9,368.67	\$9,602.67	\$9,843.60
	Bi-Weekly	\$2,574.40	\$2,638.40		\$2,772.00	\$2,841.60		\$2,985.60	\$3,060.00				\$3,377.60				\$3,728.80	\$3,822.40	. ,	\$4,015.20	\$4,115.20	\$4,218.40	\$4,324.00	\$4,432.00	\$4,543.20
	Weekly	\$1,287.20	\$1,319.20	, ,	\$1,386.00	\$1,420.80	\$1,456.40	\$1,492.80	\$1,530.00	\$1,568.40		\$1,647.60	. ,		. ,	\$1,818.80	\$1,864.40	\$1,911.20	\$1,958.80	\$2,007.60	\$2,057.60	\$2,109.20	\$2,162.00	\$2,216.00	\$2,271.60
	Hourly	\$32.18	\$32.98	\$33.80	\$34.65	\$35.52	\$36.41	\$37.32	\$38.25	\$39.21	\$40.19	\$41.19	\$42.22	\$43.28	\$44.36	\$45.47	\$46.61	\$47.78	\$48.97	\$50.19	\$51.44	\$52.73	\$54.05	\$55.40	\$56.79
6 Laboratory Manager	Annual	\$63,752,00	\$65,353,60	\$66.996.80	\$68 681 60	\$70.408.00	\$72 176 00	\$73 985 60	\$75.836.80	\$77 729 60	\$79 664 00	\$81,660,80	\$83 699 20	\$85,800,00	\$87 942 40	\$90 147 20	\$92,393.60	\$94 702 40	\$97.073.60	\$99.507.20	\$102,003.20	\$104.561.60	\$107 182 40	\$109,865.60	\$112,611.20
C Ediboratory Wariager	Monthly	\$5.312.67	, ,	\$5,583.07	· · ·	· · ·	\$6,014.67	\$6,165.47	· /	\$6,477.47	· · ·	· · ·	· ,	· · · · ·	· · ·	· · ·	\$7,699.47	\$7,891.87	· ,	\$8,292.27	\$8,500.27	\$8,713.47	\$8.931.87	\$9,155.47	\$9,384.27
	Bi-Weekly	\$2,452.00	\$2,513.60	. ,	\$2,641.60	\$2,708.00	\$2,776.00	\$2,845.60	\$2,916.80	\$2,989.60		\$3,140.80	\$3,219.20	\$3,300.00	\$3,382.40	\$3,467.20	\$3,553.60	\$3,642.40	\$3,733.60	\$3,827.20	\$3,923.20	\$4,021.60	\$4,122.40	\$4,225.60	\$4,331.20
	Weekly	\$1.226.00	\$1.256.80	· <i>'</i>	\$1.320.80	\$1.354.00	\$1.388.00	\$1.422.80	\$1.458.40	\$1.494.80	· '	· <i>'</i>	\$1.609.60	· · ·		\$1.733.60	\$1.776.80	\$1.821.20	· /	\$1.913.60	\$1,961.60	\$2.010.80	\$2.061.20	\$2,112.80	\$2,165.60
	Hourly	\$30.65	\$31.42	\$32.21	\$33.02	\$33.85	\$34.70	\$35.57	\$36.46	\$37.37	\$38.30	\$39.26	\$40.24	\$41.25	\$42.28	\$43.34	\$44.42	\$45.53	\$46.67	\$47.84	\$49.04	\$50.27	\$51.53	\$52.82	\$54.14
5 Senior WTP Operator	Annual	\$54,974.40	\$56,347.20	\$57,761.60	\$59,196.80	\$60,673.60	\$62,192.00	\$63,752.00	\$65,353.60	\$66,996.80	\$68,681.60	\$70,408.00	\$72,176.00	\$73,985.60	\$75,836.80	\$77,729.60	\$79,664.00	\$81,660.80	\$83,699.20	\$85,800.00	\$87,942.40	\$90,147.20	\$92,393.60	\$94,702.40	\$97,073.60
	Monthly	\$4,581.20	\$4,695.60	\$4,813.47	\$4,933.07	\$5,056.13	\$5,182.67	\$5,312.67	\$5,446.13	\$5,583.07	\$5,723.47	\$5,867.33	\$6,014.67	\$6,165.47	\$6,319.73	\$6,477.47	\$6,638.67	\$6,805.07	\$6,974.93	\$7,150.00	\$7,328.53	\$7,512.27	\$7,699.47	\$7,891.87	\$8,089.47
	Bi-Weekly	\$2,114.40	\$2,167.20	\$2,221.60	\$2,276.80	\$2,333.60	\$2,392.00	\$2,452.00	\$2,513.60	\$2,576.80	\$2,641.60	\$2,708.00	\$2,776.00	\$2,845.60	\$2,916.80	\$2,989.60	\$3,064.00	\$3,140.80	\$3,219.20	\$3,300.00	\$3,382.40	\$3,467.20	\$3,553.60	\$3,642.40	\$3,733.60
	Weekly	\$1,057.20	\$1,083.60	\$1,110.80	\$1,138.40	\$1,166.80	\$1,196.00	\$1,226.00	\$1,256.80	\$1,288.40	\$1,320.80	\$1,354.00	\$1,388.00	\$1,422.80	\$1,458.40	\$1,494.80	\$1,532.00	\$1,570.40	\$1,609.60	\$1,650.00	\$1,691.20	\$1,733.60	\$1,776.80	\$1,821.20	\$1,866.80
	Hourly	\$26.43	\$27.09	\$27.77	\$28.46	\$29.17	\$29.90	\$30.65	\$31.42	\$32.21	\$33.02	\$33.85	\$34.70	\$35.57	\$36.46	\$37.37	\$38.30	\$39.26	\$40.24	\$41.25	\$42.28	\$43.34	\$44.42	\$45.53	\$46.67
4 WTP Operator Class I Utility Mechanic I	Annual Monthly	\$49,774.40	\$51,022.40 \$4,251.87				\$56,305.60 \$4,692.13				\$62,150.40 \$5,179.20						\$72,092.80	\$73,902.40 \$6,158.53		\$77,646.40 \$6,470.53	\$79,580.80 \$6,631.73	\$81,577.60 \$6,798.13	\$83,616.00	\$85,716.80 \$7,143.07	\$87,859.20 \$7,321.60
Executive Assistant	Bi-Weekly	\$4,147.87	\$1,962.40	. ,	\$2,061.60	\$2,112.80	\$2,165.60	\$2,220.00	\$2,275.20	\$2,332.00	. ,	\$2,450.40			• •	\$2,704.80	\$2,772.80	\$2,842.40	\$2,913.60	\$0,470.53	\$3,060.80	\$3,137.60	\$3,216.00	\$3,296.80	\$3,379.20
Excount C / Issistant	Weekly	\$957.20	\$981.20		\$1,030.80	\$1,056.40	\$1,082.80	\$1,110.00	\$1,137.60	\$1,166.00		\$1,225.20				\$1,352.40	\$1,386.40	\$1,421.20		\$1,493.20	\$1,530.40	\$1,568.80	\$1,608.00	\$1,648.40	\$1,689.60
	Hourly	\$23.93	\$24.53	\$25.14	\$25.77	\$26.41	\$27.07	\$27.75	\$28.44	\$29.15	\$29.88	\$30.63	\$31.40	\$32.19	\$32.99	\$33.81	\$34.66	\$35.53	\$36.42	\$37.33	\$38.26	\$39.22	\$40.20	\$41.21	\$42.24
3 WTP Operator Class II Utility Mechanic II	Annual Monthly	\$45,094.40 \$3.757.87	\$46,217.60	\$47,382.40	\$48,568.00	\$49,774.40	\$51,022.40 \$4.251.87	\$52,291.20 \$4,357.60	\$53,601.60 \$4,466.80	\$54,932.80 \$4,577.73	. ,	\$57,720.00 \$4,810.00	\$59,155.20	\$60,632.00 \$5.052.67	\$62,150.40 \$5,179.20	\$63,710.40 \$5,309.20	\$65,312.00 \$5.442.67	\$66,955.20	· · ·	\$70,324.80 \$5.860.40	\$72,092.80 \$6.007.73	\$73,902.40 \$6.158.53	\$75,753.60 \$6.312.80	\$77,646.40 \$6.470.53	\$79,580.80 \$6,631.73
Othicy Mechanic II	Bi-Weekly	\$1,734.40	\$1,777.60	1 - 7	\$1.868.00	\$1.914.40	\$1,962.40	\$2,011.20	\$2.061.60	\$2.112.80	. ,	\$2,220.00	\$2,275.20	\$2,332.00		\$2,450.40	\$2.512.00	\$2,575.20	\$2,639.20	\$2,704.80	\$2,772.80	\$2.842.40	\$2,913.60	\$2,986.40	\$3,060.80
	Weekly	\$867.20	\$888.80	\$911.20	\$934.00	\$957.20	\$981.20	\$1,005.60	\$1,030.80	\$1,056.40		\$1,110.00				\$1,225.20	\$1,256.00	\$1,287.60	\$1,319.60	\$1,352.40	\$1,386.40	\$1,421.20	\$1,456.80	\$1,493.20	\$1,530.40
	Hourly	\$21.68	\$22.22	\$22.78	\$23.35	\$23.93	\$24.53	\$25.14	\$25.77	\$26.41	\$27.07	\$27.75	\$28.44	\$29.15	\$29.88	\$30.63	\$31.40	\$32.19	\$32.99	\$33.81	\$34.66	\$35.53	\$36.42	\$37.33	\$38.26
2 WTP Operator Class III	Annual	\$40.872.00	\$41 891 20	\$42 931 20	\$44 012 80	\$45 115 20	\$46 238 40	\$47.403.20	\$48 588 80	\$49 795 20	\$51 043 20	\$52 312 00	\$53 622 40	\$54 953 60	\$56 326 40	\$57 740 80	\$59,176.00	\$60,652,80	\$62 171 20	\$63,731.20	\$65,332.80	\$66,976.00	\$68,660.80	\$70,387.20	\$72,155.20
2 Will Operator class III	Monthly	\$3,406.00	\$3,490.93		\$3,667.73	\$3,759.60	\$3,853.20	\$3,950.27	\$4,049.07	\$4,149.60		\$4,359.33	\$4,468.53			\$4,811.73	\$4,931.33	\$5,054.40		\$5,310.93	\$5,444.40	\$5,581.33	\$5,721.73	\$5,865.60	\$6,012.93
	Bi-Weekly	\$1,572.00	\$1,611.20	\$1,651.20	\$1,692.80	\$1,735.20	\$1,778.40	\$1,823.20	\$1,868.80	\$1,915.20	\$1,963.20	\$2,012.00	\$2,062.40	\$2,113.60	\$2,166.40	\$2,220.80	\$2,276.00	\$2,332.80	\$2,391.20	\$2,451.20	\$2,512.80	\$2,576.00	\$2,640.80	\$2,707.20	\$2,775.20
	Weekly	\$786.00	\$805.60	\$825.60	\$846.40	\$867.60	\$889.20	\$911.60	\$934.40	\$957.60	\$981.60	\$1,006.00	\$1,031.20	\$1,056.80	. ,	\$1,110.40	\$1,138.00	\$1,166.40	. ,	\$1,225.60	\$1,256.40	\$1,288.00	\$1,320.40	\$1,353.60	\$1,387.60
	Hourly	\$19.65	\$20.14	\$20.64	\$21.16	\$21.69	\$22.23	\$22.79	\$23.36	\$23.94	\$24.54	\$25.15	\$25.78	\$26.42	\$27.08	\$27.76	\$28.45	\$29.16	\$29.89	\$30.64	\$31.41	\$32.20	\$33.01	\$33.84	\$34.69
1 WTP Operator Trainee	Annual	\$37.003.20	\$37.918.40	\$38.875.20	\$39,852.80	\$40.851.20	\$41,870.40	\$42 910 40	\$43 992 00	\$45 094 40	\$46 217 60	\$47 382 40	\$48 568 00	\$49 774 40	\$51 022 40	\$52,291.20	\$53.601.60	\$54.932.80	\$56.305.60	\$57.720.00	\$59,155.20	\$60.632.00	\$62.150.40	\$63.710.40	\$65,312.00
Custodian	Monthly	\$3,083.60	\$3,159.87	\$3,239.60	· /	\$3,404.27	\$3,489.20	\$3,575.87	\$3,666.00	\$3,757.87	\$3,851.47	\$3,948.53	\$4,047.33	\$4,147.87	\$4,251.87	\$4,357.60	\$4,466.80	\$4,577.73	, ,	\$4,810.00	\$4,929.60	\$5,052.67	\$5,179.20	\$5,309.20	\$5,442.67
	Bi-Weekly	\$1,423.20	\$1,458.40		\$1,532.80	\$1,571.20	\$1,610.40	\$1,650.40	\$1,692.00	\$1,734.40	\$1,777.60	\$1,822.40	\$1,868.00	\$1,914.40	\$1,962.40	\$2,011.20	\$2,061.60	\$2,112.80	\$2,165.60	\$2,220.00	\$2,275.20	\$2,332.00	\$2,390.40	\$2,450.40	\$2,512.00
	Weekly	\$711.60	\$729.20	\$747.60	\$766.40	\$785.60	\$805.20	\$825.20	\$846.00	\$867.20	\$888.80	\$911.20	\$934.00	\$957.20	\$981.20	\$1,005.60	\$1,030.80	\$1,056.40	\$1,082.80	\$1,110.00	\$1,137.60	\$1,166.00	\$1,195.20	\$1,225.20	\$1,256.00
	Hourly	\$17.79	\$18.23	\$18.69	\$19.16	\$19.64	\$20.13	\$20.63	\$21.15	\$21.68	\$22.22	\$22.78	\$23.35	\$23.93	\$24.53	\$25.14	\$25.77	\$26.41	\$27.07	\$27.75	\$28.44	\$29.15	\$29.88	\$30.63	\$31.40