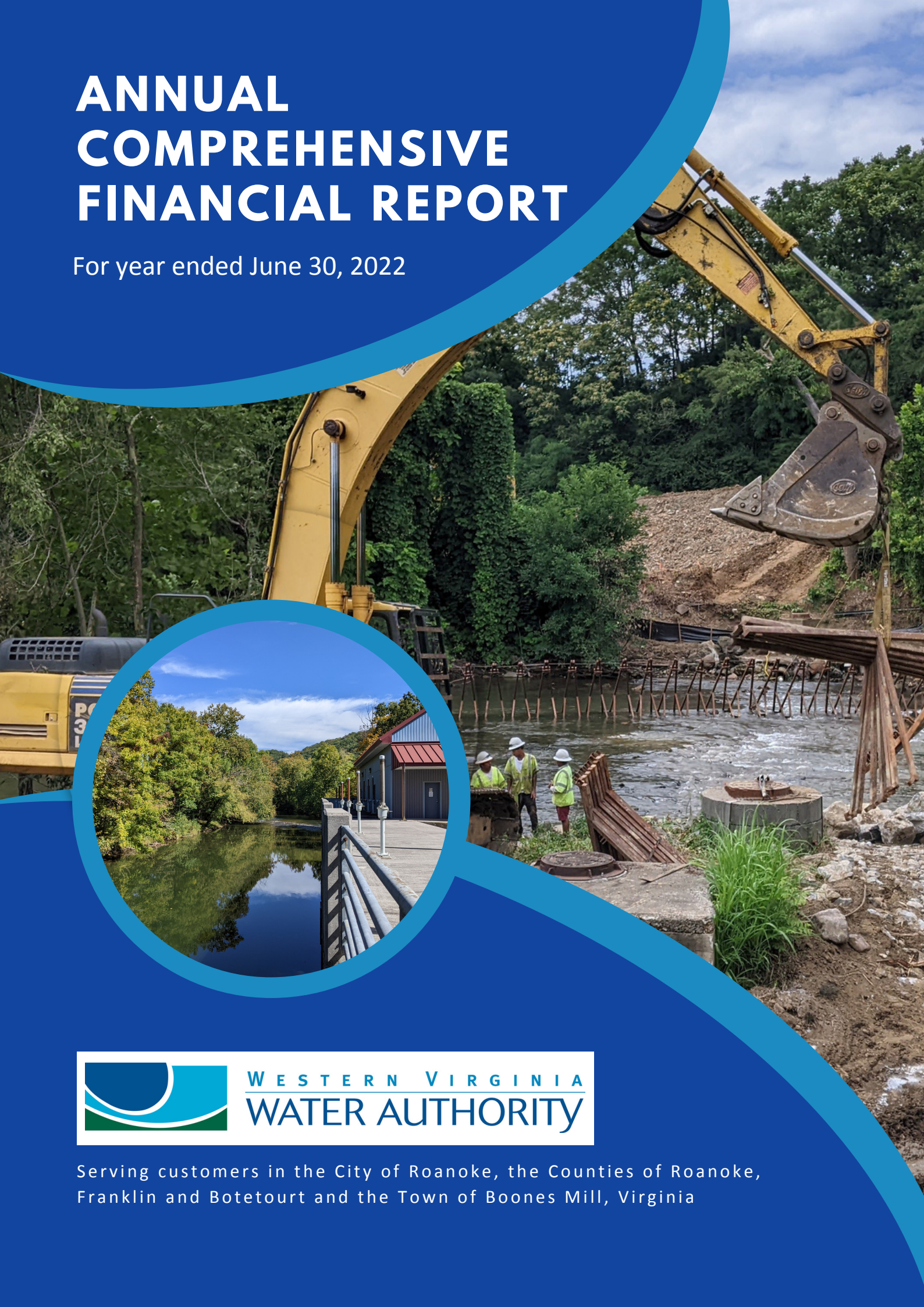


# ANNUAL COMPREHENSIVE FINANCIAL REPORT

For year ended June 30, 2022



Serving customers in the City of Roanoke, the Counties of Roanoke, Franklin and Botetourt and the Town of Boones Mill, Virginia

**WESTERN VIRGINIA WATER AUTHORITY**

**ROANOKE, VIRGINIA**

**Annual Comprehensive Financial Report  
Year Ended June 30, 2022**

**Prepared by:**

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Tammy Lawfield  
Director of Finance

Jennifer Meeks  
Finance Manager

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**WESTERN VIRGINIA WATER AUTHORITY**

Annual Comprehensive Financial Report  
Year Ended June 30, 2022

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**WESTERN VIRGINIA WATER AUTHORITY**

Annual Comprehensive Financial Report  
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## INTRODUCTORY SECTION

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**WESTERN VIRGINIA WATER AUTHORITY**

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(A Governmental organization established March 2, 2004  
under the Water and Wastewater Authorities Act, Chapter 51, Title 15.2,  
1950 Code of Virginia, As Amended)

MEMBERS

Bob Cowell, Chair

Shirley Holland, Vice Chair

John Bradshaw

Harvey Brookins

Richard Caywood

Donald Davis

Randall Hancock

Hunter Young

OFFICIALS

Executive Director

Secretary

Assistant Secretary

Treasurer

Mike T. McEvoy

Gayle Shrewsbury

Sarah Baumgardner

Tammy Lawfield



November 17, 2022

To the Honorable Chairman, Members of the Board of Directors, Customers and Interested Parties:

We are pleased to submit the Annual Comprehensive Financial Report (ACFR) of the Western Virginia Water Authority (Authority) for the fiscal year ended June 30, 2022. The ACFR was prepared by the Authority in conformity with U.S. Generally Accepted Accounting Principles (GAAP) and with emphasis on disclosure of the financial activities of the Authority. Responsibility for both the completeness and reliability of the information, including all disclosures, rest with the Authority, and is based upon a comprehensive framework of internal control that has been established for this purpose. Because the cost of internal controls should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements. To the best of our knowledge and belief, the enclosed financial data is accurate in all material respects and fairly presents the financial position, results of operations and cash flows of the Authority. All disclosures necessary to enable the reader to gain an understanding of the Authority's financial activities have been included.

The basic financial statements have been audited by our independent auditors, Robinson, Farmer, Cox Associates, who have issued an unmodified ("clean") opinion on the financial statements of the Authority as of and for the year ended June 30, 2022. The audit was conducted in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and *Specifications for Audits of Authorities, Boards and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia. The annual audit is planned and performed to obtain reasonable, rather than absolute, assurance that the basic financial statements of the Western Virginia Water Authority are free of any material misstatement. The independent auditors' report is located at the front of the financial section of this report.

Management's Discussion and Analysis (MD&A) immediately follows the independent auditors' report and provides a narrative introduction, overview, and analysis of the basic financial statements. This letter of transmittal is designed to compliment the MD&A and should be read with it.

## Profile

The Authority was formed by the Council of the City of Roanoke and the Board of Supervisors of the County of Roanoke on July 1, 2004 as a regional water authority to establish and operate a water and sewer disposal system and related facilities. The Authority was chartered in 2004 pursuant to the Virginia Water and Waste Authorities Act, Chapter 51 title 15.2 of the Code of Virginia 1950 as amended. The Authority is authorized to acquire, finance, construct, manage and maintain a fully integrated water, wastewater, septage disposal and related facilities pursuant to the Act. Additional information on the formation of the Authority is covered under Note 1 of the Notes to Financial Statements. On November

5, 2009 Franklin County joined as a member of the Authority when the involved parties reorganized under amended and restated Articles of Incorporation. Botetourt County joined as a member in the Authority on July 1, 2015, and the Town of Boones Mill joined on November 1, 2021.

The Authority's Board of Directors consists of eight members; three of which are appointed by the City Council of Roanoke, three appointed by the Board of Supervisors of the County of Roanoke, one member is appointed by the Board of Supervisors of the County of Franklin and one member is selected by the Board of Supervisors of the County of Botetourt. Board terms are four years. Regular meetings of the Board of Directors are normally held monthly.

The Authority is administered by an Executive Director, who serves at the pleasure of the Board. The Executive Director has the direct supervision of all employees of the Authority; is responsible for the operation of the Authority, and the establishment of guidelines for efficient and sound fiscal management.

The Authority provides citizens in the Roanoke area and portions of Franklin and Botetourt Counties with a dependable supply of water. The Authority treats and delivers 19 million gallons of drinking water per day for 64,071 customer accounts. Major water sources include the Spring Hollow reservoir, Carvins Cove reservoir, Falling Creek / Beaver Dam Creek reservoirs and Crystal Spring. Other sources include various groundwater wells and water purchased from the Bedford County Public Service Authority for a portion of the Authority's customers in Franklin County. Current rated system treatment capacity is approximately 58 million gallons per day (MGD).

The Spring Hollow reservoir was constructed in 1993 and consists of a 243 foot high by 990 foot long roller-compacted concrete dam with a working volume of 3.2 billion gallons. Water is pumped from the Roanoke River for storage, and the safe yield of this reservoir is 19.4 MGD. The treatment facility was constructed in 1996 and has a capacity of 18 MGD.

The Carvins Cove reservoir was completed in the late 1940s and includes an 80 foot high dam with a 6.47 billion gallon impoundment. Tinker Creek tunnel, constructed in 1966 and the Catawba Creek tunnel, constructed in 1974 enable additional source water to be impounded. The reservoir has a safe yield of between 14 and 18 MGD. The reservoir is also used for limited recreation purposes. The treatment facility capacity is 28 MGD.

Falling Creek / Beaver Dam Creek reservoirs have a combined storage volume of 520 million gallons. The Falling Creek reservoir was constructed in 1900 and the Beaver Dam Creek reservoir was completed in 1926. Both are clay core, rock filled dams and have a combined safe yield of 1.45 MGD. Treatment facility capacity is comparable to the yield. Construction was completed on the Falling Creek dam and spillway in 2011.

Crystal Spring has a safe yield of 3.5 MGD and uses membrane filtration with a capacity of 4.84 MGD. Crystal Spring is located on the north side of Mill Mountain in the City of Roanoke.

The Authority also maintains 1,258 miles of water mains, 57 pumping stations, and 5,863 fire hydrants and 62 well facilities in the service area.

The Authority began operations in Franklin County during fiscal year 2009. The Authority purchased several private water systems in the Smith Mountain Lake area and began operations in January 2009. In May 2009, the County of Franklin and the Authority entered into a water system transfer agreement where the County conveyed the ownership of the transmission and distribution system along State Route 122 from the Franklin - Bedford County line to Westlake Town Center to the Authority. The plan also authorizes the Authority to proceed to develop line extensions in the area which will interconnect some of the private systems purchased by the Authority. The Scruggs Road water line extension was completed in 2010.

This water line interconnects the customers in the Westlake Town Center with several of the water systems in the Smith Mountain Lake area. The Authority authorized the acquisition of the Petrus Water Systems and the Lake Watch Wastewater System in November 2015. At that time, the Authority assumed operation of the Land's End water system, and that system was interconnected to the existing Contentment Island and Lakeside system in June 2016.

Botetourt County officially joined the Authority on July 1, 2015. A new pump station on Roanoke Boulevard was constructed and put it into service on December 12, 2015 enabling water from Carvins Cove to serve the Greenfield area. After an interconnection was installed, the Tinkerview Gardens community began receiving Carvins Cove water on January 20th. The Botetourt service area expanded as the Authority authorized the acquisition of the Eagle Rock Water Company in January 2016, a water system serving 84 accounts with two additional locations that are vacant. The Eagle Rock wastewater facility was previously acquired by the Authority when Botetourt County joined the Authority.

The Roanoke Regional Water Pollution Control Facility serves the City of Roanoke, Roanoke County, the City of Salem, the Town of Vinton and portions of Botetourt County. The Water Authority treats 39 million gallons of wastewater a day from throughout the valley for its 57,324 sewer customers (more than 186,000 residents including bulk contracts described below). The facility's permitted capacity was increased to 55 MGD with the completion of a three year construction project. The original plant was constructed in 1951, and major upgrades were made in 1959, 1977, 1998, 2004, 2007 and in 2016. The most recent upgrade, the Peak Flow Enhancement Project, allows the Roanoke Regional Water Pollution Control Plant to treat and discharge more flow to the Roanoke River during high river stage events. The project involved construction of a new chlorine contact basin, new effluent screw pumps and modifications to the Biological Aerated Filter (BAF).

The Authority's collection system consists of 997 miles of sewer gravity mains, over 26,224 manholes, 28 lift stations.

The Authority has bulk wastewater treatment agreements with the City of Salem and the Town of Vinton. These jurisdictions share in the Regional Wastewater Treatment Plant capacity and plant upkeep. The agreements include the cost of treatment and the capital maintenance on the regional facility.

In December 2008, Franklin County and the Authority entered into an operating agreement for the Westlake Village Central Sewer System covering the Westlake Overlay area of

Franklin County. Under the agreement, the Authority contracted to purchase and to operate the wastewater system which is being financed by the County. Additional collection system lines were constructed in 2010 to provide service to more customers.

At the formation of the Authority in 2004, a six - year rate equalization plan was developed to achieve equal user rates for customers in the City of Roanoke and Roanoke County by 2010. This has been completed with the Authority's customers in the City of Roanoke and Roanoke County now having the same user rates. Customers in Franklin County are under a separate user rate schedule. Botetourt County customers follow the same sewer rate schedule as the customers in the City of Roanoke and Roanoke County and Botetourt water customers are under a separate user rate schedule.

## **Reorganization**

With the August 2019 retirement of Gary Robertson, Executive Director of Water Operations, the Authority's primary operating divisions were reorganized. The Water Pollution Control (WPC) Division and the majority of the Water Division were combined into a new group, Water Quality Operations. The remaining portion of the Water Division joined Field Operations along with Billing and Customer Service, into a Customer Operations Group.

The Customer Operations Division (CO) handles customer service, billing, collections, information technology, meter services and construction and maintenance of the Authority's water distribution and wastewater collection system. This new division is responsible for providing customers with a seamless service experience.

The Water Quality Operations Division (WQ) is responsible for producing the highest quality drinking water for customers and for returning the highest quality treated wastewater back to our environment. This new division will consist primarily of physical assets of the old water operations and water pollution control divisions including treatment plants, storage tanks, pump station and lift stations. The new division is also responsible for non-revenue water reductions.

Administrative Services is responsible for executive management to provide vision for the organization as well as other internal services of engineering, public relations, finance and human resources.

## **Economic Condition and Outlook**

The Western Virginia Water Authority is located in the Roanoke Valley in South Western Virginia. The valley is located between the Blue Ridge Mountains on the east and the Alleghany Mountains to the west, with Interstate 81 running north and south. The Authority's service area is contained in the Roanoke Metropolitan Statistical Area (RMSA). Area attractions include Smith Mountain Lake to the east and the Blue Ridge Parkway runs through the service area. The Roanoke area is the region's rail center and is the largest metropolitan area in western Virginia. The RMSA has a 2021 estimated population of 314,496 which includes the Cities of Roanoke and Salem and the Counties of Roanoke, Botetourt, Franklin and Craig. For 2022, the City of Roanoke's estimated population was 99,058, Roanoke County's population was estimated to be 96,546 Franklin County's population was

estimated to be 54,188 and Botetourt County's population was estimated to be 33,642. The Authority serves approximately 87% of the RMSA.

The principal employers of the area are the industries of manufacturing, retail trade, health care and government. Both the City and Counties of Roanoke and Franklin are proactive in attracting and developing new businesses which will lead to economic growth. Unemployment as of June 30, 2022 was estimated to be 3.4% for the City of Roanoke, 2.6% for the County of Roanoke, 3.0% for the County of Franklin and 2.3% for the County of Botetourt. During the period the Virginia average was 2.8% and the national average was 3.8%.

The Executive Director would like to note a number of accomplishments and achievements completed through the dedication and determination of the employees of the Western Virginia Water Authority (Authority). Major improvements, enhancements and expansions have been made to the water distribution and wastewater collection systems, as well as the treatment plants, to the benefit of all customers.

### **Awards**

The Authority was awarded the Government Officers Association Distinguished Budget Presentation Award for the Fiscal Year 2022 Budget, meeting one of the Sustainable Practices strategic goals. The Finance Department also received the Certificate of Excellence in Financial Reporting by the Government Finance Officers Association for the FY21 audit.

Carvins Cove Water Treatment Facility was awarded the 2021 Bronze Award for Excellence in Waterworks. This award is given by the Virginia Department of Health to surface water treatment plants that meet the filtration goals set by the Office of Drinking Water.

### **Regional Initiatives**

The Western Virginia Water Authority acquired the Town of Boone's Mill's water and wastewater utility system November 1, 2021. While the Town's system had been operated by the Authority for the past three years, the Authority now owns the system and benefits from the increased customer base and water supply. This acquisition added 205 active water customers and 63 sewer customers.

Authority staff also invested time in FY22 on the acquisition of the Town of Vinton's water system effective July 1, 2022. Staff hosted an open house for Vinton residents and businesses on January 25 to give citizens a chance to learn more about the Authority, talk to staff and get their specific questions answered. Authority staff worked closely with Town of Vinton staff to obtain information and learn more about the Town's SCADA, water, and wastewater systems. Staff from the Town shadowed with Water Quality's groundwater team as well as Customer Service's billing team.

The initial feed of water from the Carvins Cove distribution system into the Town of Vinton was initiated in June 2022 under a plan approved by Virginia Department of Health Office

of Drinking Water. The plan includes additional sampling and laboratory analysis requirements during the transition period.

This first phase of the water system operation plan was successfully implemented in the western portions of the Town of Vinton. The Chestnut Ave Well was turned off mid-June, shifting demand to a blend of water from the Craig Ave Well, Carvins Cove, and Muse Spring. Phase 2 and 3 of the transition plan will require infrastructure enhancements to achieve. The specific enhancements required for these phases will be evaluated once an updated water model is completed.

Staff coordinated with the Town of Vinton for a ceremonial valve turning ceremony on June 7th at 2pm to mark the transfer of their utility system to the Authority. Town staff also toured the Carvins Cove Water Treatment Plant that morning followed by a picnic lunch with Authority staff at Carvins Cove Reservoir.

Information Technology (IT) staff worked on the Vinton data conversion during the first six months of CY2022 while Billing, Customer Service, and Collections staff went through two cycles of testing the data converted into the test environment of the Customer Information System (Cogsdale). The production data conversion for Vinton was conducted the weekend of June 10th.

Even though the Town of Vinton's goal was to be close to completing their meter replacement project prior to July 1st, upgrading to the same Advanced Metering Infrastructure (AMI) used by the Authority, 2,090 meters had not yet been upgraded due to the impact of Sensus meter and transmitter shortages. On June 21st, Meter Operations staff started reading the meters manually, and in four days alone, read approximately 1,500 meters. Billing and IT staff started the billing data verification process on the three AMI routes at the same time and continued the verification process as the manually read data was brought into Cogsdale.

In Botetourt, staff worked to renew the contract operations agreement with the Town of Fincastle. The owner of the Consecutive Water System in the Botetourt County area of Iron Gate executed the legal instruments to transfer ownership of the water system to the Authority. Upon execution of the agreement, staff proceeded to coordinate with Virginia Department of Health staff for issuance of a system permit and initiating actions to activate grant funding for renewal of the water system.



Work was completed on the new sewer receiving station adjacent to the Greenfield Recreation Park in Botetourt County. The station, as shown to the left, is used by Roanoke Cement and Botetourt County and provides a secure location for permitted septic haulers to discharge wastewater and landfill leachate to the Authority's collection system.

Authority staff negotiated an update of the existing 1981 bulk water sales agreement with the City of Salem which has governed water exchange and sales between the parties to date.

The Authority was awarded a \$136,725 grant from the Virginia Environmental Endowment to support community and environmental harm reduction through proper storage and disposal of medications. This grant is in partnership with the Focus on Response and Education to Stay Healthy Coalition of Franklin County (FRESH), Prevention Council of Roanoke County (PCRC) and the Roanoke Area Youth Substance Abuse Coalition (RAYSAC). In addition to providing media promotions and an increased number of medication lockboxes and permanent medication disposal boxes in the community, the grant funded analysis of the wastewater effluent to test for trace amounts chemicals including 114 compounds found in pharmaceuticals and personal care products.

The Student Apprenticeship Showcase was held on February 1st as a regional effort coordinated by Roanoke City, Roanoke County and Salem School Districts for parents and students to explore available options for student apprenticeships for the next school year. Thirty-six students (incoming juniors and seniors) signed up at the Water Authority table for an estimated five open student positions starting July 2022. Compared to previous years, the response was strong and the Authority will have a good selection to choose from.

On May 20th, three new student apprentices were recognized with a “signing event” at the Salem Red Sox stadium. For the first time since the program began, the students came from both Roanoke City and Roanoke County Public Schools. Included in the celebration were parents, friends of the students, Authority staff trainers for the students, and current apprentices.

### **Water Quality Division**

The annual average daily flow at the Roanoke Regional Water Pollution Control Plant for FY22 was 30.9 million gallons day (mgd), down from 39.2 mgd average daily flow in FY21. A total of 6,588 dry tons of biosolids was land applied, and 3,347 septage loads were received in FY22.

Average daily water treatment for FY22 as 19.48 million gallons per day, up from 18.72mgd in FY21.

Work was completed on the Crystal Spring Pump Station relocation project. The Authority issued final acceptance to Frizzell Construction July 14, 2021. This project was quite successful, allowing Carilion to proceed with its planned expansion.

GEI Consultants was selected to provide engineering services to assist with dam inspections, monitoring, and capital project recommendations & scheduling. During the Month of October, GEI successfully performed a required biannual inspection at the Clifford D. Craig Memorial Dam (Spring Hollow), Carvins Cove Dam and Falling Creek Dam.

Hazen & Sawyer was selected as the design engineer for the Sodium Hypochlorite Conversion project at Spring Hollow WTF. In addition to the Hypochlorite Project, Hazen and Sawyer worked on the design for the Spring Hollow generator upgrade project.

Nicholson Construction completed work on the Clifford D. Craig Memorial Dam drain drilling/reaming project. The project was a success with drain function being restored. Additional piezometers were installed to monitor pressure and the Authority's dam consultant, GEI, assisted staff with future monitoring and data analysis. GEI also worked on a design for the installation of a secondary weir at the dam. The weir measures what is believed to be water flowing from a spring which should be segregated from measurements to quantify dam seepage. GEI also recommended a LiDAR scan of the dam as a baseline for material loss over time.

An update to the new Carvins Cove fee structure went into effect in January of 2021. The total fees collected through the end of peak rental season in October 2021 were \$201,210 which is a new revenue record. By all accounts, the fees have been well received and customers have been excited by the opportunity to rent the new shelter.

A new 20,000 gallon Eagle Rock water storage tank project was completed at the end of 2021, and the tank was put in service. The tank serves a neighborhood well system in Botetourt County.

Staff issued notice to proceed to Hazen & Sawyer for the alkalinity study at the Carvins Cove treatment facility. Hazen will develop a plan to address occasional low alkalinity seen in the raw water from Carvins Cove.

The Western Virginia Water Authority's two largest water sources (Carvins Cove and Spring Hollow) were tested as part a large PFAS/PFOS study by the Virginia Department of Health in May 2021. More than 25 individual chemicals were tested, and one, HFPO-DA (GenX), was detected at Spring Hollow in the amount of 51 ppt. A second sample measured 57 ppt. All other results at Carvins Cove and Spring Hollow were below the level of detection.

On June 15, 2022, the EPA issued a new lifetime health advisory for HFPO-DA of 10 parts per trillion (ppt). While there is no Virginia or federal regulatory limits for HFPO-DA, only advisories, the Authority increased the frequency of testing for this compound at Spring Hollow and has adapted the use of granular activated carbon, considered the most viable treatment option, as a treatment technique.

In June, Carbon Activated Corporation completed reactivation and replacement of granular activated carbon in Filter #3, and the regenerated media was installed in Filters #1 and #2. A comprehensive study plan and sampling program was established for the renewed GAC units at Spring Hollow to study removal efficiency and quantify the media life and needed replacement cycles.

The source investigation of the HFPO-DA compound identified at Spring Hollow progressed with several meetings/discussions with the Virginia Department of Environmental Programs (DEQ) and Department of Health (VDH). The two potential pathways for contamination, air

deposition and waterways (Roanoke River), are the basis for additional investigative activities.

The Authority executed an agreement with the City of Salem Electric Department for emergency assistance with the new electrical system installed at the Regional Water Pollution Control Plant (WPCP). The City of Salem Electric Department maintains stock transformers and materials which may be accessed through this agreement. The agreement is in the form of a standard mutual aid agreement which would also allow Authority staff to assist the City of Salem if needed. Work on the electrical upgrade project at the Regional WPCP was issued substantial completion in November 2021.

The Digester Rehabilitation Project at the Roanoke Regional WPC Plant continued to progress with the coating system and mixing systems installed in digesters two and three. Both hydraulic and air testing were completed in digester three. Hydraulic testing was completed in digester two.

Hazen & Sawyer is working with staff on the design of aeration basin upgrades and design of a new septic receiving station at the Roanoke Regional WPC Plant. WPCP staff are also working with SEH Engineers to review operations at the plant. This study will assist in improving and updating guidance tools to operate the plant under varied flow and load conditions. In conjunction with the aeration upgrades being evaluated by Hazen & Sawyer, SEH will provide the technical expertise to evaluate migrating to ammonia-based aeration control instead of the current BOD based operational controls. Ammonia based aeration will provide operations staff the ability to respond more quickly to treatment issues and provide energy savings through reduced aeration requirements.

The primary agreements with Roanoke Gas on the cooperative Biogas to Renewable Natural Gas (RNG) project were executed, and Roanoke Gas issued a contract and notice to proceed to their selected contractor for construction of the gas treatment system. A public event took place on May 17th, including a groundbreaking, to recognize this unique project which will be the first of its kind in the Commonwealth. The event generated positive press coverage locally as well as in various industry publications.

After seven consecutive months with no wet weather overflows in the sewer system, the streak ended in May with a total of 11 wet weather overflows reported. These overflows were the direct consequence of significant rainfall experienced during the week of May 22nd through May 29th. The total rainfall of 7.03 inches for the month of May was the greatest amount experienced in the Roanoke area since June 2020. Staff also reported a total of seven dry weather overflows for the month.

### **Customer Operations**

With higher than normal call volume due to past due balances and service disconnections resuming in October 2022, the call answer volume percentage averaged 86.7% for the fiscal year compared to 93.3% the prior fiscal year.

As customers converted to electronic payment options, the percentage of manually processed payments continues to decrease. In FY22, 8.0% of payments were manually processed while that percentage was 11.8% the previous fiscal year.

During FY22, 42,654 Miss Utility tickets were requested with an average of 3,555 per month. In comparison, an average of 2,385 tickets were requested each month the last four fiscal years.

Over the past two years, Field Operations staff has focused heavily on reducing the overall amount of “Untouched” sewer lines. Sewer lines are considered “Untouched” when the Authority has no record of any acoustic surveys, pressure cleaning, or TV inspection on a sewer segment. Miles of untouched sewer has decreased from 473 miles at the end of FY19 to 157 at the end of this fiscal year.

Due to the pandemic, the Authority stopped service disconnections related to non-payment and did not resume until October 2021. Customers received financial assistance on their accounts from the Authority Cares program, an Authority program funded from HomeServe commissions, CARES Act funds and ARPA State and Local Fiscal Recovery Funds (SLFRF). Additional funds were authorized by the Commonwealth but had not become available by the end of the fiscal year.

September 2022 represented the month with the highest dollar amount and greatest number of customers benefitting from the Authority Cares program since the program started in 2017 with 178 customers receiving financial assistance in the amount of \$19,329 during September.

At the end of October, the Authority was awarded \$417,281.11 of ARPA State and Local Fiscal Recovery Funds (SLFRF) to apply to customer accounts with a past due debt of 30 days or more as at the end of August 2021. The funds could, however, not be applied to debt that was due before March 12, 2020 or to any tax, fee or deposit charges. During the first weekend of December, staff applied the funds to 1,879 qualifying accounts of which 1,693 were applied via an automated import process and the rest had to be applied manually because the customers had debt prior to March 12, 2020. The average debt paid off per customer was \$222.07.

At the end of August 2021, there were a total of 2,056 accounts subject to disconnection with a total past due debt of \$790,893.19. By March 2022, excluding customers on payment plans, this number had decreased to 416 residential customers with a total past due debt of \$31,334.12 subject to disconnection due to nonpayment.

One of the changes implemented prior to starting the nonpayment service disconnections in October 2021 was to introduce a second outbound call to customers prior to service disconnection. This proved to be effective as 1,707 of the 2,782 (61.4%) customers paid after the first call and 321 of the 1,075 (29.8%) customers paid after the second call.

Setup and testing of the new customer funded financial assistance program, Customer Cares, launched November 1, 2021. Customers may elect to roll the charges on their utility bill up to the nearest dollar or pick an amount of \$1, \$3, \$5, or \$10 to donate every month. Bill inserts to introduce the new program to customers were included with utility bills starting the middle of September, and a webpage was published to explain the program. 255 customers signed up to participate in the program and \$2,192.36 has been contributed to the fund by the end of the fiscal year.

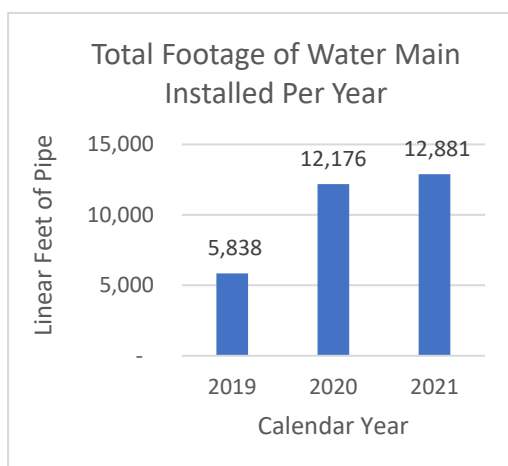
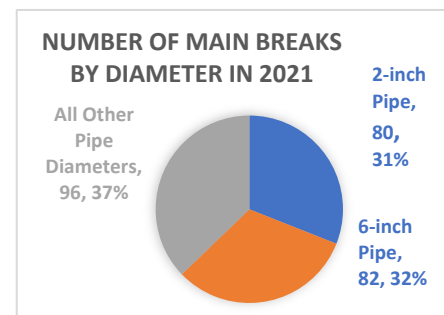


In early fall 2021, 108 remote disconnect meters (Ally meters) were installed at select residential locations. Forty-six of these locations had disconnect service orders during October, and office staff successfully disconnected service at 37 of the locations. This is a success rate of 80.4% for remote disconnects. Service was restored to 31 of these locations, and office staff successfully turned 26 meters on - a success rate of 83.9%.

A new payment kiosk was installed in the lobby of the Coulter building and became fully operational towards the end of January 2022.

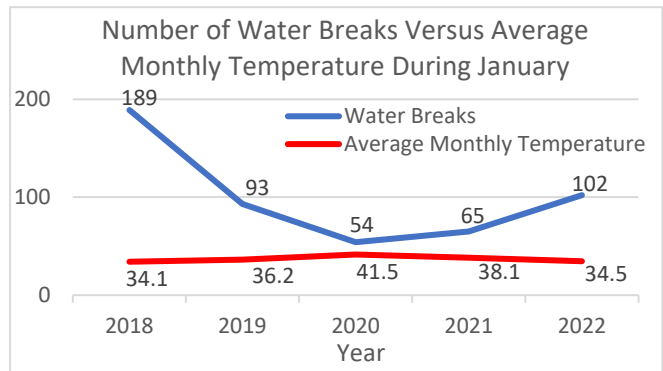
Over the past year, staff promoting automatic bank drafting to Authority customers as the preferred method of payment. This resulted in a 15% increase in the number of bank draft payments received in the past 12 months compared to the prior 12 months. The percentage decrease in the number of mail-in payments was 16% while the Customer Web (online) payments increased by seven percent

During calendar year 2021, the majority of water line breaks were a combination of 2-inch and 6-inch breaks, making up approximately 63% of the main break total for the year.



Field Operations CIP and water construction crews exceeded previous calendar years in the total footage of waterline installed during 2021. The footage includes water mains replaced due to main breaks but is predominantly made up of planned replacements and new installations performed in-house by Field Operations. The associated chart shows a comparison of the last three calendar years.

The Authority experienced a high spike in water breaks from December to January due to the colder weather experienced, most notably around the third week of January when the temperatures were in the low teens at night and stayed below freezing most of the day. A ten-day period during this time accounted for 67 of the month's water breaks. The associated chart compares past January breaks and temperatures over the last five years.



The average monthly temperature corresponds directly to the number of breaks. The five-year water break average is 101 which is influenced by the significant number of breaks in 2018 but on par with this past January. CIP crews completed a sewer replacement project at Hannah Circle near the Roanoke River during January. The project allowed existing problematic 8-inch clay pipe segment that tied into the 42-inch interceptor without an access point such as a manhole to be abandoned. In the event of a backup or a problem on the 8-inch line, staff had no way to remedy the issue without such an access point downstream. Staff solved this by directional-drilling 225 LF of new 8-inch HDPE pipe to realign the sewer segment, installing one new manhole, and making a new tie-in at the existing junction box on the interceptor near the river.

The Authority contracted with Utilis for a satellite leak survey of 398 miles of the distribution network. The survey targeted distribution zones which staff suspected of containing a significant level of nonrevenue water losses. The survey identified 132 points of interest which have been prioritized for additional field investigations.

Field Operations sewer staff procured services from Visu-Sewer to install a cured-in-place pipe liner in portions of the sanitary sewer. The new liner ensures the sewer line is watertight to prevent Inflow and Infiltration. The Contractor is roughly halfway finished with 5,865 LF of lining work completed.

A new customer service outage map solution was launched in early March, providing customers with up-to-date information on water service outages from unplanned breaks, planned outages, and other types of service disruptions. Providing customers on-line access to information regarding outages will also help to minimize call volume to Customer Service staff during unplanned service disruptions.

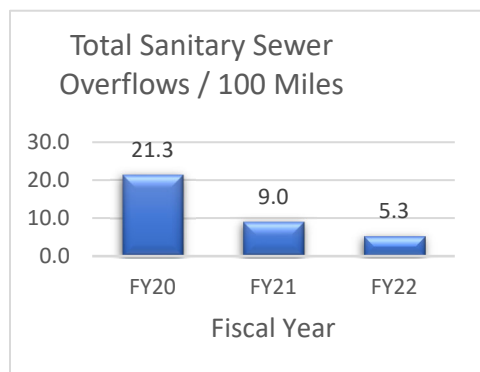
In February, Field Ops staff worked with the City of Roanoke to address a sinkhole that formed near the intersection of Crystal Spring Avenue SW and Serpentine Road SW. During a water main repair in late January at this location, crews noticed there was a very significant void under the waterline that took nearly ten tandem-truck loads of stone to backfill. It was apparent the void was actually the reason for the water main failure, and crews were able to replace the line after the soil was stabilized. Both the Authority and the City of Roanoke monitored the site over the next couple weeks, and it became evident there was a larger issue below the surface as the road and nearby lawn began settling again. Crews were able to isolate the water main by installing two new valves which allow water service to be maintained in the event the main should settle and separate. It was

determined the best method forward would be to excavate the area to a substantial depth, approximately 20 to 30 feet deep, and then bring it back up in compacted lifts to ensure an adequate base structure for the entire area. The Authority and City worked together in this endeavor with Authority staff removing a fire hydrant and gate valves to allow the City's contractor to backfill the area. Once the City's Contractor reached the proper elevation of backfill, the fire hydrant and gate valves were reinstalled and a new 8-inch water main was installed.

Sewer crews also assisted through CCTV inspection of the existing 8-inch clay sewer pipe. A survey was performed multiple times throughout the monitoring period to confirm the clay pipe was not cracking or settling. Since the area had to be excavated and reconstructed, as previously mentioned, sewer crews coordinated with the City to install a new section of 8-inch sewer pipe as well.

Sanitary Sewer Preventative Maintenance crews focused their efforts toward utilizing acoustic surveys to evaluate potential sewer segments as candidates for chemical root treatment later this spring. Through the acoustic surveys, an assessment score was provided which could then be compared to previous scores, or in some cases, it allowed an opportunity to establish a baseline score for future comparison.

Field Operations CIP crews accomplished a major project in a short two-week timeframe during the month of March. The project addressed a section of 24-inch concrete sewer main along Glade Creek in Roanoke County. The streambank had eroded over time and left roughly 70 LF of the sewer main exposed with essentially no structural support under it. Staff worked with regulatory agencies and mobilized quickly to perform the work prior to time-of-year stream restrictions. Once the new pipe was confirmed to be on proper grade, the area around the pipe was backfilled and the pipe was armored with stone rip-rap on top of filter fabric. The final result was a heavily armored streambank that should resist erosion for years to come and protect our sewer asset.



The associated chart compares the total sewer overflows (wet and dry weather) per 100 miles of sanitary sewer line for the past three fiscal years. When breaking the FY22 total down to a monthly average, it results in only 0.44 total overflows per month per 100 miles, well below industry standard of 2 per 100 miles of pipe per month and best practice of 0.5 per 100 miles of pipe per month.

The Authority's IT staff worked on several cyber security projects including implementation of two factor authentication for employees logging into software systems as well as additional employee training. Staff also installed a new documentation management system. The Roanoke Valley Broadband Authority has completed a project to extend fiber optic cable across I-81 to enable connection of the Carvins Cove Water Treatment Plant to the rest of the Authority's network.

Staff continue to work on the lead service line (LSL) identification project. A private side material form for customers to report their service line material and inventory reports

linked to the GIS are on the Authority's website. Thus far, Meter Operations staff has visually inspected pipe material at 27,080 meter boxes and has been able to identify the pipe material of 25,639 laterals on the public side and 25,566 on the private side. No lead pipes have been found. Data for the year in which properties in the Authority's service area was built has been added into our system of record for the LSL data and is used in deriving the pipe material for the LSL inventory.

Progress is being made on the Field Operations Old Lot - Large Fleet and Equipment Garage Building Project with demolition that started in October. The next phase in the project, rough grading the site to prepare a pad for the proposed building was performed by Field Operations CIP crews. With more fill material required to balance the site, staff was able to obtain some of the excess, good quality fill material from a nearby private development project to utilize at the ULS site. Field Ops crews also began installing the storm sewer infrastructure during April. The building contractor, Price Buildings, delivered the new metal building material and started foundation construction in May.

### **Administrative Services**

From the start of the pandemic in 2020 through June 2022, eighty employees tested positive for COVID-19. This fiscal year, the Authority followed revised return to work guidelines issued by the CDC/VDH and worked with Carilion to allow employees to return to work after five days with a negative "rapid" antigen test and use of a KN95 face mask for five days more days.

The Authority launched a DEI Committee during the fiscal year. The IDEA Team, an acronym for Inclusion, Diversity, Equity, Action, consists of twelve employees from all departments of the Authority, with the addition of Mike McEvoy and board member Harvey Brookins. Being facilitated by Patice Holland from Wood Rogers PLC, the team has developed a mission statement and objectives for four working groups of Governance, Special Events, Education/Training and Recruitment/Retention.

Bids were received for the replacement of the Service Elevator in the Coulter Building. The project was awarded to Thor Construction in the amount of \$559,300 with a Notice to Proceed issued on December 7th, 2021. This project will modernize the elevator car and shaft at the back of the Coulter building. It will also provide the benefit of elevator access to the alleyway between Coulter and Patrick Henry and to the basement, not accessible by the current elevator.

The Authority's Master Planning Consultant (CHA/CDM Smith) submitted the draft Phase 1 master plan for Botetourt and Franklin Counties. Staff incorporated recommendations into capital planning efforts. Phase 2 will focus on Roanoke County and Roanoke City and will commence after calibration of the distribution system model is completed.

Grindstaff Underground successfully completed the crossing of Little Creek on Grassy Hill Road in Franklin County. This challenging pipe alignment was completed using horizontal directional drilling under the stream and through a narrow public right of way. This item of work is a critical component of a larger effort to expand water distribution from the Summit View Business Park to the Uttermost Company in Franklin County. Sixteen new customers

have requested service from this extension. As a result of this project, staff is working on planning another extension project in the same area to address residents identified by DEQ as having contaminated wells.

Mendon Pipeline completed the Berkley-King Sewer Replacement Project. This project increased capacity and eliminated inflow and infiltration concerns in a portion of Roanoke City. This project was constructed on a similar timeframe as a large residential development across the street. The Authority was able to accommodate a tie-in for the developer during the course of its work, avoiding additional costs to the developer.

A 10% pay increase for staff was implemented with the first pay period in December. Resignations following the pay increase announcement decreased significantly with only one employee resignation in the two month period. Additionally, the Authority's compensation consultant, Segal, started the Compensation and Classification study during the spring. The first phase includes a compensation survey with twelve comparable organizations and comparison with private industry published studies. The second phase will involve detailed review of class plan and job descriptions with staff of all levels providing input.

Fleet ordering for the Authority has slowed significantly due to supply shortages. Vehicle manufacturers are producing fewer vehicles because of chip shortages, and manufacturing facilities have stopped taking new orders and are retooling early for next year's vehicle models. Any vehicles available for purchase are directly from current stock at dealership lots. A slight change over current policy is that the typical Authority fleet vehicle will not necessarily be white, but could also be silver, blue or black until supplies stabilize.

To hedge against supply chain issues, Engineering Services procured a contract to pre-purchase 24-inch ductile iron pipe and fittings for use on several upcoming capital projects intended to improve utilization of the Authority's North Loop transmission and distribution system, including the Thompson Memorial and Angel Lane Extension projects. This procurement will facilitate availability of piping when needed upon completion of design and procurement of the contractors for installation. Additionally, the Authority received letters from every major ductile iron pipe manufacturer in the US of additional surcharges to all pipe purchases. The 10,000 feet of pipe currently being received by the Authority will not be subject to this surcharge.

Similarly, a local quarry has informed customers of a surcharge to be added to all deliveries due to rising fuel costs at a rate of 1% for every \$0.10 increase in diesel over \$3.50 per gallon.

The Authority reported 27 OSHA recordable injuries for calendar year 2021 which is up slightly from previous years. The most common injury type, at 12 injuries, was sprains and strains.

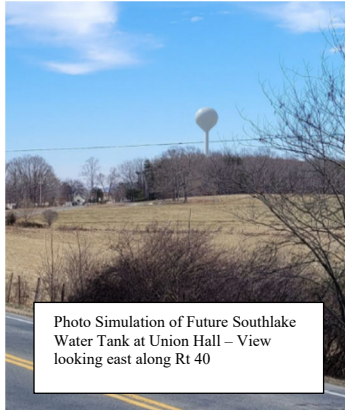


Photo Simulation of Future Southlake Water Tank at Union Hall – View looking east along Rt 40

Staff has been working with representatives of Franklin County on a cooperative project to develop a small community water system in the southern Smith Mountain Lake area. The Southlake Water System project is one of several water/sewer infrastructure projects identified through the Authority's master planning efforts and will help support initial growth and development in the Village Center as envisioned in the County's Union Hall Village Plan. This project, which has received \$1.5 million of funding from Franklin County, has been prioritized by County officials as their top water/sewer infrastructure project among those identified by the Authority.

The initial project budget for development of this water system, which includes treatment, storage and distribution piping, is \$3,000,000 with funding split 50/50 between the Authority and Franklin County. The project includes a 200,000 gallon elevated storage tank, 44,000 gpd treatment facility (with provisions for future expansion), and initial distribution piping within the Union Hall Village Center.

Engineering Services Division Staff participated in a community meeting on the Union Hall Village Plan update hosted by Franklin County Planning and Community Development where nearly 100 citizens attended an information session followed by presentations by the County's planning consultant.

Procurement has been completed and term contracts awarded to fourteen engineering consulting firms for comprehensive water and wastewater engineering and related services. The term contracts provide a mechanism whereby qualified firms are under contract and the best-suited firm for a given project assignment may be called upon to provide support on an as-needed basis through issuance of individual project task orders. The initial contracts are for one (1) year and may be renewed for up to four (4) additional one-year terms. The firms selected are: Hazen, WRA, CHA, RK&K, Kimley Horn, Mattern & Craig, Gannett Fleming, CDM Smith, Hurt & Proffitt, Draper Aden Associates, Lumsden Associates, PC, SEH, Wiley Wilson, and Parker Design Group.

A new 10- and 20- year Renewal and Replacement CIP plan is being developed for the Authority's water pipe infrastructure utilizing 10+ years of asset data in a new data-based workflow. The analysis identifies ideal pipe segments to include in future planned renewal or replacement projects to reduce the likelihood of future breaks and improve service. The Renewal and Replacement CIP will be integrated into the Authority's overall CIP program development to prioritize projects and help inform cost projections over time and allocation of future capital expenditures.

Engineering Services' Asset Management team, working with other Division representatives, has been developing documents for an upgrade or replacement of the Authority's computerized maintenance management system (CMMS). The Authority currently uses multiple software solutions across its different functions to track asset inventory, schedule maintenance, understand asset performance, and support maintenance activities across linear and vertical assets. Three shortlisted vendors, KCI, Timmons, and CentralSquare,

will be eligible to submit proposals for consideration. As part of the Technology and Innovation objective included in the Authority's Strategic Plan, this effort will improve the data collection and analysis tools needed to inform future decision-making and capital improvement planning.

Several grant and loan applications were submitted to the Virginia Department of Health (VDH) ahead of an early April deadline for funding through the Bipartisan Infrastructure Law as well as federal funds provided to VDH for assistance with the revisions to the Lead and Copper Rule. Notification of awards is anticipated in FY23.

The Public Relations team coordinated Creek Week, a program for all 600+ sixth graders in Franklin County. The program involves in-class presentations on watersheds and scientific study and a watershed experience program at Powder Mill Creek on the property of Benjamin Franklin Middle School. Staff organized the program and recruited volunteers from the Blue Ridge Soil and Water Conservation District, Master Naturalist, Save Our Streams and Franklin County High Schools. Students had the opportunity to evaluate the creek's water quality using indicator tests, probeware and classification of benthic macroinvertebrates. All indications suggested that the water quality was healthy for aquatic life.

The Authority held a successful on-site job fair at the Field Operations Center on Thursday, June 23rd. To get the word out about the job fair, new advertisements techniques not used before were employed including radio announcements, yard signs, magnetic car decals and signs outside the Field Operations Center. The eleven-hour event (7am to 6pm) was a success with 54 candidates attending and twenty-four of those candidates submitting applications. Reviewing applications and contacting applicants continues as positions become available. The event involved help from all areas and showcased all areas of the Authority. In addition to a success for hiring, the event provide an opportunity for all departments of the Authority to mingle and learn from each other which has not occurred often due to the pandemic.

Carvins Cove once again hosted the swim portion of the IRONMAN 70.3 for almost 1,700 athletes representing every state and multiple countries around the globe. The Water Authority had an early-rising and hardworking team of volunteers to help collect morning gear bags before the race, collect wetsuits after the swim event, and cheer on the athletes.

The Authority is excited to announce that Dr. Irene "Tesda" Okioga, P.E., has joined the staff as Director of Engineering Services. Dr. Okioga was most recently Capital Programs Manager with Charlotte Water and prior worked for the consulting firm Black and Veatch.

## **Relevant Financial Policies**

### **Accounting System & Budget Control**

The Authority's accounting records are maintained on an accrual basis under which revenues are recognized when earned and expenses are recognized when incurred. Accounting functions are separated to the extent possible for a small sized staff. The County of

Roanoke, under the Operating Agreement between the City of Roanoke and County of Roanoke provides fleet and fuel management services to the Authority.

Under the Water and Waste Authorities Act, the Authority is not required to adopt a legal budget, but its bylaws and bond covenants states the Authority's Board of Directors must adopt an annual budget before the first day of each fiscal year. The budget is prepared by the finance and administration divisions and serves as a framework for the Authority's financial planning for the year. The Executive Director has authorization from the Board to move funds within the line item budget without additional Board approval. A report of revenues and expenses is presented to the Board each month at the public meeting.

The annual budget process includes use of rate modeling to prepare a five year plan which is used to ensure that short and long term financial objectives are being met. A five year Operational and Maintenance forecast and a five year Capital Improvement Plan are prepared annually in the budget process.

The Authority's finances are organized into two funds, Water and Water Pollution Control. The Water fund fully supports debt incurred for water facilities and the water capital improvement plan, as well as fully funding the water operations division and 50% of the operation of field operations, engineering services, finance and administration, and utility internal services.

The WPC Fund supports debt incurred for wastewater facilities, the wastewater and water pollution control plant capital improvement plans, the operations of the water pollution control division, and 50% of the operations of field operations, engineering services, finance and administration, and utility internal services.

The Authority has in place a fiscal policy as a component of its financial strategic plan that will preserve and improve the sound financial condition of the Authority. The policy outlines the targeted levels and timeframe to fund several reserve funds including contingency reserve and emergency operating reserve funds. These funds will accumulate to reach an appropriate level over a 10 to 15 year period.

### **Risk Management**

The Authority relies on several techniques to minimize risk: safety training for employees, proper maintenance of equipment and facilities, continued observation for potential hazards, and prompt response upon discovery of a problem. Not only do these actions reduce potential risks to the Water Authority, they are also sound business practices that improve customer service and overall organizational performance. Worker's compensation, property, vehicle, equipment and liability insurance services are carried by Virginia Municipal League. Note 10 of the Notes to Financial Statements provides additional information on risk management.

### **Cash Management**

Cash and investments are maintained by the Authority. An investment policy acts to guide the investment of Authority funds in accordance with the terms of the Virginia Water and

Waste Authorities Act. The policy's primary objectives are safety of principal, liquidity of funds and yield on investment. Note 2 of the Notes to Financial Statements will provide the reader with additional information.

### **Debt Administration**

Total long-term debt obligations outstanding for the Authority as of June 30, 2021 was \$143,014,040. Of this amount, \$74,701,662 is for the Water fund and \$68,312,378 for the WPC fund. A debt policy is in place which sets forth comprehensive guidelines for the financing of capital expenditures. Objectives of the policy are to ensure the credit rating of the Authority stays strong and that the Authority conforms to the applicable state and federal laws and existing indenture covenants. Annual review of specific debt ratios is required. Note 4 of the Notes to Financial Statements will provide additional information to the reader.

### **Asset Management**

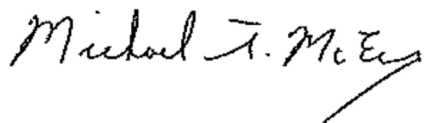
The Authority is committed to a best practices approach to managing its infrastructure capital assets that provides a means to protect, maintain, or improve the asset value of our water distribution system and wastewater collection systems with planned maintenance and repair based on predicted deterioration of the systems. Major parts of the asset management program are the five - year capital plan, the geographical information system (GIS), the financial rate model, the work order system and the SCADA system.

### **Acknowledgements**

The Government Finance Officers Association of the United States and Canada (GFOA) awarded for a seventeen straight year the Certificate of Achievement for Excellence in Financial Reporting to the Western Virginia Water Authority for its annual comprehensive financial report (ACFR) for the fiscal year ended June 30, 2021. In order to be awarded a Certificate of Achievement, the Authority had to publish an easily readable and efficiently organized ACFR that satisfies both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current ACFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

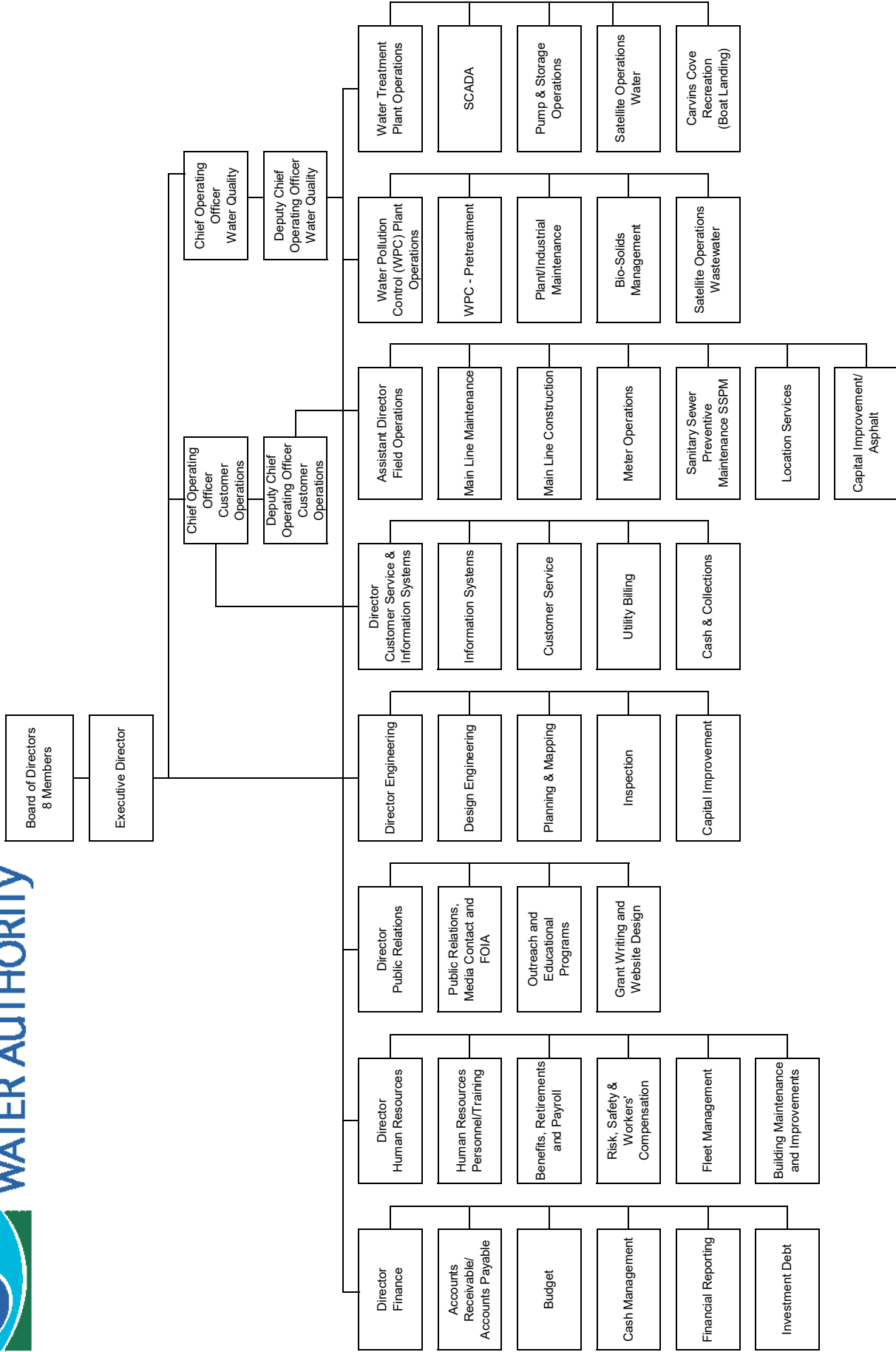
We would like to express our appreciation to the members of the finance department who have worked with dedication to prepare this report. We also wish to thank the Board of Directors of the Authority for their commitment to financial excellence and their support.



Michael T. McEvoy  
Executive Director



Tammy Lawfield  
Director of Finance





Government Finance Officers Association

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**Western Virginia Water Authority**

For its Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

June 30, 2021

*Christopher P. Morrill*

Executive Director/CEO

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## **FINANCIAL SECTION**

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**Independent Auditors' Report**

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**To the Board of Directors  
Western Virginia Water Authority  
Roanoke, Virginia**

**Report on the Audit of the Financial Statements**

***Opinion***

We have audited the accompanying financial statements of the business-type activities of the Western Virginia Water Authority, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Western Virginia Water Authority's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the business-type activities of the Western Virginia Water Authority, as of June 30, 2022, and the changes in financial position, and cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

***Basis for Opinion***

We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Western Virginia Water Authority, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

***Change in Accounting Principle***

As described in Note 18 to the financial statements, in 2022, the Authority adopted new accounting guidance, GASB Statement No. 87, *Leases*. Our opinion is not modified with respect to this matter.

***Responsibilities of Management for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Western Virginia Water Authority's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the *Specifications for Audits of Authorities, Boards, and Commissions* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards, *Government Auditing Standards*, and the *Specifications for Audits of Authorities, Boards, and Commissions*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Western Virginia Water Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Western Virginia Water Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and schedules related to pension and OPEB funding as listed in the table of contents be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's

responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

### ***Supplementary Information***

Our audit was conducted for the purpose of forming opinion on the financial statements that collectively comprise Western Virginia Water Authority's basic financial statements. The accompanying supporting schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

### ***Other Information***

Management is responsible for the other information included in the annual report. The other information comprises the introductory and statistical sections but does not include the basic financial statements and our auditors' report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

### ***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated November 17, 2022, on our consideration of Western Virginia Water Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of Western Virginia Water Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Western Virginia Water Authority's internal control over financial reporting and compliance.

*Robinson, Fauser, Cox Associates*

Blacksburg, Virginia  
November 17, 2022

**Western Virginia Water Authority  
Management's Discussion and Analysis (MD&A)  
For the Year Ended June 30, 2022**

As management of the Western Virginia Water Authority, (the "Authority"), we offer readers of our financial statements this narrative overview and analysis of the financial activities of the Authority for the fiscal year ended June 30, 2022. In addition to this narrative, we refer readers to the transmittal letter, as referenced in the table of contents.

**Financial Highlights**

- The assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources at the close of the fiscal year by \$372,162,550 for the Water fund and \$275,926,451 for the WPC fund. Of this amount \$28,860,962 for the Water fund and \$12,578,663 for the WPC fund are unrestricted net position and may be used to meet the Authority's ongoing obligations to customers and creditors.
- Operating revenues for the Water fund increased \$1,016,653 over 2021 levels due primarily to an increase in customer charges and other revenues. Operating revenues for the WPC fund increased \$1,156,608 over 2021 due primarily to increase in customer charges and other revenues.
- Operating expenses for the Water fund increased \$152,675 from 2021 due to increases in internal services and depreciation and partially offset with decreases in field operations and other operating expenses. Expenses decreased \$91,618 for the WPC fund from 2021 due to decreases in other operating expenses.
- Total long-term debt for the Authority increased \$15,514,265 in 2022 due to issuances of long term debt on both the Water and WPC Funds. Water fund debt increased \$8,624,321, and the WPC fund debt also increased for the year by \$6,889,944.

**Overview of the Financial Statements:**

This discussion and analysis is intended to serve as an introduction to the Authority's basic financial statements. Since the Authority is engaged only in business - type activities, its basic financial statements are comprised of two components: 1) enterprise fund financial statements and 2) notes to the financial statements. This report also contains other supplementary information in addition to the basic financial statements.

**Enterprise fund financial statements.** The enterprise fund financial statements are designed to provide readers with a broad overview of the Authority's finances, in a manner similar to a private sector business.

The *statement of net position* presents information on the Authority's 1) assets and deferred outflows of resources and 2) liabilities and deferred inflows of resources with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating.

The *statement of revenues, expenses and changes in net position* presents information showing how the Authority's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods (e.g. earned but unused vacation leave).

The basic enterprise fund financial statements can be found immediately following this MD&A, as listed in the table of contents.

**Notes to financial statements.** The notes provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes to financial statements follow the basic financial statements, as listed in the table of contents.

## Overview of the Financial Statements (Continued)

**Other information.** In addition to the basic financial statements and accompanying notes, this report also presents certain required supplementary information concerning the Authority's progress in funding its obligation to provide pension and OPEB benefits to its employees.

### Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of an Authority's financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$648,089,001 and \$620,919,789 at June 30, 2022 and 2021, respectively. In the Water fund, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$372,162,550 and \$357,755,817 at June 30, 2022 and 2021, respectively. For the WPC fund, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$275,926,451 and \$263,163,972 at June 30, 2022 and 2021, respectively.

By far the largest portion of the Water and WPC fund's net position reflects its investment in capital assets, less any related debt used to acquire those assets that is still outstanding. For the Water fund, 91.9% is invested in capital assets net of related debt. For the WPC fund, the percentage is 95.0%. The Authority uses these capital assets to provide services to its customers; consequently, these assets are not available for future spending. Although the Authority's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be used to liquidate these liabilities.

Table A presents the Condensed Statement of Net Position for the years ended June 30, 2020 and 2019 by fund. At June 30, 2021, and 2020, unrestricted net position was \$28,860,962 and \$26,234,892, respectively, for the Water Fund. Of total net position for the Water fund, unrestricted net position represented 7.75% and 7.3% at June 30, 2022 and 2021, respectively. At June 30, 2022 and 2021, unrestricted net position was \$12,578,663 and \$12,138,249, respectively, for the WPC Fund. Of total net position for the WPC fund, unrestricted net position represented 4.6% and 4.6% for fiscal year 2022 and 2021, respectively.

Table A

	Condensed Statement of Net Position					
	Years ended June 30, 2022 and 2021					
	Water Fund		Water Pollution Control Fund		Total	
	2022	2021*	2022	2021*	2022	2021*
<b>Assets:</b>						
Current and other assets	\$ 55,535,902	\$ 34,811,137	\$ 30,249,684	\$ 20,234,222	\$ 85,785,586	\$ 55,045,359
Capital assets, net	400,853,495	394,742,898	319,157,620	308,685,312	720,011,115	703,428,210
Total assets	\$ 456,389,397	\$ 429,554,035	\$ 349,407,304	\$ 328,919,534	\$ 805,796,701	\$ 758,473,569
Deferred outflows of resources	\$ 1,605,952	\$ 1,617,665	\$ 1,456,543	\$ 1,410,245	\$ 3,062,495	\$ 3,027,910
<b>Liabilities:</b>						
Long-term debt outstanding	\$ 71,057,467	\$ 62,433,146	\$ 64,447,588	\$ 57,557,644	\$ 135,505,055	\$ 119,990,790
Other liabilities	8,850,583	10,602,846	7,467,504	9,313,296	16,318,087	19,916,142
Total liabilities	\$ 79,908,050	\$ 73,035,992	\$ 71,915,092	\$ 66,870,940	\$ 151,823,142	\$ 139,906,932
Deferred inflows of resources	\$ 5,924,749	\$ 379,891	\$ 3,022,304	\$ 294,867	\$ 8,947,053	\$ 674,758
<b>Net Position:</b>						
Net investment in capital assets	\$ 342,088,180	\$ 331,520,925	\$ 262,038,095	\$ 251,025,723	\$ 604,126,275	\$ 582,546,648
Restricted for net pension asset	1,213,408	-	1,309,693	-	2,523,101	-
Unrestricted	28,860,962	26,234,892	12,578,663	12,138,249	41,439,625	38,373,141
Total net position	\$ 372,162,550	\$ 357,755,817	\$ 274,616,758	\$ 263,163,972	\$ 648,089,001	\$ 620,919,789

\*Note: Fiscal year 2021 figures shown in this table were unadjusted for the impact of GASB No 87.

## Financial Analysis (Continued)

The total long-term debt outstanding to net capital assets is 17.7% for the Water fund and 20.2% for the WPC fund at June 30, 2022.

The total net long-term debt outstanding to net capital assets are 14.52% for the Water fund and 17.42% for the WPC fund at June 30, 2022. The percentage decreased slightly from 2021 for both the Water and WPC funds. This ratio shows the existing debt leverage of capital assets and indicates that the Authority is not heavily leveraged relative to the size of its net capital assets.

The current ratio for the Water fund for the years ended June 30, 2022 and 2021 was 2.7 and 2.37 respectively. The current ratio for the WPC fund for the years ended June 30, 2022 and 2021 was 1.39 and 1.40, respectively. The combined funds have a current ratio for the years ended June 30, 2022 and 2021 was 2.09 and 1.93, respectively. The current ratio compares current assets to current liabilities. This ratio is a liquidity ratio and shows the ability of the company to pay its current liabilities with its current assets.

Table B presents the Condensed Statement of Revenues, Expenses and Changes in Net Position for the years ended June 30, 2022 and 2021 by each fund.

Table B

Condensed Statement of Revenues, Expenses and Changes in Net Position  
Years ended June 30, 2022 and 2021

	Water Fund		Water Pollution Control Fund		Total	
	2022	2021*	2022	2021*	2022	2021*
<b>Operating Revenues:</b>						
Customer charges	\$ 31,593,057	\$ 31,275,232	\$ 31,060,128	\$ 30,145,178	\$ 62,653,185	\$ 61,420,410
Connection fees	307,678	260,392	97,000	95,250	404,678	355,642
Bulk sales	205,784	242,530	1,878,673	2,234,472	2,084,457	2,477,002
Fire services	1,590,309	1,530,169	461,150	474,893	2,051,459	2,005,062
Other revenues	1,459,417	831,269	1,181,990	572,540	2,641,407	1,403,809
Total operating revenues	\$ 35,156,245	\$ 34,139,592	\$ 34,678,941	\$ 33,522,333	\$ 69,835,186	\$ 67,661,925
<b>Operating Expenses:</b>						
Operating expenses	\$ 8,931,469	\$ 9,098,775	\$ 10,073,870	\$ 10,186,864	\$ 19,005,339	\$ 19,285,639
Field operations	4,722,862	4,861,294	4,232,589	4,725,550	8,955,451	9,586,844
Internal Services	3,869,659	3,625,982	3,869,658	3,625,981	7,739,317	7,251,963
Depreciation and amortization expense	8,655,022	8,440,286	7,989,804	7,719,144	16,644,826	16,159,430
Total operating expenses	\$ 26,179,012	\$ 26,026,337	\$ 26,165,921	\$ 26,257,539	\$ 52,344,933	\$ 52,283,876
Operating income	\$ 8,977,233	\$ 8,113,255	\$ 8,513,020	\$ 7,264,794	\$ 17,490,253	\$ 15,378,049
<b>Nonoperating Income (Expenses):</b>						
Interest earned	\$ 267,258	\$ 137,056	\$ 108,873	\$ 148,391	\$ 376,131	\$ 285,447
Rental income	829,462	761,067	68,973	69,302	898,435	830,369
Gain (loss) on disposal of assets	27,747	303,563	9,740	42,327	37,487	345,890
Nonoperating contributions	531,584	538,346	-	-	531,584	538,346
Rental expense	(107,659)	(113,915)	(107,659)	(113,915)	(215,318)	(227,830)
Interest expense	(1,923,732)	(1,860,521)	(1,328,503)	(1,342,821)	(3,252,235)	(3,203,342)
Total nonoperating income (expenses)	\$ (375,340)	\$ (234,404)	\$ (1,248,576)	\$ (1,196,716)	\$ (1,623,916)	\$ (1,431,120)
Income (loss) before capital contributions	\$ 8,601,893	\$ 7,878,851	\$ 7,264,444	\$ 6,068,078	\$ 15,866,337	\$ 13,946,929
Capital contributions	5,804,840	8,571,081	5,498,035	3,318,626	11,302,875	11,889,707
Changes in net position	\$ 14,406,733	\$ 16,449,932	\$ 12,762,479	\$ 9,386,704	\$ 27,169,212	\$ 25,836,636
Net position, beginning of year	357,755,817	341,305,885	263,163,972	253,777,268	620,919,789	595,083,153
Net position, end of year	\$ 372,162,550	\$ 357,755,817	\$ 275,926,451	\$ 263,163,972	\$ 648,089,001	\$ 620,919,789

\*Note: Fiscal year 2021 figures shown in this table were unadjusted for the impact of GASB No 87.

## Review of Operations

Operating revenues for the Water fund increased \$1,016,653 from the year ended June 30, 2021 to the year ended June 30, 2022. Customer charges increased 1% in fiscal year 2022. Bulk sales decreased \$36,746 from 2021 revenues due to decreased quantities sold. Income from connection fees increased by \$47,286. Fire service revenues increased \$60,140 over last year while other revenues increased from last year by \$628,148.

Operating revenues for the WPC fund increased \$1,156,608 from the year ended June 30, 2021 to year ended June 30, 2022. Customer charges increased \$914,950 or 3% over 2021. Revenue from other charges increased \$609,450 from the year ended June 30, 2021 to the year ended June 30, 2022. Bulk sales decreased by \$355,799 from fiscal year 2021.

The operating margins for the Water and WPC funds were 50% and 48%, 48% and 45%, respectively, for the years ended June 30, 2022 and 2021. The operating margin indicates the financial margin by comparing operating expenses (less depreciation) with operating revenues. A healthy operating margin indicates that the organization has adequate funds to cover interest and capital requirements. Median operating margins typically range from 30% to 40% for water and sewer utilities.

## Capital Asset and Debt Administration

**Capital Assets.** The Authority's investment in capital assets (net of accumulated depreciation) totaled \$720,011,115 and \$703,428,210, at June 30, 2022 and 2021. Tables C and D present the Net Capital Assets by fund for the years ended June 30, 2022 and 2021.

The Water funds' net capital assets increased \$6,110,597 or 1.5% from June 30, 2021 to June 30, 2022. Capital assets increased \$14,657,757 during the year while depreciation expense totaled \$8,655,022. Construction in progress balances decreased \$18,899,045 from June 30, 2021 to June 30, 2022.

Net capital assets for the WPC fund increased \$10,472,308 from June 30, 2021 to June 30, 2022. Construction in progress decreased \$6,868,648 as projects were completed. Depreciation expense totaled \$7,989,804. Capital projects closed and assets placed in service for the WPC fund included various sewer line projects.

Additional information regarding the Authority's capital assets is located in Note 3 of the Notes to Financial Statements.

Capital Asset and Debt Administration: (Continued)

Table C

**Capital Assets - Water Fund**  
**Net of Accumulated Depreciation**  
**Years Ended June 30, 2022 and 2021**

	Fiscal Year	
	2022	2021*
Water supply	\$ 74,112,767	\$ 73,820,336
Treatment	73,444,769	72,979,073
Transmission and distribution lines	231,647,209	210,964,970
Pumping and storage	28,345,654	19,936,363
Services	91,997,237	89,063,408
General equipment and transportation	16,853,928	16,467,007
Less accumulated depreciation	(145,701,871)	(137,154,711)
Right-to-use assets:		
Land	53,995	-
Buildings and systems	18,672	-
Less accumulated amortization	(35,472)	-
 Net depreciable assets	 \$ 370,736,888	 \$ 346,076,446
 Construction in progress	 \$ 10,406,608	 29,305,653
Land	19,709,999	19,360,799
 Net capital assets	 \$ 400,853,495	 \$ 394,742,898

\*Note: Fiscal year 2021 figures shown in this table were unadjusted for the impact of GASB No 87.

Capital Asset and Debt Administration: (Continued)

Table D

Capital Assets - Water Pollution Control Fund  
 Net of Accumulated Depreciation  
 Years Ended June 30, 2022 and 2021

	Fiscal Year	
	2022	2021*
Collection facilities	\$ 285,441,661	\$ 273,707,318
General Plant	62,472	62,472
Treatment	151,427,205	138,908,122
Pumping and metering	7,186,802	7,186,802
Services	29,711,310	29,451,310
General equipment and transportation	16,569,413	15,946,575
Other Plant	319,693	319,693
Power generation equipment	385,272	385,272
Less accumulated depreciation	(191,502,345)	(183,611,952)
Right-to-use assets:		
Land	31,129	-
Buildings and systems	31,750	-
Less accumulated amortization	(33,294)	-
Net depreciable assets	\$ 299,631,068	\$ 282,355,612
Construction in progress	16,633,631	23,502,279
Land	2,892,921	2,827,421
Net capital assets	\$ <u>319,157,620</u>	\$ <u>308,685,312</u>

\*Note: Fiscal year 2021 figures shown in this table were unadjusted for the impact of GASB No 87.

Major capital asset events during the fiscal year ended June 30, 2022 included the following:

- Replacement of the Washington Heights waterline took place totaling \$1,282,430.
- A waterline replacement project from Thompson Memorial to Kessler Mill totaled \$1,651,126.
- The Plantation Road waterline replacement project totaled \$535,796.
- Improvements to water storage tanks totaled \$519,256.
- Work on the Digester Improvements project continued at the Regional Water Pollution Control Plant totaling \$6,165,360.
- Sewer work in the Summit View Business Park continued totaling \$1,279,323 in fiscal year 2022.
- The Ore Branch Sewer Stabilization project continued in fiscal year 2022 totaling \$1,577,200.

## Capital Asset and Debt Administration: (Continued)

Major capital asset events during the fiscal year ended June 30, 2021 included the following:

- Upgrades to Muse Spring and Crystal Spring Water Treatment Plants took place in fiscal year 2021 totaling \$4,673,159.
- A waterline replacement project on Orange Avenue totaled \$313,280.
- Sewer work in the Summit View Business Park continued totaling \$4,895,687 in fiscal year 2021.
- Interceptor rehabilitation projects along Lick Run and Old Roanoke River totaled \$3,020,976.
- Kennedy Street sewer replacement totaled \$1,465,036.
- Upgrades to the Regional Wastewater Treatment Plant continued totaling \$1,446,622.

**Debt Administration.** Table E presents the long-term debt outstanding of the Authority at June 30, 2022 and 2021. Note 4 of the Notes to Financial Statements provides additional information about the activity during the fiscal year and balances at June 30, 2022.

During the fiscal year ended June 30, 2022, the Water Fund closed on a loan with the Virginia Resources Authority totaling \$14,065,000 and assumed debt from the Town of Boones Mill acquisition totaling \$148,434. The Water Fund retired debt totaling \$6,676,657. The WPC fund continued drawing on the 2021 VRA loan for the Digester Project with requisitions totaling \$3,925,000, closed on a loan with the Virginia Resources Authority totaling \$8,470,000 and assumed debt from the Town of Boones Mill acquisition totaling \$195,547. The WPC fund also retired debt totaling \$6,530,397 in fiscal year 2022.

During the fiscal year ended June 30, 2021, the Water Fund refunded/consolidated three bank loans totaling \$9,774,110 and retired debt totaling \$6,355,287. The WPC fund began drawing on the 2021 VRA loan for the Digester Project with requisitions totaling \$598,159. The WPC fund also retired debt totaling \$6,226,466 in fiscal year 2021.

Capital Asset and Debt Administration: (Continued)

Table E

Long-Term Debt Outstanding  
Years Ended June 30, 2022 and 2021

	Fiscal Year	
	2022	2021*
<b>Water Fund</b>		
Revenue bonds	\$ 66,359,466	\$ 58,402,075
Locality compensation payments	-	420,614
Premiums on issuances	4,656,772	3,610,457
Leases payable	41,229	-
	<u>71,057,467</u>	<u>62,433,146</u>
Long-term debt	\$ <u>71,057,467</u>	\$ <u>62,433,146</u>
<b>Water Pollution Control Fund</b>		
Revenue bonds	\$ 57,870,540	\$ 50,795,391
Locality compensation payments	3,780,000	4,795,000
Premiums on issuances	2,767,009	1,967,253
Leases payable	30,039	-
	<u>64,447,588</u>	<u>57,557,644</u>
Long-term debt	\$ <u>64,447,588</u>	\$ <u>57,557,644</u>

\*Note: Fiscal year 2021 figures shown in this table were unadjusted for the impact of GASB No 87.

In fiscal year 2022, the Authority continued drawing funds for the Digester project at the Regional Water Pollution Control Plant in the amount of 3,925,000.

In fiscal year 2021, the Authority submitted the first draw for the Digester project at the Regional Water Pollution Control Plant in the amount of 598,159.

The Authority has a debt policy which sets forth comprehensive guidelines for the financing of capital expenditures. The policy details a number of ratios to be monitored throughout the year and in the five year budget plan to ensure that the debt level and creditworthiness of the Authority remain sound.

The Authority's debt service coverage for the year ended June 30, 2022 was 2.25 times for the Water fund. The Water fund's debt service coverage for the year ended June 30, 2021 was 2.14 times. The debt service coverage for the WPC fund was 2.21 times for the year ended June 30, 2022. The debt service coverage for the WPC fund was 2.05 times for the year ended June 30, 2021. The Authority's bond issues require a minimum coverage of 1.15 times for its water and wastewater revenue bonds. Locality compensation debt of the Water and WPC funds require only 1.0 times. The Authority has met its debt service coverage for the fiscal year.

## **Capital Asset and Debt Administration: (Continued)**

Net take down is a ratio to measure the share of revenues remaining after payment of operating expenses. The net take down for the Water fund for the year ended June 30, 2022 is 50% and 48% for the WPC fund. The ratio for the combined funds is 49%. The net take down for the Water fund for the year ended June 30, 2021 was 48% and 45% for the WPC fund. The ratio for the combined funds was 47% for fiscal year 2021.

Total outstanding long-term debt per customer is a measurement that indicates the existing debt burden attributable to each customer. The total outstanding long-term debt at year ended June 30, 2022 per customer is \$1,149 for the water fund and \$1,135 for the WPC fund. The total outstanding long-term debt at year ended June 30, 2021 per customer was \$1,014 for the water fund and \$1,017 for the WPC fund. This information is presented in Table 11.

### **Requests for Information**

This financial report is designed to provide a general overview of the Authority's finances for the reader. Questions concerning information provided in this report or requests for additional financial information should be addressed to the Western Virginia Water Authority, Finance Department, 601 South Jefferson St., Suite 210, Roanoke, VA 24011.

## **Basic Financial Statements**

Statement of Net Position  
At June 30, 2022

	Water Fund	Water Pollution Control Fund	Total
<b>ASSETS</b>			
Current Assets:			
Cash and cash equivalents	\$ 27,982,779	\$ 6,809,972	\$ 34,792,751
Investments	2,164,683	2,164,683	4,329,366
Accounts receivable (net of allowance for uncollectibles)	3,967,234	4,279,895	8,247,129
Inventory of materials and supplies, at cost	590,141	1,919,750	2,509,891
Prepaid expenses	48,015	50,441	98,456
Notes receivable - current portion	131,666	173,457	305,123
Leases receivable - current portion	750,122	71,353	821,475
Other receivables	274,563	605,004	879,567
Total current assets	<u>\$ 35,909,203</u>	<u>\$ 16,074,555</u>	<u>\$ 51,983,758</u>
Noncurrent Assets:			
Restricted Assets:			
Cash and cash equivalents	\$ 12,838,489	\$ 8,835,431	\$ 21,673,920
Total restricted assets	<u>\$ 12,838,489</u>	<u>\$ 8,835,431</u>	<u>\$ 21,673,920</u>
Other Assets:			
Net pension asset	\$ 1,213,408	\$ 1,309,693	\$ 2,523,101
Leases receivable - net of current portion	2,770,087	213,070	2,983,157
Notes receivable - net of current portion	2,804,715	3,816,935	6,621,650
Total other assets	<u>\$ 6,788,210</u>	<u>\$ 5,339,698</u>	<u>\$ 12,127,908</u>
Capital assets (net of accumulated depreciation):			
Land	\$ 19,709,999	\$ 2,892,921	\$ 22,602,920
Construction work in progress	10,406,608	16,633,631	27,040,239
Buildings and system	370,699,693	299,601,483	670,301,176
Right-to-use assets			
Land	22,957	6,279	29,236
Buildings and system	14,238	23,306	37,544
Total capital assets, net	<u>\$ 400,853,495</u>	<u>\$ 319,157,620</u>	<u>\$ 720,011,115</u>
Total noncurrent assets	<u>\$ 420,480,194</u>	<u>\$ 333,332,749</u>	<u>\$ 753,812,943</u>
Total assets	<u>\$ 456,389,397</u>	<u>\$ 349,407,304</u>	<u>\$ 805,796,701</u>
<b>DEFERRED OUTFLOWS OF RESOURCES</b>			
Deferred charge on refunding	\$ 482,003	\$ 260,632	\$ 742,635
Pension related items	789,947	854,721	1,644,668
OPEB related items	334,002	341,190	675,192
Total deferred outflows of resources	<u>\$ 1,605,952</u>	<u>\$ 1,456,543</u>	<u>\$ 3,062,495</u>
<b>LIABILITIES</b>			
Current liabilities:			
Accounts payable and accrued expenses	\$ 2,280,981	\$ 3,171,055	\$ 5,452,036
Customers' deposits	2,281,493	11,596	2,293,089
Accrued interest payable	643,914	420,063	1,063,977
Compensated absences-current portion	808,975	901,410	1,710,385
Lease liabilities-current portion	16,494	15,414	31,908
Revenue bonds payable-current portion	7,284,262	5,977,847	13,262,109
Locality compensation payments payable-current portion	-	1,063,173	1,063,173
Total current liabilities	<u>\$ 13,316,119</u>	<u>\$ 11,560,558</u>	<u>\$ 24,876,677</u>
Noncurrent liabilities:			
Compensated absences-net of current portion	\$ 269,658	\$ 300,470	\$ 570,128
Lease liabilities-net of current portion	24,735	14,625	39,360
Revenue bonds payable-net of current portion	63,731,976	54,483,609	118,215,585
Locality compensation payments payable-net of current portion	-	2,892,920	2,892,920
Net pension liability	494,280	580,244	1,074,524
Net OPEB liabilities	2,071,282	2,082,666	4,153,948
Total noncurrent liabilities	<u>\$ 66,591,931</u>	<u>\$ 60,354,534</u>	<u>\$ 126,946,465</u>
Total liabilities	<u>\$ 79,908,050</u>	<u>\$ 71,915,092</u>	<u>\$ 151,823,142</u>
<b>DEFERRED INFLOWS OF RESOURCES</b>			
Pension related items	\$ 2,143,158	\$ 2,296,313	\$ 4,439,471
OPEB related items	408,345	418,120	826,465
Lease related items	3,373,246	307,871	3,681,117
Total deferred inflows of resources	<u>\$ 5,924,749</u>	<u>\$ 3,022,304</u>	<u>\$ 8,947,053</u>
<b>NET POSITION</b>			
Net investment in capital assets	\$ 342,088,180	\$ 262,038,095	\$ 604,126,275
Restricted for net pension asset	1,213,408	1,309,693	2,523,101
Unrestricted	<u>28,860,962</u>	<u>12,578,663</u>	<u>41,439,625</u>
Total net position	<u>\$ 372,162,550</u>	<u>\$ 275,926,451</u>	<u>\$ 648,089,001</u>

The accompanying notes to financial statements are an integral part of this statement.

Statement of Revenues, Expenses and Changes in Net Position  
Year Ended June 30, 2022

	Water Fund	Water Pollution Control Fund	Total
Operating revenues:			
Customer charges	\$ 31,593,057	\$ 31,060,128	\$ 62,653,185
Connection fees	307,678	97,000	404,678
Bulk sales	205,784	1,878,673	2,084,457
Fire service/Septic disposal fees	1,590,309	461,150	2,051,459
Other revenues	1,459,417	1,181,990	2,641,407
<b>Total operating revenues</b>	<b>\$ 35,156,245</b>	<b>\$ 34,678,941</b>	<b>\$ 69,835,186</b>
Operating expenses:			
Operating expenses	\$ 8,931,469	\$ 10,073,870	\$ 19,005,339
Field operations	4,722,862	4,232,589	8,955,451
Internal services	3,869,659	3,869,658	7,739,317
Depreciation and amortization	8,655,022	7,989,804	16,644,826
<b>Total operating expenses</b>	<b>\$ 26,179,012</b>	<b>\$ 26,165,921</b>	<b>\$ 52,344,933</b>
Operating income (loss)	\$ 8,977,233	\$ 8,513,020	\$ 17,490,253
Nonoperating income (expenses):			
Interest earned	\$ 267,258	\$ 108,873	\$ 376,131
Rental income	829,462	68,973	898,435
Gain (loss) on disposal of assets	27,747	9,740	37,487
Nonoperating contribution	531,584	-	531,584
Rental expenses	(107,659)	(107,659)	(215,318)
Interest expense	(1,923,732)	(1,328,503)	(3,252,235)
<b>Total nonoperating income (expenses)</b>	<b>\$ (375,340)</b>	<b>\$ (1,248,576)</b>	<b>\$ (1,623,916)</b>
Income before contributions	\$ 8,601,893	\$ 7,264,444	\$ 15,866,337
Capital contributions	\$ 5,804,840	\$ 5,498,035	\$ 11,302,875
<b>Total capital contributions</b>	<b>\$ 5,804,840</b>	<b>\$ 5,498,035</b>	<b>\$ 11,302,875</b>
Change in net position	\$ 14,406,733	\$ 12,762,479	\$ 27,169,212
Net position, beginning of year	357,755,817	263,163,972	620,919,789
Net position, end of year	<u>\$ 372,162,550</u>	<u>\$ 275,926,451</u>	<u>\$ 648,089,001</u>

The accompanying notes to financial statements are an integral part of this statement.

Statement of Cash Flows  
Year Ended June 30, 2022

	Water Fund	Water Pollution Control Fund	Total
Cash flows from operating activities:			
Receipts from customers and users	\$ 35,106,643	\$ 34,167,083	\$ 69,273,726
Payments to suppliers	(7,033,885)	(7,494,717)	(14,528,602)
Payments to employees	(11,089,745)	(11,529,459)	(22,619,204)
Net cash provided by (used for) operating activities	<u>\$ 16,983,013</u>	<u>\$ 15,142,907</u>	<u>\$ 32,125,920</u>
Cash flows from noncapital financing activities:			
Subsidy from local governments	\$ 531,584	-	\$ 531,584
Net cash provided by (used for) noncapital financing activities	<u>\$ 531,584</u>	<u>\$ -</u>	<u>\$ 531,584</u>
Cash flows from capital and related financing activities:			
Additions to utility plant	\$ (11,213,478)	\$ (17,710,752)	\$ (28,924,230)
Proceeds from the sale of assets	27,747	9,740	37,487
Principal payments on bonds	(6,256,043)	(5,515,397)	(11,771,440)
Principal payments on locality compensation payments	(420,614)	(1,015,000)	(1,435,614)
Contributions in aid of construction	2,256,652	4,066,096	6,322,748
Proceeds from indebtedness	15,929,394	13,546,139	29,475,533
Interest payments	(2,574,175)	(1,646,569)	(4,220,744)
Principal payments on lease liabilities	(43,446)	(44,848)	(88,294)
Rental income	682,499	92,421	774,920
Rental expenses	(107,659)	(107,659)	(215,318)
Net cash provided by (used for) capital and related financing activities	<u>\$ (1,719,123)</u>	<u>\$ (8,325,829)</u>	<u>\$ (10,044,952)</u>
Cash flows from investing activities:			
Interest income	\$ 248,956	\$ 90,571	\$ 339,527
Net cash provided by (used for) investing activities	<u>\$ 248,956</u>	<u>\$ 90,571</u>	<u>\$ 339,527</u>
Increase (decrease) in cash and cash equivalents	\$ 16,044,430	\$ 6,907,649	\$ 22,952,079
Cash and cash equivalents at beginning of year (including \$0 and \$1,491,767, respectively reported in restricted accounts)	<u>24,776,838</u>	<u>8,737,754</u>	<u>33,514,592</u>
Cash and cash equivalents at end of year (including \$12,838,489 and \$8,835,431, respectively reported in restricted accounts)	<u>\$ 40,821,268</u>	<u>\$ 15,645,403</u>	<u>\$ 56,466,671</u>
Reconciliation of operating income to net cash provided by (used for) operating activities:			
Operating income	\$ 8,977,233	\$ 8,513,020	\$ 17,490,253
Adjustments to reconcile operating income to net cash provided by (used for) operating activities:			
Depreciation	8,655,022	7,989,804	16,644,826
Changes in operating assets, liabilities, and deferred outflows and inflows of resources:			
(Increase) decrease in receivables	63,031	(511,866)	(448,835)
(Increase) decrease in inventories	(82,376)	(143,402)	(225,778)
(Increase) decrease in prepaid expenses	(7,115)	(9,541)	(16,656)
(Increase) decrease in net pension asset	(1,213,408)	(1,309,693)	(2,523,101)
(Increase) decrease in pension related deferred outflows	87,179	77,903	165,082
(Increase) decrease in OPEB related deferred outflows	(160,176)	(158,284)	(318,460)
Increase (decrease) in operating payables and accrued expenses	123,093	52,159	175,252
Increase (decrease) in customer deposits	(112,633)	8	(112,625)
Increase (decrease) in compensated absences	62,488	51,453	113,941
Increase (decrease) in net pension liabilities	(1,280,924)	(1,486,420)	(2,767,344)
Increase (decrease) in net OPEB liabilities	(300,013)	(341,800)	(641,813)
Increase (decrease) in pension related deferred inflows	1,820,733	2,061,015	3,881,748
Increase (decrease) in OPEB related deferred inflows	350,879	358,551	709,430
Net cash provided by (used for) operating activities	<u>\$ 16,983,013</u>	<u>\$ 15,142,907</u>	<u>\$ 32,125,920</u>
Noncash investing, capital and financing activities:			
Contributions of capital assets	\$ 781,340	\$ 731,400	\$ 1,512,740
Capital asset additions included in accounts payable at end of year	1,028,340	1,768,000	2,796,340
Construction contributions receivable at year end	2,936,381	3,990,392	6,926,773
Acquisition of Boones Mill system transferred	3,013,326	65,500	3,078,826
Acquisition of Boones Mill debt related to system transferred	148,434	195,547	343,981

The accompanying notes to financial statements are an integral part of this statement.

# WESTERN VIRGINIA WATER AUTHORITY

## Notes to Financial Statements At June 30, 2022

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### **Note 1—Summary of Significant Accounting Policies:**

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Western Virginia Water Authority was formed in early 2004 by the Board of Supervisors of Roanoke County, Virginia and the Council of the City of Roanoke, Virginia pursuant to the Virginia Water and Waste Water Authorities Act (Chapter 51, Title 15.2 of the 1950 Code of Virginia, as amended) (“Act”). On November 5, 2009 Franklin County joined as a member and on July 1, 2015 Botetourt County joined as a member of the Authority when the involved parties reorganized under amended and restated Articles of Incorporation. The purposes for which the Authority was formed are to exercise all powers granted to the Authority to acquire, finance, construct, operate, manage and maintain a water, wastewater, sewage disposal and storm water control system and related facilities pursuant to the Act. The Authority shall have all of the rights, powers, and duties of an authority under the Act. The Authority services the County of Roanoke, the City of Roanoke, the County of Franklin and to the extent permitted by the Act and by the terms of the Articles of Incorporation and the Western Virginia Water Authority Operating Agreement, such other public or private entities as the Authority may determine upon the terms and conditions established pursuant to such contracts.

The financial statements of the Western Virginia Water Authority have been prepared in conformity with the accounting principles generally accepted in the United States as specified by the Governmental Accounting Standards Board and the specifications promulgated by the Auditor of Public Accounts (APA) of the Commonwealth of Virginia. The following is a summary of the more significant policies.

#### **A. Financial Reporting Entity**

The Authority’s governing body is comprised of three members appointed by Roanoke County, three members appointed by the City of Roanoke, one member appointed by Franklin County and one member appointed by Botetourt County. Therefore, none of the participants appoints a voting majority of board members.

The Authority is formed for a term of fifty years. No participating government has access to its resources or surpluses, nor is any participant liable for the Authority’s debts or deficits with the exception of the participants’ continuing obligations under their water and sewer general obligation bonds. The Authority also has the ability to finance its capital projects through user charges or the sale of revenue bonds.

The Governmental Accounting Standards Board (GASB) has determined that, under certain circumstances, related organizations should be considered component units of a primary entity and, as such, reported as part of the primary entity. In so doing, GASB established criteria for determining whether a related entity should be reported as a component unit and, under different circumstances, how component units must be presented. In defining the Authority as a primary reporting entity, related organizations were evaluated for possible inclusion, using the criteria established by the GASB. The criteria would require the reporting entity to include entities that hold resources entirely or almost entirely for the direct benefit of the Authority where the Authority has the ability to access a majority of those resources and those resources are significant to the Authority. Based on these criteria, the Authority does not have any component units, nor is the Authority considered a component unit of any of the participating jurisdictions. Therefore, these financial statements are for the primary entity only.

# WESTERN VIRGINIA WATER AUTHORITY

## Notes to Financial Statements At June 30, 2022 (Continued)

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### Note 1—Summary of Significant Accounting Policies: (Continued)

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#### A. Financial Reporting Entity (Continued)

Western Virginia Water Authority has been determined to be a joint venture of the City of Roanoke and the Counties of Roanoke, Franklin and Botetourt.

#### B. Basis of Presentation

The financial statements have been prepared in accordance with pronouncements issued by the Governmental Accounting Standards Board (GASB).

The Authority follows the business-type activities requirements of GASB, which provides that the following sections be included in the annual financial report:

1. Management's discussion and analysis
2. Basic financial statements including a statement of net position, statement of revenues, expenses and changes in net position, and a statement of cash flows
3. Notes to financial statements
4. Required supplementary information including schedules related to pension and other postemployment benefits funding

#### C. Basis of Accounting

For financial reporting purposes, the Western Virginia Water Authority is considered a special-purpose government, engaged only in business-type activities. Accordingly, the Authority's financial statements have been prepared using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned, and expenses are recorded when an obligation has been incurred. All significant intra-agency transactions have been eliminated.

##### Proprietary Funds

Proprietary Funds account for operations that are financed in a manner similar to those found in private business enterprises. The measurement focus is upon determination of net income, financial position, and changes in financial position. Proprietary Funds consist of Enterprise Funds.

##### Enterprise Funds

Enterprise Funds account for the financing of services to the general public where all or most of the operating expenses involved are recorded in the form of charges to users of such services. The Authority prepares its financial reports utilizing two enterprise funds. The Water Fund is used to account for water services and the Water Pollution Control (WPC) Fund is used to account for wastewater treatment services.

**Note 1—Summary of Significant Accounting Policies: (Continued)**

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**D. Proprietary Fund Revenue and Expense Classifications**

The Authority distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges to customers for services.

Nonoperating revenues include activities that have the characteristics of nonexchange transactions, including gifts, and other revenue sources that are defined as nonoperating revenues, such as government appropriations, rental income, and interest and other investment income.

Nonoperating expenses include interest on debt related to the purchase of capital assets, losses on the disposal of capital assets, and rental expenses. All other expenses are classified as operating expenses.

**E. Deferred Outflows/Inflows of Resources**

In addition to assets, the statement of financial position includes a separate section for deferred outflows of resources. Deferred outflows of resources represent a consumption of net assets that applies to a future period(s) and so will not be recognized as an outflow of resources (expense/expenditure) until then. The Authority has multiple items that qualify for reporting in this category. One item is the deferred charge on refunding which results from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt. In addition, certain items related to pension and OPEB are reported as deferred outflows of resources. For more detailed information on these items, reference the related notes.

In addition to liabilities, the statement of financial position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net assets that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until that time. The Authority has multiple items that qualify for reporting in this category. Certain items related to pension, OPEB, and leases are reported as deferred inflows of resources. For more detailed information on these items, reference the related notes.

**F. Net Position**

The difference between assets and deferred outflows of resources less liabilities and deferred inflows of resources is called net position. Net position is comprised of three components: net investment in capital assets, restricted, and unrestricted.

- Net investment in capital assets consists of capital assets, net of accumulated depreciation/amortization and reduced by outstanding balances of bonds, notes, and other debt that are attributable to the acquisition, construction, or improvement of those assets. Deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of those assets or related debt are included in this component of net position.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 1—Summary of Significant Accounting Policies: (Continued)

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F. Net Position (Continued)

- Restricted net position consists of restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Assets are reported as restricted when constraints are placed on asset use either by external parties or by law through constitutional provision or enabling legislation.
- Unrestricted net position is the net amount of the assets, deferred outflows of resources, liabilities, and deferred inflows of resources that does not meet the definition of the two preceding categories.

G. Net Position Flow Assumption

Sometimes the Authority will fund outlays for a particular purpose from both restricted and unrestricted resources. In order to calculate the amounts to report as restricted net position and unrestricted net position in the financial statements, a flow assumption must be made about the order in which the resources are considered to be applied. It is the Authority's policy to consider restricted net position to have been depleted before unrestricted net position is applied.

H. Restricted Assets

Certain proceeds of the Authority's revenue bonds and funds held in escrow are classified as restricted assets on the statement of net position because they are maintained in separate bank accounts, and their use is limited by applicable bond covenants or escrow agreements. The bond proceeds account receives proceeds from Authority debt issuances and holds the proceeds until project costs are incurred. These assets are held by a trustee financial institution in separate accounts and consist of cash and cash equivalents. At year end, restricted assets consisted of unspent bond proceeds of \$21,673,920.

I. Budgets and Budgetary Accounting

A budget is prepared for information, fiscal planning purposes, and to provide the basis for setting user rates. None of the participating entities are required to approve the budget. The budget is adopted as a planning document and is not a legal control on expenses.

J. Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, amounts in demand deposits, and short-term investments with a maturity date within three months of the date acquired by the government. For purposes of the statement of cash flows, demand deposits and all highly liquid investments with an original maturity of three months or less when purchased are considered to be cash and cash equivalents.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 1—Summary of Significant Accounting Policies: (Continued)

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**K. Investments**

Investments with a maturity of less than one year when purchased, non-negotiable certificates of deposit, other nonparticipating investments and external investment pools are stated at cost or amortized cost. Investments with a maturity greater than one year when purchased are stated at fair value. Fair value is the price that would be received to sell an investment in an orderly transaction at year end.

**L. Inventory**

Inventories of material and supplies are recorded at cost, using the first-in, first-out method of valuation.

**M. Prepaid Items**

Certain payments to vendors represent costs applicable to future accounting periods and are recorded as prepaid items in the financial statements. The cost of prepaid items is recorded as an expense when consumed rather than when purchased.

**N. Allowance for Uncollectible Accounts**

Accounts receivable are stated at book value net of the allowance for uncollectible accounts. The allowance for uncollectible accounts amounted to \$278,136 and \$278,136 at June 30, 2022 for water and water pollution control, respectively.

**O. Capital Assets**

Capital assets, which include property, plant, equipment, and infrastructure assets (e.g., pipes, hydrants, pumps, and similar items), are reported in the financial statements. Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$5,000 (amount not rounded) and an estimated useful life in excess of one year. As the Authority constructs or acquires capital assets each period, including infrastructure assets, they are capitalized and reported at historical cost (except for intangible right-to-use lease assets (lease assets), the measurement of which is discussed in more detail below). The reported value excludes normal maintenance and repairs, which are amounts spent in relation to capital assets that do not increase the asset's capacity or efficiency or increases its estimated useful life. Donated capital assets are recorded at acquisition value at the date of donation. The capital assets donated to the Authority by the organizing localities were valued by a consulting engineer. Acquisition value is the price that would be paid to acquire an asset with equivalent service potential on the date of the donation. Intangible assets follow the same capitalization policies as tangible capital assets and are reported with tangible assets in the appropriate capital asset class.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 1—Summary of Significant Accounting Policies: (Continued)

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O. Capital Assets (Continued)

Land and construction in progress are not depreciated. The other tangible and intangible property, plant equipment, lease assets, and infrastructure of the Authority are depreciated/amortized using the straight-line method over the following estimated useful lives:

<u>Assets</u>	<u>Years</u>
Structures, lines and accessories	10 to 105
Machinery and equipment	5 to 15
Right-to-use assets:	
Land	5 to 10
Machinery and equipment	5

P. Interest on Indebtedness

Interest costs of the Authority are treated as nonoperating expenses.

Q. Compensated Absences

The liability for compensated absences reported in the financial statements consists of unpaid accumulated leave balances. The liability is based on the leave accumulated at June 30. Limited leave may be accumulated until retirement or termination. Accumulated leave is paid at the employee's current wage upon retirement or termination.

R. Pensions

For purposes of measuring the net pension liability (asset), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Authority's Retirement Plans and the additions to/deductions from the Authority's Retirement Plans' fiduciary net position have been determined on the same basis as they were reported by the Virginia Retirement System (VRS) and the City of Roanoke Pension Plan. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

S. Other Postemployment Benefits (OPEB)

For purposes of measuring the net GLI Plan OPEB liability, deferred outflows of resources and deferred inflows of resources related to the GLI OPEB, and GLI OPEB expense, information about the fiduciary net position of the VRS GLI Plan OPEB and the additions to/deductions from the VRS GLI OPEB's fiduciary net position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

## WESTERN VIRGINIA WATER AUTHORITY

### Notes to Financial Statements At June 30, 2022 (Continued)

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#### Note 1—Summary of Significant Accounting Policies: (Continued)

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##### T. Long-Term Obligations

The Authority assumed existing revenue bond obligations of both Roanoke County and the City of Roanoke upon the formation of the Authority. The obligations of the County and the City which could not be assumed by the Authority are reported as locality compensation payments. These amounts are paid to the locality in accordance with the locality's existing debt service requirements.

Bond premiums and discounts are deferred and amortized over the life of the bonds. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs, whether or not withheld from the actual debt proceeds received, are reported as debt service expenditures.

##### U. Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of financial statements and the reported amounts of revenues and expenses during the reporting period. Accordingly, actual results could differ from these amounts.

##### V. Leases

The Authority leases various assets requiring recognition. A lease is a contract that conveys control of the right to use another entity's nonfinancial asset. Lease recognition does not apply to short-term leases, contracts that transfer ownership, leases of assets that are investments, or certain regulated leases.

###### *Lessee*

The Authority recognizes lease liabilities and intangible right-to-use lease assets (lease assets) with an initial value of \$5,000, individually or in the aggregate. At the commencement of the lease, the lease liability is measured at the present value of payments expected to be made during the lease term (less any lease incentives). The lease liability is reduced by the principal portion of payments made. The lease asset is measured at the initial amount of the lease liability, plus any payments made to the lessor at or before the commencement of the lease term and certain direct costs. The lease asset is amortized over the shorter of the lease term or the useful life of the underlying asset.

###### *Lessor*

The Authority recognizes leases receivable and deferred inflows of resources. At commencement of the lease, the lease receivable is measured at the present value of lease payments expected to be received during the lease term, reduced by any provision for estimated uncollectible amounts. Subsequently, the lease receivable is reduced by the principal portion of lease payments received. The deferred inflow of resources is measured at the initial amount of the lease receivable, less lease payments received from the lessee at or before the commencement of the lease term (less any lease incentives).

###### *Key Estimates and Judgments*

Lease accounting includes estimates and judgments for determining the (1) rate used to discount the expected lease payments to present value, (2) lease term, and (3) lease payments.

## WESTERN VIRGINIA WATER AUTHORITY

### Notes to Financial Statements At June 30, 2022 (Continued)

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#### Note 1—Summary of Significant Accounting Policies: (Continued)

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##### V. Leases (Continued)

- The Authority uses the interest rate stated in lease contracts. When the interest rate is not provided or the implicit rate cannot be readily determined, the Authority uses its estimated incremental borrowing rate as the discount rate for leases.
- The lease term includes the noncancellable period of the lease and certain periods covered by options to extend to reflect how long the lease is expected to be in effect, with terms and conditions varying by the type of underlying asset.
- Fixed and certain variable payments as well as lease incentives and certain other payments are included in the measurement of the lease liability (lessee) or lease receivable (lessor).

The Authority monitors changes in circumstances that would require a remeasurement or modification of its leases. The Authority will remeasure the lease asset and liability (lessee) or the lease receivable and deferred inflows of resources (lessor) if certain changes occur that are expected to significantly affect the amount of the lease liability or lease receivable.

#### Note 2—Deposits and Investments:

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##### Deposits

Deposits with banks are covered by the Federal Deposit Insurance Corporation (FDIC) and collateralized in accordance with the Virginia Security for Public Deposits Act (the “Act”), Section 2.2-4400 et. Seq. of the Code of Virginia. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial Institutions may choose between two collateralization methodologies and depending upon that choice, will pledge collateral that ranges in the amounts from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.

##### Investments

Statutes authorize the Authority to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof, obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, “prime quality” commercial paper that has received at least two of the following ratings: P-1 by Moody’s Investors Service, Inc.; A-1 by Standard and Poor’s; or F1 by Fitch Ratings, Inc. (Section 2.2-4502), banker’s acceptances, repurchase agreements, and the State Treasurer’s Local Government Investment Pool (LGIP).

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 2—Deposits and Investments: (Continued)

A summary of the Authority's deposits and investments at June 30, 2022 is as follows:

	Water	Water Pollution Control	Total
Petty cash	\$ 2,950	\$ 2,950	\$ 5,900
VACO/VML Virginia Investment Pool	1,045,778	1,045,778	2,091,556
Local Government Investment Pool	1,136,018	1,136,018	2,272,036
State Non-arbitrage Pool (SNAP)	12,838,489	8,835,431	21,673,920
Bank Deposits	25,798,033	4,625,226	30,423,259
Certificate of Deposit	2,164,683	2,164,683	4,329,366
Totals	\$ 42,985,951	\$ 17,810,086	\$ 60,796,037

**Credit Risk**

The Authority's investment policy provides that securities purchased for the Authority shall be held by the Authority Treasurer or by the Treasurer's custodian. If held by a custodian, the securities must be in the Authority's name or in the custodian's nominee name and identifiable on the custodian's books as belonging to the Authority. Further, if held by a custodian, the custodian must be a third party, not a counterparty (buyer or seller) to the transaction. At June 30, 2022, all of the Authority's investments were held in accordance with this policy.

The following investment types and quality levels are approved for use by the Treasurer in the investment of its public funds:

1. U.S. Treasury Bills, Notes, Bonds, and other direct obligations of the United States Government.
2. Obligations of Agencies of the Federal Government including but not limited to the Federal Farm Credit Bank, Federal Home Loan Bank, Federal National Mortgage Association, Government National Mortgage Association, Federal Home Loan Mortgage Corporation, and Student Loan Marketing Association.
3. Obligations of the Commonwealth of Virginia and of its local governments and public bodies, including the Local Government Investment Pool, provided such obligations have a debt rating of at least "AA" or equivalent by Moody's and/or Standard & Poor's.
4. Repurchase Agreements executed through Federal Reserve Member Banks or Primary Dealers in U. S. Government securities, and collateralized by Treasury or Agency obligations the fair value of which is at least 102% of the purchase price of the repo.
5. Certificates of deposit or other deposits of national banks located within the Commonwealth and state-chartered banks under Commonwealth supervision provided such deposits are insured or collateralized as provided by the Virginia Security for Public Deposits Act.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 2—Deposits and Investments: (Continued)

Credit Risk (Continued)

6. U. S. dollar denominated Bankers' Acceptances issued by a domestic bank or a foreign bank with an agency domiciled in the U. S., and rated by Thomson Bankwatch at least B/C (issuing bank) and I (country of origin). Not more than 40% of the total funds available for investment may be invested in Bankers' acceptances.
7. U. S. dollar denominated Commercial Paper issued by an entity incorporated in the U. S. and rated by at least two of the following: Moody's Investors Service, Inc., within its NCO/Moody's rating of prime 1, by Standard & Poor's Inc., within its rating of A-1, by Fitch Investor Services, Inc., within its rating of F-1, by Duff and Phelps, Inc., within its rating of D-1, or by their corporate successors. Not more than 35% of the total funds available for investment may be invested in commercial paper, and not more than 5% in the obligations of any one issuer.
8. U. S. dollar denominated high quality corporate notes and bonds with a duration of no more than five years and a rating of at least A by two rating agencies, one of which must be either Moody's Investor Services, Inc., or Standard and Poor's, Inc.
9. Money Market Mutual Funds which trade on a constant net asset value and which invest solely in securities otherwise eligible for investment under these guidelines.
10. Asset-backed securities with a duration of no more than 5 years and a rating of no less than AAA by two rating agencies, one of which must be either Moody's Investor Services, Inc., or Standard and Poor's, Inc.

The Authority's rated debt investments as of June 30, 2022 were rated by Standard & Poor's and the ratings are presented below using the Standard & Poor's rating scale.

Authority's Rated Debt Investments' Values			
		Fair Quality Ratings	
		AAAm	AA+f
VACO/VML Virginia Investment Pool	\$	-	\$ 2,091,556
Local Government Investment Pool		2,272,036	-
SNAP		21,673,920	-
Total	\$	23,945,956	\$ 2,091,556

Concentration of Credit Risk

The Authority's investment policy limits the investment in bankers' acceptances to 40% of total funds available for investment. Not more than 35% of the Authority's total investments may be in commercial paper and not more than 5% of commercial paper investments in the obligations of any one issuing corporation.

## WESTERN VIRGINIA WATER AUTHORITY

### Notes to Financial Statements At June 30, 2022 (Continued)

#### Note 2—Deposits and Investments: (Continued)

##### Interest Rate Risk

All Authority investments must be in securities maturing within five years to reduce the volatility associated with interest rate risk. Investments subject to interest rate risk are presented below along with their corresponding maturities.

Investment Maturities (in years)			
Investment Type	Fair Value	Less than 1 Year	1-5 Years
Local Government Investment Pool	\$ 2,272,036	\$ 2,272,036	\$ -
VACO/VML Virginia Investment Pool	2,091,556	-	2,091,556
SNAP	21,673,920	21,673,920	-
Certificate of Deposit	4,329,366	-	4,329,366
Total	<u>\$ 30,366,878</u>	<u>\$ 23,945,956</u>	<u>\$ 6,420,922</u>

##### External Investment Pools

The value of the positions in the external investment pools (Local Government Investment Pool and State Non-Arbitrage Pool) is the same as the value of the pool shares. As LGIP and SNAP are not SEC registered, regulatory oversight of the pool rests with the Virginia State Treasury. LGIP and SNAP are amortized cost basis portfolios. There are no withdrawal limitations or restrictions imposed on participants.

##### Redemption Restrictions

VACO/VML Virginia Investment Pool allows the Authority to have the option to have access to withdrawal funds twice a month, with a five day period notice. Additionally, funds are available to meet unexpected needs such as fluctuations in revenue sources, one-time outlays (disasters, immediate capital needs, state budget cuts, and etc.).

##### Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Authority has measured fair value of the above VACO/VML Investment Pool investment at the net asset value (NAV).

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 3—Capital Assets:

Capital asset activity for the year ended June 30, 2022 was as follows:

	Beginning Balance	Adjustments	Beginning Balance, as adjusted	Increases	Decreases	Ending Balance
<b>Water Fund:</b>						
Capital assets, not being depreciated:						
Land	\$ 19,360,799	\$ -	\$ 19,360,799	\$ 349,200	\$ -	\$ 19,709,999
Construction in progress	29,305,653	-	29,305,653	8,994,054	(27,893,099)	10,406,608
Total capital assets, not being depreciated	\$ 48,666,452	\$ -	\$ 48,666,452	\$ 9,343,254	\$ (27,893,099)	\$ 30,116,607
Capital assets, being depreciated:						
Structures, lines and accessories	\$ 472,050,158	\$ -	\$ 472,050,158	\$ 32,815,086	\$ -	\$ 504,865,244
Machinery and equipment	11,180,999	-	11,180,999	415,703	(60,382)	11,536,320
Total capital assets, being depreciated	\$ 483,231,157	\$ -	\$ 483,231,157	\$ 33,230,789	\$ (60,382)	\$ 516,401,564
Accumulated depreciation:						
Structures, lines and accessories	\$ (128,608,851)	\$ -	\$ (128,608,851)	\$ (7,903,619)	\$ -	\$ (136,512,470)
Machinery and equipment	(8,545,860)	-	(8,545,860)	(703,923)	60,382	(9,189,401)
Total accumulated depreciation	\$ (137,154,711)	\$ -	\$ (137,154,711)	\$ (8,607,542)	\$ 60,382	\$ (145,701,871)
Total capital assets, being depreciated, net	\$ 346,076,446	\$ -	\$ 346,076,446	\$ 24,623,247	\$ -	\$ 370,699,693
Right-to-use assets:						
Land	\$ -	\$ 53,995	\$ 53,995	\$ -	\$ -	\$ 53,995
Structures, lines and accessories	-	30,680	30,680	-	(12,008)	18,672
Total capital assets, being amortized	\$ -	\$ 84,675	\$ 84,675	\$ -	\$ (12,008)	\$ 72,667
Accumulated amortization:						
Land	\$ -	\$ -	\$ -	\$ (31,038)	\$ -	\$ (31,038)
Structures, lines and accessories	-	-	-	(16,442)	12,008	(4,434)
Total accumulated amortization	\$ -	\$ -	\$ -	\$ (47,480)	\$ 12,008	\$ (35,472)
Total right-to-use assets, being amortized, net	\$ -	\$ 84,675	\$ 84,675	\$ (47,480)	\$ -	\$ 37,195
Total Water Fund	\$ 394,742,898	\$ 84,675	\$ 394,827,573	\$ 33,919,021	\$ (27,893,099)	\$ 400,853,495

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 3—Capital Assets: (Continued)

	Beginning Balance	Adjustments	Beginning Balance, as adjusted	Increases	Decreases	Ending Balance
<b>Water Pollution Control Fund:</b>						
Capital assets, not being depreciated:						
Land	\$ 2,827,421	\$ -	\$ 2,827,421	\$ 65,500	\$ -	\$ 2,892,921
Construction in progress	23,502,279	-	23,502,279	5,974,132	(12,842,780)	16,633,631
Total capital assets, not being depreciated	\$ 26,329,700	\$ -	\$ 26,329,700	\$ 6,039,632	\$ (12,842,780)	\$ 19,526,552
Capital assets, being depreciated:						
Structures, lines and accessories	\$ 455,233,793	\$ -	\$ 455,233,793	\$ 24,545,028	\$ -	\$ 479,778,821
Machinery and equipment	10,733,771	-	10,733,771	645,345	(54,109)	11,325,007
Total capital assets, being depreciated	\$ 465,967,564	\$ -	\$ 465,967,564	\$ 25,190,373	\$ (54,109)	\$ 491,103,828
Accumulated depreciation:						
Structures, lines and accessories	\$ (175,290,476)	\$ -	\$ (175,290,476)	\$ (7,314,400)	\$ -	\$ (182,604,876)
Machinery and equipment	(8,321,476)	-	(8,321,476)	(630,102)	54,109	(8,897,469)
Total accumulated depreciation	\$ (183,611,952)	\$ -	\$ (183,611,952)	\$ (7,944,502)	\$ 54,109	\$ (191,502,345)
Total capital assets, being depreciated, net	\$ 282,355,612	\$ -	\$ 282,355,612	\$ 17,245,871	\$ -	\$ 299,601,483
Right-to-use assets:						
Land	\$ -	\$ 31,129	\$ 31,129	\$ -	\$ -	\$ 31,129
Structures, lines and accessories	-	43,758	43,758	-	(12,008)	31,750
Total capital assets, being amortized	\$ -	\$ 74,887	\$ 74,887	\$ -	\$ (12,008)	\$ 62,879
Accumulated amortization:						
Land	\$ -	\$ -	\$ -	\$ (24,850)	\$ -	\$ (24,850)
Structures, lines and accessories	-	-	-	(20,452)	12,008	(8,444)
Total accumulated amortization	\$ -	\$ -	\$ -	\$ (45,302)	\$ 12,008	\$ (33,294)
Total right-to-use assets, being amortized, net	\$ -	\$ 74,887	\$ 74,887	\$ (45,302)	\$ -	\$ 29,585
Total Water Pollution Control Fund	\$ 308,685,312	\$ 74,887	\$ 308,760,199	\$ 23,240,201	\$ (12,842,780)	\$ 319,157,620
Total Authority Capital Assets	\$ 703,428,210	\$ 159,562	\$ 703,587,772	\$ 57,159,222	\$ (40,735,879)	\$ 720,011,115

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 3—Capital Assets: (Continued)

**Construction Commitments:**

The Authority has active construction projects as of June 30, 2022 detailed below:

Project Description	Contract Amount	Spent- to-Date	Remaining Commitment
<b>Water Fund:</b>			
Peakwood Drive Waterline Replacement	\$ 1,939,259	\$ -	\$ 1,939,259
Spring Hollow Water Treatment Plant Electrical Upgrades	1,569,500	29,000	1,540,500
Field Ops Old Lot-Large Fleet & Equipment*	1,047,707	300,764	746,943
Angel Lane Connection	866,115	25,000	841,115
Spring Hollow GAC Replacement	459,000	-	459,000
Coulter Building Elevator Replacement*	281,479	84,120	197,359
Lindenwood Building Waterline Replacement	239,800	8,674	231,126
Water Treatment Plant Hypochlorite	273,500	91,470	182,030
Thompson Memorial to Kessler Mill	1,364,039	1,254,204	109,835
<b>Water Pollution Control Fund:</b>			
Planning/Design Digester Improvements	10,651,686	6,695,132	3,956,554
Field Ops Old Lot-Large Fleet & Equipment*	1,047,707	300,763	746,944
Ore Branch Area Sewer Stabilization	2,787,223	1,475,457	1,311,766
Coulter Building Elevator Replacement*	281,479	84,120	197,359
Planning/Design Digester Improvements	1,871,520	1,591,622	279,898
<b>Total</b>	<b>\$ 24,680,014</b>	<b>\$ 11,940,326</b>	<b>\$ 12,739,688</b>

\*Project is split between water and water pollution control fund

The above projects are to be funded from the proceeds of revenue bonds and funds generated from operations.

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 4—Long-Term Obligations:

Business-type Activities Indebtedness:

The following is a summary of long-term obligation transactions of the Authority for the year ended June 30, 2022:

	Beginning Balance	Adjustments	Beginning Balance, as adjusted	Issuances/ Additions	Retirement/ Reductions	Ending Balance	Due Within One Year
<b>Water Fund:</b>							
Direct borrowings and placements:							
Revenue bonds	\$ 58,402,075	\$ -	\$ 58,402,075	\$ 14,213,434	\$ (6,256,043)	\$ 66,359,466	\$ 6,444,022
Locality compensation payments	420,614	-	420,614	-	(420,614)	-	-
Unamortized bond premium	3,610,457	-	3,610,457	1,864,394	(818,079)	4,656,772	840,240
Total direct borrowings and placements	\$ 62,433,146	\$ -	\$ 62,433,146	\$ 16,077,828	\$ (7,494,736)	\$ 71,016,238	\$ 7,284,262
Lease liabilities	-	84,675	84,675	-	(43,446)	41,229	16,494
Compensated absences	1,016,145	-	1,016,145	824,597	(762,109)	1,078,633	808,975
Net pension liabilities	1,775,204	-	1,775,204	3,163,443	(4,444,367)	494,280	-
Net OPEB liabilities	2,371,295	-	2,371,295	423,535	(723,548)	2,071,282	-
Total Water Fund	\$ 67,595,790	\$ 84,675	\$ 67,680,465	\$ 20,489,403	\$ (13,468,206)	\$ 74,701,662	\$ 8,109,731
<b>Water Pollution Control Fund:</b>							
Direct borrowings and placements:							
Revenue bonds	\$ 50,795,391	\$ -	\$ 50,795,391	\$ 12,590,546	\$ (5,515,397)	\$ 57,870,540	\$ 5,604,764
Locality compensation payments	4,795,000	-	4,795,000	-	(1,015,000)	3,780,000	1,035,000
Unamortized bond premium	1,967,253	-	1,967,253	1,151,140	(351,384)	2,767,009	401,256
Total direct borrowings and placements	\$ 57,557,644	\$ -	\$ 57,557,644	\$ 13,741,686	\$ (6,881,781)	\$ 64,417,549	\$ 7,041,020
Lease liabilities	-	74,887	74,887	-	(44,848)	30,039	15,414
Compensated absences	1,150,427	-	1,150,427	914,273	(862,820)	1,201,880	901,410
Net pension liabilities	2,066,664	-	2,066,664	3,462,621	(4,949,041)	580,244	-
Net OPEB liabilities	2,424,466	-	2,424,466	412,487	(754,287)	2,082,666	-
Total Water Pollution Control Fund	\$ 63,199,201	\$ 74,887	\$ 63,274,088	\$ 18,531,067	\$ (13,492,777)	\$ 68,312,378	\$ 7,957,844
Total business-type activities	\$ 130,794,991	\$ 159,562	\$ 130,954,553	\$ 39,020,470	\$ (26,960,983)	\$ 143,014,040	\$ 16,067,575

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 4—Long-Term Obligations: (Continued)

Annual requirements to amortize long-term obligations and the related interest are as follows:

Water Fund					
Year Ending June 30	Direct Borrowings and Placements:				
	Revenue Bonds		Lease Liabilities		
	Principal	Interest	Principal	Interest	
2023	\$ 6,444,022	\$ 2,439,298	\$ 16,494	\$ 446	
2024	6,704,224	2,171,420	8,513	305	
2025	6,623,940	1,902,380	8,616	202	
2026	6,899,272	1,611,992	4,481	107	
2027	7,204,763	1,300,744	3,125	26	
2028-2032	15,073,229	4,037,713	-	-	
2033-2037	10,382,145	1,797,464	-	-	
2038-2042	7,027,871	433,784	-	-	
Total	\$ 66,359,466	\$ 15,694,795	\$ 41,229	\$ 1,086	

Water Pollution Control Fund					
Year Ending June 30	Direct Borrowings and Placements:				
	Revenue Bonds and Locality Compensation Payments		Lease Liabilities		
	Principal	Interest	Principal	Interest	
2023	6,639,764	\$ 1,489,260	15,414	\$ 131	
2024	6,946,145	1,369,208	8,620	53	
2025	6,265,414	1,182,430	5,617	15	
2026	6,418,536	1,020,339	388	-	
2027	5,566,688	845,447	-	-	
2028-2032	15,152,908	2,700,780	-	-	
2033-2037	8,888,514	1,198,439	-	-	
2038-2042	5,433,338	373,220	-	-	
2043-2044	339,233	4,523	-	-	
Total	61,650,540	\$ 10,183,646	30,039	\$ 199	

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 4—Long-Term Obligations: (Continued)

Details of the Authority's outstanding long-term indebtedness at June 30, 2022 are as follows:

Water Fund						
Type	Interest Rates	Installment Amounts	Final Maturity Date	Amount of Original Issue	Balance Enterprise Activities	Amount Due Within One Year
<i>Direct Borrowings and Placements - Revenue Bonds:</i>						
VRA Water Revolving Loan Series 2008	1.00%	\$5,928-\$11,768 (sa+)	11/1/2028	389,557	\$ 149,613	\$ 22,391
VRA Water Revolving Loan Series 2010	0.00%	\$13,397 (sa+)	1/1/2041	803,823	509,088	26,794
VRA Water Revolving Loan Series 2011	1.15%	\$15,043-\$16,871 (sa+)	3/1/2032	564,401	320,612	30,432
ARRA - VRA Water Revolving Loan Series 2009	0.00%	\$597 (sa+)	6/1/2040	35,919	21,475	1,193
ARRA - VRA Water Revolving Loan Series 2009	0.00%	\$353 (sa+)	6/1/2040	21,242	12,705	706
VRA Water Revolving Loan Series 2011	1.15%	\$5,965-\$6,613(sa+)	6/1/2031	216,850	113,746	12,067
VRA Pool Bond Water Series 2011B	4.67-5.13%	\$1,150,000 (a+)	10/1/2021	17,035,000	-	-
VRA Water Revolving Loan Series 2012	1.45%	\$22,631-\$26,149 (sa+)	4/1/2033	907,965	542,587	45,921
VRA VFPF Refunding Bond Series 2013B	3.435-4.826%	\$2,810,000-\$3,510,000 (a+)	10/1/2026	35,855,000	16,095,000	2,950,000
VRA Pool Bond Water Series 2014B Refunding	2.00-5.25%	\$555,000-\$765,000 (a+)	10/1/2028	6,355,000	4,700,000	580,000
2016A VRA Refunding of 2011B	4.80-5.13%	\$1,150,000-\$1,475,000 (a+)	10/1/2027	7,870,000	7,870,000	1,150,000
VRA 2011 Bond Series 2011A	2.125-5.125%	\$25,000-\$40,000 (a+)	10/1/2031	510,000	315,000	25,000
2017C VRA Bond	2.287-5.125%	\$325,000-\$655,000 (a+)	4/1/2038	10,000,000	7,820,000	340,000
2018C VRA Bond	4.125-5.125%	\$180,000-\$415,000 (a+)	10/1/2038	5,490,000	4,975,000	190,000
2021 Revenue Refunding	1.54%	\$345,034-\$533,420 (sa+)	4/1/2033	9,774,110	8,709,109	1,053,418
2021 Boones Mill Assumption	2.46%	\$8,001-\$9,611 (sa+)	4/1/2030	148,434	140,531	16,100
VRA Bond Series 2021C	2.30-2.90%	\$1,060,000-\$1,150,000 (a+)	10/1/2041	14,065,000	14,065,000	-
Add: Premium on issuance					4,656,772	840,240
<i>Total Direct Borrowings and Placements - Revenue Bonds</i>					<u>\$ 71,016,238</u>	<u>\$ 7,284,262</u>
<i>Lease Liabilities</i>						
Parking	3.00%	\$2,145-\$2,285 (m+)	9/1/2022	31,129	\$ 6,837	\$ 6,837
Tower site	2.00%	\$243-\$250 (m+)	11/1/2022	4,194	1,244	1,244
Copier	0.50%	\$127-\$130 (m+)	9/1/2025	6,536	5,009	1,533
Copier	0.50%	\$607-\$609 (m+)	6/16/2025	12,137	9,122	3,026
Tower site	2.00%	\$227-\$250 (m+)	3/1/2027	13,337	13,584	2,753
Tower site	2.00%	\$91-\$100 (m+)	3/1/2027	5,335	5,433	1,101
<i>Total leases liabilities</i>					<u>\$ 41,229</u>	<u>\$ 16,494</u>
<i>Other Long-Term Obligations:</i>						
Compensated absences					\$ 1,078,633	\$ 808,975
Net pension liability					494,280	-
Net OPEB liabilities					2,071,282	-
<i>Total Other Long-Term Obligations</i>					<u>\$ 3,644,195</u>	<u>\$ 808,975</u>
<b>Total Long-Term Obligations Payable from the Water Fund</b>					<u>\$ 74,701,662</u>	<u>\$ 8,109,731</u>

(a+)-annual principal installments shown, does not include semi-annual interest installments

(sa+)-semi-annual principal installments shown, does not include semi-annual interest installments

(m+)-monthly principal installments shown, does not include monthly interest installments

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 4—Long-Term Obligations: (Continued)

Details of the Authority's outstanding long-term indebtedness at June 30, 2022 are as follows: (Continued)

Water Pollution Control Fund						
Type	Interest Rates	Installment Amounts	Final Maturity Date	Amount of Original Issue	Balance Enterprise Activities	Amount Due Within One Year
<i>Direct Borrowings and Placements - Locality Compensation Payments:</i>						
City of Roanoke, VA - 2012B Refunding	1.15-2.96%	\$910,000-\$945,000 (a+)	10/1/2023	\$ 7,105,000	\$ 1,870,000	\$ 925,000
VRA Bond Series 2016B	2.125-5.125%	\$105,000-\$185,000 (a+)	10/1/2034	2,155,000	1,910,000	110,000
Add: Premium on issuance					176,093	28,173
<i>Total Direct Borrowings and Placements - Locality Compensation Payments</i>					<u>\$ 3,956,093</u>	<u>\$ 1,063,173</u>
<i>Direct Borrowings - Revenue Bonds:</i>						
VRA Wastewater Revolving Loan Series 2003	2.30%	\$146,727-\$288,469 (sa+)	10/1/2026	\$ 9,000,000	\$ 2,524,113	\$ 538,684
VRA Wastewater Revolving Loan Series 2003	2.30%	\$503,418-\$989,731 (sa+)	10/1/2026	31,665,134	8,660,181	1,848,212
VRA Wastewater Revolving Loan Series 2007	2.50%	\$164,009-\$321,968 (sa+)	8/1/2028	9,993,612	3,962,223	568,712
VRA Clean Water Revolving Loan Series 2011	2.35%	\$37,507-\$46,284 (sa+)	3/1/2032	1,500,000	848,495	80,501
VRA Wastewater Revolving Loan Series 2011	2.35%	\$60,049-\$145,676 (sa+)	9/1/2033	4,660,693	2,972,184	242,479
VRA Wastewater Revolving Loan Series 2011	2.35%	\$53,622-\$186,581 (sa+)	9/1/2032	5,952,344	3,493,016	260,639
VRA Wastewater Revolving Loan Series 2012	1.45%	\$175,199-\$354,660 (sa+)	4/1/2035	12,318,074	8,221,689	605,496
VRA Pool Bond Sewer Series 2014B Refunding	1.18-5.13%	\$165,000-\$235,000 (a+)	10/1/2028	1,930,000	1,435,000	175,000
VRA Refunding Bond Series 2016A	4.80-5.13%	\$770,000-\$990,000 (a+)	10/1/2027	5,270,000	5,270,000	770,000
VRA Bond Series 2012	2.40%	\$65,888-\$84,627 (sa+)	3/1/2033	2,700,000	1,666,630	142,183
VRA Bond Series 2004	1.00%	\$48,104-\$95,491 (sa+)	9/1/2026	4,032,975	848,826	185,352
VRA Bond Series 2013	1.45%	\$5,353-\$33,223 (sa+)	4/1/2035	1,169,808	757,012	57,506
VRA Bond Series 2020	3.00%	\$125,000-\$310,000 (a+)	10/1/2040	4,160,000	4,035,000	130,000
VRA Bond Series 2021*	1.00%	\$2,500-\$252,767 (sa+)	10/1/2043	9,933,058	4,523,159	-
VRA Bond Series 2021C	2.125-5.125%	\$380,000-\$666,000 (a+)	10/1/2041	8,470,000	8,470,000	-
2021 Boones Mill Assumption	0.00%	\$6,267 (sa+)	4/1/2030	195,547	183,012	-
Add: Premium on issuance					2,590,916	373,083
<i>Total Direct Borrowings and Placements - Revenue Bonds</i>					<u>\$ 60,461,456</u>	<u>\$ 5,977,847</u>
<i>Lease Liabilities</i>						
Parking	3.00%	\$2,145-\$2,285 (m+)	9/1/2022	31,129	\$ 6,837	\$ 6,837
Copier	0.50%	\$127-\$130 (m+)	9/1/2025	6,536	5,009	1,532
Copier	0.50%	\$332-\$337 (m+)	9/1/2024	13,077	9,072	4,020
Copier	0.50%	\$607-\$609 (m+)	6/16/2025	12,137	9,121	3,025
<i>Total lease liabilities</i>					<u>\$ 30,039</u>	<u>\$ 15,414</u>
<i>Other Long-Term Obligations:</i>						
Compensated absences					\$ 1,201,880	\$ 901,410
Net pension liability					580,244	-
Net OPEB liabilities					2,082,666	-
<i>Total Other Long-Term Obligations</i>					<u>\$ 3,864,790</u>	<u>\$ 901,410</u>
<b>Total Long-Term Obligations Payable from the Water Pollution Control Fund</b>					<u>\$ 68,312,378</u>	<u>\$ 7,957,844</u>
<b>Grand Total All Funds</b>					<u>\$ 143,014,040</u>	<u>\$ 16,067,575</u>

(a+)-annual principal installments shown, does not include semi-annual interest installments

(sa+)-semi-annual principal installments shown, does not include semi-annual interest installments

(m+)-monthly principal installments shown, does not include monthly interest installments

\*As of June 30, 2022, VRA bond is in draw down phase and only \$4,523,159 has been drawn down.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 4—Long-Term Obligations: (Continued)

Loans from the Virginia Resources Authority (VRA) are governed by rate covenants with which the Authority has been in compliance through June 30, 2022. Revenue bonds and locality compensation payments are secured by the Authority’s revenues.

If an event of default occurs with VRA bonds, the principal of the bond(s) may be declared immediately due and payable to the registered owner of the bond(s) by written notice to the Authority.

Note 5—Capital Contributions:

The Authority received capital contributions from the following sources during the year:

Year Ended June 30, 2022:

	Water Fund	Water Pollution Control Fund	Total
Availability fees	\$ 1,597,500	\$ 1,448,500	\$ 3,046,000
Developer contributions	781,340	731,400	1,512,740
Contributions from other governments	2,985,150	2,626,739	5,611,889
Other capital contributions	440,850	691,396	1,132,246
Total Capital Contributions	<u>\$ 5,804,840</u>	<u>\$ 5,498,035</u>	<u>\$ 11,302,875</u>

Note 6—Pension Plans:

Aggregate Pension Information

The following is a summary of deferred outflows, deferred inflows, net pension liabilities (assets), and pension expense for the year ended June 30, 2022.

	Water Fund				Water Pollution Control Fund			
	Deferred Outflows	Deferred Inflows	Net Pension Liability (Asset)	Pension Expense	Deferred Outflows	Deferred Inflows	Net Pension Liability (Asset)	Pension Expense
Pension Plans:								
Virginia Retirement System Plan	\$ 648,775	\$ 1,183,442	\$ (1,213,408)	\$ 11,863	\$ 692,562	\$ 1,285,044	\$ (1,309,693)	\$ 11,010
City of Roanoke Pension Plan	141,172	959,716	494,280	(255,130)	162,159	1,011,269	580,244	(268,641)
Totals	<u>\$ 789,947</u>	<u>\$ 2,143,158</u>	<u>\$ (719,128)</u>	<u>\$ (243,267)</u>	<u>\$ 854,721</u>	<u>\$ 2,296,313</u>	<u>\$ (729,449)</u>	<u>\$ (257,631)</u>

## WESTERN VIRGINIA WATER AUTHORITY

### Notes to Financial Statements At June 30, 2022 (Continued)

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#### Note 6—Pension Plans: (Continued)

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##### Virginia Retirement System Plan

###### *Plan Description*

All full-time, salaried permanent employees of the Authority (that are not covered under the Roanoke City Pension Plan) are automatically covered by VRS Retirement Plan upon employment. This is an agent multiple-employer plan administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. However, one entity whose financial information is not included in the primary government's report participates in the VRS plan through the Authority and the participating entity reports its proportionate information on the basis of a cost-sharing plan. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the Code of Virginia, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

###### *Benefit Structures*

The System administers three different benefit structures for covered employees - Plan 1, Plan 2 and Hybrid. Each of these benefit structures has different eligibility criteria, as detailed below.

- a. Employees with a membership date before July 1, 2010, vested as of January 1, 2013, and have not taken a refund, are covered under Plan 1, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced retirement benefit beginning at age 65 with at least 5 years of service credit or age 50 with at least 30 years of service credit. Non-hazardous duty employees may retire with a reduced benefit as early as age 55 with at least 5 years of service credit or age 50 with at least 10 years of service credit.
- b. Employees with a membership date from July 1, 2010 to December 31, 2013, that have not taken a refund or employees with a membership date prior to July 1, 2010 and not vested before January 1, 2013, are covered under Plan 2, a defined benefit plan. Non-hazardous duty employees are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of service credit or when the sum of their age plus service credit equals 90. Non-hazardous duty employees may retire with a reduced benefit as early as age 60 with at least 5 years of service credit.
- c. Non-hazardous duty employees with a membership date on or after January 1, 2014 are covered by the Hybrid Plan combining the features of a defined benefit plan and a defined contribution plan. Plan 1 and Plan 2 members also had the option of opting into this plan during the election window held January 1 - April 30, 2014 with an effective date of July 1, 2014. Employees covered by this plan are eligible for an unreduced benefit beginning at their normal social security retirement age with at least 5 years of service credit, or when the sum of their age plus service credit equals 90. Employees may retire with a reduced benefit as early as age 60 with at least 5 years of service credit. For the defined contribution component, members are eligible to receive distributions upon leaving employment, subject to restrictions.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 6—Pension Plans: (Continued)

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Virginia Retirement System Plan (Continued)

*Average Final Compensation and Service Retirement Multiplier*

The VRS defined benefit is a lifetime monthly benefit based on a retirement multiplier as a percentage of the employee's average final compensation multiplied by the employee's total service credit. Under Plan 1, average final compensation is the average of the employee's 36 consecutive months of highest compensation and the multiplier is 1.70% for non-hazardous duty employees and 1.85% for sheriffs and regional jail superintendents. Under Plan 2, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the retirement multiplier is 1.65% for non-hazardous duty employees and 1.85% for sheriffs and regional jail superintendents. Under the Hybrid Plan, average final compensation is the average of the employee's 60 consecutive months of highest compensation and the multiplier is 1.00%. For members who opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans.

*Cost-of-Living Adjustment (COLA) in Retirement and Death and Disability Benefits*

Retirees with an unreduced benefit or with a reduced benefit with at least 20 years of service credit are eligible for an annual COLA beginning July 1 after one full calendar year from the retirement date. Retirees with a reduced benefit and who have less than 20 years of service credit are eligible for an annual COLA beginning on July 1 after one calendar year following the unreduced retirement eligibility date. Under Plan 1, the COLA cannot exceed 5.00%. Under Plan 2 and the Hybrid Plan, the COLA cannot exceed 3.00%. The VRS also provides death and disability benefits. Title 51.1 of the Code of Virginia, as amended, assigns the authority to establish and amend benefit provisions to the General Assembly of Virginia.

*Contributions*

The contribution requirement for active employees is governed by §51.1-145 of the Code of Virginia, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement.

The Authority's contractually required employer contribution rate for the year ended June 30, 2022 was 4.94% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were \$457,663 and \$443,820 for the years ended June 30, 2022 and June 30, 2021, respectively.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 6—Pension Plans: (Continued)

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Virginia Retirement System Plan (Continued)

*Net Pension Asset*

At June 30, 2022, the Authority reported an asset of \$2,523,101 for its proportionate share of the net pension asset. The Authority's net pension asset was measured as of June 30, 2021. The total pension liability used to calculate the net pension asset was determined by an actuarial valuation performed as of June 30, 2020 and rolled forward to the measurement date of June 30, 2021. In order to allocate the net pension asset to all employers included in the plan, the Authority is required to determine its proportionate share of the net pension asset. Contributions as of June 30, 2021 and 2020 were used as a basis for allocation to determine the Authority's proportionate share of the net pension asset. At June 30, 2021 and 2020, the Authority's proportion was 98.4059% and 98.9800%, respectively.

*Actuarial Assumptions - General Employees*

The total pension liability for General Employees in the Authority's Retirement Plan was based on an actuarial valuation as of June 30, 2020, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021.

Inflation	2.50%
Salary increases, including inflation	3.50% - 5.35%
Investment rate of return	6.75%, net of pension plan investment expenses, including inflation

Mortality rates:

All Others (Non-10 Largest) - Non-Hazardous Duty: 15% of deaths are assumed to be service related

Pre-Retirement:

Pub-2010 Amount Weighted Safety Employee Rates projected generationally; 95% of rates for males; 105% of rates for females set forward 2 years

Post-Retirement:

Pub-2010 Amount Weighted Safety Healthy Retiree Rates projected generationally; 110% of rates for males; 105% of rates for females set forward 3 years

Post-Disablement:

Pub-2010 Amount Weighted General Disabled Rates projected generationally; 95% of rates for males set back 3 years; 90% of rates for females set back 3 years

Beneficiaries and Survivors:

Pub-2010 Amount Weighted Safety Contingent Annuitant Rates projected generationally; 110% of rates for males and females set forward 2 years

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 6—Pension Plans: (Continued)

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Virginia Retirement System Plan (Continued)

*Actuarial Assumptions - General Employees (Continued)*

Mortality rates: (Continued)

All Others (Non-10 Largest) - Non-Hazardous Duty: 15% of deaths are assumed to be service related  
(Continued)

Mortality Improvements:

Rates projected generationally with Modified MP-2020 Improvement Scale that is 75% of the MP-2020 rates

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period from July 1, 2016 through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

All Others (Non-10 Largest) - Non-Hazardous Duty:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Update to Pub-2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020.
Retirement Rates	Adjusted rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability Rates	No change
Salary Scale	No change
Line of Duty Disability	No change
Discount Rate	No change

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 6—Pension Plans: (Continued)

Virginia Retirement System Plan (Continued)

*Long-Term Expected Rate of Return*

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Long-Term Target Allocation	Arithmetic Long-term Expected Rate of Return	Weighted Average Long-term Expected Rate of Return*
Public Equity	34.00%	5.00%	1.70%
Fixed Income	15.00%	0.57%	0.09%
Credit Strategies	14.00%	4.49%	0.63%
Real Assets	14.00%	4.76%	0.67%
Private Equity	14.00%	9.94%	1.39%
MAPS - Multi-Asset Public Strategies	6.00%	3.29%	0.20%
PIP - Private Investment Partnership	3.00%	6.84%	0.21%
Total	100.00%		4.89%
		Inflation	2.50%
		Expected arithmetic nominal return*	7.39%

\* The above allocation provides a one-year expected return of 7.39%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the System, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.94%, including expected inflation of 2.50%.

\*On October 10, 2019, the VRS Board elected a long-term rate of return of 6.75% which was roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation at that time, providing a median return of 7.11%, including expected inflation of 2.50%.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 6—Pension Plans: (Continued)

Virginia Retirement System Plan (Continued)

*Discount Rate*

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; the Authority was also provided with an opportunity to use an alternative employer contribution rate. For the year ended June 30, 2021, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017 actuarial valuations, whichever was greater. From July 1, 2021 on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

*Sensitivity of the Authority’s Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate*

The following presents the Authority’s proportionate share of the net pension liability (asset) using the discount rate of 6.75%, as well as what the Authority’s proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

	<b>Rate</b>		
	<b>1% Decrease</b>	<b>Current Discount</b>	<b>1% Increase</b>
	<b>(5.75%)</b>	<b>(6.75%)</b>	<b>(7.75%)</b>
Authority's proportionate share of the Authority Retirement Plan Net Pension Liability (Asset)	\$ 476,049	\$ (2,523,101)	\$ (4,947,831)

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 6—Pension Plans: (Continued)

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Virginia Retirement System Plan (Continued)

*Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions*

For the year ended June 30, 2022, the Authority recognized pension expense of \$22,873. Since there was a change in proportionate share between measurement dates, a portion of the pension expense was related to deferred amounts from changes in proportion and from difference between employee contributions and the proportionate share of employer contributions.

At June 30, 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 373,007	\$ 7,900
Changes in assumptions	508,701	-
Change in proportionate shares	1,966	4,489
Net difference between projected and actual earnings on pension plan investments	-	2,456,097
Employer contributions subsequent to the measurement date	<u>457,663</u>	<u>-</u>
Total	<u>\$ 1,341,337</u>	<u>\$ 2,468,486</u>

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 6—Pension Plans: (Continued)

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Virginia Retirement System Plan (Continued)

*Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Continued)*

\$457,663 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the fiscal year ending June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

<u>Year ended June 30</u>	
2023	\$ (132,407)
2024	(217,004)
2025	(495,455)
2026	(739,946)
Thereafter	-

*Pension Plan Data*

Information about the VRS Political Subdivision Retirement Plan is also available in the separately issued VRS 2021 Annual Comprehensive Financial Report (Annual Report). A copy of the 2021 VRS Annual Report may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2021-annual-report-pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

City of Roanoke Pension Plan

Employees of the Authority who transferred their employment from the City of Roanoke are eligible to continue their participation in the City's Pension Plan.

*General Information about the Pension Plan*

The Pension Plan is a cost-sharing multiple-employer defined benefit plan established by City Council and is included in the City's basic financial statements as a Pension Trust Fund. The Pension Plan was established by City Ordinance No. 8559 dated May 27, 1946, effective July 1, 1946. The Pension Plan covers substantially all employees of the City, all employees of the Roanoke Regional Airport Commission, and the Roanoke Valley Detention Center, as well as certain employees of the City of Roanoke School Board, the Roanoke Valley Resource Authority, and the Western Virginia Water Authority. The Roanoke Valley Resource Authority no longer has an active membership. The City is the major contributor of employer contributions to the Pension Plan. City Council appoints members of the Pension Plan Board of Trustees to administer the Pension Plan. The Pension Plan is not subject to the provisions of the Employee Retirement Income Security Act (ERISA) of 1974.

**WESTERN VIRGINIA WATER AUTHORITY**

**Notes to Financial Statements  
At June 30, 2022 (Continued)**

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**Note 6—Pension Plans: (Continued)**

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**City of Roanoke Pension Plan (Continued)**

***General Information about the Pension Plan (Continued)***

Effective July 1, 1984, the Pension Plan changed its name from the Employees' Retirement System of the City of Roanoke, Virginia (ERS) to City of Roanoke Pension Plan and incorporated a provision for an Employees' Supplemental Retirement System (ESRS) which modified certain benefits as defined by the ERS. All employees covered under the provisions of the ERS at June 30, 1984, could elect to remain with the ERS or be covered under the provisions of the ESRS. Coverage under the ESRS was mandatory for all employees hired or rehired on or after July 1, 1984. On November 28, 1994, June 1, 1998, November 2, 1998, and June 5, 2000, City Council authorized the Pension Plan to offer members of the ERS an opportunity to transfer to the ESRS. The option was available from February 1, 1995 to May 16, 1995, July 1, 1998 through August 31, 1998, December 1, 1998 through December 31, 1998, and July 1, 2000 through July 31, 2000. Both the ERS and the ESRS share a common trust fund from which all benefits are paid without distinction as to the source of funds and are administered by the Board of Trustees. The Pension Plan provides retirement benefits as well as death and disability benefits.

Effective July 16, 2012, City Council adopted a restatement of the chapter of the City Code governing the Pension Plan. The restated Chapter 22.3, Pensions and Retirement, provides for the introduction of an Internal Revenue Code Section 401(h) health savings account, established as a component of the Pension Plan effective July 1, 2013, and established new benefit tiers effective July 1, 2014. The restated Chapter 22.3 also provides for a defined cost of living adjustment effective July 1, 2013.

Employees who are members of the ERS with 30 years of service and age 60 (normal retirement age) are entitled to an annual retirement benefit equal to 1/70 (1.429%) of their average final compensation (highest consecutive 12 months), excluding overtime, for each year of service. Employees may retire with 20 years of service and receive a reduced retirement benefit. For employees who are married at their retirement date, a joint and survivor annuity is payable monthly. There is no mandatory retirement age.

Employees who are members of the ESRS, hired prior to July 1, 2014, with 5 years or more of credited service and age 65 or over, general employees who have attained age 50 with age plus service equal to 80, and deputized police officers and firefighters who have attained age 45 with age plus service equal to 70, are entitled to an annual retirement benefit, payable monthly for life in an amount equal to 2.1% of their final average compensation for each year of credited service up to a maximum of 63%. Final average compensation is the employee's average salary, excluding overtime, over the highest 36 consecutive months of credited service. Employees with 5 years of credited service may retire at age 55 and receive a reduced retirement benefit. Employees may elect to receive their retirement benefits in the form of a single life annuity or a joint and survivor annuity payable monthly from retirement. If employees terminate before rendering five years of service, they forfeit the right to receive any Pension Plan benefits. There is no mandatory retirement age.

**WESTERN VIRGINIA WATER AUTHORITY**

**Notes to Financial Statements  
At June 30, 2022 (Continued)**

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**Note 6—Pension Plans: (Continued)**

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**City of Roanoke Pension Plan (Continued)**

***General Information about the Pension Plan (Continued)***

Employees hired after June 30, 2014 become members of ESRS and choose between participation as a traditional defined benefit ESRS member or as a Hybrid member. Employees hired after June 30, 2014 were required to contribute 5% of earnable compensation to the plan. Effective July 1, 2015, the required contribution of 5% of earnable compensation was extended to employees hired prior to July 1, 2015. Employees have 60 days from their date of hire to make an irrevocable election to participate as either a traditional defined benefit ESRS member or a Hybrid member. Employees electing Hybrid membership participate in ESRS and accrue a lesser defined benefit than traditional defined benefit ESRS members and also participate in a defined contribution plan established under Section 401(a) of the Internal Revenue Code. Employees who make no election participate as traditional defined benefit ESRS members.

ESRS members hired after June 30, 2014, choosing participation as a traditional defined benefit member may retire with 5 years or more of credited service and age 65 or over, general employees who have attained age 55 with age plus service equal to 85, and deputized police officers and firefighters who have attained age 50 with age plus service equal to 75, are entitled to an annual retirement benefit, payable monthly for life in an amount equal to 2.0% of their final average compensation for each year of credited service up to a maximum of 63%. Final average compensation is the employee's average salary, excluding overtime, over the highest 60 consecutive months of credited service. Employees with 15 years of credited service may retire at age 55 (age 50 for deputized police officers and firefighters) and receive a reduced retirement benefit. Employees may elect to receive their retirement benefits in the form of a single life annuity or a joint and survivor annuity payable monthly from retirement. If employees terminate before rendering five years of service, they forfeit the right to receive any Pension Plan benefits. There is no mandatory retirement age. Member contributions for traditional defined benefit participants are invested in the pension trust fund.

Employees choosing participation as Hybrid members participate in ESRS for the defined benefit component of their retirement benefit, subject to the same eligibility criteria as outlined for the traditional defined benefit participants. Hybrid members' defined benefit component is payable monthly for life in an amount equal to 1.0% of their final average compensation for each year of credited service up to a maximum of 63%. Final average compensation is the employee's average salary, excluding overtime, over the highest 60 consecutive months of credited service. Hybrid member contributions are deposited in a defined contribution plan established under Section 401(a) of the Internal Revenue Code. Hybrid members are responsible for the investment of funds in their defined contribution plan account.

Effective July 1, 2000, an additional monthly supplement equal to the greater of (a) \$159 or (b) 75% of the amount the City contributes toward the cost of a single active employee's health insurance shall be paid for eligible retirees terminating the month in which the retiree attains age 65. Any member of the Pension Plan who was an employee of one of the participating employers of the Pension Plan (not including employees of the School Board) and who retired after earning 20 or more years of creditable service but prior to attaining the age of 65 is eligible for this supplement. This supplement is not available to retirees receiving the early retiree incentive plan supplement granted in 1991. Employees hired after June 30, 2013 are not eligible for this supplement.

**WESTERN VIRGINIA WATER AUTHORITY**

**Notes to Financial Statements  
At June 30, 2022 (Continued)**

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**Note 6—Pension Plans: (Continued)**

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**City of Roanoke Pension Plan (Continued)**

***General Information about the Pension Plan (Continued)***

The Internal Revenue Code Section 401(h) health savings account operates similarly to a defined contribution plan. Employees eligible to participate in the Pension Plan are required to contribute 1% of earnable compensation in their health savings account. Employees hired after June 30, 2013 and employees hired prior to July 1, 2014, who made an irrevocable election to forego eligibility for the monthly supplemental benefit enacted effective July 1, 2000, receive an employer paid matching contribution equal to 1% of their earnable compensation. Employees vest in the employer paid matching contribution upon the attainment of 5 years of creditable service in the Pension Plan. The Board of Trustees has delegated authority for the oversight of the 401(h) health savings account to the Defined Contribution Board established under the Chapter 22.3 of the City Code. The Defined Contribution Board has contracted with an independent financial services organization for the custody and administration of the 401(h) accounts. Assets accumulated in the individual accounts are available for use upon separation from service for reimbursement of qualified medical expenses, as defined in section 213(d) of the Internal Revenue Code, as a tax-free distribution. Non-vested employer contributions, including earnings thereon, are forfeited upon separation from service. Any balance remaining in the account is forfeited upon death or attainment of maximum age of the last eligible recipient.

***Contributions***

Effective July 1, 2015, employees contribute 5.00% of earnable compensation into the pension trust. Employees hired on or after July 1, 2014, electing participation as a Hybrid plan member contribute 5% of earnable compensation into a defined contribution plan member account. Employer contributions to the Pension Plan are based on a percentage of the earnable compensation of the active members. The City's contribution rate for the fiscal year ended June 30, 2022 was 16.10%, which, when combined with the required employee contribution of 5.00%, totaled 21.31%. For fiscal year 2021, the total contribution rate of 21.10% of earnable compensation, actuarially determined as an amount that is expected to finance the cost of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the Authority were \$286,700 and \$286,134 for fiscal year ended June 30, 2021 and June 30, 2022, respectively.

***Pension Liabilities, Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions***

At June 30, 2022, the Authority reported a liability of \$1,074,525 for its' proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2021 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Authority's proportion of the net pension liability was based on a projection of the Authority's long-term share of contributions to the pension plan relative to projected contributions of all participates, as actuarially determined. At June 30, 2021 and 2020, the Authority's proportion was 2.3276% and 2.3218%, respectively.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 6—Pension Plans: (Continued)

City of Roanoke Pension Plan (Continued)

*Pension Liabilities, Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Continued)*

For the year ended June 30, 2022, the Authority recognized pension expense of \$(523,771). Since there was a change in proportionate share between measurement dates, a portion of the pension expense was related to deferred amounts from changes in proportion and from differences between employer contributions and the proportionate share of employer contributions.

At June 30, 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to this pension from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 17,197	\$ 52,362
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	177,503
Net difference between projected and actual earnings on pension plan investments	-	1,741,120
Contributions subsequent to the measurement date	286,134	-
Totals	<u>\$ 303,331</u>	<u>\$ 1,970,985</u>

\$286,134 reported as deferred outflows of resources related to the pension resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the fiscal year ending June 30, 2023. Other amounts reported as deferred outflows and deferred inflows of resources will be recognized in pension expense in future reporting periods as follows:

<u>Year Ended June 30</u>	
2023	\$ (578,727)
2024	(457,707)
2025	(432,683)
2026	(484,671)

# WESTERN VIRGINIA WATER AUTHORITY

## Notes to Financial Statements At June 30, 2022 (Continued)

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### Note 6—Pension Plans: (Continued)

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#### City of Roanoke Pension Plan (Continued)

##### *Actuarial Assumptions*

The total pension liability was determined by an actuarial valuation as of June 30, 2021 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.25%
Salary increases, including inflation	3.50% average, including inflation
Investment rate of return	7.25%, net of investment expenses
Cost of Living Adjustments	1.50% for eligible participants, based on 2/3 of assumed 2.25% inflation

Mortality rates of pre-retirement and healthy lives were based on 125% of RP-2000 Combined Healthy Mortality for males and females with generation mortality projection using Scale AA. Mortality rates of disabled lives were based on Society of Actuaries RP-2014 adjusted to 2006 Disabled Retiree Mortality table.

Actuarial assumptions are based on the last experience study performed as of June 30, 2016 for the period July 1, 2011 through June 30, 2016. City Code requires that the Plan have an experience study performed every 5 years. The experience study covers a 5 year period.

##### *Long-term Expected Rate of Return*

The long-term expected rate of return on Pension Plan investments was determined using projected long-term rates of returns developed for each asset class. The expected long-term rate of return for each asset class as weighted by the Investment Policy target asset allocation was used, to derive the overall expected rate of return for the portfolio. The following table reflected the long-term expected arithmetic real rate of return based upon the defined target allocation for each asset class as defined in the Statement of Investment Policy:

<u>Asset Class (Strategy)</u>	<u>Target Allocation</u>	<u>Weighted Average Long-Term Expected Rate of Return</u>
Equity		
US Equity	52.00%	5.20%
International Equity	22.00%	2.42%
Real Estate	6.00%	0.42%
Fixed Income		
US Fixed Income	20.00%	1.00%
Total	<u>100.00%</u>	<u>9.04%</u>

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 6—Pension Plans: (Continued)

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City of Roanoke Pension Plan (Continued)

*Discount Rate*

The discount rate used to measure the total pension liability was 7.25%. The projection of cash flows used to determine the discount rate assumed that contributions will be made at the actuarially determined contribution rates. Based on those assumptions, the Pension Plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on Pension Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

*Sensitivity of the Authority’s Proportionate Share of the Net Pension Liability (Asset) to Changes in the Discount Rate*

The following presents the Authority’s proportionate share of the net pension liability (asset) calculated using the discount rate of 7.25%, as well as what the Authority’s proportionate share of the net pension liability (asset) would be if it were calculated using a discount rate that is one percentage point lower (6.25%) or one percentage point higher (8.25%) than the current rate:

	Rate		
	1% Decrease	Current Rate	1% Increase
	(6.25%)	(7.25%)	(8.25%)
Authority’s proportionate share of the net pension liability (asset)	\$ 2,533,308	\$ 1,074,525	\$ (156,748)

*Pension Plan Data*

The Roanoke City Pension Plan issues a publicly available annual comprehensive financial report that includes financial statements and required supplementary information. A copy of the most recent report may be obtained by writing to the City of Roanoke Retirement Office, Attention: Retirement Administrator, P.O. Box 1220, Roanoke, Virginia, 24006.

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**WESTERN VIRGINIA WATER AUTHORITY**

**Notes to Financial Statements  
At June 30, 2022 (Continued)**

**Note 7—Aggregate OPEB Information:**

The following is a summary of deferred outflows, deferred inflows, net OPEB liabilities, and OPEB expense for the year ended June 30, 2022.

	Water Fund				Water Pollution Control Fund			
	Deferred Outflows	Deferred Inflows	Net OPEB Liabilities	OPEB Expense	Deferred Outflows	Deferred Inflows	Net OPEB Liabilities	OPEB Expense
Health Insurance OPEB Plan	\$ 223,242	\$ 269,229	\$ 1,722,389	\$ 72,649	\$ 220,583	\$ 266,024	\$ 1,701,884	\$ 71,784
VRS OPEB Plans - Group Life Insurance (GLI) Plan:								
Western Virginia Water Authority GLI Plan	98,795	118,583	304,425	18,039	106,635	127,993	328,581	19,470
City of Roanoke GLI Plan	11,965	20,533	44,468	788	13,972	24,103	52,201	925
Totals	\$ 334,002	\$ 408,345	\$ 2,071,282	\$ 91,476	\$ 341,190	\$ 418,120	\$ 2,082,666	\$ 92,179

**Note 8—Other Postemployment Benefits - Health Insurance:**

***Plan Description***

In addition to the pension benefits described in Note 6, the Authority administers a single-employer defined benefit healthcare plan, Western Virginia Water Authority OPEB Plan. The plan provides for participation by eligible retirees of the Authority and their dependents in the health insurance programs available to Authority employees. The plan does not issue a publicly available financial report.

***Benefits Provided***

The plan will provide retiring employees the option to continue health insurance offered by the Authority. An eligible Authority retiree may receive this benefit until the retiree is eligible to receive Medicare. To be eligible for this benefit a retiree must meet the following criteria:

- The retiree must be a full time employee retiring on or after July 1, 2004.
- The employee must be eligible to retire with the Virginia Retirement System (VRS) or the current City of Roanoke retirement plan.
- Active employees must have at least 10 years of service with combined VRS or City of Roanoke and/or the Water Authority, with a minimum of five continuous years of service with the Water Authority and must be hired before July 1, 2010.
- Disabled employees are eligible after they meet retirement eligibilities

The benefits, employee contributions and the employer contributions are governed by the Board of Directors of the Western Virginia Water Authority and can be amended through Board action.

***Plan Membership***

At January 1, 2022 (valuation date), the following employees were covered by the benefit terms:

Total active members	92
Total retirees and spouses	30
Total	122

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 8—Other Postemployment Benefits - Health Insurance: (Continued)

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*Contributions*

The board does not pre-fund benefits; therefore, no assets are accumulated in a trust fund. The current funding policy is to pay benefits directly from general assets on a pay-as-you-go basis. The funding requirements are established and may be amended by the Authority's Board. The amount paid by the Authority for OPEB as the benefits came due during the year ended June 30, 2022 was \$357,453.

*Total OPEB Liability*

The Authority's total OPEB liability was measured as of June 30, 2022. The total OPEB liability was determined by an actuarial valuation performed as of January 1, 2022, and rolled forward to the measurement date of June 30, 2022.

*Actuarial Assumptions*

The total OPEB liability in the January 1, 2022 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.50%
Salary Increases	2.50% to 5.00%
Discount Rate	3.54% as of June 30, 2022; 2.16% as of June 30, 2021

Mortality rates for pre-retirement and post-retirement employees were 125% of RP-2000 Combined Healthy mortality rates for males and females with generational mortality projections using Scale AA. Mortality rates for post-disabled employees were based on RP-2014 adjusted to 2006 Disabled Retiree mortality rates for males and females.

The healthcare trend rate assumption starts at 6.50% in 2022 gradually grading to 3.90% by the year 2073.

**Discount Rate**

The discount rate (as the entity has not established a trust for this OPEB) is based on the Bond Buyer 20-Year Bond GO Index as of the respective measurement dates. The final equivalent single discount rate used for this year's valuation is 3.54% as of the end of the fiscal year with the expectation that the Authority will continue to fund the program on a pay-as-you-go basis.

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 8—Other Postemployment Benefits - Health Insurance: (Continued)

Changes in Total OPEB Liability

	<u>Total OPEB Liability</u>
Balances at June 30, 2021	\$ 3,766,703
Changes for the year:	
Service cost	79,697
Interest on total OPEB liability	79,242
Effect of economic/demographic gains or losses	419,451
Effect of assumptions changes or inputs	(563,367)
Benefit payments	(357,453)
Net changes	\$ (342,430)
Balances at June 30, 2022	\$ <u>3,424,273</u>

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate

The following amounts present the total OPEB liability of the Authority, as well as what the total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (2.54%) or one percentage point higher (4.54%) than the current discount rate:

<u>Rate</u>		
1% Decrease (2.54%)	Current Discount (3.54%)	1% Increase (4.54%)
\$ 3,594,826	\$ 3,424,273	\$ 3,261,295

Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates

The following presents the total OPEB liability of the Authority, as well as what the total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (5.50% in 2022 and gradually decreasing to an ultimate rate of 2.90%) or one percentage point higher (7.50% in 2022 and gradually decreasing to an ultimate rate of 4.90%) than the current healthcare cost trend rates:

<u>Rates</u>		
1% Decrease (5.50% decreasing to 2.90%)	Healthcare Cost Trend (6.50% decreasing to 3.90%)	1% Increase (7.50% decreasing to 4.90%)
\$ 3,254,944	\$ 3,424,273	\$ 3,613,401

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 8—Other Postemployment Benefits - Health Insurance: (Continued)

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources

For the year ended June 30, 2022, the Authority recognized OPEB expense in the amount of \$144,433. At June 30, 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 355,898	\$ 22,408
Effect of assumption changes or inputs	87,927	512,845
Total	\$ 443,825	\$ 535,253

Amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized in OPEB expense in future reporting periods as follows:

Year Ended June 30	
2023	\$ (14,506)
2024	(14,506)
2025	(13,322)
2026	(15,169)
2027	(20,845)
Thereafter	(13,080)

Additional disclosures on changes in the total OPEB liability, related ratios, and employer contributions can be found in the required supplementary information following the notes to the financial statements.

Note 9—Group Life Insurance (GLI) Plan (OPEB Plan):

The Authority participates in two Group Life Insurance (GLI) Plans through the Virginia Retirement System (VRS). Employees of the Authority who transferred their employment from the City of Roanoke are eligible to continue their participation in the City's VRS plan. All other employees who participate in VRS through Western Virginia Water Authority are part of the Authority's VRS Plan.

*Plan Description*

The GLI Plan was established pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. All full-time, salaried permanent employees of the state agencies, teachers, and employees of participating political subdivisions are automatically covered by the VRS GLI Plan upon employment. This is a cost-sharing multiple-employer plan administered by the Virginia Retirement System (the System), along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

## WESTERN VIRGINIA WATER AUTHORITY

### Notes to Financial Statements At June 30, 2022 (Continued)

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#### Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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##### *Plan Description (Continued)*

In addition to the Basic GLI benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional GLI Plan. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured plan, it is not included as part of the GLI Plan OPEB.

The specific information for GLI OPEB, including eligibility, coverage and benefits is described below:

##### *Eligible Employees*

The GLI Plan was established July 1, 1960, for state employees, teachers, and employees of political subdivisions that elect the plan. Basic GLI coverage is automatic upon employment. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their accumulated retirement member contributions and accrued interest.

##### *Benefit Amounts*

The GLI Plan is a defined benefit plan with several components. The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled. The accidental death benefit is double the natural death benefit. In addition to basic natural and accidental death benefits, the plan provides additional benefits provided under specific circumstances that include the following: accidental dismemberment benefit, seatbelt benefit, repatriation benefit, felonious assault benefit, and accelerated death benefit option. The benefit amounts are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% of its original value. For covered members with at least 30 years of service credit, the minimum benefit payable was set at \$8,000 by statute in 2015. This will be increased annually based on the VRS Plan 2 cost-of-living adjustment calculation. The minimum benefit adjusted for the COLA was \$8,722 as of June 30, 2022.

##### *Contributions*

The contribution requirements for the GLI Plan are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the GLI Plan was 1.34% of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.80% (1.34% x 60%) and the employer component was 0.54% (1.34% x 40%). Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. Each employer's contractually required employer contribution rate for the year ended June 30, 2022 was 0.54% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019. The actuarially determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the Western Virginia Water Authority GLI Plan from the entity were \$63,743 and \$60,966 for the years ended June 30, 2022 and June 30, 2021, respectively. Contributions to the City of Roanoke GLI Plan from the entity were \$9,581 and \$9,492 for the years ended June 30, 2022 and June 30, 2021, respectively.

**WESTERN VIRGINIA WATER AUTHORITY**

**Notes to Financial Statements  
At June 30, 2022 (Continued)**

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**Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)**

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***GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB***

**Western Virginia Water Authority GLI Plan**

At June 30, 2022, the entity reported a liability of \$633,006 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2021 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2020, and rolled forward to the measurement date of June 30, 2021. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Plan for the year ended June 30, 2021 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2021, the participating employer's proportion was 0.0544% as compared to 0.0532% at June 30, 2020.

For the year ended June 30, 2022, the participating employer recognized GLI OPEB expense of \$37,509. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

**City of Roanoke GLI Plan**

At June 30, 2022, the entity reported a liability of \$96,669 for its proportionate share of the City's Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2021 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation performed as of June 30, 2020, and rolled forward to the measurement date of June 30, 2021. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the GLI Plan for the year ended June 30, 2021 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2021, the participating employer's proportion was 0.0083% as compared to 0.0085% at June 30, 2020.

For the year ended June 30, 2022, the participating employer recognized GLI OPEB expense of \$1,713. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

*GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the GLI Plan OPEB (Continued)*

At June 30, 2022, the employer reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	Western Virginia Water Authority GLI Plan		City of Roanoke GLI Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 72,197	\$ 4,822	\$ 11,026	\$ 737
Net difference between projected and actual earnings on GLI OPEB plan investments	-	151,084	-	23,073
Change in assumptions	34,898	86,609	5,330	13,226
Changes in proportionate share	34,592	4,061	-	7,600
Employer contributions subsequent to the measurement date	63,743	-	9,581	-
Total	\$ 205,430	\$ 246,576	\$ 25,937	\$ 44,636

\$63,743 and \$9,581 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the fiscal year ending June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

Year Ended June 30	Western Virginia Water Authority GLI Plan	City of Roanoke GLI Plan
2023	\$ (19,608)	\$ (7,011)
2024	(16,839)	(5,789)
2025	(20,010)	(5,250)
2026	(43,226)	(8,200)
2027	(5,206)	(2,030)
Thereafter	-	-

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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*Actuarial Assumptions*

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2020, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021. The assumptions include several employer groups. Salary increase and mortality rates included herein are for relevant employer groups. Information for other groups can be referenced in the VRS Comprehensive Annual Financial Report.

Inflation	2.50%
Salary increases, including inflation:	
Locality - General employees	3.50%-5.35%
Investment rate of return	6.75%, net of investment expenses, including inflation

**Mortality Rates - Non-Largest Ten Locality Employers - General Employees**

Pre-Retirement:

Pub-2010 Amount Weighted Safety Employee Rates projected generationally; males set forward 2 years; 105% of rates for females set forward 3 years

Post-Retirement:

Pub-2010 Amount Weighted Safety Healthy Retiree Rates projected generationally; 95% of rates for males set forward 2 years; 95% of rates for females set forward 1 year

Post-Disablement:

Pub-2010 Amount Weighted General Disabled Rates projected generationally; 110% of rates for males set forward 3 years; 110% of rates for females set forward 2 years

Beneficiaries and Survivors:

Pub-2010 Amount Weighted Safety Contingent Annuitant Rates projected generationally

Mortality Improvement Scale:

Rates projected generationally with Modified MP-2020 Improvement Scale that is 75% of the MP-2020 rates

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

*Actuarial Assumptions (Continued)*

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period from July 1, 2016 through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Update to Pub-2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement Rates	Adjusted rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age from 75 to 80 for all
Withdrawal Rates	Adjusted rates to better fit experience at each age and service decrement through 9 years of service
Disability Rates	No change
Salary Scale	No change
Line of Duty Disability	No change
Discount Rate	No change

**NET GLI OPEB Liability**

The net OPEB liability (NOL) for the GLI Plan represents the plan’s total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date of June 30, 2021, NOL amounts for the GLI Plan are as follows (amounts expressed in thousands):

	<b>GLI OPEB Plan</b>
Total GLI OPEB Liability	\$ 3,577,346
Plan Fiduciary Net Position	2,413,074
GLI Net OPEB Liability (Asset)	<u>\$ 1,164,272</u>
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	67.45%

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

*NET GLI OPEB Liability (Continued)*

The total GLI OPEB liability is calculated by the System’s actuary, and each plan’s fiduciary net position is reported in the System’s financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the System’s notes to the financial statements and required supplementary information.

*Long-Term Expected Rate of Return*

The long-term expected rate of return on the System’s investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of System’s investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class (Strategy)	Long-Term Target Asset Allocation	Arithmetic Long-term Expected Rate of Return	Weighted Average Long-term Expected Rate of Return*
Public Equity	34.00%	5.00%	1.70%
Fixed Income	15.00%	0.57%	0.09%
Credit Strategies	14.00%	4.49%	0.63%
Real Assets	14.00%	4.76%	0.67%
Private Equity	14.00%	9.94%	1.39%
MAPS - Multi-Asset Public Strategies	6.00%	3.29%	0.20%
PIP - Private Investment Partnership	3.00%	6.84%	0.21%
Total	100.00%		4.89%
		Inflation	2.50%
		Expected arithmetic nominal return*	7.39%

\*The above allocation provides a one-year return of 7.39%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the System, stochastic projections are employed to model future returns under various economic conditions. These results provide a range of returns over various time periods that ultimately provide a median return of 6.94%, including expected inflation of 2.50%.

\*On October 10, 2019, the VRS Board elected a long-term rate of return of 6.75%, which was roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation at that time, providing a median return of 7.11%, including expected inflation of 2.50%.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 9—Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

*Discount Rate*

The discount rate used to measure the total GLI OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that employer contributions will be made in accordance with the VRS funding policy and at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees. Through the fiscal year ended June 30, 2021, the rate contributed by the entity for the GLI OPEB will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly which was 100% of the actuarially determined contribution rate. From July 1, 2021 on, employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB’s fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

*Sensitivity of the Employer’s Proportionate Share of the Net GLI OPEB Liability to Changes in the Discount Rate*

The following presents the employer’s proportionate share of the net GLI OPEB liability using the discount rate of 6.75%, as well as what the employer’s proportionate share of the net GLI OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

	Rate		
	1% Decrease (5.75%)	Current Discount (6.75%)	1% Increase (7.75%)
Authority's proportionate share of the GLI Plan Net OPEB Liability	\$ 924,844	\$ 633,006	\$ 397,333
Auhtority's proportionate share of the City's GLI Plan Net OPEB Liability	\$ 141,238	\$ 96,669	\$ 60,678

*GLI Plan Fiduciary Net Position*

Detailed information about the GLI Plan’s Fiduciary Net Position is available in the separately issued VRS 2021 Annual Comprehensive Financial Report (Annual Report). A copy of the 2021 VRS Annual Report may be downloaded from the VRS website at <http://www.varetire.org/Pdf/Publications/2021-annual-report.pdf>, or by writing to the System’s Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**WESTERN VIRGINIA WATER AUTHORITY**

**Notes to Financial Statements  
At June 30, 2022 (Continued)**

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**Note 10—Risk Management:**

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The Authority is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Authority joined together with other local governments in the Commonwealth to form the Virginia Municipal League Self Insurance Risk Pool, a public entity risk pool currently operating as a common risk management and insurance program for member governments. The Authority pays an annual premium to the pool for its workers compensation, general liability, automobile liability, property, crime and public official's insurance coverages. The Agreement for Formation of the pool provides that the pool will be self-sustaining through member premiums. Settled claims have not exceeded pool coverage in any of the past three fiscal years.

**Note 11—Contingencies:**

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The Authority is operating under the terms of a Consent Special Order dated March 18, 2005 issued by the Virginia State Water Control Board requiring certain improvements to the Authority's water pollution control plant. The Authority intends to comply with the provisions of this consent order through projects already started or future improvements.

**Note 12—Arbitrage Rebate Compliance:**

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As of June 30, 2022 and for the year then ended, the Authority was not liable for any amounts due under current rules governing arbitrage earnings.

**Note 13—Litigation:**

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Authority officials estimate that no claims, not covered by insurance, would have a material effect on the Authority's financial position.

**Note 14—Joint Use Facility:**

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The Authority entered into a cooperative agreement with the Bedford Regional Water Authority for the operation of the Smith Mountain Lake Water Facility. Under terms of the agreement, the participants jointly operate the facility and are responsible for their prorated share of operating cost based on usage. The Authority reports its' undivided interest (the assets owned and liabilities for which it is responsible) related to this agreement in these financial statements.

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

**Note 15—Notes Receivable:**

Notes receivable at year end consist of capital contributions financed by participating localities. Each note bears interest at 3% and principal and interest payments are due annually on October 1<sup>st</sup> and April 1<sup>st</sup> throughout the 20 year terms. A summary of notes receivable follows:

<u>Locality</u>	<u>Initial Amount</u>	<u>Installment Amounts</u>	<u>Amount Outstanding</u>	<u>Due in One Year</u>
Franklin County	\$ 767,300	\$ 25,608	\$ 708,344	\$ 30,191
Franklin County	600,000	20,056	531,125	23,646
Franklin County	538,145	18,091	479,088	21,976
Franklin County	965,190	33,381	883,974	40,542
Franklin County	2,265,618	75,959	2,011,527	92,258
Franklin County	1,094,891	36,599	1,094,891	40,654
Town of Rocky Mount	1,119,082	45,987	1,217,823	55,856
Totals	<u>\$ 7,350,226</u>		<u>\$ 6,926,772</u>	<u>\$ 305,123</u>

**Note 16-Leases Receivable:**

The following is a summary of leases receivable transactions of the Authority for the year ended June 30, 2022:

	<u>Beginning Balance</u>	<u>Adjustments</u>	<u>Beginning Balance, as adjusted</u>	<u>Increases/ Issuances</u>	<u>Decreases/ Retirements</u>	<u>Ending Balance</u>	<u>Interest Revenue</u>
<b>Water Fund:</b>							
Leases receivable	\$ -	\$ 4,183,552	\$ 4,183,552	\$ 44,180	\$ (707,523)	\$ 3,520,209	\$ 129,584
<b>Water Pollution Control Fund:</b>							
Leases receivable	\$ -	\$ 333,168	\$ 333,168	\$ 17,486	\$ (66,231)	\$ 284,423	\$ 7,779

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WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

Note 16-Leases Receivable: (Continued)

Details of leases receivable:

Water Fund						
Lease Description	Lease Origination Date*	End Date	Payment Frequency	Discount Rate	Ending Balance	Amount Due Within One Year
Tower site	7/1/2007	6/30/2027	Monthly	3.50%	\$ 221,567	\$ 38,056
Tower site	7/1/2007	6/30/2027	Monthly	3.50%	221,567	38,056
Tower site	7/1/2007	6/30/2027	Monthly	3.50%	221,567	38,056
Tower site	8/20/2008	6/30/2027	Monthly	3.50%	221,567	38,056
Tower site	7/1/2016	6/30/2026	Monthly	3.50%	146,787	32,814
Tower site	7/1/2012	6/30/2027	Monthly	3.50%	183,434	31,510
Tower site	7/1/2016	6/30/2026	Monthly	3.50%	146,787	32,814
Tower site	7/1/2016	6/30/2026	Monthly	3.50%	146,794	32,819
Tower site	7/1/2016	6/30/2026	Monthly	3.50%	151,532	33,873
Tower site	10/1/2021	6/30/2031	Monthly	3.50%	41,805	3,206
Tower site	7/1/2007	6/30/2027	Monthly	3.50%	220,915	37,947
Tower site	7/1/2007	6/30/2027	Monthly	3.50%	208,471	35,810
Tower site	7/1/2013	6/30/2023	Monthly	3.50%	44,501	44,501
Tower site	7/1/2013	6/30/2023	Monthly	3.50%	37,665	37,665
Tower site	7/1/2017	6/30/2026	Monthly	3.50%	174,314	38,966
Tower site	8/1/2007	6/30/2027	Monthly	3.50%	209,255	35,944
Office Building Lease	11/1/2021	7/31/2025	Monthly	2.00%	132,900	41,334
Office Building Lease	7/1/2018	6/30/2023	Monthly	2.00%	35,613	35,613
Office Building Lease	7/5/1988	6/30/2027	Monthly	3.00%	137,855	24,240
Tower site	8/1/2005	6/30/2030	Monthly	3.00%	301,712	29,962
Tower site	10/7/2002	9/30/2027	Monthly	2.00%	29,879	5,452
Tower site	7/1/2019	6/30/2024	Monthly	3.50%	106,432	32,974
Tower site	8/1/2007	6/30/2027	Monthly	3.50%	177,290	30,454
Totals					<u>\$ 3,520,209</u>	<u>\$ 750,122</u>

Water Pollution Control Fund						
Lease Description	Lease Origination Date*	End Date	Payment Frequency	Discount Rate	Ending Balance	Amount Due Within One Year
Office Building Lease	11/1/2021	7/31/2025	Monthly	2.00%	\$ 132,900	\$ 41,334
Land	11/1/2021	10/31/2024	Monthly	2.00%	13,668	5,779
Office Building Lease	7/5/1988	6/30/2027	Monthly	3.00%	137,855	24,240
Totals					<u>\$ 284,423</u>	<u>\$ 71,353</u>
Grand Total					<u>\$ 3,804,632</u>	<u>\$ 821,475</u>

\*Date shown is the original lease commencement date. GASB Statement No. 87 was implemented as of July 1, 2021.

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

**Note 17-Self Health Insurance:**

The Authority established a limited risk management program for health and dental insurance during the fiscal year 2021. Premiums are paid into the health plan fund from the Authority and are available to pay claims, and administrative costs of the program. During the fiscal year 2022, a total of \$4,525,420 was paid in benefits and administrative costs. The risk assumed by the Authority is based on the number of participants in the program. The risk varies by the number of participants and their specific plan type. Incurred but not reported claims of \$82,520 have been accrued as a liability (accounts payable in the accompanying financial statements) based primarily on actual cost incurred prior to June 30 but paid after year-end. Changes in the claims liability for the current year are as follows:

<u>Fiscal Year</u>	<u>Balance at Beginning of Fiscal Year</u>	<u>Current Year Claims and Changes in Estimates</u>	<u>Claim Payments</u>	<u>Balance at End of Fiscal Year</u>
2021-22	\$ 329,076	\$ 4,278,864	\$ (4,525,420)	\$ 82,520
2020-21*	-	4,702,898	(4,373,822)	329,076

\* First year of self insurance plan

**Note 18-Adoption of Accounting Principles:**

The Authority implemented provisions of Governmental Accounting Standards Board Statement No. 87, *Leases* during the fiscal year ended June 30, 2022. Statement No. 87, *Leases* requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. No restatement of beginning net position was required as a result of this implementation. Using the facts and circumstances that existed at the beginning of the year of implementation, the following balances were recognized as of July 1, 2021 related to the leases:

	<u>Water Fund</u>	<u>Water Pollution Control Fund</u>	<u>Total</u>
Lessee activity:			
Lease assets	\$ 84,675	\$ 74,887	\$ 159,562
Lease liabilities	\$ 84,675	\$ 74,887	\$ 159,562
Lessor activity:			
Leases receivable	\$ 4,183,552	\$ 333,168	\$ 4,516,720
Deferred inflows of resources - leases	\$ 4,183,552	\$ 333,168	\$ 4,516,720

WESTERN VIRGINIA WATER AUTHORITY

Notes to Financial Statements  
At June 30, 2022 (Continued)

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**Note 19-Upcoming Pronouncements:**

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Statement No. 91, *Conduit Debt Obligations*, provides a single method of reporting conduit debt obligations by issuers and eliminates diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. The requirements of this Statement are effective for reporting periods beginning after December 15, 2021.

Statement No. 94, *Public-Private and Public-Public Partnerships and Availability of Payment Arrangements*, addresses issues related to public-private and public-public partnership arrangements. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements. The requirements of this Statement are effective for fiscal years beginning after June 15, 2022.

Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITAs)*, (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset—an intangible asset—and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. The requirements of this Statement are effective for fiscal years beginning after June 15, 2022.

Statement No. 99, *Omnibus 2022*, enhances the comparability in accounting and financial reporting and improves the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees. The effective dates differ based on the requirements of the Statement, ranging from April 2022 to reporting periods beginning after June 15, 2023.

Statement No. 100, *Accounting Changes and Error Corrections* - an amendment of GASB Statement No. 62, enhances accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. The requirements of this Statement are effective for reporting periods beginning after June 15, 2023.

Statement No. 101, *Compensated Absences*, updates the recognition and measurement guidance for compensated absences. It aligns the recognition and measurement guidance under a unified model and amends certain previously required disclosures. The requirements of this Statement are effective for fiscal years beginning after December 15, 2023.

Management is currently evaluating the impact these standards will have on the financial statements when adopted.

## **Required Supplementary Information**

Schedule of Authority's Proportionate Share of the Net Pension Liability (Asset)  
 VRS Pension Plan  
 For the Measurement Dates of June 30, 2014 through June 30, 2021

Date (1)	Employer's Proportion of the Net Pension Liability (Asset) (NPLA) (2)	Employer's Proportionate Share of the NPLA (3)	Employer's Covered Payroll (4)	Employer's Proportionate Share of the NPLA as a Percentage of Covered Payroll (3)/(4) (5)	Plan's Fiduciary Net Position as a Percentage of Total Pension Liability (Asset) (6)
<b>Virginia Retirement System Plan</b>					
2021	98.4059%	\$ (2,523,101)	\$ 11,076,357	-22.78%	112.45%
2020	98.9800%	329,375	10,794,174	3.05%	98.17%
2019	99.2288%	(448,215)	10,303,051	-4.35%	102.69%
2018	98.6714%	(1,170,056)	9,901,457	-11.82%	108.13%
2017	98.5944%	(954,863)	9,644,034	-9.90%	107.42%
2016	98.7264%	375,007	8,976,762	4.18%	96.87%
2015	100.0000%	139,166	8,650,612	1.61%	98.74%
2014	100.0000%	(399,624)	8,243,754	-4.85%	104.34%

Schedule is intended to show information for 10 years. Information prior to the 2014 valuation is not available. However, additional years will be included as they become available.

## Schedule of Employer Contributions

## VRS Pension Plan

For the Years Ended June 30, 2013 through June 30, 2022

Date	Contractually Required Contribution (1)*	Contributions in Relation to Contractually Required Contribution (2)*	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
2022	\$ 457,663	\$ 457,663	\$ -	\$ 11,820,229	3.87%
2021	443,820	443,820	-	11,076,357	4.01%
2020	411,061	411,061	-	10,794,174	3.81%
2019	412,555	412,555	-	10,303,051	4.00%
2018	558,333	558,333	-	9,901,457	5.64%
2017	532,816	532,816	-	9,644,034	5.52%
2016	577,393	577,393	-	8,976,762	6.43%
2015	563,177	563,177	-	8,650,612	6.51%
2014	746,059	746,059	-	8,243,754	9.05%
2013	699,973	699,973	-	7,734,509	9.05%

\* Excludes contributions (mandatory and match on voluntary) to the defined contribution portion of the Hybrid plan.

Notes to Required Supplementary Information  
 VRS Pension Plan  
 Year Ended June 30, 2022

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**Changes of benefit terms** - There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

**Changes of assumptions** - The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period from July 1, 2016 through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

All Others (Non 10 Largest) - Non-Hazardous Duty:

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Update to Pub-2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement Rates	Adjusted rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age
Withdrawal Rates	Adjusted rates to better fit experience at each age and service decrement through 9 years of service
Disability Rates	No change
Salary Scale	No change
Line of Duty Disability	No change
Discount Rate	No change

Schedule of Authority's Proportionate Share of the Net Pension Liability (Asset)  
 Roanoke City Pension Plan  
 For the Measurement Dates of June 30, 2014 through June 30, 2021

Authority's Share of Roanoke City's Pension Plan (a cost-sharing multiple employer plan)

Date (1)	Employer's Proportion of the Net Pension Liability (Asset) (NPLA) (2)	Employer's Proportionate Share of the NPLA (3)	Employer's Covered Payroll (4)	Employer's Proportionate Share of the NPLA as a Percentage of Covered Payroll (3)/(4) (5)	Pension Plan's Fiduciary Net Position as a Percentage of Total Pension Liability (Asset) (6)
<b>Roanoke City Pension Plan</b>					
2021	2.3276%	\$ 1,074,525	\$ 1,757,817	61.13%	92.02%
2020	2.3218%	3,512,493	1,747,735	200.97%	74.35%
2019	2.5193%	3,500,805	1,895,201	184.72%	75.62%
2018	2.6667%	3,388,704	1,997,207	169.67%	77.32%
2017	2.9178%	4,191,261	2,169,469	193.19%	73.96%
2016	3.1591%	5,359,429	2,449,994	218.75%	68.70%
2015	3.4588%	4,847,558	2,354,112	205.92%	73.81%
2014	3.5119%	4,122,465	2,505,800	164.52%	77.23%

Schedule is intended to show information for 10 years. Information prior to the 2014 valuation is not available. However, additional years will be included as they become available.

## Schedule of Employer Contributions

## Roanoke City Pension Plan

For the Years Ended June 30, 2013 through June 30, 2022

Date	Contributions in Relation to			Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
	Contractually Required Contribution (1)*	Contractually Required Contribution (2)*	Contribution Deficiency (Excess) (3)		
2022	\$ 286,134	\$ 286,134	\$ -	\$ 1,777,230	16.10%
2021	286,700	286,700	-	1,757,817	16.31%
2020	290,124	290,124	-	1,747,735	16.60%
2019	315,172	315,172	-	1,895,201	16.63%
2018	340,324	340,324	-	1,997,207	17.04%
2017	342,993	342,993	-	2,169,469	15.81%
2016	383,179	383,179	-	2,449,994	15.64%
2015	523,319	523,319	-	2,354,112	22.23%
2014	452,798	452,798	-	2,505,800	18.07%
2013	418,474	418,474	-	2,682,526	15.60%

\* Excludes contributions (mandatory and match on voluntary) to the defined contribution portion of the Hybrid plan.

Notes to Required Supplementary Information  
 Roanoke City Pension Plan  
 For the Year Ended June 30, 2022

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**Changes in benefit terms** - There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

**Changes in assumptions** - For the Roanoke City Retirement Plan, the following changes in actuarial assumptions were made effective June 30, 2016 based on the most recent experience study for the System for the five years period ending June 30, 2016.

Interest Rate	7.25% as of June 30, 2021
Inflation	2.25% as of June 30, 2021
Mortality Rates	Mortality rates of pre-retirement and healthy lives were based on 125% of RP-2000 Combined Healthy Mortality for males and females with generation mortality projection using Scale AA*. Mortality rates of disabled lives were based on Society of Actuaries RP-2014 adjusted to 2006 Disabled Retiree Mortality table. *For General members, no deaths are assumed to be occupational. For Public Safety, occupational deaths are assumed to be 25% of all deaths.
COLA Supplement	1.50% for eligible participants, based on 2/3 of assumed 2.25% inflation

Schedule of Changes in Total OPEB Liability (Asset) and Related Ratios  
 Health Insurance  
 For the Measurement Dates of June 30, 2018 through June 30, 2022

	2022	2021	2020	2019	2018
<b>Total OPEB liability</b>					
Service cost	\$ 79,697	\$ 92,287	\$ 77,347	\$ 71,887	\$ 74,108
Interest	79,242	85,504	139,921	156,844	149,623
Effect of economic/demographic gains or losses	419,451	-	(38,803)	-	-
Effect of assumption changes or inputs	(563,367)	9,350	75,389	90,434	(97,052)
Benefit payments	(357,453)	(392,023)	(401,867)	(357,613)	(336,000)
<b>Net change in total OPEB liability</b>	<b>\$ (342,430)</b>	<b>\$ (204,882)</b>	<b>\$ (148,013)</b>	<b>\$ (38,448)</b>	<b>\$ (209,321)</b>
<b>Total OPEB liability - beginning</b>	<b>3,766,703</b>	<b>3,971,585</b>	<b>4,119,598</b>	<b>4,158,046</b>	<b>4,367,367</b>
<b>Total OPEB liability - ending</b>	<b>\$ 3,424,273</b>	<b>\$ 3,766,703</b>	<b>\$ 3,971,585</b>	<b>\$ 4,119,598</b>	<b>\$ 4,158,046</b>
Covered payroll	\$ 12,888,482	\$ 12,888,482	\$ 12,888,482	\$ 12,160,246	\$ 12,160,246
Authority's total OPEB liability (asset) as a percentage of covered payroll	26.57%	29.23%	30.81%	33.88%	34.19%

Schedule is intended to show information for 10 years. Additional years will be included as they become available.

Notes to Required Supplementary Information  
 Health Insurance  
 For the Year Ended June 30, 2022

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Valuation Date: 1/1/2022  
 Measurement Date: 6/30/2022

No assets are accumulated in a trust that meets the criteria in GASB 75 to pay related benefits.

*Methods and assumptions used to determine OPEB liability:*

Actuarial Cost Method	Entry age normal level % of salary
Discount Rate	3.54% as of June 30, 2022; 2.16% as of June 30, 2021
Inflation	2.50% per year as of June 30, 2022; 2.50% per year as of June 30, 2021
Healthcare Trend Rate	The healthcare trend rate assumption starts at 6.50% in 2022 decreasing gradually to 3.90% by the year 2073.
Salary Increase Rates	Salary increase rates range from 2.50% to 5.00%
Retirement Age	The average age at retirement is 62.5
Mortality Rates	Mortality rates for pre-retirement and post-retirement employees were 125% of RP-2000 Combined Healthy mortality rates for males and females with generational mortality projections using Scale AA. Mortality rates for post-disabled employees were based on RP-2014 adjusted to 2006 Disabled Retiree mortality rates for males and females.

Schedule of Authority's Share of Net OPEB Liability  
 Group Life Insurance (GLI) Plan  
 For the Measurement Dates of June 30, 2017 through June 30, 2021

Date (1)	Employer's Proportion of the Net GLI OPEB Liability (Asset) (2)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) (3)	Employer's Covered Payroll (4)	Employer's Proportionate Share of the Net GLI OPEB Liability (Asset) as a Percentage of Covered Payroll (3)/(4) (5)	Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability (6)
<b>Western Virginia Water Authority Group Life Insurance Plan</b>					
2021	0.0544% \$	633,006 \$	11,581,687	5.47%	67.45%
2020	0.0532%	886,694	10,961,923	8.09%	52.64%
2019	0.0536%	873,239	10,444,808	8.36%	52.00%
2018	0.0528%	802,199	9,901,457	8.10%	51.22%
2017	0.0523%	787,116	9,644,034	8.16%	48.86%
<b>City of Roanoke Group Life Insurance Plan</b>					
2021	0.0083% \$	96,669 \$	1,803,191	5.36%	67.45%
2020	0.0085%	142,364	1,802,500	7.90%	52.64%
2019	0.0094%	153,278	1,894,038	8.09%	52.00%
2018	0.0101%	153,868	1,997,207	7.70%	51.22%
2017	0.0113%	170,613	2,169,469	7.86%	48.86%

Schedule is intended to show information for 10 years. Information prior to the 2017 valuation is not available. However, additional years will be included as they become available.

Schedule of Employer Contributions  
 Group Life Insurance (GLI) Plan  
 For the Years Ended June 30, 2015 through June 30, 2022

Date	Contractually Required Contribution (1)	Contributions in Relation to Contractually Required Contribution (2)	Contribution Deficiency (Excess) (3)	Employer's Covered Payroll (4)	Contributions as a % of Covered Payroll (5)
<b>Western Virginia Water Authority Group Life Insurance Plan</b>					
2022	\$ 63,743	\$ 63,743	\$ -	\$ 11,804,259	0.54%
2021	60,966	60,966	-	11,581,687	0.53%
2020	57,002	57,002	-	10,961,923	0.52%
2019	54,313	54,313	-	10,444,808	0.52%
2018	51,611	51,611	-	9,901,457	0.52%
2017	50,175	50,175	-	9,644,034	0.52%
2016	43,575	43,575	-	8,976,762	0.49%
2015	41,523	41,523	-	8,650,612	0.48%
<b>City of Roanoke Group Life Insurance Plan</b>					
2022	\$ 9,581	\$ 9,581	\$ -	\$ 1,774,259	0.54%
2021	9,492	9,492	-	1,803,191	0.53%
2020	9,373	9,373	-	1,802,500	0.52%
2019	9,849	9,849	-	1,894,038	0.52%
2018	10,854	10,854	-	1,997,207	0.54%
2017	9,888	9,888	-	2,169,469	0.46%
2016	11,893	11,893	-	2,449,994	0.49%
2015	11,300	11,300	-	2,354,112	0.48%

Schedule is intended to show information for 10 years. Information prior to 2015 is not available. However, additional years will be included as they become available.

Notes to Required Supplementary Information  
 Group Life Insurance (GLI) Plan  
 For the Year Ended June 30, 2022

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**Changes of benefit terms** - There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

**Changes of assumptions** - The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period from July 1, 2016 through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

**Non-Largest Ten Locality Employers - General Employees**

Mortality Rates (pre-retirement, post-retirement healthy, and disabled)	Update to Pub-2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement Rates	Adjusted rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age from 75 to 80 for all
Withdrawal Rates	Adjusted rates to better fit experience at each age and service decrement through 9 years of service
Disability Rates	No change
Salary Scale	No change
Line of Duty Disability	No change
Discount Rate	No change

## **Other Supplementary Information**

Schedule of Revenues, Expenses and Changes in Net Position - Budget and Actual - Water Fund  
Year Ended June 30, 2022

	Final Budget	Actual	Variance Favorable (Unfavorable)
Operating Revenues:			
Water sales	\$ 33,431,926	\$ 31,593,057	\$ (1,838,869)
Water connection charges	200,000	307,678	107,678
Bulk sales	185,000	205,784	20,784
Fire service	1,572,393	1,590,309	17,916
Other fees	1,012,776	1,459,417	446,641
Total operating revenues	\$ 36,402,095	\$ 35,156,245	\$ (1,245,850)
Operating Expenses:			
Water treatment administration	\$ 963,198	\$ 884,851	\$ 78,347
Water treatment plants/systems:			
Carvin's Cove	1,848,780	1,696,488	152,292
Spring Hollow	1,753,028	1,485,135	267,893
Crystal Spring	437,629	460,535	(22,906)
Falling Creek	51,950	38,488	13,462
Muse Spring	218,776	145,003	73,773
Smith Mountain Lake systems	532,500	601,020	(68,520)
Laboratory services	397,634	267,419	130,215
Water scada	120,427	120,427	-
Pump and storage operations	1,656,597	1,314,841	341,756
Well operations	357,031	383,566	(26,535)
Meter operations	1,301,037	1,170,340	130,697
Reservoir operations	453,033	340,333	112,700
Internal services	4,230,461	3,869,659	360,802
Field operations	5,167,780	4,722,862	444,918
Occupancy costs	26,782	23,023	3,759
Depreciation and amortization	8,655,022	8,655,022	-
Total operating expenses	\$ 28,171,665	\$ 26,179,012	\$ 1,992,653
Income from operations	\$ 8,230,430	\$ 8,977,233	\$ 746,803
Nonoperating Income (Expenses):			
Interest earned	\$ 25,000	\$ 267,258	\$ 242,258
Tower site rental	696,724	760,489	63,765
Office building lease income	103,260	68,973	(34,287)
Non operating contribution	536,662	531,584	(5,078)
Gain (loss) on disposal of assets	27,747	27,747	-
Office building maintenance expense	(103,260)	(107,659)	(4,399)
Interest expense	(2,189,450)	(1,923,732)	265,718
Total nonoperating income (expenses)	\$ (903,317)	\$ (375,340)	\$ 527,977
Income (loss) before contributions	\$ 7,327,113	\$ 8,601,893	\$ 1,274,780
Capital contributions	\$ 3,085,048	\$ 5,804,840	\$ 2,719,792
Change in net position	\$ 10,412,161	\$ 14,406,733	\$ 3,994,572

Schedule of Revenues, Expenses and Changes in Net Position - Budget and Actual - Water Pollution Control Fund  
 Year Ended June 30, 2022

	Final Budget	Actual	Variance Favorable (Unfavorable)
Operating Revenues:			
Water pollution control charges	\$ 32,619,871	\$ 31,060,128	\$ (1,559,743)
Sewer connection charges	100,000	97,000	(3,000)
Bulk sales	2,319,000	1,878,673	(440,327)
Septic disposal fees	400,000	461,150	61,150
Other fees	822,791	1,181,990	359,199
Total operating revenues	<u>\$ 36,261,662</u>	<u>\$ 34,678,941</u>	<u>\$ (1,582,721)</u>
Operating Expenses:			
Water pollution control:			
Administration	\$ 1,113,786	\$ 740,551	\$ 373,235
Operations	4,633,141	4,575,373	57,768
Biosolids handling	1,644,000	1,183,311	460,689
Maintenance	1,768,319	1,460,853	307,466
Contract operations	145,919	127,890	18,029
Collection system metering	200,000	44,665	155,335
Metering and lift stations	218,500	187,790	30,710
Pretreatment	897,235	789,697	107,538
Internal services	4,230,461	3,869,658	360,803
Occupancy costs	26,782	23,023	3,759
Field operations	5,153,980	4,232,589	921,391
Westlake system	100,500	74,723	25,777
Botetourt system	496,164	762,950	(266,786)
Sewer scada	170,755	103,044	67,711
Depreciation and amortization	7,989,804	7,989,804	-
Total operating expenses	<u>\$ 28,789,346</u>	<u>\$ 26,165,921</u>	<u>\$ 2,623,425</u>
Income from Operations	<u>\$ 7,472,316</u>	<u>\$ 8,513,020</u>	<u>\$ 1,040,704</u>
Nonoperating Income (Expenses):			
Interest earned	\$ 20,000	\$ 108,873	\$ 88,873
Office building lease income	103,260	68,973	(34,287)
Gain (loss) on sale of assets	9,740	9,740	-
Office building maintenance expense	(103,260)	(107,659)	(4,399)
Interest expense	(1,400,160)	(1,328,503)	71,657
Total nonoperating income (expenses)	<u>\$ (1,370,420)</u>	<u>\$ (1,248,576)</u>	<u>\$ 121,844</u>
Income (loss) before contributions	<u>\$ 6,101,896</u>	<u>\$ 7,264,444</u>	<u>\$ 1,162,548</u>
Capital contributions	<u>\$ 2,822,339</u>	<u>\$ 5,498,035</u>	<u>\$ 2,675,696</u>
Change in net position	<u>\$ 8,924,235</u>	<u>\$ 12,762,479</u>	<u>\$ 3,838,244</u>

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## STATISTICAL SECTION

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## **Statistical Section**

This part of Western Virginia Water Authority's annual comprehensive financial report presents detailed information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Authority's overall financial health.

### **Contents**

#### Financial Trends – Tables 1-6

*These schedules contain trend information to help the reader understand how the Authority's financial performance and well-being have changed over time as well as show how the revenue and expenses are split between the water and sewer departments.*

#### Revenue Trends and Capacity – Tables 7-10

*These schedules contain trend information to help the reader assess the Authority's most significant revenue sources, user rates, and the growth in water and sewer connections.*

#### Debt Service Trends and Capacity – Tables 11-12

*These schedules present trend information to help the reader assess the Authority's current levels of outstanding debt and the capacity to acquire additional debt with appropriate revenue coverage.*

#### Demographic and Economic Information – Tables 13-14

*These schedules offer demographic and economic indicators for the participating localities to help the reader understand the environment within which the Authority's financial activities take place.*

#### Operating Information – Tables 15-18

*These schedules contain service and infrastructure data to help the reader understand how the information in the Authority's financial report relates to the services the Authority provides and the activities it performs.*

### **Sources:**

Unless otherwise noted, the information in these schedules is derived from the audited financial reports for the relevant year.

WESTERN VIRGINIA WATER AUTHORITY

Table 1

Net Position By Component  
Last Ten Fiscal Years

Water Fund	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Net investment in capital assets	\$ 342,088,180	\$ 331,520,925	\$ 314,740,182	\$ 301,974,321	\$ 287,890,542	\$ 282,942,997	\$ 275,106,163	\$ 270,599,041	\$ 268,294,240	\$ 264,621,275
Restricted	1,213,408	-	-	-	-	-	-	-	-	-
Unrestricted	28,860,962	26,234,892	26,565,703	26,236,924	29,178,886	23,204,697	24,852,838	19,563,477	19,221,234	17,907,153
Total water fund net position	\$ 372,162,550	\$ 357,755,817	\$ 341,305,885	\$ 328,211,245	\$ 317,069,428	\$ 306,147,694	\$ 299,959,001	\$ 290,162,518	\$ 287,515,474	\$ 282,528,428
<b>Water Pollution Control Fund</b>										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Net investment in capital assets	\$ 262,038,095	\$ 251,025,723	\$ 240,257,886	\$ 228,054,486	\$ 210,243,831	\$ 201,691,716	\$ 197,395,104	\$ 253,826,266	\$ 249,680,507	\$ 245,121,209
Restricted	1,309,693	-	-	-	-	-	-	-	-	-
Unrestricted	12,578,663	12,138,249	13,519,382	16,628,357	25,205,455	26,014,831	26,549,498	24,792,661	24,880,292	24,937,469
Total water pollution control fund net position	\$ 275,926,451	\$ 263,163,972	\$ 253,777,268	\$ 244,682,843	\$ 235,449,286	\$ 227,706,547	\$ 223,944,602	\$ 278,618,927	\$ 274,560,799	\$ 270,058,678
<b>Western Virginia Water Authority (Total all funds)</b>										
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Net investment in capital assets	\$ 604,126,275	\$ 582,546,648	\$ 554,998,068	\$ 530,028,807	\$ 498,134,373	\$ 484,634,713	\$ 472,501,267	\$ 524,425,307	\$ 517,974,747	\$ 509,742,484
Restricted	2,523,101	-	-	-	-	-	-	-	-	-
Unrestricted	41,439,625	38,373,141	40,085,085	42,865,281	54,384,341	49,219,528	51,402,336	44,356,138	44,101,526	42,844,622
Total Western Virginia Water Authority	\$ 648,089,001	\$ 620,919,789	\$ 595,083,153	\$ 572,894,088	\$ 552,518,714	\$ 533,854,241	\$ 523,903,603	\$ 568,781,445	\$ 562,076,273	\$ 552,587,106

Restatements have been applied retroactively to the extent possible with available data.

Note: GASB No. 87 was implemented in fiscal year 2022. Prior years information has not been adjusted to reflect the impact of GASB No. 87.

Changes in Net Position  
Last Ten Fiscal Years

## Water Fund

Fiscal Year	Operating Revenues	Operating Expenses	Operating Income (Loss)	Total Nonoperating Revenues/ (Expenses)	Income/(Loss) before Capital Contributions	Capital Contributions	Change in Net Position
2013	\$ 27,062,236	\$ 23,710,753	\$ 3,351,483	\$ (6,633,646)	\$ (3,282,163)	\$ 1,001,615	(2,280,548)
2014	28,597,148	24,725,547	3,871,601	(1,479,084)	2,392,517	2,594,529	4,987,046
2015	28,344,557	24,106,927	4,237,630	(571,705)	3,665,925	1,412,193	5,078,118
2016	30,594,647	22,493,540	8,101,107	33,364	8,134,471	10,425,679	18,560,150
2017	31,692,276	23,146,458	8,545,818	(800,091)	7,745,727	987,935	8,733,662
2018	32,535,962	23,850,906	8,685,056	(623,955)	8,061,101	2,860,633	10,921,734
2019	33,024,141	24,612,088	8,412,053	(475,385)	7,936,668	3,205,149	11,141,817
2020	33,906,922	25,510,520	8,396,402	(550,472)	7,845,930	5,248,710	13,094,640
2021	34,139,592	26,026,337	8,113,255	(234,404)	7,878,851	8,571,081	16,449,932
2022	35,156,245	26,179,012	8,977,233	(375,340)	8,601,893	5,804,840	14,406,733

## Water Pollution Control Fund

Fiscal Year	Operating Revenues	Operating Expenses	Operating Income (Loss)	Total Nonoperating Revenues/ (Expenses)	Income/(Loss) before Capital Contributions	Capital Contributions	Change in Net Position
2013	\$ 29,003,472	\$ 23,727,560	\$ 5,275,912	\$ (2,011,990)	\$ 3,263,922	\$ 1,411,825	4,675,747
2014	30,486,279	24,604,677	5,881,602	(4,565,530)	1,316,072	3,186,049	4,502,121
2015	28,850,165	23,734,208	5,115,957	(1,713,406)	3,402,551	3,674,333	7,076,884
2016	31,427,048	23,976,771	7,450,277	(2,368,015)	5,082,262	3,776,313	8,858,575
2017	31,414,514	24,904,557	6,509,957	(2,107,103)	4,402,854	2,081,666	6,484,520
2018	31,773,686	25,668,356	6,105,330	(1,440,239)	4,665,091	3,077,648	7,742,739
2019	33,164,342	25,429,006	7,735,336	(1,091,578)	6,643,758	2,589,799	9,233,557
2020	33,078,636	27,755,649	5,322,987	(1,047,312)	4,275,675	4,818,750	9,094,425
2021	33,522,333	26,257,539	7,264,794	(1,196,716)	6,068,078	3,318,626	9,386,704
2022	34,678,941	26,165,921	8,513,020	(1,248,576)	7,264,444	5,498,035	12,762,479

## Western Virginia Water Authority (Total all funds)

Fiscal Year	Operating Revenues	Operating Expenses	Operating Income (Loss)	Total Nonoperating Revenues/ (Expenses)	Income/(Loss) before Capital Contributions	Capital Contributions	Change in Net Position
2013	\$ 56,065,708	\$ 47,438,313	\$ 8,627,395	\$ (8,645,636)	\$ (18,241)	\$ 2,413,440	2,395,199
2014	59,083,427	49,330,224	9,753,203	(6,044,614)	3,708,589	5,780,578	9,489,167
2015	57,194,722	47,841,135	9,353,587	(2,285,111)	7,068,476	5,086,526	12,155,002
2016	62,021,695	46,470,311	15,551,384	(2,334,651)	13,216,733	14,201,992	27,418,725
2017	63,106,790	48,051,015	15,055,775	(2,907,194)	12,148,581	3,069,601	15,218,182
2018	64,309,648	49,519,262	14,790,386	(2,064,194)	12,726,192	5,938,281	18,664,473
2019	66,188,483	50,041,094	16,147,389	(1,566,963)	14,580,426	5,794,948	20,375,374
2020	66,985,558	53,266,169	13,719,389	(1,597,784)	12,121,605	10,067,460	22,189,065
2021	67,661,925	52,283,876	15,378,049	(1,431,120)	13,946,929	11,889,707	25,836,636
2022	69,835,186	52,344,933	17,490,253	(1,623,916)	15,866,337	11,302,875	27,169,212

Restatements have been applied retroactively to the extent possible with available data.

Note: GASB No. 87 was implemented in fiscal year 2022. Prior year information has not been adjusted to reflect the impact of GASB No. 87.

Operating Revenues By Source  
Last Ten Fiscal Years

**Water Fund**

Fiscal Year	Customer Charges	Connection Fees	Bulk Sales	Fire Service	Other Revenues	Total
2013	\$ 24,292,043	\$ 137,376	\$ 424,648	\$ 1,255,954	\$ 952,215	\$ 27,062,236
2014	26,046,352	163,304	547,897	1,282,672	556,923	28,597,148
2015	25,460,809	268,972	413,312	1,293,822	907,642	28,344,557
2016	28,039,511	199,344	145,539	1,390,143	820,110	30,594,647
2017	28,650,637	208,811	134,933	1,383,328	1,314,567	31,692,276
2018	29,488,341	202,362	141,951	1,408,434	1,294,874	32,535,962
2019	30,055,104	168,350	158,745	1,454,906	1,187,036	33,024,141
2020	30,787,729	261,673	207,235	1,499,946	1,150,339	33,906,922
2021	31,275,232	260,392	242,530	1,530,169	831,269	34,139,592
2022	31,593,057	307,678	205,784	1,590,309	1,459,417	35,156,245

**Water Pollution Control Fund**

Fiscal Year	Customer Charges	Connection Fees	Bulk Sales	Septic Disp. Fees	Other Revenues	Total
2013	\$ 25,604,607	\$ 56,375	\$ 2,057,766	\$ -	\$ 1,284,724	\$ 29,003,472
2014	27,374,347	88,070	2,655,458	-	368,404	30,486,279
2015	25,864,309	73,050	2,257,530	-	655,276	28,850,165
2016	28,190,896	73,625	2,550,203	-	612,324	31,427,048
2017	28,122,335	122,380	1,836,774	-	1,333,025	31,414,514
2018	28,620,774	95,750	1,645,759	-	1,411,403	31,773,686
2019	29,275,296	86,400	2,299,175	-	1,503,471	33,164,342
2020	29,806,176	156,750	1,750,580	483,658	881,472	33,078,636
2021	30,145,178	95,250	2,234,472	474,893	572,540	33,522,333
2022	31,060,128	97,000	1,878,673	461,150	1,181,990	34,678,941

**Western Virginia Water Authority (Total all funds)**

Fiscal Year	Customer Charges	Connection Fees	Bulk Sales	Fire Service/ Septic Fees	Other Revenues	Total
2013	\$ 49,896,650	\$ 193,751	\$ 2,482,414	\$ 1,255,954	\$ 2,236,939	\$ 56,065,708
2014	53,420,699	251,374	3,203,355	1,282,672	925,327	59,083,427
2015	51,325,118	342,022	2,670,842	1,293,822	1,562,918	57,194,722
2016	56,230,407	272,969	2,695,742	1,390,143	1,432,434	62,021,695
2017	56,772,972	331,191	1,971,707	1,383,328	2,647,592	63,106,790
2018	58,109,115	298,112	1,787,710	1,408,434	2,706,277	64,309,648
2019	59,330,400	254,750	2,457,920	1,454,906	2,690,507	66,188,483
2020	60,593,905	418,423	1,957,815	1,983,604	2,031,811	66,985,558
2021	61,420,410	355,642	2,477,002	2,005,062	1,403,809	67,661,925
2022	62,653,185	404,678	2,084,457	2,051,459	2,641,407	69,835,186

Operating Expenses  
Last Ten Fiscal Years

Water Fund

	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Water Purchases	\$ -	\$ 2,198	\$ 2,162	\$ 7,165	\$ 1,955	\$ 1,727	\$ 1,659	\$ 1,826	\$ 1,823	\$ 13,614
Water Treatment	5,699,366	5,228,931	4,931,876	4,637,924	3,844,175	3,960,397	3,788,986	3,771,537	4,223,470	4,222,046
Contract Operations	-	130,231	-	18,298	21,286	17,651	21,556	14,264	13,510	13,075
Pump & Storage Operations	1,314,841	1,489,809	1,137,013	1,644,778	1,506,112	1,396,956	1,008,631	1,031,549	1,006,816	999,177
Reservoir & Well Operations	723,899	571,075	625,825	696,280	729,604	502,054	459,828	464,107	498,223	622,854
Meter Operations	1,170,340	1,261,646	1,894,090	1,532,228	1,842,268	1,805,187	1,677,561	1,603,979	1,687,302	1,523,192
Water Distribution	4,722,862	5,249,463	4,780,859	4,553,201	4,098,177	4,419,301	4,277,866	4,087,283	4,127,444	3,785,169
Internal Services	3,869,659	3,625,982	3,805,630	3,552,951	4,294,457	4,084,798	4,068,471	3,804,364	3,868,453	3,772,612
Occupancy Cost	23,023	26,716	26,368	25,582	24,505	24,433	20,926	22,120	20,660	24,292
Depreciation and amortization	8,655,022	8,440,286	8,306,697	7,943,681	7,488,367	6,933,954	7,168,056	9,305,898	9,277,846	8,734,722
<b>Total Operating Expenses</b>	<b>\$ 26,179,012</b>	<b>\$ 26,026,337</b>	<b>\$ 25,510,520</b>	<b>\$ 24,612,088</b>	<b>\$ 23,850,906</b>	<b>\$ 23,146,458</b>	<b>\$ 22,493,540</b>	<b>\$ 24,106,927</b>	<b>\$ 24,725,547</b>	<b>\$ 23,710,753</b>

Water Pollution Control Fund

	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
WPC Utility Administration	\$ 5,399,906	\$ 5,495,857	\$ 5,457,646	\$ 4,695,251	\$ 4,879,362	\$ 4,284,332	\$ 4,391,189	\$ 4,244,370	\$ 4,358,513	\$ 4,221,649
WPC Operations	4,678,417	4,524,015	4,662,896	4,740,064	3,925,718	4,219,644	4,276,047	4,172,866	4,124,422	3,871,990
WPC Maintenance	1,460,853	1,535,753	2,054,275	1,887,451	1,887,471	1,806,221	1,947,470	1,817,113	1,931,336	1,884,127
Contract Operations	127,890	110,124	197,389	217,115	299,555	180,510	149,539	115,032	99,507	115,437
Biosolids Handling	1,183,311	1,146,939	1,301,614	936,103	1,337,939	1,258,615	1,217,458	1,097,311	1,544,215	2,178,595
WPC Distribution	5,070,262	5,285,126	5,535,287	3,800,125	3,815,666	3,840,369	3,550,305	3,322,875	3,610,335	3,298,953
Inflow & Infiltration Control	-	-	-	911,061	1,225,231	1,086,491	1,134,758	1,293,613	1,263,527	1,200,428
Metering & Lift Stations	232,455	413,866	551,055	358,897	394,873	431,223	436,005	348,152	332,568	257,820
Occupancy Cost	23,023	26,715	26,368	25,582	24,505	22,639	20,926	22,120	20,660	24,292
Depreciation and amortization	7,989,804	7,719,144	7,969,119	7,857,357	7,878,036	7,774,513	6,853,074	7,300,756	7,319,594	6,674,269
<b>Total Operating Expenses</b>	<b>\$ 26,165,921</b>	<b>\$ 26,257,539</b>	<b>\$ 27,755,649</b>	<b>\$ 25,429,006</b>	<b>\$ 25,668,356</b>	<b>\$ 24,904,557</b>	<b>\$ 23,976,771</b>	<b>\$ 23,734,208</b>	<b>\$ 24,604,677</b>	<b>\$ 23,727,560</b>

Western Virginia Water Authority (Total all funds)

	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Utility Administration	\$ 9,269,565	\$ 9,121,839	\$ 9,263,276	\$ 8,248,202	\$ 9,173,819	\$ 8,369,130	\$ 8,459,660	\$ 8,048,734	\$ 8,226,966	\$ 7,994,261
Operations and Maintenance	9,476,240	9,622,653	10,571,488	10,736,214	10,212,014	9,928,223	9,540,632	9,218,910	9,361,116	9,029,852
Distribution	9,793,124	10,534,589	10,316,146	8,353,326	7,913,843	8,259,670	7,828,171	7,410,158	7,737,779	7,084,122
Water Purchases	0	2,198	2,162	7,165	1,955	1,727	1,659	1,826	1,823	13,614
Water Treatment	5,699,366	5,228,931	4,931,876	4,637,924	3,844,175	3,960,397	3,788,986	3,771,537	4,223,470	4,222,046
Biosolids Handling	1,183,311	1,146,939	1,301,614	936,103	1,337,939	1,258,615	1,217,458	1,097,311	1,544,215	2,178,595
Inflow & Infiltration Control	-	-	0	911,061	1,225,231	1,086,491	1,134,758	1,293,613	1,263,527	1,200,428
Metering & Lift Stations	232,455	413,866	551,055	358,897	394,873	431,223	436,005	348,152	332,568	257,820
Occupancy Cost	46,046	53,431	52,736	51,164	49,010	47,072	41,852	44,240	41,320	48,584
Depreciation and amortization	16,644,826	16,159,430	16,275,816	15,801,038	15,366,403	14,708,467	14,021,130	16,606,654	16,597,440	15,408,991
<b>Total Operating Expenses</b>	<b>\$ 52,344,933</b>	<b>\$ 52,283,876</b>	<b>\$ 53,266,169</b>	<b>\$ 50,041,094</b>	<b>\$ 49,519,262</b>	<b>\$ 48,051,015</b>	<b>\$ 46,470,311</b>	<b>\$ 47,841,135</b>	<b>\$ 49,330,224</b>	<b>\$ 47,438,313</b>

Nonoperating Revenues and Expenses  
Last Ten Fiscal Years

## Water Fund

Fiscal Year	Interest Earned	Rental Income	Gain (Loss) on Disposal of Assets	Insurance Recoveries	Rental Expense	Interest Expense	Nonoperating Contributions	Total Nonoperating Income/ (Expenses)
2013	\$ 51,110	\$ 509,273	\$ (4,653,555)	\$ 46,675	\$ (121,334)	\$ (3,081,726)	\$ 615,911	\$ (6,633,646)
2014	25,095	546,830	15,630	92,660	(117,418)	(2,657,611)	615,730	(1,479,084)
2015	17,230	587,917	45,144	30,887	(125,829)	(1,817,881)	690,827	(571,705)
2016	25,459	617,475	1,114,048	-	(122,976)	(2,202,770)	602,128	33,364
2017	72,331	633,115	(173,635)	-	(141,648)	(1,929,990)	739,736	(800,091)
2018	347,712	719,081	3,408	-	(128,439)	(2,298,009)	732,292	(623,955)
2019	465,200	757,539	28,127	-	(120,599)	(2,329,826)	724,174	(475,385)
2020	341,835	730,152	20,842	-	(103,217)	(2,084,038)	543,954	(550,472)
2021	137,056	761,067	303,563	-	(113,915)	(1,860,521)	538,346	(234,404)
2022	267,258	829,462	27,747	-	(107,659)	(1,923,732)	531,584	(375,340)

## Water Pollution Control Fund

Fiscal Year	Interest Earned	Rental Income	Gain (Loss) on Disposal of Assets	Insurance Recoveries	Rental Expense	Interest Expense	Nonoperating Contributions	Total Nonoperating Income/ (Expenses)
2013	\$ 100,354	\$ 92,675	\$ 63,796	\$ 29,963	\$ (121,334)	\$ (2,177,444)	\$ -	\$ (2,011,990)
2014	56,651	93,322	38,377	1,493	(117,418)	(1,883,627)	(2,754,328)	(4,565,530)
2015	44,840	97,195	23,650	241	(125,829)	(1,753,503)	-	(1,713,406)
2016	62,754	97,471	32,566	-	(122,976)	(2,437,830)	-	(2,368,015)
2017	115,549	100,326	5,004	-	(141,648)	(2,186,334)	-	(2,107,103)
2018	351,586	104,635	6,990	-	(128,439)	(1,775,011)	-	(1,440,239)
2019	501,009	96,213	11,970	-	(120,599)	(1,580,171)	-	(1,091,578)
2020	486,946	69,295	18,204	-	(103,217)	(1,518,540)	-	(1,047,312)
2021	148,391	69,302	42,327	-	(113,915)	(1,342,821)	-	(1,196,716)
2022	108,873	68,973	9,740	-	(107,659)	(1,328,503)	-	(1,248,576)

## Western Virginia Water Authority (Total all funds)

Fiscal Year	Interest Earned	Rental Income	Gain (Loss) on Disposal of Assets	Insurance Recoveries	Rental Expense	Interest Expense	Nonoperating Contributions	Total Nonoperating Income/ (Expenses)
2013	\$ 151,464	\$ 601,948	\$ (4,589,759)	\$ 76,638	\$ (242,668)	\$ (5,259,170)	\$ 615,911	\$ (8,645,636)
2014	81,746	640,152	54,007	94,153	(234,836)	(4,541,238)	(2,138,598)	(6,044,614)
2015	62,070	685,112	68,794	31,128	(251,658)	(3,571,384)	690,827	(2,285,111)
2016	88,213	714,946	1,146,614	-	(245,952)	(4,640,600)	602,128	(2,334,651)
2017	187,880	733,441	(168,631)	-	(283,296)	(4,116,324)	739,736	(2,907,194)
2018	699,298	823,716	10,398	-	(256,878)	(4,073,020)	732,292	(2,064,194)
2019	966,209	853,752	40,097	-	(241,198)	(3,909,997)	724,174	(1,566,963)
2020	828,781	799,447	39,046	-	(206,434)	(3,602,578)	543,954	(1,597,784)
2021	285,447	830,369	345,890	-	(227,830)	(3,203,342)	538,346	(1,431,120)
2022	376,131	898,435	37,487	-	(215,318)	(3,252,235)	531,584	(1,623,916)

Note: GASB No. 87 was implemented in fiscal year 2022. Prior years information has not been adjusted to reflect the impact of GASB No. 87.

Annual Capital Contributions by Source  
Last Ten Fiscal Years

## Water Fund

Fiscal Year	Water Availability Fees	Developer Contributions	Governments	Other	Total
2013	\$ 510,665	\$ 440,450	\$ 50,500	\$ -	\$ 1,001,615
2014	593,843	1,197,186	803,500	-	2,594,529
2015	890,376	316,900	204,917	-	1,412,193
2016	815,750	3,322,487	832,744	-	4,970,981
2017	771,828	181,220	34,887	-	987,935
2018	1,322,250	807,785	730,598	-	2,860,633
2019	963,250	1,295,170	946,729	-	3,205,149
2020	1,135,500	1,201,525	2,711,685	200,000	5,248,710
2021	1,063,500	1,169,850	668,579	5,669,252	8,571,181
2022	1,597,500	781,340	2,985,150	440,850	5,804,840

## Water Pollution Control Fund

Fiscal Year	Sewer Availability Fees	Developer Contributions	Governments	Other	Total
2013	\$ 524,225	\$ 148,665	\$ 738,935	\$ -	\$ 1,411,825
2014	490,375	759,510	1,936,164	-	3,186,049
2015	726,500	347,910	2,599,923	-	3,674,333
2016	842,500	1,574,298	809,475	-	3,226,273
2017	825,500	220,450	1,035,716	-	2,081,666
2018	1,274,400	710,295	1,092,953	-	3,077,648
2019	1,053,350	632,950	903,499	-	2,589,799
2020	1,043,000	690,270	3,085,480	-	4,818,750
2021	1,018,250	1,022,900	1,277,476	-	3,318,626
2022	1,448,500	731,400	2,626,739	691,396	5,498,035

## Western Virginia Water Authority (Total all funds)

Fiscal Year	Availability Fees	Developer Contributions	Governments	Other	Total
2013	\$ 1,034,890	\$ 589,115	\$ 789,435	\$ -	\$ 2,413,440
2014	1,084,218	1,956,696	2,739,664	-	5,780,578
2015	1,616,876	664,810	2,804,840	-	5,086,526
2016	1,658,250	4,896,785	1,642,219	-	8,197,254
2017	1,597,328	401,670	1,070,603	-	3,069,601
2018	2,596,650	1,518,080	1,823,551	-	5,938,281
2019	2,016,600	1,928,120	1,850,228	-	5,794,948
2020	2,178,500	1,891,795	5,797,165	200,000	10,067,460
2021	2,081,750	2,192,750	1,946,055	5,669,252	11,889,807
2022	3,046,000	1,512,740	5,611,889	1,132,246	11,302,875

Water Produced, Consumed and Wastewater Treated  
 Gallons In Thousands  
 Last Ten Fiscal Years

<b>Fiscal Year</b>	<b>Gallons of Water Produced</b>	<b>Gallons of Water Consumed</b>	<b>Gallons of Water Unbilled</b>	<b>Average Percent Unbilled</b>	<b>Gallons of Wastewater Treated (1)</b>
2013	7,038,139	5,148,885	1,889,254	27%	12,951,500
2014	7,196,846	5,289,324	1,907,522	27%	14,594,100
2015	6,971,725	5,074,953	1,896,772	27%	13,351,400
2016	7,178,773	5,272,062	1,906,711	27%	16,324,800
2017	7,459,384	5,133,048	2,326,336	31%	13,714,900
2018	7,362,390	5,224,934	2,137,456	29%	11,490,800
2019	6,861,308	5,127,958	1,733,350	25%	16,591,900
2020	6,645,576	5,055,073	1,590,503	24%	13,772,300
2021	6,826,918	5,026,836	1,800,082	26%	14,276,300
2022	6,904,483	4,999,486	1,904,997	28%	11,247,600

(1) Regional flow

Data provided by Western Virginia Water Authority Billing & Customer Service.

Number of Customers  
Last Ten Fiscal Years

Fiscal Year	Water			Sewer				Total	
	Residential	Commercial	Industrial	Residential	Commercial	Industrial	Bulk	Water	Sewer
2013	53,910	4,536	23	47,644	4,139	18	3	58,469	51,804
2014	52,374	5,123	25	47,659	4,190	14	3	57,522	51,866
2015	52,560	5,157	27	47,872	4,086	12	3	57,744	51,973
2016	53,831	5,257	34	49,704	4,491	22	2	59,122	54,219
2017	56,551	5,578	35	51,292	4,572	23	2	62,163	55,889
2018	57,037	5,615	33	51,567	4,502	19	2	62,685	56,090
2019	57,342	5,597	34	51,876	4,611	23	2	62,973	56,512
2020	57,729	5,699	34	52,115	4,601	23	2	63,462	56,741
2021	58,125	5,735	35	52,614	4,685	23	2	63,895	57,324
2022	58,276	5,760	35	52,374	4,666	23	2	64,071	57,065

Data provided by Western Virginia Water Authority Billing & Customer Service.

Schedule of User Rates (1)  
Last Ten Fiscal Years

	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
<b>Water Rates:</b>										
City of Roanoke Residents (4)										
Water Fixed Rate	\$13.00	\$12.75	\$12.75	\$12.25	\$11.75	\$11.25	\$10.75	\$10.25	\$9.50	\$8.65
Water Variable Rate	3.20	3.20	3.20	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Average monthly residential bill	29.00	28.75	28.75	27.25	26.75	26.25	25.75	25.25	24.50	23.65
County of Roanoke Residents (4)										
Water Fixed Rate	\$13.00	\$12.75	\$12.75	\$12.25	\$11.75	\$11.25	\$10.75	\$10.25	\$9.50	\$8.65
Water Variable Rate	3.20	3.20	3.20	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Average monthly residential bill	29.00	28.75	28.75	27.25	26.75	26.25	25.75	25.25	24.50	23.65
County of Franklin Residents (2)										
Water Fixed Rate	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Water Variable Rate	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Average monthly residential bill	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
County of Botetourt Residents (3)										
Water Fixed Rate	\$13.00	\$12.25	\$12.25	\$12.25	\$12.25	\$12.25	\$12.25	na	na	na
Water Variable Rate	4.00	4.75	4.75	4.75	4.75	4.75	4.75	na	na	na
Average monthly residential bill	33.00	36.00	36.00	36.00	36.00	36.00	36.00	na	na	na
<b>Sewer Rates:</b>										
City of Roanoke Residents (4)										
Sewer Fixed Rate	\$16.50	\$16.50	\$16.50	\$15.50	\$14.75	\$14.25	\$13.75	\$13.00	\$12.75	\$12.25
Sewer Variable Rate	4.20	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.50
Average monthly residential bill	37.50	35.25	35.25	34.25	33.50	33.00	32.50	31.75	31.50	29.75
County of Roanoke Residents (4)										
Sewer Fixed Rate	\$16.50	\$16.50	\$16.50	\$15.50	\$14.75	\$14.25	\$13.75	\$13.00	\$12.25	\$12.25
Sewer Variable Rate	4.20	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.75	3.50
Average monthly residential bill	37.50	35.25	35.25	34.25	33.50	33.00	32.50	31.75	31.00	29.75
County of Franklin Residents (2)										
Sewer Fixed Rate	\$16.50	\$16.50	\$16.50	\$15.50	\$14.75	\$14.25	\$11.00	\$11.00	\$11.00	\$11.00
Sewer Variable Rate	4.20	4.20	4.20	6.00	6.35	6.75	7.60	7.60	7.60	7.60
Average monthly residential bill	37.50	37.50	37.50	45.50	46.50	48.00	49.00	49.00	49.00	49.00
County of Botetourt Residents (3)										
Sewer Fixed Rate	\$16.50	\$16.50	\$16.50	\$15.50	\$14.75	\$14.25	\$14.00	na	na	na
Sewer Variable Rate	4.20	3.75	3.75	3.75	3.75	3.75	3.75	na	na	na
Average monthly residential bill	37.50	35.25	35.25	34.25	33.50	33.00	32.75	na	na	na

Residential bill based on 5/8 inch meter using 5,000 gallons

(1) Rates effective January 1 of each year

(2) County of Franklin joined the Authority in fiscal year 2010, rates are not applicable for years before fiscal year 2010

(3) County of Botetourt joined the Authority in fiscal year 2016, rates are not applicable for years before fiscal year 2016

(4) Rates approved by the Western Virginia Water Authority Board of Directors.

Data provided by Western Virginia Water Authority Billing & Customer Service.

## Principal Customers

Comparison of June 30, 2022 and 2013

Customer	Fiscal Year 2022			
	Water Consumption		Sewer Flow	
	in 000/gals	% of System	in 000/gals	% of System
Coca Cola	111,466	2.2%	-	0.1%
Carilion	96,520	1.9%	73,724	1.9%
City of Roanoke Redevelopment	88,843	1.8%	88,103	2.3%
Norfolk Southern Corporation	59,319	1.2%	77,668	2.0%
Dynax America Corporation	57,615	1.2%	57,615	1.5%
Mid Atlantic Apartment Management LLC	37,096	0.7%	37,096	0.9%
Ardagh Metal Packaging USA Inc	35,436	0.7%	35,436	0.9%
Steel Dynamics Roanoke	33,472	0.7%	28,657	0.7%
Hollins University	30,929	0.6%	22,456	0.6%
ITT Exelis	30,310	0.5%	22,886	0.6%
Total consumption (principal customers)	581,005	11.5%	443,642	11.5%
Balance from other customers	4,418,481	88.4%	3,507,528	88.8%
Total system annual consumption	4,999,486	99.9%	3,951,170	100.3%

Customer	Fiscal Year 2013			
	Water Consumption		Sewer Flow	
	in 000/gals	% of System	in 000/gals	% of System
Norfolk Southern Corporation	232,847	4.5%	151,536	3.5%
Wometco Coca Cola	110,778	2.2%	29,261	0.7%
Carilion Hospitals	120,043	2.3%	94,175	2.2%
Roanoke Redevelopment and Housing Authority	94,573	1.8%	94,573	2.2%
Snyder Hunt Corporation	55,864	1.1%	55,864	1.3%
ITT	43,203	0.8%	48,235	1.1%
Steel Dynamics	49,937	1.0%	32,297	0.8%
Pepsi Bottling Group	38,785	0.8%	-	0.0%
Hollins University	33,724	0.7%	26,901	0.6%
City of Roanoke School Board	30,893	0.6%	30,893	0.7%
Total consumption (principal customers)	810,647	15.7%	563,735	13.1%
Balance from other customers	4,338,238	84.3%	3,729,884	86.9%
Total system annual consumption	5,148,885	100.0%	4,293,619	100.0%

Data provided by Western Virginia Water Authority Billing &amp; Customer Service.

Ratios of Outstanding Debt by Type  
Last Ten Fiscal Years

Water Fund

Fiscal Year	Revenue Bonds	Locality Compensation Payments	Total	Per Connection
2013	\$ 76,461,851	\$ 4,914,900	\$ 81,376,751	\$ 1,391
2014	74,404,938	3,184,900	77,589,838	1,322
2015	70,843,099	2,863,500	73,706,599	1,250
2016	67,976,059	2,300,800	70,276,859	1,165
2017	65,094,505	1,953,900	67,048,405	1,108
2018	75,426,147	1,598,200	77,024,347	1,267
2019	75,254,507	1,224,800	76,479,307	1,252
2020	68,674,647	845,516	69,520,163	1,133
2021	62,012,532	420,614	62,433,146	1,014
2022	71,016,238	-	71,016,238	1,149

Water Pollution Control Fund

Fiscal Year	Revenue Bonds	Locality Compensation Payments	Total	Per Connection
2013	\$ 68,224,251	\$ 8,475,000	\$ 76,699,251	\$ 1,481
2014	72,117,929	10,554,359	82,672,288	1,591
2015	73,806,707	9,774,390	83,581,097	1,603
2016	76,034,133	9,694,420	85,728,553	1,543
2017	70,724,505	8,990,778	79,715,283	1,430
2018	64,216,604	8,013,990	72,230,594	1,291
2019	58,015,111	7,031,409	65,046,520	1,158
2020	57,463,825	6,023,156	63,486,981	1,125
2021	52,556,305	5,001,339	57,557,644	1,017
2022	60,461,456	3,956,093	64,417,549	1,135

Western Virginia Water Authority (Total all funds)

Fiscal Year	Revenue Bonds	Locality Compensation Payments	Total	Per Connection
2013	\$ 144,686,102	\$ 13,389,900	\$ 158,076,002	\$ 1,434
2014	146,522,867	13,739,259	160,262,126	1,448
2015	144,649,806	12,637,890	157,287,696	1,416
2016	144,010,192	11,995,220	156,005,412	1,346
2017	135,819,010	10,944,678	146,763,688	1,262
2018	139,642,751	9,612,190	149,254,941	1,279
2019	133,269,618	8,256,209	141,525,827	1,207
2020	126,138,472	6,868,672	133,007,144	1,129
2021	114,568,837	5,421,953	119,990,790	1,015
2022	131,477,694	3,956,093	135,433,787	1,142

Schedule of Debt Service & Coverage  
Last Ten Fiscal Years

## Water Fund

Fiscal Year	Operating Revenues	Availability Fees	Interest Earnings	Non-operating Revenues	Gross Revenues	Operating Expenses (excluding depreciation and amortization)	Non-operating Expenses	Net Available Revenues	Debt Service Requirements	Coverage Ratio
2013	\$ 27,062,236	\$ 510,665	\$ 51,110	\$ 1,171,859	\$ 28,795,870	\$ 14,976,031	\$ 121,334	\$ 13,698,505	8,468,400	1.62
2014	28,597,148	593,843	25,095	1,270,850	30,486,936	15,447,701	117,418	14,921,817	8,871,666	1.68
2015	28,344,557	890,376	17,230	1,354,775	30,606,938	14,801,029	125,829	15,680,080	7,463,889	2.10
2016	30,594,647	815,750	25,459	2,333,651	33,769,507	15,325,484	122,976	18,321,047	8,399,023	2.18
2017	31,692,276	771,828	72,331	1,372,851	33,909,286	16,212,504	141,648	17,555,134	7,245,574	2.42
2018	32,535,962	1,322,250	347,712	1,453,781	35,659,705	16,362,539	128,439	19,168,727	7,245,574	2.65
2019	33,024,141	963,250	465,200	1,509,840	35,962,431	16,668,407	120,599	19,173,425	8,745,177	2.19
2020	33,906,922	1,135,500	341,835	1,294,948	36,679,205	17,203,823	103,217	19,372,165	9,892,532	1.96
2021	34,139,592	1,063,500	137,056	1,602,976	36,943,124	17,586,051	113,915	19,243,158	8,983,458	2.14
2022	35,156,245	1,597,500	267,258	1,388,793	38,409,796	17,523,990	107,659	20,778,147	9,250,832	2.25

## Water Pollution Control Fund

Fiscal Year	Operating Revenues	Availability Fees	Interest Earnings	Non-operating Revenues	Gross Revenues	Operating Expenses (excluding depreciation and amortization)	Non-operating Expenses	Net Available Revenues	Debt Service Requirements	Coverage Ratio
2013	\$ 29,003,472	\$ 524,225	\$ 100,354	\$ 122,638	\$ 29,750,689	\$ 17,053,291	\$ 121,334	\$ 12,576,064	8,484,702	1.48
2014	30,486,279	490,375	56,651	133,192	31,166,497	17,285,083	117,418	13,763,996	7,466,653	1.84
2015	28,850,165	726,500	44,840	121,086	29,742,591	16,433,452	125,829	13,183,310	7,965,573	1.66
2016	31,427,048	842,500	62,754	130,037	32,462,339	17,123,697	122,976	15,215,666	11,391,519	1.34
2017	31,414,514	825,500	115,549	105,330	32,460,893	17,130,044	141,648	15,189,201	9,318,081	1.63
2018	31,773,686	1,274,400	351,586	111,625	33,511,297	17,790,320	128,439	15,592,538	9,276,408	1.68
2019	33,164,342	1,053,350	501,009	108,183	34,826,884	17,571,649	120,599	17,134,636	8,776,476	1.95
2020	33,078,636	1,043,000	486,946	87,499	34,696,081	19,786,530	103,217	14,806,334	8,161,885	1.81
2021	33,522,333	1,018,250	148,391	111,629	34,800,603	18,538,395	113,915	16,148,293	7,865,616	2.05
2022	34,678,941	1,448,500	108,873	78,713	36,315,027	18,176,117	107,659	18,031,251	8,176,966	2.21

## Western Virginia Water Authority (Total all funds)

Fiscal Year	Operating Revenues	Availability Fees	Interest Earnings	Non-operating Revenues	Gross Revenues	Expenses (excluding depreciation)	Non-operating Expenses	Net Available Revenues	Debt Service Requirements	Coverage Ratio
2013	\$ 56,065,708	\$ 1,034,890	\$ 151,464	\$ 1,294,497	\$ 58,546,559	\$ 32,029,322	\$ 242,668	\$ 26,274,569	16,953,102	1.55
2014	59,083,427	1,084,218	81,746	1,404,042	61,653,433	32,732,784	234,836	28,685,813	16,338,319	1.76
2015	57,194,722	1,616,876	62,070	1,475,861	60,349,529	31,234,481	251,658	28,863,390	15,429,462	1.87
2016	62,021,695	1,658,250	88,213	2,463,688	66,231,846	32,449,181	245,952	33,536,713	19,790,542	1.69
2017	63,106,790	1,597,328	187,880	1,478,181	66,370,179	33,342,548	283,296	32,744,335	16,563,655	1.98
2018	64,309,648	2,596,650	699,298	1,565,406	69,171,002	34,152,859	256,878	34,761,265	16,521,982	2.10
2019	66,188,483	2,016,600	966,209	1,618,023	70,789,315	34,240,056	241,198	36,308,061	17,521,653	2.07
2020	66,985,558	2,178,500	828,781	1,382,447	71,375,286	36,990,353	206,434	34,178,499	18,054,417	1.89
2021	67,661,925	2,081,750	285,447	1,714,605	71,743,727	36,124,446	227,830	35,391,451	16,849,074	2.10
2022	69,835,186	3,046,000	376,131	1,467,506	74,724,823	35,700,107	215,318	38,809,398	17,427,798	2.23

WESTERN VIRGINIA WATER AUTHORITY

Table 13

Demographic Statistics  
Last Ten Fiscal Years

Fiscal Year	City of Roanoke		County of Roanoke		County of Franklin		County of Botetourt		City of Roanoke		County of Roanoke		County of Franklin		County of Botetourt		National		
	Population (1)	Per Capita Income (1)	Population (2)	Per Capita Income (2)	Population (3)	Per Capita Income (3)	Population (4)	Per Capita Income (4)	Unemployment Rate (1)	Per Capita Income (4)	Unemployment Rate (2)	Population (4)	Per Capita Income (4)	Unemployment Rate (3)	Population (4)	Per Capita Income (4)	Unemployment Rate (4)	Unemployment Rate (5)	
2013	98,641	\$ 38,453	93,256	\$ 42,288	56,616	\$ 32,193	33,293	\$ 45,320	6.4%	45,320	5.5%	33,293	\$ 45,320	4.9%	33,293	\$ 45,320	5.2%	5.2%	7.5%
2014	98,913	39,385	92,703	45,577	56,616	33,314	33,423	45,320	5.7%	45,320	5.2%	33,423	45,320	5.2%	33,423	45,320	5.1%	5.1%	6.1%
2015	99,320	39,385	93,569	48,047	56,793	33,356	33,521	46,664	5.6%	46,664	4.5%	33,521	46,664	5.2%	33,521	46,664	4.6%	4.6%	5.3%
2016	99,681	39,385	93,775	48,384	56,373	34,586	33,486	45,055	4.1%	45,055	3.5%	33,486	45,055	4.2%	33,486	45,055	3.7%	3.7%	4.9%
2017	99,644	40,947	93,924	49,860	56,205	37,035	33,176	46,811	4.5%	46,811	3.6%	33,176	46,811	4.1%	33,176	46,811	3.6%	3.6%	4.4%
2018	99,837	42,263	93,735	52,248	56,427	37,300	33,350	46,748	3.4%	46,748	3.1%	33,350	46,748	3.9%	33,350	46,748	3.2%	3.2%	4.0%
2019	99,920	41,946	93,672	52,248	56,127	38,707	33,288	48,013	2.8%	48,013	2.7%	33,288	48,013	3.1%	33,288	48,013	2.6%	2.6%	3.7%
2020	99,348	43,451	93,805	52,248	55,782	40,781	33,494	49,948	7.9%	49,948	6.8%	33,494	49,948	3.2%	33,494	49,948	3.7%	3.7%	11.1%
2021	99,795	45,277	96,929	53,489	54,477	41,795	33,596	51,465	4.3%	51,465	3.6%	33,596	51,465	3.7%	33,596	51,465	3.9%	3.9%	6.0%
2022	99,058	46,727	96,546	54,977	54,188	44,821	33,642	53,767	3.4%	53,767	2.6%	33,642	53,767	3.0%	33,642	53,767	2.3%	2.3%	3.8%

- (1) Estimate from City of Roanoke
- (2) Estimate from County of Roanoke
- (3) Estimate from County of Franklin
- (4) Estimate from County of Botetourt
- (5) Source: Bureau of Labor Statistics

Principal Area Employers  
 Comparison of June 30, 2022 and 2013

Employer	Fiscal Year 2022	
	Employees (1,2)	Rank
Roanoke County Schools	2000+	1
Wells Fargo Operations Center	2000+	2
County of Roanoke	1000+	3
Roanoke Memorial Community Hospital	1000+	4
Roanoke City Public Schools	1000+	5
Carilion Services	1000+	6
M.W. Manufacturers	1000+	7
Franklin County Schools	1000+	8
Altec Industries	1000+	9
Botetourt County School Board	500+	10

Employer	Fiscal Year 2013	
	Employees	Rank
Carilion	1,000+	1
Roanoke City School Board	1,000+	2
City of Roanoke	1,000+	3
Advance Auto Parts	1,000+	4
Roanoke County Schools	1,000+	5
ITT	1,000+	6
Wells Fargo Bank	1,000+	7
County of Roanoke	1,000+	8
Franklin County Public Schools	1,000+	9
M.W. Manufacturers	1,000+	10

(1) Per current Virginia Employment Guidelines, actual number of employees for each employer are no longer available for publication.

(2) Data provided by City of Roanoke, County of Roanoke, Franklin and Botetourt.

WESTERN VIRGINIA WATER AUTHORITY

Table 15

Number of Employees by Identifiable Activity  
Last Ten Fiscal Years

	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Water Operations										
Water Administration	7	7	7	7	7	7	7	8	4	4
Carvins Cove	10	10	10	10	10	10	10	11	14	14
Spring Hollow	11	11	11	11	11	11	11	13	14	14
Crystal Springs	2	2	2	2	2	2	2	2	1	1
Falling Creek	2	2	2	2	2	2	2	2	2	2
Pump & Storage	11	11	11	11	11	12	12	5	4	4
Well Operation	3	3	3	3	3	3	2	2	3	3
Meter & Distribution Operations	27	27	27	27	27	26	26	26	22	22
Watershed Maintenance/Security	2	2	2	2	2	2	2	2	3	3
Field Operations										
Field Operations Administration	6	6	6	6	6	6	6	6	6	6
Field Operations Water	36	36	36	36	31	31	31	31	31	31
Field Operations Sewer Maintenance	19	19	19	19	19	19	19	19	18	14
Field Operations Sewer Construction	28	28	28	28	28	28	28	24	22	22
Water Pollution Control Operation										
WPC Administration	4	4	4	4	4	4	4	5	5	5
WPC Operations	28	28	28	28	28	28	28	28	31	31
WPC Maintenance	23	23	23	23	23	23	19	19	20	20
WPC Inflow & Infiltration Control	14	14	14	14	14	14	14	14	14	14
Water Pollution Pretreatment	7	7	7	7	7	7	7	6	2	2
Administration										
General Administration	3	3	3	3	3	3	3	3	4	4
Finance, Payroll & Human Resources	10	10	10	10	10	10	9	9	12	12
Billing & Customer Service	14	14	14	14	14	15	21	15	15	15
Information Technology	5	5	4	4	4	3	3	3	3	3
Engineering	25	25	23	21	21	21	21	21	22	22
<b>Total Employees</b>	<b>297</b>	<b>297</b>	<b>294</b>	<b>292</b>	<b>287</b>	<b>287</b>	<b>287</b>	<b>274</b>	<b>272</b>	<b>268</b>

Data provided by Western Virginia Water Authority Payroll & Human Resources.

WESTERN VIRGINIA WATER AUTHORITY

Table 16

Operating Statistics  
Last Ten Fiscal Years

Water System	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Number of service connections	61,801	61,575	61,354	61,080	60,772	60,530	60,315	58,951	58,708	58,488
Number of treatment plants	13	13	13	13	13	12	4	4	4	4
Treatment capacity (MGD)	58	58	58	58	58	58	56	56	56	56
Average production (MGD)	19	19	18	19	20	20	19	19	19	19
Number of storage tanks	100	102	102	101	104	116	116	123	123	123
Number of pump stations	57	57	57	57	58	76	75	88	88	87
Miles of water mains	1,258	1,241	1,237	1,222	1,217	1,202	1,174	1,123	1,107	1,098

Wastewater System

Wastewater System	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Number of service connections	56,763	56,585	56,418	56,161	55,955	55,750	55,572	52,147	51,959	51,774
Number of treatment plants	6	6	6	6	6	6	5	3	2	2
WPC plant permit (MGD)	55	55	55	55	55	55	55	55	55	55
Average annual daily flow (MGD)	39	39	38	46	38	38	45	36	36	36
Number of lift stations	28	27	27	27	27	30	30	25	25	25
Miles of sewer mains	997	991	987	977	978	974	973	891	873	873

Data provided by Western Virginia Water Authority Engineering Services.

WESTERN VIRGINIA WATER AUTHORITY

Table 17

Schedule of New Connections  
Last Ten Fiscal Years

Fiscal Year	Water Connections	Cumulative Connections	% Water Growth	Sewer Connections	Cumulative Connections	% Sewer Growth	Total Services
2013	106	58,488	0.18%	93	51,774	0.18%	110,262
2014	220	58,708	0.38%	185	51,959	0.36%	110,667
2015	243	58,951	0.41%	188	52,147	0.36%	111,098
2016	1,364	60,315	2.31%	3,425	55,572	6.57%	115,887
2017	215	60,530	0.36%	178	55,750	0.32%	116,280
2018	242	60,772	0.40%	205	55,955	0.37%	116,727
2019	308	61,080	0.51%	206	56,161	0.37%	117,241
2020	274	61,354	0.45%	257	56,418	0.46%	117,772
2021	221	61,575	0.36%	167	56,585	0.30%	118,160
2022	226	61,801	0.37%	178	56,763	0.31%	118,564

Data provided by Western Virginia Water Authority Billing & Customer Service.

**WESTERN VIRGINIA WATER AUTHORITY**

Table 18

**Water Consumption and Wastewater Flow by Customer Group**

Gallons In Thousands  
Last Ten Fiscal Years

**Water Fund**

Type of Customer:	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Residential consumption	2,611,563	2,649,354	2,590,863	2,506,164	2,566,209	2,537,563	2,251,472	2,461,620	2,694,799	2,736,616
Commercial consumption	2,053,577	2,068,260	2,097,566	2,215,386	2,240,255	2,135,409	2,565,490	2,255,711	2,131,720	2,001,987
Industrial consumption	334,345	309,222	366,644	406,408	418,470	460,076	455,100	357,622	462,860	410,281
<b>Total</b>	<b>4,999,486</b>	<b>5,026,836</b>	<b>5,055,073</b>	<b>5,127,958</b>	<b>5,224,934</b>	<b>5,133,048</b>	<b>5,272,062</b>	<b>5,074,953</b>	<b>5,289,379</b>	<b>5,148,884</b>

**Water Pollution Control Fund**

Type of Customer:	Fiscal Year									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Residential flow	1,845,604	1,859,170	1,838,581	1,822,976	2,074,861	1,825,595	1,882,257	1,815,311	2,147,812	2,255,115
Commercial flow	1,931,438	1,895,872	1,918,938	2,059,914	1,839,535	2,021,710	2,075,862	1,958,585	1,999,867	1,865,559
Industrial flow	174,128	227,909	275,705	291,541	318,980	372,085	353,663	265,991	332,776	172,945
<b>Total</b>	<b>3,951,170</b>	<b>3,982,951</b>	<b>4,033,224</b>	<b>4,174,431</b>	<b>4,233,376</b>	<b>4,219,390</b>	<b>4,311,782</b>	<b>4,039,887</b>	<b>4,480,455</b>	<b>4,293,619</b>

Data provided by Western Virginia Water Authority Billing & Customer Service.

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## **COMPLIANCE SECTION**

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**Independent Auditors' Report on Internal Control over Financial Reporting and on  
Compliance and Other Matters Based on an Audit of Financial Statements  
Performed in Accordance with *Government Auditing Standards***

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**To the Board of Directors  
Western Virginia Water Authority  
Roanoke, Virginia**

We have audited, in accordance with the auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia, the financial statements of the business-type activities of the Western Virginia Water Authority, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Western Virginia Water Authority's basic financial statements and have issued our report thereon dated November 17, 2022.

**Report on Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Western Virginia Water Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Western Virginia Water Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Western Virginia Water Authority's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

## Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Western Virginia Water Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

### Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Robinson, Farmer, Cox Associates*

Blacksburg, Virginia  
November 17, 2022