RIVANNA

WATER & SEWER AUTHORITY

Board of Directors Meeting

December 13, 2022

2:15pm

RIVANNA WATER & SEWER AUTHORITY
695 Moores Creek Lane | Charlottesville, Virginia 22902-9016
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BOARD OF DIRECTORS

Regular Meeting of the Board of Directors of the Rivanna Water & Sewer Authority

DATE: **DECEMBER 13, 2022**

LOCATION: **Conference Room, Administration Building**
695 Moores Creek Lane, Charlottesville, VA

TIME: **2:15 p.m.**

AGENDA

1. ***CALL TO ORDER***

2. ***AGENDA APPROVAL***

3. ***MINUTES OF PREVIOUS BOARD MEETING ON NOVEMBER 15, 2022***

4. ***RECOGNITION***

5. ***EXECUTIVE DIRECTOR'S REPORT***

6. ***ITEMS FROM THE PUBLIC***
   Matters Not Listed for Public Hearing on the Agenda

7. ***RESPONSES TO PUBLIC COMMENTS***

8. ***CONSENT AGENDA***

   a. *Staff Report on Finance*

   b. *Staff Report on Operations*

   c. *Staff Report on Ongoing Projects*

   d. *Staff Report on Wholesale Metering*

   e. *Approval of Updated Flexible Benefits Plan*

9. ***OTHER BUSINESS***

   a. *Presentation and Vote on Acceptance: FY 22 Audit Report*
   Matthew McLearen, Robinson, Farmer, Cox Associates

b. Presentation: Review of the Community's Water Supply Plan
Bill Mawyer, Executive Director

c. Presentation: Dam Safety Program Overview
Victoria Fort, P.E., Senior Civil Engineer

10. OTHER ITEMS FROM BOARD/STAFF NOT ON THE AGENDA

11. CLOSED MEETING

12. ADJOURNMENT

GUIDELINES FOR PUBLIC COMMENT AT RIVANNA BOARD OF DIRECTORS MEETINGS

If you wish to address the Rivanna Board of Directors during the time allocated for public comment, please raise your hand or stand when the Chairman asks for public comments.

Members of the public requesting to speak will be recognized during the specific time designated on the meeting agenda for "Items From The Public, Matters Not Listed for Public Hearing on the Agenda." Each person will be allowed to speak for up to three minutes. When two or more individuals are present from the same group, it is recommended that the group designate a spokesperson to present its comments to the Board and the designated speaker can ask other members of the group to be recognized by raising their hand or standing. Each spokesperson for a group will be allowed to speak for up to five minutes.

During public hearings, the Board will attempt to hear all members of the public who wish to speak on a subject, but it must be recognized that on rare occasion comments may have to be limited because of time constraints. If a previous speaker has articulated your position, it is recommended that you not fully repeat the comments and instead advise the Board of your agreement. The time allocated for speakers at public hearings are the same as for regular Board meetings, although the Board can allow exceptions at its discretion.

Speakers should keep in mind that Board of Directors meetings are formal proceedings and all comments are recorded on tape. For that reason, speakers are requested to speak from the podium and wait to be recognized by the Chairman. In order to give all speakers proper respect and courtesy, the Board requests that speakers follow the following guidelines:

- Wait at your seat until recognized by the Chairman.
- Come forward and state your full name and address and your organizational affiliation if speaking for a group;
- Address your comments to the Board as a whole;
- State your position clearly and succinctly and give facts and data to support your position;
- Summarize your key points and provide the Board with a written statement, or supporting rationale, when possible;
- If you represent a group, you may ask others at the meeting to be recognized by raising their hand or standing;
- Be respectful and civil in all interactions at Board meetings;
- The Board may ask speakers questions or seek clarification, but recognize that Board meetings are not a forum for public debate; Board Members will not recognize comments made from the audience and ask that members of the audience not interrupt the comments of speakers and remain silent while others are speaking so that other members in the audience can hear the speaker;
- The Board will have the opportunity to address public comments after the public comment session has been closed;
- At the request of the Chairman, the Executive Director may address public comments after the session has been closed as well; and
- As appropriate, staff will research questions by the public and respond through a report back to the Board at the next regular meeting of the full Board. It is suggested that citizens who have questions for the Board or staff submit those questions in advance of the meeting to permit the opportunity for some research before the meeting.

The agendas of Board meetings, and supporting materials, are available from the RWSA Administration office upon request or can be viewed on the Rivanna website.

Rev. September 7, 2022

RWSA BOARD OF DIRECTORS
Minutes of Regular Meeting
November 15, 2022

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, November 15, 2022 at 2:15 p.m.

Board Members Present: Mike Gaffney, Jeff Richardson, Michael Rogers, Brian Pinkston, Ann Mallek, Lauren Hildebrand, Gary O'Connell.

Board Members Absent: None

Rivanna Staff Present: Bill Mawyer, Lonnie Wood, Jennifer Whitaker, David Tungate, Deborah Anama, Andrea Bowles, Elizabeth Coleman

Attorney(s) Present: Carrie Stanton

1. ***CALL TO ORDER***

The RWSA Chair, Michael Gaffney called the November 15, 2022, regular meeting of the Rivanna Water and Sewer Authority to order at 2:40 p.m.

2. ***AGENDA APPROVAL***

Mr. O'Connell motioned to approve the Agenda. The motion was seconded by Ms. Mallek and passed unanimously (7-0).

3. ***MINUTES OF PREVIOUS BOARD MEETING ON OCTOBER 25, 2022***

Mr. Gaffney asked if there were any comments or changes to the Board minutes.

Ms. Mallek motioned to approve the Board minutes of October 25, 2022. The motion was seconded by Mr. Pinkston and passed (6-0). Mr. Gaffney abstained from the vote because he was absent from the meeting.

4. ***RECOGNITION***

There were no recognitions this month.

5. ***EXECUTIVE DIRECTOR'S REPORT***

Mr. Mawyer recognized Alison Henry, who passed her Class 2 Water Operator License and was a unique operator licensed in water treatment and wastewater treatment. He stated that last month, they recognized that she increased her licensing in wastewater. He stated that Dennis Barbieri earned his Class 2 Wastewater Operator License recently, so they gave congratulations to him. He stated that these exams were given by DPOR in Richmond, and all operators in the state must pass them to operate water and wastewater treatment plants.

Mr. Mawyer stated that they celebrated their annual Employee Appreciation Day on November 2, and using an abundance of caution, they did not go to Michie Tavern and celebrated in their parking lot with a picnic, service awards, and a picture. He stated that he restarted his welcoming program with new employees, where he met quarterly with new employees to have a box lunch and get to know new employees, which had been put aside during the pandemic.

Mr. Mawyer stated that recently, the Virginia Water and Wastewater Authority Association had an election, and he had served on the Board for a few years and was elected to first vice-president. He stated that Ben Shoemaker from the Fauquier Water & Sewer Authority was the president currently, and they had a nice group of over thirty authorities. He stated that there was a webpage on which they promoted the interests of water and wastewater authorities, particularly in Richmond when legislation and funding issues were considered.

Mr. Mawyer stated that they were poised to shut down the Observatory Water Treatment Plant on December 5 for three months strategically while students were gone and water demand was lower during the colder weather. He stated that it was a concentrated effort by their contractor to renovate the Observatory Treatment Plant. He stated that with the tragedy that occurred at the University yesterday, there was a lot of discussion at the plant about safety measures, but their contractor continued to work with the gate closed and close monitoring. He stated that they were moving forward in expanding Observatory from 7.7MGD to 10MGD in treatment capacity, as well as to rehabilitate the 1950s vintage facility.

Mr. Pinkston asked if the University knew that the project was underway.

Mr. Mawyer confirmed that staff were coordinating closely with UVA Facilities staff.

Mr. Pinkston asked if they knew that the water was coming through the City.

Mr. Mawyer stated that all of the water would all be coming from the South Rivanna Water Treatment Plant during this shutdown period. He stated that South Rivanna operated 24/7 and most of the water was coming from South Rivanna anyway, but 1-2 MGD came from Observatory. He stated that they had substantially completed the renovation at South Rivanna, so they would maximize that plant and zero production from Observatory for three months to concentrate construction. They were coordinating with Mr. Sundgren from UVA Facilities for that shutdown.

Mr. Mawyer stated that they continued to work on the piping projects from Rivanna to Ragged and from Ragged to Observatory, then from Observatory to Free Bridge. He stated there were about 18 miles of major piping to be completed that would increase the Urban water supply and improve reliability. He stated that Schenks Branch had been an age-old project that originally was a consent order project, and a lot of discussion had occurred even six years ago when he began as Executive Director, but they were revitalizing that project which would replace the sewer line along McIntire Road to Preston Ave. He stated the project was collaborative between the RWSA, City, and County, and was funded by the City. RWSA had sent information to

Albemarle County about potential easements across the County property to install that pipe.

Mr. Mawyer stated that official notice was received from the Virginia Department of Health that they had received a $3.18M grant to construct additional granular activated carbon vessels at four water treatment plants. He stated that the challenge to that good news was that it was a $21M project, so they would need to move it forward in the CIP to utilize the grant dollars. He stated that they continued to strategize and discuss with VDH about perhaps phasing the work. He stated that they had four more years of eligibility for additional grant funding in the five-year program.

Mr. Mawyer stated that it was noteworthy that the Roanoke River and the Western Virginia Water Authority found PFAS in its reservoir, and recently found a chemical company that was putting it in the river. He stated the RWSA built GAC filters to reduce disinfection byproducts from chlorination, but technology indicated that it was one of the leading ways to take PFAS, “forever chemicals”, out of the raw water as they made it into drinking water. He stated that the grant request was submitted to VDH about six months ago, and they recently received the letter of official award of $3.177M. He stated that they were working on the strategy of how to fund the rest of the project to best leverage the grant.

Mr. Gaffney asked Mr. Mawyer if they obligated themselves to spend $21M if they took the $3M.

Mr. Mawyer stated that question remained to be answered by VDH, and they must discuss the draft CIP if they did pull the $21M forward. He stated that they did not have the capacity to treat 100% of their water with GAC filters, so it was estimated they would be added in 2035-2038. He stated that they were advocates of moving the project forward but must reconcile it with the rates charged to the City and Service Authority. He stated they would have those discussions soon and would ask the VDH if they could use the grant partially for Crozet and Red Hill with the rest in subsequent years to complete GAC facilities at South Rivanna and Observatory.

Mr. O’Connell asked if there was a commitment to future year funding or if they had to reapply.

Mr. Mawyer stated that they must reapply every year, so there was no commitment from the VDH for future funding. He stated that the good news is there is very little PFAS in our drinking water. VDH stated that we were in a weak position for receipt of additional funding moving forward, but it was a function of how many applicants and the severity of the applications. He stated that the VDH encouraged them to apply, so they performed an extensive application process and were pleased to get the $3.18M to partially fund the project. He stated that he would keep everyone informed on future updates.

Ms. Mallek stated that she understood that a redesign of the GAC was what was required to actually catch the PFAS components, but she was unsure of what the redesign entailed. She asked Mr. Mawyer when he learned what that meant to please share it with them.

Mr. Mawyer stated that he would. He asked if Mr. Tungate knew about this issue.

Mr. Tungate stated that the system design could vary how long the water stayed in the GAC vessel, and it depended on the actual PFAS structure, as there were 3,600 varieties of PFAS, so treatment design needed to be chemical-specific.

Ms. Mallek asked if it was a timing factor as opposed to the size of the particles or something more specific than that.

Mr. Dave stated that both factors were considered when designing a PFAS treatment process.

Mr. Mawyer stated how long they kept the water in contact with the GAC's activated carbon material was a treatment design factor.

Ms. Mallek stated that was a good start.

6. *ITEMS FROM THE PUBLIC*

Mr. Gaffney stated that he would open the Board meeting for people to give public comment. He asked speakers to identify themselves for the public record. He asked if there was anyone who would like to speak at this moment. Hearing none, he closed the items from the public.

7. *RESPONSES TO PUBLIC COMMENTS*

There were no public comments, so there were no responses.

8. *CONSENT AGENDA*

Mr. Gaffney asked if there were any items Board members would like to pull for questions. Hearing none, he asked if there was a motion and second to approve the Consent Agenda.

Mr. Richardson motioned to approve the Consent Agenda as presented. Mr. Pinkston seconded the motion, which passed unanimously (7-0).

a. Staff Report on Finance

b. Staff Report on Operations

c. Staff Report on Ongoing Projects

d. Staff Report on Wholesale Metering

e. Approval of Board Meeting Schedule for Calendar Year 2023

9. *OTHER BUSINESS*

a. Presentation, Public Hearing, and Vote on Approval – Sale of Buck Mountain Road
Andrea Bowles, Water Resources Manager

Ms. Bowles greeted the Board. She stated that she was present to discuss the Buck Mountain management plan, and specifically, the sale of the Elliott House and property. She showed on the slide a map of Albemarle County, where the Authority held 1,300 acres in the northern part of the County that was going to be built into a reservoir but had not been built to date, which was the area referred to as Buck Mountain.

Ms. Bowles stated that a graphical view of the Buck Mountain property was shown on the slide, and of the different parcels they had presented, that there were three locations in the property that they were concerned with as liabilities that required attention. She stated that one was the bridge located in the northern part, one was a pond and dam, and one was the Elliott House, which was the property she would be talking about today.

Ms. Bowles stated that a few months ago, the Board approved the sale of improved and unimproved real estate based on certain criteria. She stated that for Buck Mountain, the criteria was that the property must be above the ground level elevation of 474, which was because the normal pool elevation at the planned reservoir was 464 and we wanted to retain property 10 feet above the normal pool elevation, and that they would sell real estate by offering the property to the public for sealed bids, the solicitation would specify the minimum bid to be submitted based on the fair market value determined by RWSA, and that the Board would conduct a public hearing before approving the sale. She stated that they were present today to ask for a public hearing to approve the sale.

Ms. Bowles showed the house and inside the house, stating that there was a lot of work that needed to be done to it. She stated that the original parcel was more than nine acres, and Rivanna subdivided that into a 2.2-acre lot and house that were located above the normal pool elevation plus ten feet that would be 474 and did not have any deed-restricted areas or preservation areas. She stated that was what was offered for sale.

Ms. Bowles stated that the history of the parcel was long. She stated that in the 1980s, Rivanna acquired about 1,300 acres for a water supply reservoir, and in the presence of the James spinymussel, the reservoir was not permitted. She stated after it was decided the reservoir would not be completed, Rivanna leased much of the land to the original landowners. She stated that in April 2019, a former property owner requested the Board to sell him the property acquired from him by condemnation, and this began the process. She stated that in June 2019, staff came back to the Board to share more information about Buck Mountain property, and the Board requested that they do a master plan for use of the property.

Ms. Bowles stated that they hired a firm, LPDA, who worked with them to develop a master plan, and in August 2020, they presented the master plan to the Board, who concurred with staff recommendation to develop a more detailed property management plan. She stated that they went back with LPDA and worked on the property management plan, coming back to the Board in March 2021 with identified issues including the previously mentioned pond, dam, and bridge repairs, and leasing and sale of the properties. She stated one of the issues brought up was how they were going to fund this work.

Ms. Bowles stated that in February 2022, staff updated the Board on the leasing and sale of specific properties, and in March held a public hearing to receive comments about the procedures. She stated that in April 2022, the Board approved the lease and sale procedures and asked staff to consider rehabilitating the house as an option for any sale. She stated that they advertised sale of the Elliot house for bids and did not receive any, so they lowered the minimum bid amount and advertised again and did not receive any, and the third time of advertising finally produced some bids.

Ms. Bowles showed the dates of the timeline of the process on the slide.

Mr. Mawyer stated that each time they advertised, they reduced the minimum price to encourage bids.

Ms. Bowles showed a slide of the minimum bid and rehab requirements. She stated that in total, they received four bids and considered two of them responsible bids at $124,000 and $136,501 to purchase the house and 2.2 acres. She stated the highest bidder was Matt Lucas of 1966 Free Union Road, and they would like to ask the Board to conduct a public hearing so that they could enter into a sales contract on the house with Mr. Lucas.

Mr. Gaffney asked if it was possible to talk about the two bids that were disqualified.

Ms. Bowles stated that the highest bid was disqualified because it was listed as wanting to historically restore the house but did not go into any detail, which was required by the RFB. She stated that the second-highest bid was not delivered on the appropriate bid form. It was the form that was issued for the second RFB and not the third RFB, so it was disqualified.

Mr. Pinkston asked if there were specifications about what rehabilitation looked like.

Ms. Bowles stated that those were included in their RFB, and they had received them from the Virginia Department of Historic Resources.

Mr. Mawyer stated that they worked extensively with their lawyers to put the bid packet together, and it had terms and conditions as most bids they did, but they typically were for construction, so this was unique in some ways, such as looking for a high bidder rather than a low bidder.

Mr. Pinkston asked if there was any agreement as to how long the house had to stay there.

Mr. Mawyer stated no.

Mr. Mawyer stated that the RFB allowed bidders to rehabilitate the house or not rehabilitate the house and to bid accordingly. He stated that all bids received offered to rehabilitate the house, so they had the same requirement to provide information about what the rehabilitation would include. He stated that they went to the Virginia Historic Preservation Department to obtain a specification about what rehabilitation meant for historic structures, and those requirements were included in the RFB.

Mr. Mawyer stated that all that was required to make a valid bid was to be on the correct form and describe what the rehabilitation effort would be. He stated that each time they issued a new bid form, they changed some of the terms and conditions, where the minimum price was reduced. He stated that on the last request for bids in October, they tried to stimulate the market further by offering realtors a 1% finder's fee if they brought a bidder to the Authority. He stated that the highest bidder did not detail how he would rehabilitate the house.

Mr. Mawyer stated that the second bidder used the incorrect bid form, which had higher minimum prices, different submittal dates, and no indication about the 1% finder fee for the realtor. He stated that they had the ability to waive informalities of a bid, but in their view, the bid form and instructions to bidders were very specific and the bidders needed to address all of these requirements, and it was unfortunate for these bidders that they did not do so. He stated that to preserve integrity in the bidding process, it was the recommendation that they be declared non-responsive by not properly responding to the bid request.

Mr. Pinkston thanked Mr. Mawyer for the information.

Mr. Mawyer stated that a fifth bidder showed up a few minutes after 2:00 p.m., but they would not accept his bid.

Mr. O'Connell asked if at this point the request was specifically for a public hearing and further discussion of the Board.

Ms. Bowles stated that it was.

Mr. Mawyer stated that the lease and sale procedures that the Board approved stated that they would receive bids, then have a public hearing for public comment, then the Board would decide if sale of the property would be approved.

Mr. Pinkston asked if the public hearing would be today.

Mr. Mawyer stated yes. He stated that information was included in the RFB packet that the public hearing would be held by the Board today, so all the bidders should be aware of that plan.

Mr. Gaffney opened the purchase of 1880 Buck Mountain Road for public hearing. He asked if any members of the public wished to speak at this time.

Mr. Peter Wiley stated that he was present because his bid was for $151,000, which he put on RFB form #401 instead of #402. He stated that all of the relevant information in that form would allow that form to transfer to a contract to purchase. He stated that he was a real estate agent and was not asking for a real estate commission. He stated that his bid would have been $14,999 higher than the next bid. He stated that general provision C of the RFB, which stated that the Authority reserved the right to waive informalities, or to accept bids which it deemed most favorable to the interest of the Authority in accordance with the VPPA.

Mr. Wiley stated that he assumed a higher number was a fiduciary responsibility of the group, and he assumed that some of them knew of his interest in preserving properties. He stated that he had served with Ms. Mallek on the Historic Preservation Committee and documented this property with Dr. Ed Lee in 2019 as a service to the community. He stated that if the Board would consider, there was a mechanism to consider his bid, as he had not submitted the correct form but had filled it out correctly.

Upon hearing no more speakers, Mr. Gaffney closed the public hearing.

Mr. Gaffney asked if Ms. Stanton could discuss the informality that the speaker was requesting.

Ms. Stanton stated that the Authority reserved the right to waive informalities and to reject any or all bids after all had been examined, or to accept the bid which it deemed most favorable to the interests of the Authority in accordance with the VPPA.

Mr. Gaffney asked if that was in keeping with Mr. Wiley's request.

Ms. Stanton stated her information was written directly in the RFB.

Mr. Rogers stated fundamental public procurement was that for the bidder or proposer to be responsive and responsible, meaning that they submitted in accordance with the terms that had been outlined by the government agency. He stated that it was proposed as an informality, and he did not believe that they could waive this, because the bidder did not follow instructions in terms of submitting the form, and that was fundamental to what the agency requested. He stated that this constituted one's responsiveness to the bid, so he did not qualify, notwithstanding the fact that his bid was higher, he did not meet the threshold and should not be considered.

Mr. Pinkston asked if their Counsel agreed with that comment.

Ms. Stanton stated that the discussions with Mr. Mawyer had been consistent with Mr. Rogers' statement that fairness required uniform application of the rules to all bidders.

Mr. Gaffney asked if there was a motion.

Mr. Mawyer stated that there was a Resolution for the Board.

Ms. Mallek stated that she knew both bidders and was glad there were rules to fall back on so that further decisions would not have to be made.

Mr. Gaffney read the Resolution.

RESOLUTION
FOR THE SALE OF PROPERTY
1880 BUCK MOUNTAIN ROAD, FREE UNION, VA IN ALBEMARLE COUNTY
BY THE RIVANNA WATER AND SEWER AUTHORITY

***WHEREAS**, the Board of Directors authorized the sale of improved real estate in accordance with the "Lease and Sale of Buck Mountain Real Estate" procedure approved by the Board on May 24, 2022, and*

***WHEREAS,** the Authority publicly advertised a Request for Bids to consider the sale of property with an address of 1880 Buck Mountain Road, Free Union, VA 22940 in Albemarle County, TMP 02900-00-00-035H3, 2.2 acres, with an existing house and all improvements, and*

***WHEREAS**, the Authority received two responsive and responsible bids on November 8, 2022 and conducted a public hearing for the proposed sale of property to the highest bidder on November 15, 2022 after advertising the actual date fixed for the public hearing in the Daily Progress on October 24, 2022 and October 31, 2022, and*

***NOW, THEREFORE, BE IT RESOLVED** that the Rivanna Water and Sewer Authority hereby authorizes the sale of property with an address of 1880 Buck Mountain Road, Free Union, VA 22940 in Albemarle County, TMP 02900-00-00-035H3, 2.2 acres, with an existing house and all improvements for an amount totaling $136,501 to Matthew Lucas of Free Union, VA, and authorizes the Executive Director to execute all documents required to complete the transaction.*

Mr. Pinkston motioned to approve the Resolution. Ms. Mallek seconded the motion, which passed (7-0).

b. Presentation and Vote on Approval - Financial Update – Year End Results; Lonnie Wood, Director of Finance and Administration

Mr. Wood stated that at the end of each fiscal year and after the auditors had finished their fieldwork, they reviewed the operating cash account of the Authority on June 30 and compared the ending balance with the policy target, which was 60 days of cash on hand based on the year's current budget. He stated that this year's current target was $6.8M, and the actual reconciled cash balance was $6.3M, creating a shortfall of about $580,000. He stated the shortfall was then compared to the net revenues at the end of the year, which was a similar deficit, and the closeness in the numbers meant financial reports were working well.

Mr. Wood stated that the Authority sets the budgets and rates in six different rate centers, which was how they kept track of the separate cash for each rate center, and each rate center had its own reserve. He stated that reserves were to be used for many purposes, and one of them was at the end of the year to reconcile deficits and surpluses. He stated that this year, each rate center had a deficit, but some years, the rate centers would have a mixture of surpluses and deficits, and they did not want surpluses in one rate center to pay for another rate center's deficit. He stated that it was an effort to keep all the pools of money in order to not comingle accounts.

Mr. Pinkston asked if this information was for the past fiscal year.

Mr. Wood stated that was correct. He stated the Board was taking out of the reserve accounts this year and moving the funds from the reserve to the operating account to keep it balanced. He stated that the 60 days of cash on hand for a normal two-month business cycle was consistent with their financial policies and consistent with the procedure of the past 15 years. He stated that in January, they would have a deeper discussion on reserves and how their debt service policies and financial policies and bond ratings were connected.

Mr. Pinkston asked if the table shown had the reserves listed.

Mr. Mawyer stated that they were the current reserves, so when they did the reconciliation of each center, the total reserve was over $28M.

Mr. Wood stated that that number was in discretionary reserves.

Mr. Wood stated that it was taking money from the reserve accounts and moving it into the operating accounts, showing the adjusted ending balance.

Mr. Pinkston asked if this was a 2% shift of the reserves.

Mr. Gaffney stated yes.

Mr. Wood stated that some years it could be as much as a few million dollars. He stated the second page of the memo showed FY18 in which they had to replenish the operating account by $1.3M. He stated that was a very dry year for precipitation, and whenever wastewater flows went down, revenues went down. He stated that there were quite a few pipeline breaks that year as well, and those were difficult to predict, so they budgeted a general estimate for what they would be and that the reserve was intended for, so that they would not need to charge a high rate the next year to replenish what was spent the year before.

Mr. Gaffney stated that Mr. Wood could confirm that in 2002, their total reserves were $500,000, the indenture-restricted minimum, and that was all that they had. He stated that it was only because the banks required that minimum.

Mr. Gaffney acknowledged the diligence of the Board as well as of Mr. Wood and his staff to make significant improvements to the reserves since 2002.

Mr. Rogers motioned to approve the financial update and year-end results. Ms. Hildebrand seconded the motion, which passed unanimously (7-0).

(Joint Session with the RSWA)

c. *Presentation and Vote on Approval: Remote Participation Policy and Amended and Restated By-Laws; Bill Mawyer, Executive Director*

Mr. Gaffney called to order the RSWA Board of Directors.

Mr. Mawyer stated the General Assembly in September passed a change to the Virginia Freedom of Information Act to allow organizations, such as the Authorities, to have remote participation by Board members under certain conditions and to conduct a certain number of all-virtual meetings limited to 25% of the regular meetings.

Mr. Mawyer stated that the number of allowed virtual meetings would be two per calendar year for the RSWA and three per calendar year for the RWSA. He noted that the Boards had approved the calendars for calendar year 2023 on the consent agendas. He stated March and September had been designated as the months to hold virtual meetings for the RSWA and RWSA, and in December, there would be a virtual meeting for RWSA.

Mr. Mawyer explained that the Code of Virginia had several provisions and requirements. He stated that the Authority's by-laws already allowed remote participation for members, but the legal counsel informed him that the new Code of Virginia provisions superseded the Authority's by-laws.

Mr. Mawyer stated that they had to pass a new remote participation policy to allow a Board member to participate remotely by virtual means or telephone. He stated that some of the rules required a member to have a temporary or permanent medical condition or disability, or a member of their family may have a similar situation, or the member's principal residence was more than 60 miles away from the meeting location.

Mr. Mawyer stated that the member would have to notify the chair in advance of the meeting that remote participation was requested. He stated that there would have to be a motion and approval by the Board to allow the member to participate remotely. He stated that the reason for remote participation and the location of the remote member would have to be recorded in the minutes.

Mr. Mawyer explained the virtual public meeting section had 10 conditions. He stated the meetings would have to provide public access to the all-virtual meetings, such as was done during the pandemic. He stated the public would have to be able to hear and see the members, and the public would have to be allowed to speak virtually at the public meeting.

Mr. Mawyer stated the ninth condition stated that virtual meetings could be held no more than two times per calendar year or 25% of the total meetings rounded to the higher whole number, whichever is greater. He noted virtual meetings could not be held in consecutive months.

Mr. Mawyer explained they needed to amend and restate the by-laws because the new remote participation policy had to be incorporated into the by-laws. He explained that all members of each Authority had to be present to approve any change to the by-laws. He stated the amended and restated by-laws would incorporate the remote participation policy into the by-laws.

Mr. Mawyer stated the amended by-laws would clarify that being remote or virtual constituted being present for the meetings. He explained that the by-laws stated that to amend the by-laws, all members had to be present. He stated if they wanted to amend the by-laws in the future and a member was participating remotely, then the remote member would be considered present and able to vote to amend the by-laws.

Mr. Mawyer stated that also in the amended by-laws, they clarified the authority of the Executive Director to execute contracts and other instruments. He explained that the by-laws currently stated that the Executive Director could execute contracts. In the amended by-laws “or other instruments” had been added. He stated that those could include deeds of sale or easement transactions.

Mr. Mawyer explained the current by-laws limited the Executive Director’s authority to process procurements up to $200K and for no more than a year. He explained that typically when they came before the Boards to award a design or construction contract, the recommendation requested approval of the award and authorization for the Executive Director to execute the documents. He explained that otherwise, the chairman would have to sign the documents.

Mr. Mawyer stated at counsel’s recommendation, they had added that the Board meetings would be conducted in accordance with Robert’s Rules of Order and gave precedence to the Articles followed by these By-laws, then the Rules. He stated that the Articles governed if there was any conflict. He noted they had also included an administrative cleanup to the by-laws.

Mr. Mawyer explained that each Board had to separately approve the Remote Participation Policy and approve the Amended and Restated By-laws, and both would be effective immediately.

Mr. O’Connell asked which meetings would be held virtually.

Mr. Mawyer responded that it would be March and September for RSWA, and it would be March, September, and December for RWSA. He explained that in January, there could be new members. In May, we held public hearings to approve budgets. In July, the Boards completed an evaluation of the Executive Director’s performance, so he did not recommend holding virtual meetings during these months. He noted that they held a joint meeting of the Boards every other month, so he did not want to have one Board meeting virtually and the other in-person. He noted that the meetings could not be held virtually in consecutive months.

Mr. O’Connell stated it would be confusing for the Boards and the public as to whether the meeting was virtual or not.

Ms. Mallek asked whether they were required to select dates now or if they were allowed to decide on meetings to be held virtually with proper notice due to extenuating circumstances.

Mr. Mawyer explained that they had approved the meeting schedule for calendar year 2023, but they could amend the schedule whenever they wanted. He noted that if the Boards wanted to meet in person instead of meeting virtually, they could.

Mr. Pinkston stated he agreed with Mr. O’Connell. He asked if there was an advantage to scheduling for the virtual meetings.

Mr. Mawyer stated they scheduled them in advance so the Board, staff and the public would know when the meetings would be held going into the next year.

Mr. Pinkston asked why they needed to have the virtual option.

Mr. Mawyer stated it helped people to plan for the meetings.

Mr. Andrews asked if there had been any reasons for special meetings to be called within the past 10 years.

Mr. Mawyer explained there was one held in 2017 when there was a drought and the RWSA had to issue mandatory water conservation measures. He explained the meeting was held on four hours' notice. He stated that was the only time in his six years with the Authority.

Mr. Andrews stated it may be a convenient tool if they needed to hold a special meeting.

Mr. Mawyer explained the chair could call a special meeting whenever desired. He stated they could hold an emergency meeting with four hours' notice to the public. He noted that what was proposed was a hybrid practice between all virtual and all in-person meetings.

Mr. Pinkston stated he understood the rationale to disperse the virtual meetings throughout the year.

Mr. Mawyer stated he could remind the Boards each month before the meetings whether the meeting was virtual.

Mr. Stewart asked if there were cost impacts for the all-virtual meetings.

Mr. Mawyer explained there was a cost of about $6K per year to hold virtual meetings and allow the public to speak at the meetings. He stated initially they were not going to have remote public input, but then the General Assembly granted the authority to have all-virtual meetings in which the Authorities would be required to have virtual public comment.

Mr. Stewart noted that citizens were able to participate remotely in the meetings. He stated it was important for the A/V technology to be maintained. He asked if they had considered whether they needed upgrades to the room to ensure members could be heard.

Mr. Mawyer stated he had not heard of any major issues. He noted that they hosted virtual meetings with input to the public for two years. He stated they had to purchase some equipment to accommodate the virtual format.

Mr. Rogers clarified that the Boards were requested to take two actions—to approve the Remote Participation Policy and approve Amended By-laws.

Mr. Mawyer explained that the Remote Participation Policy would allow remote participation and virtual meetings. He explained that the Boards would have to adopt the policy into the amended by-laws.

MOTION: Mr. Richardson moved that the RWSA Board of Directors approve the Resolution regarding the adoption of the Remote Participation Policy. Mr. Rogers

seconded the motion which carried unanimously (7-0).

RESOLUTION OF THE
BOARD OF DIRECTORS OF THE
RIVANNA WATER AND SEWER AUTHORITY
REGARDING
ADOPTION OF REMOTE PARTICIPATION POLICY

NOVEMBER 15, 2022

WHEREAS*, pursuant to Section 2.2-3708.3 of the Code of Virginia (the "Code"), the Rivanna Water and Sewer Authority (the "Authority") has prepared a Remote Participation Policy (the "Policy"), describing the circumstances under which an all-virtual public meeting and/or remote participation will be allowed and the process the Authority will use for making requests to use remote participation, approving or denying such requests, and creating a record of such requests, and fixing the number of times remote participation for personal matters or all-virtual public meetings can be used per calendar year, said Policy being attached hereto as Exhibit A;*

WHEREAS*, Section 2.2-3708.3(D) of the Code requires that the adoption of the Policy by recorded vote at a public meeting; and*

WHEREAS*, the Board of Directors of the Authority (the "Board") deems it advisable and in the best interest of the Authority to adopt the Policy;*

NOW, THEREFORE, BE IT RESOLVED*, that the Board hereby authorizes, approves, adopts and ratifies the Policy in all respects.*

MOTION: Mr. Pinkston moved that the RWSA Board of Directors approve the adoption of the Amended and Restated By-laws. Ms. Mallek seconded the motion which carried unanimously (7-0).

RESOLUTION OF THE
BOARD OF DIRECTORS OF THE
RIVANNA WATER AND SEWER AUTHORITY
ADOPTING
AMENDED AND RESTATED BY-LAWS

NOVEMBER 15, 2022

WHEREAS*, the Board of Directors (the "Board") of the Rivanna Water and Sewer Authority (the "Authority") has determined that it is in the best interests of the Authority to amend and restate the current By-Laws of the Authority, which were adopted and made effective as of August 25, 2020 (the "Current By-Laws"); and*

WHEREAS*, pursuant to Article VI of the Current By-Laws, the Board may amend, add to, alter, or repeal the Current By-Laws at any meeting of all of the Board, provided that notice of the* *proposed amendment, additions, alteration or repeal is given in the notice of such meeting and that all members of the Board are present at such meeting; and*

WHEREAS*, the Board deems it advisable and in the best interest of the Authority to amend and restate the Current By-Laws in order to conform language regarding remote participation in Board meetings in accordance with the Code of Virginia and the Remote Participation Policy of the Authority to be adopted on even date herewith, to clarify signing authority for contracts and other instruments of the Authority, and to make certain other procedural updates; and*

WHEREAS*, the Board has considered the proposed Amended and Restated By-Laws in the form attached hereto as Exhibit A (the "Amended and Restated By-Laws") and has determined that it is advisable and in the best interests of the Authority to amend and restate the Current By-Laws by adoption of the Amended and Restated By-Laws and to ratify, confirm and approve all contracts and other instruments of the Authority signed by the Chair or the Executive Director of the Authority;*

NOW, THEREFORE, BE IT RESOLVED*, that the Current By-Laws are hereby amended and restated in their entirety, and the Amended and Restated By-Laws attached hereto as Exhibit A are hereby adopted and ratified in all respects, effective immediately; and be it*

FURTHER RESOLVED*, that the Secretary of the Authority or any other proper officer of the Authority be, and each of them hereby is, authorized and directed to place the Amended and Restated By-Laws and this resolution in the minute books of the Authority; and be it*

FURTHER RESOLVED*, that all contracts and other instruments of the Authority signed by the Chair or the Executive Director of the Authority prior to the date of these resolutions are hereby ratified, confirmed and approved in all respects as the act and deed of the Authority; and be it*

FURTHER RESOLVED*, that the proper officers of the Authority are, and each of them hereby is, authorized and directed to prepare, execute and deliver, or cause to be prepared, executed and delivered, any and all agreements, documents, certificates and instruments, and to take any and all such other actions as may be deemed necessary, desirable or appropriate, to carry out the purpose and intent of each of the foregoing resolutions; and be it*

FURTHER RESOLVED*, that any actions taken by such officers or directors prior to the date of these resolutions that are within the authority conferred by the foregoing resolutions are hereby ratified, confirmed and approved in all respects as the act and deed of the Authority.*

Mr. Gaffney clarified that these Resolutions were not addressing scheduling of Board meetings.

Mr. Mawyer explained the schedules had been approved on the consent agendas. He stated the schedules could be amended in the future if desired.

d. Presentation and Vote on Approval: Strategic Plan 2023 Update; Bill Mawyer, Executive Director

Mr. Mawyer stated he was responding to the Boards' comments from September when they stated that more metrics were needed and the strategic plan needed a greater emphasis on local and regional communications.

Mr. Mawyer stated the vision, mission, and values were the same as for the last five years. He noted that they did some edits to the 2018 strategic plan to create the 2023 strategic plan. He stated the goals for the next five years were the same five—communication and collaboration, environmental stewardship, workforce development, optimization and resiliency of the systems, and planning and infrastructure. He noted there had been a sixth goal in 2018—solid waste services—which had been merged into each of the five goals for 2023.

Mr. Mawyer stated they added to the strategy of communication and collaboration that they would communicate with local and regional partners. He stated it was a benchmark for the prior five years and had been unintentionally left out. He stated they had included metrics to measure how they were meeting the strategies.

Mr. Mawyer noted there were 19 metrics on which they would be working. He noted that the aggregate was a resource issue for the staff.

Mr. Pinkston asked what the impacts on staff were in terms of tracking the metrics.

Mr. Mawyer explained the metrics each required a percentage of staff time, and the staff time was limited so the aggregate of all the requirements became a staffing challenge. He stated they would be requesting more staff over the next five years in part to address the strategies included in the plan.

Mr. Rogers asked what the baseline of 2% was.

Mr. Mawyer explained that to implement the strategies, they developed a goal team for each of the five goals with six to seven staff members on each team. He explained that one of the first duties of each term was to determine the baseline for the goal. He stated they had preliminary estimates on a number of metrics. He noted that they estimated that they spent 480 staff hours per year to meet the goal of providing resources to foster community collaborations.

Mr. Mawyer stated in terms of enhancing the website and expanding community service initiatives by 1% per year, they estimated that they spent 240 staff hours per year on the item in the past. He stated there was some baseline information, but it was the goal teams' first task to assess the baseline and use the percentages to move forward.

Mr. Richardson stated the planning assumed the Authorities continued the operations that were ongoing and did not stop any practices. He noted that there were opportunities to revisit stopping practices that were not effective or reducing hours in certain areas to create capacity for staff to focus on items that yielded more meaningful results.

Mr. Mawyer stated that was correct. He noted that it was part of the optimization goal to consider opportunities to create value including stopping practices that were not effective. He stated, for example, they advertised every month in the newspaper that they were holding Authority Board meetings. He stated that the by-laws already stated when the Board meetings would be held— RSWA was the fourth Tuesday every other month at 2pm and the RWSA was the fourth Tuesday of every month at 2:15 p.m., and our attorney indicated in the past that we did not have to advertise the meetings additionally in the newspaper each month.

Mr. Mawyer explained that they had to advertise a public hearing or a special meeting. He stated there was an estimate of about $1,500 a year that would be saved by not advertising every month. He stated they were looking to optimize every nickel that they could find. He stated that was part of the reason they brought next year's Board meeting schedule before the Boards this month so that they could advertise the 2023 Board regular meeting schedule and post it on the website.

Mr. Richardson said that was a perfect example of optimizing and stopping practices that we no longer needed.

MOTION: Mr. Rogers moved that the RWSA Board of Directors approve the 2023 Strategic Plan. Ms. Mallek seconded the motion which carried unanimously (7-0).

Mr. Brian Pinkston left the meeting.

e. Presentation: Safety Program Update; Elizabeth Coleman, Safety Manager

Ms. Elizabeth Coleman, Safety Manager, explained OSHA described safety as a continuous improvement process that protected staff and reduced the number of workplace deaths, injuries, and illnesses. She explained safety was part of the strategic plan and the goal for operational optimization.

Ms. Coleman stated there were two strategies to meet the goals of our safety program—enhance the culture of safety and continually grow our culture of safety. She stated that the safety program included the written manual, safety training, equipment purchases, job procedures, new employee orientation, contractor safety, and emergency management.

Ms. Coleman stated there were 25 chapters in the safety manual, including topics such as fire prevention, outdoor safety, and chemical hygiene. She noted that they were updated annually.

Ms. Coleman stated there were seven departments performing a variety of tasks. She stated training requirements included annual training required by OSHA, periodic training every three years, and annual best practices training. She explained that each department had specific training needs, and not every department received the same training.

Ms. Coleman stated safety training took time, and the average hours spent in all types of training for companies of comparable size to the Authority was 63.9 hours per employee in 2021. She stated RSWA spent about 23 hours on safety training, and maintenance spent the most at 27.7 hours.

Ms. Coleman noted that COVID-19 caused difficulty in scheduling and hosting in-person training. She stated they had been able to provide virtual and in-person required training as necessary.

Ms. Coleman noted that important safety items had been purchased—spill containment for chemical storage jobs, new 55-gallon drum dollies, man-hole guardrails, and headsets.

Ms. Coleman noted that safety had been enhanced in several areas. She stated a convex mirror was installed at Ivy to help with traffic. She stated deteriorated steps were replaced at South Rivanna WTP, and smoke detectors were installed in the breakroom and sludge pump building at Moores Creek.

Ms. Coleman stated the safety suggestions were provided by staff to the Safety Committee.

She stated that monitoring of Contractor Safe Work Practices was also part of the Safety Program. As an example, a contractor had inspected the interior of the methane sphere using a drone. She stated they ventilated the sphere for approximately 18 hours and measured levels of methane continuously while entry of drone occurred. Another example of Contractor Safe Work proactive monitoring included lead paint abatement occurring at the South Rivanna facility. She explained that they were measuring air levels of lead as well as dust levels, and so far, it had been safely below 2 micrograms. She stated that, through this monitoring, they had been able to sandblast the lead paint and ensure safety for the staff.

Ms. Coleman stated they maintained the safety resources via one full-time Safety Manager and a staff Safety Committee. She stated there was a budget of approximately $103K from RWSA and $26K from RSWA, and they had received $6K in grants this year.

Ms. Coleman noted there were declining annual incident rates for RWSA. She stated in 2018, there was 1.98. She stated that the industry average for water and sewer was 2.8 total recordable injury reports. She noted that they had reduced to 0.93 in 2019 and maintained about 0.9 through 2021.

Mr. Rogers asked if they would receive a rebate on the insurance.

Ms. Coleman noted that they had saved the insurer over $200K, but they had not received a rebate.

Mr. Mawyer noted that there had been discussions with the insurance carrier about a reduction in costs. However, no cost reduction had been received to date.

Ms. Coleman explained that the industry average for solid waste in 2019 was 3.6 total recordable injuries reported. She stated in 2018, there were 13, and in 2019, there were 22 injuries reported. She stated in 2020, there were 8.7, and now they were at about the injury average of about 4 for 2021.

Ms. Coleman noted that many safety program improvements had been completed. She stated that they needed continual updates to protect human resources, enhance safety culture through safe work practices, maintain VOSH requirements, and provide a safe workplace.

10. *OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA*

There were no items to discuss.

11. *CLOSED MEETING*

There was no reason for a closed meeting.

12. *ADJOURNMENT*

At 3:59 p.m., Mr. Rogers moved to adjourn the meeting of the Rivanna Water and Sewer Authority. Mr. Richardson seconded the motion, which passed unanimously (6-0). Mr. Pinkston was not present for this vote.

RIVANNA WATER & SEWER AUTHORITY
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www.rivanna.org

MEMORANDUM

TO: **RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS**

FROM: **BILL MAWYER, EXECUTIVE DIRECTOR**

SUBJECT: **EXECUTIVE DIRECTOR'S REPORT**

DATE: **DECEMBER 13, 2022**

STRATEGIC PLAN GOAL: WORKFORCE DEVELOPMENT

Recognitions

The professional qualifications of our staff continue to improve and enhance our services. We congratulate the following employees for successfully completing the requirements for a license from the State:

- Bridgett Deakin – Class 2 Water Operator
- Daniel Hunter – Class 3 Wastewater Operator
- Keith Covington – Class 2 Water Operator

UVA Civil Engineering Presentation

Jennifer Whitaker, Director of Engineering and Maintenance, gave a presentation on public sector engineering as a career to the UVA Civil Engineering - 4th year Capstone Class in November.

Virginia Association of Municipal Wastewater Agencies (VAMWA)

Dave Tungate, Director of Operations, was selected by VAMWA to serve on a State committee looking at wastewater operator licensing requirements, in view of a current shortage of licensed operators. The committee will review Virginia's licensing process and investigate avenues for wastewater operators to earn their license such as reciprocity if an individual holds an operator license or certificate from any other jurisdiction in the United States.

STRATEGIC PLAN GOAL: INFRASTRUCTURE AND MASTER PLANNING

Observatory WTP Renovation

No drinking water will be produced at the Observatory WTP from December 5 – March 15, 2023 to complete the renovation and treatment capacity increase from 7.7 to 10 mgd. The South Rivanna and North Rivanna WTPs will serve the Urban Water System (City and adjacent areas of the County) during this period.

Other Major Projects

1. We continue to work with UVA, UVAF, and 1 private property owner to acquire final easements on the following major water piping projects:

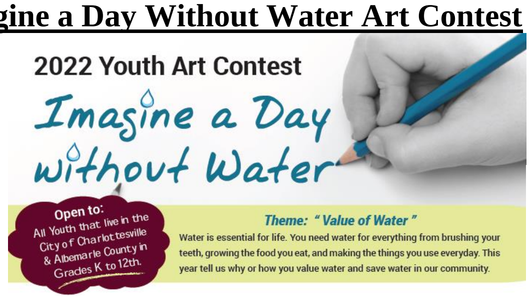
    - S. Rivanna to Ragged Mtn Reservoir Water Pipe: 8 miles of 36” pipe

    - Ragged Mtn Reservoir to Observatory WTP Water Pipe and Pump Station: 5 miles of 36” pipe

2. Detailed location and schedule information has been forwarded to Albemarle County for the Schenks Branch sewer pipe replacement project and easement along McIntire Road.
3. Engineering design and field investigations continue for the Central Water Line project to be constructed along Cherry Avenue.

STRATEGIC PLAN GOAL: COMMUNICATION AND COLLABORATION

Imagine a Day Without Water Art Contest



Our 8th annual “Imagine a Day without Water” campaign, sponsored collaboratively by the City, ACSA and RWSA to educate the youth of our community about the value and importance of water, concluded on October 31st.   This year’s theme, “Value of Water” inspired students in grades K-12 in Albemarle and Charlottesville to submit some very beautiful artwork. Winners of the contest will receive gift cards and prizes.

Best Practices Review Panel

I was pleased to participate as a member of the Best Practices Review Panel for the ACSA in November along with Brian Key, Executive Director, Bedford Water, and Phil Martin, Executive Director, Augusta County Service Authority. The panel learned a lot about the outstanding staff and work procedures at the ACSA, while offering a few suggestions for enhancements. I appreciated the opportunity to participate in this collaborative process.

Sugar Hollow Reservoir

A resident of the area near the Sugar Hollow reservoir recently forwarded concerns to the City about vandalism, littering, fires, traffic and other items occurring on or near the City’s reservoir property. The resident offered several suggestions including completion of a parking lot at the bottom of the dam, a gate at the bottom of the dam, police patrols, security cameras and a permanent steward for the area. Through the “Four Party Agreement” of 1973, RWSA is responsible for the water facilities at Sugar Hollow. RWSA is also responsible for the maintenance and security control of the City property bordering the reservoir via a 1986 lease with the City. Currently, the County and City are collaborating on a lease and project to modify parking and gate facilities at the reservoir. In addition, RWSA has drafted an assignment of responsibilities between the three organizations to manage operation of the municipal areas of the reservoir property. Collectively, our organizations are working on plans which may address many of the resident's concerns.

Remembering Cole Hendrix

Mr. Cole Hendrix, former City Manager and longtime Rivanna Authorities Board member, passed away on November 15, 2022. Mr. Hendrix was instrumental in the creation of the Rivanna Water and Sewer Authority in 1972 and the Rivanna Solid Waste Authority in 1994. Mr. Hendrix supported both authorities for many years as Board Secretary-Treasurer, Vice Chair, and briefly served as the Interim Executive Director. His vision and influence had a tremendous impact on the foundations of our Authorities.

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MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND ADMINISTRATION

REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: OCTOBER MONTHLY FINANCIAL SUMMARY – FY 2023

DATE: DECEMBER 13, 2022

Financial Snapshot

October ended with an overall net deficit for this fiscal year of $31,800 from a year-to-date budget of $13.9 M. Operating rate revenues for the first four months of this fiscal year are above average, and we received the annual payment from the County for the septage receiving support agreement. However, operating expenses are currently over the prorated annual budget. Total revenues are $868,700 over budget estimates, and total expenses are $900,500 over budget as well. Revenues and expenses are summarized in the table below:

	Urban Water	Urban Wastewater	Total Other Rate Centers	Total Authority
Operations				
Revenues	$ 3,403,996	$ 3,495,206	$ 868,987	$ 7,768,189
Expenses	(3,530,503)	(3,517,850)	(868,711)	(7,917,064)
Surplus (deficit)	$ (126,507)	$ (22,644)	$ 276	$ (148,875)
Debt Service				
Revenues	$ 2,863,205	$ 3,169,841	$ 790,658	$ 6,823,704
Expenses	(2,846,475)	(3,073,608)	(786,554)	(6,706,637)
Surplus (deficit)	$ 16,730	$ 96,233	$ 4,104	$ 117,067
Total				
Revenues	$ 6,267,201	$ 6,665,047	$ 1,659,645	$ 14,591,893
Expenses	(6,376,978)	(6,591,458)	(1,655,265)	(14,623,701)
Surplus (deficit)	$ (109,777)	$ 73,589	$ 4,380	$ (31,808)

A more detailed financial analysis is in the following monthly report which reviews more closely actual financial performance compared to budgeted estimates. There are comments listed that will reference to the applicable line items in the financial statement for each rate center and each support department in the following pages. Please refer to the Budget vs. Actual financial statements when reviewing these comments.

Detailed Financials

The Authority's actual operating revenues through October are $611,400 over the prorated annual budget estimates, and operating expenses exceed budget by $760,300. The following comments help explain most of the other budget vs. actual variances.

A. Annual and Quarterly Transactions - Some revenues and expenses are over the prorated year-to-date budget due to one-time receipts of revenues for the year and quarterly or annual payments of expenses. These transactions appear to be significant impacts on the budget vs. actual monthly comparisons but usually even out as the year progresses. Septage receiving support revenue of $109,440 is billed to the County annually in July. Annual payments are made for leases, health savings account contributions, and certain maintenance agreements. Insurance premiums are paid quarterly.
B. Personnel Costs (Urban Water, Urban Wastewater, Maintenance, Engineering – pages 2, 5, 9, 11) – The Urban Water and Wastewater rate center salaries are higher than budget due to pay increases for plant operators who achieved higher licenses. The prorated budget amounts through October are calculated as 4/12 of the annual budget. Actual payroll is paid biweekly for a total of 26 pay periods annually. There have been 9 pay periods instead of 8 in the first 4 months of this fiscal year, which affects the comparison of budget vs. actual payroll costs.
C. Professional Services (Urban Water, Urban Wastewater – pages 2, 5) – Urban Water and Urban Wastewater are over the prorated budget for engineering and technical services for various surveys and studies.
D. Other Services & Charges (Urban Water, Urban Wastewater, Administration – pages 2, 5, 8) – Urban Water paid some annual watershed management costs, as budgeted. Some of Urban Wastewater's costs in this category are running higher than originally estimated, such as odor control chemical costs for the Crozet Pump Station, the cost of sludge hauling for composting, permit costs, and utilities. The Administration is currently over the prorated budget on strategic plan consulting costs.
E. Information Technology (Urban Water, Administration – pages 2, 8) – Urban Water incurred some unbudgeted computer hardware purchases. The Administration department has spent $18,000 more than its annual budget for computer hardware and paid some annual maintenance and license fees similar to those noted in A. above.
F. Communication (Administration – page 8) – The Administration department switched to a new telephone system which was not included in the budget.
G. Operations and Maintenance (Urban Water, Urban Wastewater, Maintenance – pages 2, 5, 9) – Urban Water is $155,000 over the prorated annual budget for chemical costs, which was primarily due to the purchase of a carbon exchange in September for $102,400, but that was funded by GAC Reserves, as budgeted. Urban Water made its $175,000 annual lease payment to UVA for the Observatory facility in August. (See Note A.) Urban Wastewater paid $86,000 for an annual equipment maintenance contract, and its chemical costs are running higher than originally estimated. The Maintenance department is slightly over the prorated budget on supplies.

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022
Fiscal Year 2023

Consolidated Revenues and Expenses Summary

	Notes	*Budget FY 2023*	*Budget Year-to-Date*	*Actual Year-to-Date*	*Budget vs. Actual*	*Variance Percentage*
Operating Budget vs. Actual						
Revenues						
Operations Rate Revenue		$ 20,614,425	$ 6,871,475	$ 7,339,499	$ 468,024	6.81%
Lease Revenue		85,000	28,333	42,213	13,879	48.99%
Admin., Maint. & Engineering Revenue		656,000	218,667	227,090	8,424	3.85%
Other Revenues		639,036	213,012	257,875	44,863	21.06%
Use of Reserves-GAC	**G**	150,000	50,000	102,400	52,400	104.80%
Interest Allocation		7,170	2,390	26,204	23,814	996.40%
Total Operating Revenues		**$ 22,151,631**	**$ 7,383,877**	**$ 7,995,280**	**$ 611,403**	**8.28%**
Expenses						
Personnel Cost	**A, B**	$ 10,494,727	$ 3,498,242	$ 3,632,025	$ (133,783)	-3.82%
Professional Services	**C**	629,900	209,967	280,861	(70,895)	-33.76%
Other Services & Charges	**A, D**	3,427,460	1,142,487	1,252,706	(110,220)	-9.65%
Communications	**F**	200,342	66,781	87,658	(20,878)	-31.26%
Information Technology	**A, E**	816,626	272,209	454,855	(182,646)	-67.10%
Supplies		39,950	13,317	14,947	(1,630)	-12.24%
Operations & Maintenance	**A, G**	5,222,531	1,740,844	2,038,496	(297,653)	-17.10%
Equipment Purchases		420,100	140,033	82,606	57,427	41.01%
Depreciation		900,000	300,000	300,000	-	0.00%
Total Operating Expenses		**$ 22,151,636**	**$ 7,383,879**	**$ 8,144,155**	**$ (760,276)**	**-10.30%**
Operating Surplus/(Deficit)		**$ (5)**	**$ (2)**	**$ (148,875)**		
Debt Service Budget vs. Actual						
Revenues						
Debt Service Rate Revenue		$ 19,522,929	$ 6,507,643	$ 6,507,644	$ 1	0.00%
Septage Receiving Support - County	**A**	109,440	36,480	109,440	72,960	200.00%
Buck Mountain Lease Revenue		1,600	533	1,480	946	177.42%
Trust Fund Interest		990	330	43,490	43,160	13078.65%
Reserve Fund Interest		64,230	21,410	161,650	140,240	655.02%
Total Debt Service Revenues		**$ 19,699,189**	**$ 6,566,396**	**$ 6,823,703**	**$ 257,307**	**3.92%**
Debt Service Costs						
Total Principal & Interest		$ 16,165,241	$ 5,388,414	$ 5,388,414	$ -	0.00%
Reserve Additions-Interest		64,230	21,410	161,650	(140,240)	-655.02%
Debt Service Ratio Charge		725,000	241,667	241,667	-	0.00%
Reserve Additions-CIP Growth		2,744,717	914,906	914,906	-	0.00%
Total Debt Service Costs		**$ 19,699,188**	**$ 6,566,396**	**$ 6,706,636**	**$ (140,240)**	**-2.14%**
Debt Service Surplus/(Deficit)		**$ 1**	**$ 0**	**$ 117,067**		
Summary						
Total Revenues		$ 41,850,820	$ 13,950,273	$ 14,818,983	$ 868,710	6.23%
Total Expenses		41,850,824	13,950,275	14,850,791	(900,516)	-6.46%
Surplus/(Deficit)		**$ (4)**	**$ (1)**	**$ (31,808)**		

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Urban Water Rate Center
Revenues and Expenses Summary

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Operations Rate Revenue		$ 9,014,863	$ 3,004,954	$ 3,252,674	$ 247,719	8.24%
Lease Revenue		60,000	20,000	31,668	11,668	58.34%
Miscellaneous		-	-	6,405	6,405	
Use of Reserves-GAC	G	150,000	50,000	102,400	52,400	104.80%
Interest Allocation		3,000	1,000	10,848	9,848	984.84%
Total Operating Revenues		**$ 9,227,863**	**$ 3,075,954**	**$ 3,403,996**	**$ 328,041**	**10.66%**
Expenses						
Personnel Cost	B	$ 2,234,714	$ 744,905	$ 756,605	$ (11,700)	-1.57%
Professional Services	C	222,000	74,000	134,715	(60,715)	-82.05%
Other Services & Charges	A, D	716,300	238,767	276,309	(37,543)	-15.72%
Communications		100,920	33,640	35,965	(2,325)	-6.91%
Information Technology	A, E	104,950	34,983	57,849	(22,865)	-65.36%
Supplies		5,400	1,800	2,831	(1,031)	-57.28%
Operations & Maintenance	A, G	2,511,396	837,132	1,075,104	(237,972)	-28.43%
Equipment Purchases		16,000	5,333	6,563	(1,230)	-23.06%
Depreciation		300,000	100,000	100,000	-	0.00%
Subtotal Before Allocations		$ 6,211,680	$ 2,070,560	$ 2,445,941	$ (375,381)	-18.13%
Allocation of Support Departments		3,016,183	1,005,394	1,084,562	(79,168)	-7.87%
Total Operating Expenses		**$ 9,227,863**	**$ 3,075,954**	**$ 3,530,503**	**$ (454,549)**	**-14.78%**
Operating Surplus/(Deficit)		**$ (0)**	**$ (0)**	**$ (126,508)**		

Debt Service Budget vs. Actual

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues					
Debt Service Rate Revenue	$ 8,302,224	$ 2,767,408	$ 2,767,408	$ -	0.00%
Trust Fund Interest	400	133	15,917	15,784	11837.89%
Reserve Fund Interest	31,000	10,333	78,400	68,067	658.71%
Lease Revenue	1,600	533	1,480	946	177.42%
Total Debt Service Revenues	**$ 8,335,224**	**$ 2,778,408**	**$ 2,863,205**	**$ 84,797**	**3.05%**
Debt Service Costs					
Total Principal & Interest	$ 6,964,724	$ 2,321,575	$ 2,321,575	$ -	0.00%
Reserve Additions-Interest	31,000	10,333	78,400	(68,067)	-658.71%
Debt Service Ratio Charge	400,000	133,333	133,333	-	0.00%
Reserve Additions-CIP Growth	939,500	313,167	313,167	-	0.00%
Total Debt Service Costs	**$ 8,335,224**	**$ 2,778,408**	**$ 2,846,475**	**$ (68,067)**	**-2.45%**
Debt Service Surplus/(Deficit)	**$ -**	**$ -**	**$ 16,730**		

Rate Center Summary

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Total Revenues	$ 17,563,087	$ 5,854,362	$ 6,267,200	$ 412,838	7.05%
Total Expenses	17,563,087	5,854,362	6,376,978	(522,616)	-8.93%
Surplus/(Deficit)	**$ (0)**	**$ (0)**	**$ (109,778)**		
Costs per 1000 Gallons	$ 2.72		$ 2.88		
Operating and DS	$ 5.17		$ 5.20		
Thousand Gallons Treated	3,397,700	1,132,567	1,226,035	93,468	8.25%
or					
Flow (MGD)	9.309		9.968		

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Crozet Water Rate Center
Revenues and Expenses Summary

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Operations Rate Revenue		$ 1,197,084	$ 399,028	$ 399,028	$ -	0.00%
Lease Revenues		25,000	8,333	10,544	2,211	26.53%
Interest Allocation		400	133	1,467	1,334	1000.57%
Total Operating Revenues		**$ 1,222,484**	**$ 407,495**	**$ 411,039**	**$ 3,545**	**0.87%**
Expenses						
Personnel Cost		$ 352,559	$ 117,520	$ 120,233	$ (2,713)	-2.31%
Professional Services		22,900	7,633	2,698	4,935	64.65%
Other Services & Charges		118,700	39,567	41,586	(2,019)	-5.10%
Communications		17,600	5,867	5,975	(109)	-1.85%
Information Technology		4,950	1,650	2,040	(390)	-23.61%
Supplies		1,500	500	572	(72)	-14.49%
Operations & Maintenance		358,500	119,500	97,744	21,756	18.21%
Equipment Purchases		3,000	1,000	1,000	-	0.00%
Depreciation		60,000	20,000	20,000	-	0.00%
Subtotal Before Allocations		$ 939,709	$ 313,236	$ 291,848	$ 21,388	6.83%
Allocation of Support Departments		282,780	94,260	101,456	(7,196)	-7.63%
Total Operating Expenses		**$ 1,222,489**	**$ 407,496**	**$ 393,304**	**$ 14,192**	**3.48%**
Operating Surplus/(Deficit)		**$ (5)**	**$ (2)**	**$ 17,735**		

Debt Service Budget vs. Actual

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues					
Debt Service Rate Revenue	$ 2,161,704	$ 720,568	$ 720,568	$ -	0.00%
Trust Fund Interest	80	27	3,697	3,670	13762.25%
Reserve Fund Interest	1,200	400	3,071	2,671	667.83%
Total Debt Service Revenues	**$ 2,162,984**	**$ 720,995**	**$ 727,336**	**$ 6,341**	**0.88%**
Debt Service Costs					
Total Principal & Interest	$ 1,217,280	$ 405,760	$ 405,760	$ -	0.00%
Reserve Additions-Interest	1,200	400	3,071	(2,671)	-667.83%
Reserve Additions-CIP Growth	944,500	314,833	314,833	-	0.00%
Total Debt Service Costs	**$ 2,162,980**	**$ 720,993**	**$ 723,665**	**$ (2,671)**	**-0.37%**
Debt Service Surplus/(Deficit)	**$ 4**	**$ 1**	**$ 3,671**		

Rate Center Summary

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Total Revenues	$ 3,385,468	$ 1,128,489	$ 1,138,375	$ 9,886	0.88%
Total Expenses	3,385,469	1,128,490	1,116,969	11,521	1.02%
Surplus/(Deficit)	**$ (1)**	**$ (0)**	**$ 21,407**		
Costs per 1000 Gallons	$ 6.03		$ 5.01		
Operating and DS	$ 16.70		$ 14.24		
Thousand Gallons Treated	202,697	67,566	78,426	10,860	16.07%
Flow (MGD)	0.555		0.638		

Rivanna Water & Sewer Authority
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Scottsville Water Rate Center
Revenues and Expenses Summary

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Operations Rate Revenue		$ 569,556	$ 189,852	$ 189,852	$ -	0.00%
Interest Allocation		200	67	681	615	921.98%
Total Operating Revenues		**$ 569,756**	**$ 189,919**	**$ 190,533**	**$ 615**	**0.32%**
Expenses						
Personnel Cost		$ 212,797	$ 70,932	$ 73,264	$ (2,331)	-3.29%
Professional Services		5,000	1,667	5,153	(3,486)	-209.18%
Other Services & Charges		27,100	9,033	10,268	(1,235)	-13.67%
Communications		6,400	2,133	2,195	(62)	-2.88%
Information Technology		4,400	1,467	570	897	61.14%
Supplies		100	33	138	(104)	-312.56%
Operations & Maintenance		97,925	32,642	31,769	872	2.67%
Equipment Purchases		1,600	533	877	(343)	-64.35%
Depreciation		40,000	13,333	13,333	0	0.00%
Subtotal Before Allocations		$ 395,322	$ 131,774	$ 137,566	$ (5,792)	-4.40%
Allocation of Support Departments		174,433	58,144	61,511	(3,366)	-5.79%
Total Operating Expenses		**$ 569,755**	**$ 189,918**	**$ 199,077**	**$ (9,158)**	**-4.82%**
Operating Surplus/(Deficit)		**$ 1**	**$ 0**	**$ (8,543)**		

Debt Service Budget vs. Actual

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues					
Debt Service Rate Revenue	$ 150,300	$ 50,100	$ 50,100	$ -	0.00%
Trust Fund Interest	10	3	391	388	11642.00%
Reserve Fund Interest	850	283	2,101	1,818	641.68%
Total Debt Service Revenues	**$ 151,160**	**$ 50,387**	**$ 52,593**	**$ 2,206**	**4.38%**
Debt Service Costs					
Total Principal & Interest	$ 148,726	$ 49,575	$ 49,575	$ -	0.00%
Reserve Additions-Interest	850	283	2,101	(1,818)	
Reserve Additions-CIP Growth	1,589	530	530	-	
Total Debt Service Costs	**$ 151,165**	**$ 50,388**	**$ 52,206**	**$ (1,818)**	**-3.61%**
Debt Service Surplus/(Deficit)	**$ (5)**	**$ (2)**	**$ 386**		

Rate Center Summary

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Total Revenues	$ 720,916	$ 240,305	$ 243,126	$ 2,821	1.17%
Total Expenses	720,920	240,307	251,283	(10,976)	-4.57%
Surplus/(Deficit)	**$ (4)**	**$ (1)**	**$ (8,157)**		
Costs per 1000 Gallons	$ 33.07		$ 25.07		
Operating and DS	$ 41.84		$ 31.64		
Thousand Gallons Treated	17,230	5,743	7,941	2,198	38.26%
or					
Flow (MGD)	0.047		0.065		

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Urban Wastewater Rate Center
Revenues and Expenses Summary

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Operations Rate Revenue		$ 9,033,662	$ 3,011,221	$ 3,231,525	$ 220,305	7.32%
Stone Robinson WWTP		39,036	13,012	6,130	(6,882)	-52.89%
Septage Acceptance		500,000	166,667	206,211	39,544	23.73%
Nutrient Credits		100,000	33,333	39,129	5,795	17.39%
Miscellaneous Revenue		-	-	-	-	
Interest Allocation		3,300	1,100	12,211	11,111	1010.10%
Total Operating Revenues		**$ 9,675,998**	**$ 3,225,333**	**$ 3,495,206**	**$ 269,873**	**8.37%**
Expenses						
Personnel Cost	B	$ 1,325,384	$ 441,795	$ 500,149	$ (58,354)	-13.21%
Professional Services	C	75,000	25,000	70,095	(45,095)	-180.38%
Other Services & Charges	A, D	2,276,980	758,993	819,652	(60,659)	-7.99%
Communications		1,900	633	3,602	(2,969)	-468.76%
Information Technology		110,400	36,800	16,184	20,616	56.02%
Supplies		1,200	400	106	294	73.45%
Operations & Maintenance	A, G	1,698,660	566,220	657,692	(91,472)	-16.15%
Equipment Purchases		143,000	47,667	16,667	31,000	65.03%
Depreciation		470,000	156,667	156,667	(0)	0.00%
Subtotal Before Allocations		$ 6,102,524	$ 2,034,175	$ 2,240,814	$ (206,640)	-10.16%
Allocation of Support Departments		3,573,476	1,191,159	1,277,036	(85,877)	-7.21%
Total Operating Expenses		**$ 9,675,999**	**$ 3,225,333**	**$ 3,517,850**	**$ (292,517)**	**-9.07%**
Operating Surplus/(Deficit)		**$ (1)**	**$ (0)**	**$ (22,644)**		

Debt Service Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Debt Service Rate Revenue		$ 8,878,107	$ 2,959,369	$ 2,959,368	$ (1)	0.00%
Septage Receiving Support - County	A	109,440	36,480	109,440	72,960	200.00%
Trust Fund Interest		500	167	23,441	23,274	13964.53%
Reserve Fund Interest		31,000	10,333	77,592	67,259	650.89%
Total Debt Service Revenues		**$ 9,019,047**	**$ 3,006,349**	**$ 3,169,841**	**$ 163,492**	**5.44%**
Debt Service Costs						
Total Principal & Interest		$ 7,808,347	$ 2,602,782	$ 2,602,782	$ -	0.00%
Reserve Additions-Interest		31,000	10,333	77,592	(67,259)	-650.89%
Debt Service Ratio Charge		325,000	108,333	108,333	-	0.00%
Reserve Additions-CIP Growth		854,700	284,900	284,900	-	0.00%
Total Debt Service Costs		**$ 9,019,047**	**$ 3,006,349**	**$ 3,073,608**	**$ (67,259)**	**-2.24%**
Debt Service Surplus/(Deficit)		**$ -**	**$ -**	**$ 96,233**		

Rate Center Summary

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Total Revenues	$ 18,695,045	$ 6,231,682	$ 6,665,047	$ 433,365	6.95%
Total Expenses	18,695,046	6,231,682	6,591,458	(359,776)	-5.77%
Surplus/(Deficit)	**$ (1)**	**$ (0)**	**$ 73,589**		
Costs per 1000 Gallons	$ 2.85		$ 2.90		
Operating and DS	$ 5.51		$ 5.43		
Thousand Gallons Treated	3,390,400	1,130,133	1,213,035	82,902	7.34%
or					
Flow (MGD)	9.289		9.862		

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Glenmore Wastewater Rate Center
Revenues and Expenses Summary

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Operations Rate Revenue		$ 443,640	$ 147,880	$ 147,880	$ -	0.00%
Interest Allocation		150	50	550	500	1000.58%
Total Operating Revenues		**$ 443,790**	**$ 147,930**	**$ 148,430**	**$ 500**	**0.34%**
Expenses						
Personnel Cost		$ 115,815	$ 38,605	$ 43,715	$ (5,110)	-13.24%
Professional Services		5,000	1,667	7,772	(6,105)	-366.29%
Other Services & Charges		35,750	11,917	14,872	(2,956)	-24.80%
Communications		-	-	893	(893)	
Information Technology		4,425	1,475	1,446	29	1.98%
Supplies		-	-	-	-	
Operations & Maintenance		134,950	44,983	31,506	13,477	29.96%
Equipment Purchases		3,800	1,267	1,267	(0)	0.00%
Depreciation		10,000	3,333	3,333	0	0.00%
Subtotal Before Allocations		$ 309,740	$ 103,247	$ 104,803	$ (1,557)	-1.51%
Allocation of Support Departments		134,045	44,682	45,965	(1,283)	-2.87%
Total Operating Expenses		**$ 443,785**	**$ 147,928**	**$ 150,768**	**$ (2,840)**	**-1.92%**
Operating Surplus/(Deficit)		**$ 5**	**$ 2**	**$ (2,338)**		

Debt Service Budget vs. Actual

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues					
Debt Service Rate Revenue	$ 20,484	$ 6,828	$ 6,828	$ -	0.00%
Trust Fund Interest	-	-	-	-	
Reserve Fund Interest	80	27	162	135	506.11%
Total Debt Service Revenues	**$ 20,564**	**$ 6,855**	**$ 6,990**	**$ -**	**0.00%**
Debt Service Costs					
Total Principal & Interest	$ 18,717	$ 6,239	$ 6,239	$ -	0.00%
Reserve Additions-CIP Growth	1,761	587	587	-	0.00%
Reserve Additions-Interest	80	27	162	(135)	-506.11%
Total Debt Service Costs	**$ 20,558**	**$ 6,853**	**$ 6,988**	**$ (135)**	**-1.97%**
Debt Service Surplus/(Deficit)	**$ 6**	**$ 2**	**$ 2**		

Rate Center Summary

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Total Revenues	$ 464,354	$ 154,785	$ 155,420	$ 635	0.41%
Total Expenses	464,343	154,781	157,756	(2,975)	-1.92%
Surplus/(Deficit)	**$ 11**	**$ 4**	**$ (2,336)**		
Costs per 1000 Gallons	$ 10.72		$ 12.02		
Operating and DS	$ 11.22		$ 12.58		
Thousand Gallons Treated	41,401	13,800	12,543	(1,257)	**-9.11%**
or					
Flow (MGD)	0.113		0.102		

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Scottsville Wastewater Rate Center
Revenues and Expenses Summary

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Operations Rate Revenue		$ 355,620	$ 118,540	$ 118,540	$ -	0.00%
Interest Allocation		120	40	445	405	1013.65%
Total Operating Revenues		**$ 355,740**	**$ 118,580**	**$ 118,985**	**$ 405**	**0.34%**
Expenses						
Personnel Cost		$ 115,795	$ 38,598	$ 43,715	$ (5,116)	-13.25%
Professional Services		5,000	1,667	930	736	44.19%
Other Services & Charges		26,650	8,883	10,199	(1,316)	-14.82%
Communications		3,770	1,257	1,277	(20)	-1.59%
Information Technology		4,125	1,375	427	948	68.92%
Supplies		-	-	-	-	
Operations & Maintenance		52,000	17,333	18,197	(863)	-4.98%
Equipment Purchases		3,800	1,267	1,267	(0)	0.00%
Depreciation		20,000	6,667	6,667	(0)	0.00%
Subtotal Before Allocations		$ 231,140	$ 77,047	$ 82,678	$ (5,632)	-7.31%
Allocation of Support Departments		124,604	41,535	42,884	(1,349)	-3.25%
Total Operating Expenses		**$ 355,744**	**$ 118,581**	**$ 125,562**	**$ (6,981)**	**-5.89%**
Operating Surplus/(Deficit)		**$ (4)**	**$ (1)**	**$ (6,577)**		

Debt Service Budget vs. Actual

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues					
Debt Service Rate Revenue	$ 10,110	$ 3,370	$ 3,372	$ 2	0.06%
Trust Fund Interest	-	-	44	44	
Reserve Fund Interest	100	33	323	290	870.14%
Total Debt Service Revenues	**$ 10,210**	**$ 3,403**	**$ 3,739**	**$ 336**	**9.86%**
Debt Service Costs					
Total Principal & Interest	$ 7,447	$ 2,482	$ 2,482	$ -	0.00%
Reserve Additions-Interest	100	33	323	(290)	-870.14%
Estimated New Principal & Interest	2,667	889	889	-	0.00%
Total Debt Service Costs	**$ 10,214**	**$ 3,405**	**$ 3,695**	**$ (290)**	**-8.52%**
Debt Service Surplus/(Deficit)	**$ (4)**	**$ (1)**	**$ 44**		

Rate Center Summary

	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Total Revenues	$ 365,950	$ 121,983	$ 122,724	$ 741	0.61%
Total Expenses	365,958	121,986	129,257	(7,271)	-5.96%
Surplus/(Deficit)	**$ (8)**	**$ (3)**	**$ (6,533)**		
Costs per 1000 Gallons	$ 15.05		$ 22.78		
Operating and DS	$ 15.48		$ 23.45		
Thousand Gallons Treated	23,643	7,881	5,512	(2,369)	**-30.06%**
or					
Flow (MGD)	0.065		0.045		

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Administration

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Payment for Services SWA		$ 654,000	$ 218,000	$ 218,000	$ -	0.00%
Bond Proceeeds Funding Bond Issuance Costs		-	-	-	-	
Miscellaneous Revenue		2,000	667	4,843	4,176	626.42%
Total Operating Revenues		**$ 656,000**	**$ 218,667**	**$ 222,843**	**$ 4,176**	**1.91%**
Expenses						
Personnel Cost		$ 2,450,092	$ 816,697	$ 825,022	$ (8,324)	-1.02%
Professional Services		170,000	56,667	39,087	17,580	31.02%
Other Services & Charges	D	162,600	54,200	70,900	(16,700)	-30.81%
Communications	F	24,780	8,260	29,413	(21,153)	-256.09%
Information Technology	A, E	404,876	134,959	335,300	(200,342)	-148.45%
Supplies		23,000	7,667	8,743	(1,076)	-14.04%
Operations & Maintenance		67,850	22,617	21,942	674	2.98%
Equipment Purchases		13,100	4,367	4,367	(0)	0.00%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 3,316,298**	**$ 1,105,433**	**$ 1,334,774**	**$ (229,341)**	**-20.75%**

Department Summary

Net Costs Allocable to Rate Centers		**$ (2,660,298)**	**$ (886,766)**	**$ (1,111,931)**	**$ 225,165**	**-25.39%**
Allocations to the Rate Centers						
Urban Water	44.00%	**$ 1,170,531**	**$ 390,177**	**$ 489,250**	**$ (99,073)**	
Crozet Water	4.00%	**$ 106,412**	**35,471**	**44,477**	**(9,007)**	
Scottsville Water	2.00%	**$ 53,206**	**17,735**	**22,239**	**(4,503)**	
Urban Wastewater	48.00%	**$ 1,276,943**	**425,648**	**533,727**	**(108,079)**	
Glenmore Wastewater	1.00%	**$ 26,603**	**8,868**	**11,119**	**(2,252)**	
Scottsville Wastewater	1.00%	**$ 26,603**	**8,868**	**11,119**	**(2,252)**	
	100.00%	**$ 2,660,298**	**$ 886,766**	**$ 1,111,931**	**$ (225,165)**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Maintenance

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Payment for Services SWA		$ -	$ -	$ -	$ -	
Miscellaneous Revenue		-	-	-	-	
Total Operating Revenues		$ -	$ -	$ -	$ -	
Expenses						
Personnel Cost	B	$ 1,477,565	$ 492,522	$ 504,155	$ (11,633)	-2.36%
Professional Services		-	-	-	-	
Other Services & Charges		33,600	11,200	5,606	5,594	49.95%
Communications		24,500	8,167	4,531	3,636	44.52%
Information Technology		32,500	10,833	10,360	474	4.37%
Supplies		2,500	833	657	176	21.10%
Operations & Maintenance	G	104,900	34,967	47,988	(13,021)	-37.24%
Equipment Purchases		212,600	70,867	42,867	28,000	39.51%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 1,888,165**	**$ 629,388**	**$ 616,164**	**$ 13,225**	**2.10%**

Department Summary

		Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Net Costs Allocable to Rate Centers		**$ (1,888,165)**	**$ (629,388)**	**$ (616,164)**	**$ (13,225)**	**2.10%**
Allocations to the Rate Centers						
Urban Water	30.00%	**$ 566,450**	**$ 188,817**	**$ 184,849**	**$ 3,967**	
Crozet Water	3.50%	**66,086**	**22,029**	**21,566**	**463**	
Scottsville Water	3.50%	**66,086**	**22,029**	**21,566**	**463**	
Urban Wastewater	56.50%	**1,066,814**	**355,605**	**348,133**	**7,472**	
Glenmore Wastewater	3.50%	**66,086**	**22,029**	**21,566**	**463**	
Scottsville Wastewater	3.00%	**56,645**	**18,882**	**18,485**	**397**	
	100.00%	**$ 1,888,165**	**$ 629,388**	**$ 616,164**	**$ 13,225**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Laboratory

Operating Budget vs. Actual

	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
N/A						
Expenses						
Personnel Cost		$ 415,324	$ 138,441	$ 142,744	$ (4,303)	-3.11%
Professional Services		-	-	-	-	
Other Services & Charges		11,780	3,927	297	3,629	92.42%
Communications		1,700	567	351	216	
Information Technology		1,000	333	-	333	100.00%
Supplies		1,250	417	243	173	41.58%
Operations & Maintenance		121,050	40,350	43,675	(3,325)	-8.24%
Equipment Purchases		1,700	567	567	(0)	0.00%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 553,804**	**$ 184,601**	**$ 187,878**	**$ (3,276)**	**-1.77%**

Department Summary

Net Costs Allocable to Rate Centers		**$ (553,804)**	**$ (184,601)**	**$ (187,878)**	**$ 3,276**	**-1.77%**
Allocations to the Rate Centers						
Urban Water	44.00%	**$ 243,674**	**$ 81,225**	**$ 82,666**	**$ (1,442)**	
Crozet Water	4.00%	**22,152**	**7,384**	**7,515**	**(131)**	
Scottsville Water	2.00%	**11,076**	**3,692**	**3,758**	**(66)**	
Urban Wastewater	47.00%	**260,288**	**86,763**	**88,302**	**(1,540)**	
Glenmore Wastewater	1.50%	**8,307**	**2,769**	**2,818**	**(49)**	
Scottsville Wastewater	1.50%	**8,307**	**2,769**	**2,818**	**(49)**	
	100.00%	**$ 553,804**	**$ 184,601**	**$ 187,878**	**$ (3,276)**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - October 2022

Engineering

Operating Budget vs. Actual

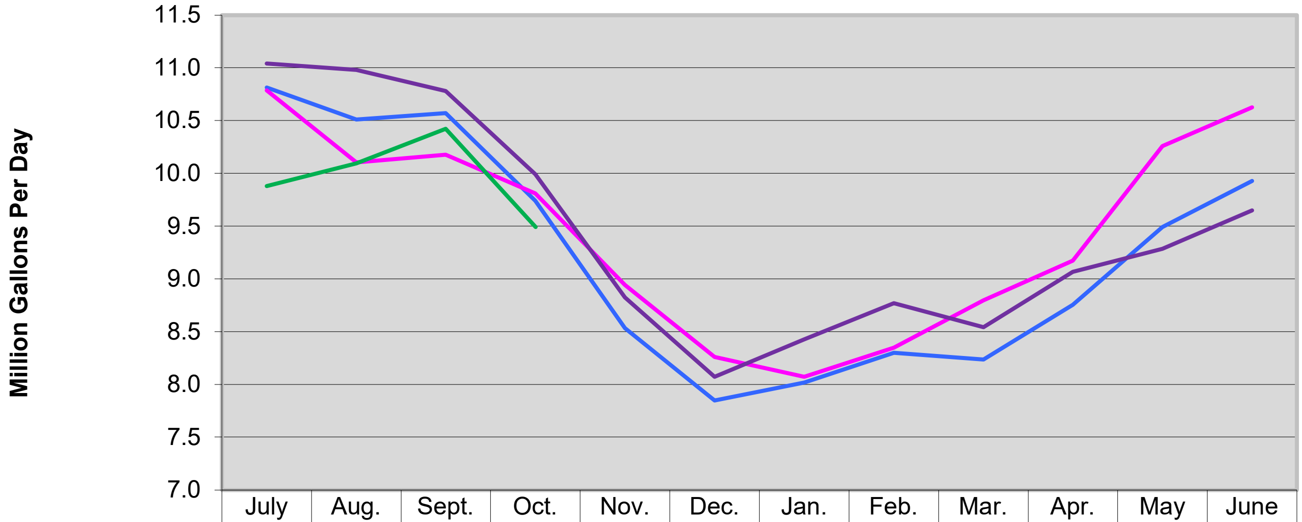
	Notes	Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Revenues						
Payment for Services SWA		$ -	$ -	$ 4,248	$ 4,248	
Total Operating Revenues		**$ -**	**$ -**	**$ 4,248**	**$ 4,248**	
Expenses						
Personnel Cost	B	$ 1,794,680	$ 598,227	$ 622,424	$ (24,198)	-4.04%
Professional Services		125,000	41,667	20,411	21,255	51.01%
Other Services & Charges		18,000	6,000	3,016	2,984	49.74%
Communications		18,772	6,257	3,456	2,801	44.77%
Information Technology		145,000	48,333	30,679	17,655	36.53%
Supplies		5,000	1,667	1,656	11	0.64%
Operations & Maintenance		75,300	25,100	12,879	12,221	48.69%
Equipment Purchases		21,500	7,167	7,167	0	0.00%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 2,203,252**	**$ 734,417**	**$ 701,688**	**$ 32,729**	**4.46%**

Department Summary

		Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
Net Costs Allocable to Rate Centers		**$ (2,203,252)**	**$ (734,417)**	**$ (697,441)**	**$ (28,481)**	**3.88%**
Allocations to the Rate Centers						
Urban Water	47.00%	**$ 1,035,528**	**$ 345,176**	**$ 327,797**	**$ 17,379**	
Crozet Water	4.00%	**88,130**	**29,377**	**27,898**	**1,479**	
Scottsville Water	2.00%	**44,065**	**14,688**	**13,949**	**740**	
Urban Wastewater	44.00%	**969,431**	**323,144**	**306,874**	**16,270**	
Glenmore Wastewater	1.50%	**33,049**	**11,016**	**10,462**	**555**	
Scottsville Wastewater	1.50%	**33,049**	**11,016**	**10,462**	**555**	
	100.00%	**$ 2,203,252**	**$ 734,417**	**$ 697,441**	**$ 36,977**	

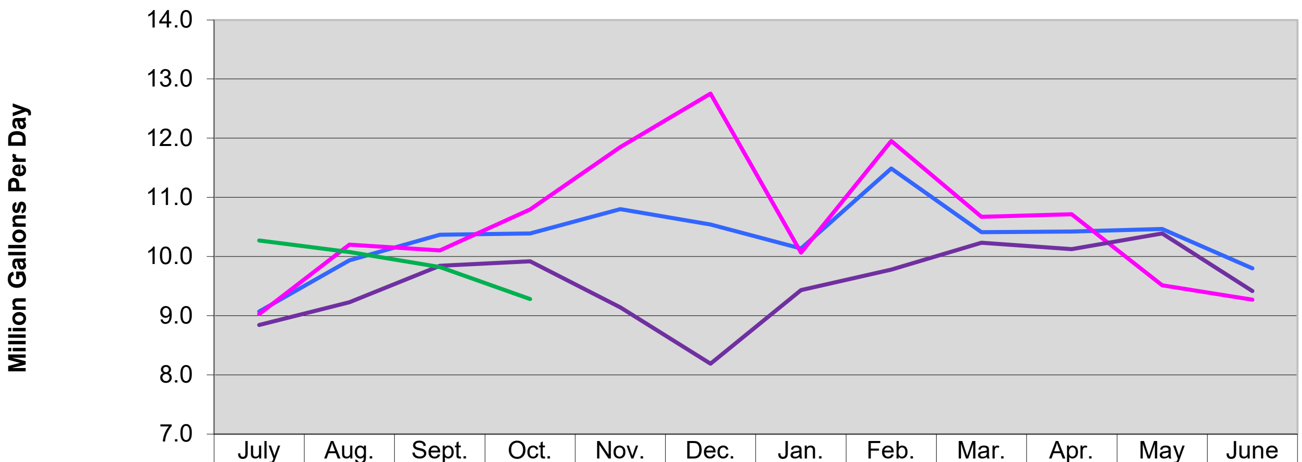
Rivanna Water and Sewer Authority
Flow Graphs

Urban Water Flows



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
5 YR AVG.	10.81	10.51	10.57	9.74	8.53	7.85	8.02	8.30	8.23	8.75	9.49	9.93
FY 2021	10.78	10.10	10.17	9.81	8.94	8.26	8.07	8.35	8.79	9.17	10.26	10.62
FY 2022	11.04	10.98	10.78	9.99	8.82	8.07	8.43	8.77	8.54	9.07	9.28	9.65
FY 2023	9.88	10.10	10.42	9.49								

Urban Wastewater Flows



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
5 YR AVG	9.07	9.94	10.37	10.39	10.80	10.54	10.13	11.49	10.41	10.42	10.47	9.80
FY 2021	9.03	10.20	10.10	10.79	11.85	12.75	10.06	11.95	10.67	10.72	9.51	9.27
FY 2022	8.84	9.23	9.85	9.92	9.14	8.19	9.43	9.78	10.23	10.13	10.39	9.41
FY 2023	10.27	10.07	9.82	9.28								

RIVANNA WATER & SEWER AUTHORITY
695 Moores Creek Lane | Charlottesville, Virginia 22902-9016
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www.rivanna.org

MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: DAVE TUNGATE, DIRECTOR OF OPERATIONS

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: OPERATIONS REPORT FOR NOVEMBER 2022

DATE: DECEMBER 13, 2022

WATER OPERATIONS:

The average and maximum daily water volumes produced in November 2022 were as follows:

Water Treatment Plant	***Average Daily Production (MGD)***	***Maximum Daily Production in the Month (MGD)***
South Rivanna	7.17	8.54 (11/7/2022)
Observatory	0.83	1.44 (11/3/2022)
North Rivanna	0.42	0.55 (11/8/2022)
Urban Total	8.42	10.15 (11/7/2022)
Crozet	0.57	0.66 (11/23/2022)
Scottsville	0.06	0.089 (11/9/2022)
Red Hill	0.0017	0.003 (11/22/2022)
RWSA Total	9.05	-

- All RWSA water treatment facilities were in regulatory compliance during the month of November.

Status of Reservoirs (as of December 6, 2022):

- Urban Reservoirs are 100% of Total Useable Capacity
  - Ragged Mountain Reservoir is 100% full
  - Sugar Hollow Reservoir is 100% full
  - South Rivanna Reservoir is 100% full
- Beaver Creek Reservoir (Crozet) is 100% full
- Totier Creek Reservoir (Scottsville) is 100% full

WASTEWATER OPERATIONS:

All RWSA Water Resource Recovery Facilities (WRRFs) were in regulatory compliance with their effluent limitations during November 2022. Performance of the WRRFs in November was as follows compared to the respective VDEQ permit limits:

WRRF	*Average Daily Effluent Flow (MGD)*	*Average $CBOD_5$ (ppm)*		*Average Total Suspended Solids (ppm)*		*Average Ammonia (ppm)*	
		RESULT	*LIMIT*	*RESULT*	*LIMIT*	*RESULT*	*LIMIT*
Moores Creek	9.50	<QL	9	<QL	22	<QL	2.2
Glenmore	0.103	2.8	15	1.8	30	NR	NL
Scottsville	0.051	1.5	25	3.1	30	NR	NL
Stone Robinson	0.0004	NR	30	NR	30	NR	NL

NR = Not Required

NL = No Limit

<QL: Less than analytical method quantitative level (2.0 ppm for CBOD, 1.0 ppm for TSS, and 0.1 ppm for Ammonia).

Nutrient discharges at the Moores Creek AWRRF were as follows for November 2022.

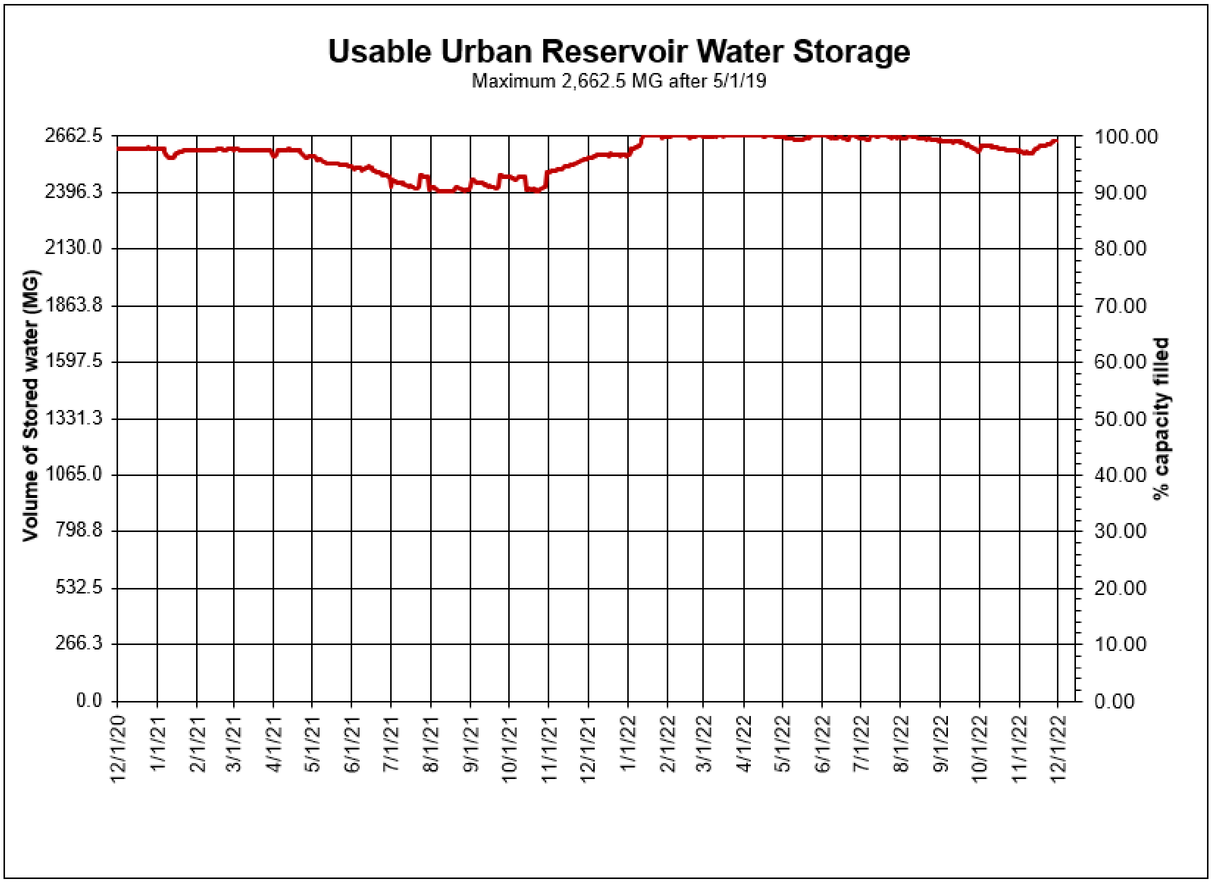
State Annual Allocation (lb./yr.) Permit		*Average Monthly Allocation (lb./mo.) **	*Moores Creek Discharge November (lb./mo.)*	*Performance as % of monthly average Allocation**	*Year to Date Performance as % of annual allocation*
Nitrogen	282,994	23,583	7,613	32%	30%
Phosphorous	18,525	1,544	605	39%	45%

*State allocations are expressed as annual amounts. One-twelfth of that allocation is an internal monthly benchmark for comparative purposes only.

WATER AND WASTEWATER DATA:

The following graphs are provided for review:

- Usable Urban Reservoir Water Storage
- Urban Water and Wastewater Flows versus Rainfall


Usable Urban Reservoir Water Storage
Maximum 2,662.5 MG after 5/1/19
Volume of Stored water (MG)
% capacity filled
2662.5
2396.3
2130.0
1863.8
1597.5
1331.3
1065.0
798.8
532.5
266.3
0.0
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
12/1/20
1/1/21
2/1/21
3/1/21
4/1/21
5/1/21
6/1/21
7/1/21
8/1/21
9/1/21
10/1/21
11/1/21
12/1/21
1/1/22
2/1/22
3/1/22
4/1/22
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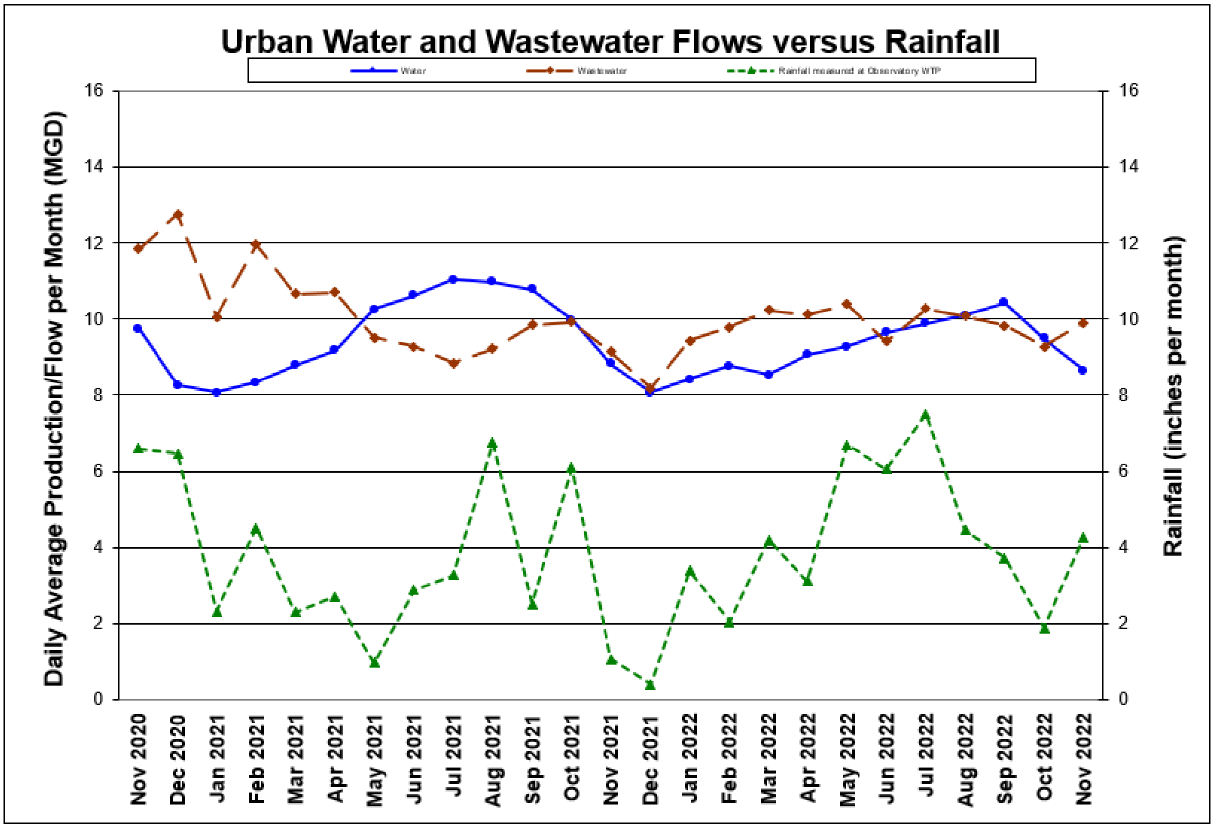
8/1/22
9/1/22
10/1/22
11/1/22
12/1/22


Urban Water and Wastewater Flows versus Rainfall
Water
Wastewater
Rainfall measured at Observatory WTP
Daily Average Production/Flow per Month (MGD)
Rainfall (inches per month)
16
14
12
10
8
6
4
2
0
Nov 2020
Dec 2020
Jan 2021
Feb 2021
Mar 2021
Apr 2021
May 2021
Jun 2021
Jul 2021
Aug 2021
Sep 2021
Oct 2021
Nov 2021
Dec 2021
Jan 2022
Feb 2022
Mar 2022
Apr 2022
May 2022
Jun 2022
Jul 2022
Aug 2022
Sep 2022
Oct 2022
Nov 2022

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MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING & MAINTENANCE

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: STATUS REPORT: ONGOING PROJECTS

DATE: DECEMBER 13, 2022

This memorandum reports on the status of the following Capital Projects as well as other significant operating, maintenance, and planning projects.

For the current, approved CIP, please visit: https://www.rivanna.org/wp-content/uploads/2022/06/Final-2023-2027-CIP.pdf

Under Construction

1. South Rivanna and Observatory Water Treatment Plant Renovations
2. Airport Road Water Pump Station and Piping
3. MC 5kV Electrical System Upgrades

Design and Bidding

4. Ragged Mtn Reservoir to Observatory WTP Raw Water Line and Pump Station
5. South Rivanna to Ragged Mtn. Raw Water Line – Birdwood to Old Garth
6. Beaver Creek Dam, Pump Station and Piping Improvements
7. South Rivanna River Crossing
8. Central Water Line
9. Moores Creek Administration Building Renovation and Addition
10. Upper Schenks Branch Interceptor, Phase II
11. Red Hill Water Treatment Plant Upgrades
12. Emmet Street Water Line Betterment
13. Scottsville WRRF Whole Plant Generator and ATS
14. Crozet Pump Station Rehabilitation
15. Moores Creek Concrete Repairs
16. Moores Creek Compost Shed Roof Rehabilitation

Planning and Studies

17. South Rivanna Reservoir to Ragged Mtn Reservoir Water Line Right-of-Way
18. Asset Management Plan

19. SRR to RMR Pipeline – Pretreatment Pilot Study
20. Moores Creek Cogeneration Upgrades

Other Significant Projects

21. Urgent and Emergency Repairs
22. Security Enhancements

Under Construction

1. South Rivanna and Observatory Water Treatment Plant Renovations

Design Engineer:	Short Elliot Hendrickson, Inc. (SEH)
Construction Contractor:	English Construction Company (Lynchburg, VA)
Construction Start:	May 2020
Percent Complete:	75%
Base Construction Contract + Change Orders to Date = Current Value:	\$36,748,500 + \$1,141,441 = \$37,889,941
Completion:	May 2023
Budget:	\$43,000,000

Current Status: Lead paint abatement activities in the SR Filter Building continue. Work at the OBWTP includes the new Chemical Storage Building, GAC building expansion, a large retaining wall, Intermediate Pump Station improvements and installation of a sludge control vault. Shutdown of the OBWTP is planned for December 5, 2022 – March 15, 2023.

2. Airport Road Water Pump Station and Piping

Design Engineer:	Short Elliot Hendrickson (SEH)
Construction Contractor:	Anderson Construction, Inc. (ACI) (Lynchburg, VA)
Construction Start:	December 2021
Percent Complete:	27%
Base Construction Contract + Change Order to Date = Current Value:	\$8,520,312
Completion:	December 2023
Budget:	\$10,000,000

Current Status: The building permit was approved and the concrete base slab for the pump cans was poured. Water line installation is on-going along Berkmar Drive between the pump station site and Timberwood Blvd.

3. MC 5kV Electrical System Upgrades

Design Engineer:	Hazen and Sawyer (Hazen)
Construction Contractor:	Pyramid Electrical Contractors (Richmond, VA)
Construction Start:	May 2022
Percent Complete:	12%
Base Construction Contract +	

Change Order to Date = Current Value:	$5,180,000 - $970,000 = $4,210,000
Completion:	June 2024
Budget:	$5,050,000

Current Status: The Contractor is installing interior conduit in the Blower Building associated with motor control center replacement and power monitoring activities, and ductbanks to connect the new switchgear into the existing ductbank network.

Design and Bidding

4. Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Pump Station

Design Engineer:	Michael Baker International (Baker) (Right of Way)
Design Engineer:	Kimley-Horn (Design)
Project Start:	August 2018
Project Status:	Easement Acquisition & Design (40%)
Construction Start:	2025
Completion:	2028
Budget:	$44,000,000

Current Status: Preparation of engineering plans and specifications continues. Staff has reviewed the waterline plans, which includes the vast majority of the piping to be installed under the project. Easement negotiations with UVA and the UVA Foundation continue. Staff held a coordination meeting with VDOT on the Rt. 29 Bypass and Fontaine Avenue crossing locations.

5. South Rivanna Reservoir to Ragged Mtn. Reservoir Raw Water Line – Birdwood to Old Garth

Design Engineer:	Kimley-Horn
Project Start:	June 2021
Project Status:	90% Design
Construction Start:	June 2023
Completion:	June 2024
Budget:	$4,000,000

Current Status: Engineering plans and specifications are substantially complete for a 0.25-mile section of this 36" raw water pipe from Birdwood to Old Garth Road. One remaining easement is under negotiation with the UVA Foundation for this phase of the project. The railroad permit application will be finalized when one remaining soil boring on the UVAF property is completed (anticipated in December 2022).

6. Beaver Creek Dam, Pump Station and Piping Improvements

Design Engineer:	Schnabel Engineering (Dam)
Design Engineer:	Hazen & Sawyer (Pump Station)
Project Start:	February 2018
Project Status:	90% NRCS Planning Process
Construction Start:	2024

Completion:	2027
Budget:	$43,000,000

Current Status: A Joint Permit Application and supporting documents were submitted to VDEQ in October 2022, and are under review. Remaining NRCS requirements, including review and approval of the planning study, are scheduled for completion this winter. The revised Plan Environmental Assessment was approved by the NRCS National Headquarters on October 18, 2022 and the Draft Report was posted for public release and comment on November 4, 2022. The formal comment period will extend until December 19, 2022, after which public comments will be addressed and the document finalized. NRCS funding for final design and construction of the dam spillway upgrades will be requested.

7. South Rivanna River Crossing

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2020
Project Status:	60% Design
Construction Start:	Spring 2023
Completion:	April 2024
Budget:	$7,000,000

Current Status: Easement acquisition has begun and will include County of Albemarle property in Brook Hill River Park along Rio Mills Road. A required easement on the south side of the river is on a remnant property from the VDOT Berkmar Bridge project and we cannot finalize that easement until the property transfer back to the original property owner is complete. Submission of the Joint Permit Application (JPA) was completed prior to Thanksgiving.

8. Central Water Line

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	20% Design
Construction Start:	2024
Completion:	2028
Budget:	$41,000,000

Current Status: Baker is preparing the 30% design submittal for submission which will require review and utility coordination with stakeholders. A grant application has been submitted to FEMA.

9. Moores Creek Administration Building Renovation and Addition

Design Engineer:	SEH
Project Start:	October 2022
Project Status:	5% Design
Completion:	June 2026
Budget:	$10,000,000

Current Status: A project kick-off meeting was held with the design engineer and architect on October

18, 2022. Individual meetings between the project team and impacted departments took place during the week of November 14th to better understand space needs. Schematic design is underway.

10. Upper Schenks Branch Interceptor, Phase II

Design Engineer:	Frazier Engineering, P.A.
Project Start:	July 2021
Project Status:	Design
Construction Start:	TBD
Completion:	TBD
Budget:	$4,725,000

Current Status: Project, easement and valuation information has been submitted to the County for review.

11. Red Hill Water Treatment Plant Upgrades

Design Engineer:	Short Elliot Hendrickson (SEH)
Project Start:	July 2022
Project Status:	75% Design
Construction Start:	April 2023
Completion:	December 2023
Budget:	$450,000

Current Status: An initial design review has been completed which finalized piping arrangements, new chemical feed points and chemical spacing requirements. A 100% design submittal is anticipated in December. This project was selected by Albemarle County to receive ARPA grant funding.

12. Emmet Street Water Line Betterment

Design Engineer:	Whitman, Requardt & Associates (WRA)
Project Start:	September 2021
Project Status:	Ivy Corridor Public Realm – Complete Contemplative Commons – Complete Emmet Streetscape – Preliminary Design Hydraulic/29 – Preliminary Scoping
Completion:	2030
Budget:	$2,900,000

Current Status: Upgrading a section of 16" water main in Emmet Street to 30" as part of the UVA Ivy Corridor Public Realm project is complete. Upgrading a section of 16" water main adjacent to the Dell Pond to 30" as part of the UVA Contemplative Commons project was completed December 1, 2022. WRA and RWSA are developing a scope of work for design of a 24-30" water main in Emmet Street as part of the City's Emmet Streetscape Phase I project. RWSA has initiated discussion with VDOT on potential pipe routing in the upcoming design-build Hydraulic/29 project.

13. Scottsville WRRF Whole Plant Generator and ATS

Design Engineer: Wiley|Wilson
Project Start: December 2021
Project Status 45% Design
Completion: December 2023
Budget: $520,000

Current Status: Survey work for the project is anticipated to be completed in mid-December with a 90% design submittal occurring towards the end of January 2023. A grant application has been submitted to VDEM.

14. Crozet Pump Station Rehabilitation

Design Engineer: Wiley | Wilson
Project Start: Fall 2022
Project Status: Work Authorization Development
Completion: 2025
Budget: $590,000

Current Status: Consultant is developing a scope of work to fully rehabilitate and replace components that have reached their useful life.

15. Moores Creek Concrete Repairs

Design Engineer: Hazen and Sawyer (Hazen)
Project Start: November 2022
Project Status: Design
Completion: Winter 2024
Budget: $2,650,000

Current Status: Development of a work authorization is underway and will include additional structural improvements at the aeration basins and the Rivanna Wastewater Pump Station.

16. Moores Creek Compost Shed Roof Rehabilitation

Design Engineer: Hazen and Sawyer (Hazen)
Project Start: Fall 2022
Project Status: Design
Completion: TBD
Budget: $1,360,000

Current Status: The consultant is evaluating the work repairs required.

Planning and Studies

17. South Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way

Design Engineer: Michael Baker International (Baker)
Project Start: October 2017

Project Status:	Easement Acquisition
Completion:	2023
Budget:	$2,295,000

Current Status: Progress continues in our efforts to acquire 8 miles of easements and agreements (with VDOT) for this 36" water line. Discussions continue for remaining easements with the UVA Foundation and one final private property owner.

18. Asset Management Plan

Design Engineer:	GHD, Inc.
Project Start:	July 2018
Project Status:	CMMS Implementation – 97% Complete AMP Implementation – 14% Complete
Completion:	CMMS Implementation – October 2022 AMP Implementation – 2024
Budget:	$1,180,000

Current Status: For implementation of the new Computerized Maintenance Management System (CMMS), GHD has completed updates to our facility geodatabase and is continuing the software configuration process. A recent software update has complicated the process, but GHD and RWSA staff worked with Cityworks to resolve it. Work continues to fully implement the Asset Management program across all applicable Authority facilities with a detailed review of our asset register and continued development of default asset attributes which will be used to evaluate asset condition and lifespan.

19. SRR to RMR Pipeline – Pretreatment Pilot Study

Design Consultant:	SEH/DiNatale
Project Start:	August 2020
Project Status:	100% Complete (Phase 1), 95% Complete (Phase 2)
Completion:	December 2022
Budget:	$22,969 (Phase 1), $116,401 (Phase 2)

Current Status: Final efforts by the consultant are underway to better clarify operations of the raw water transfer system and associated reservoir levels during drought conditions. The next phase of the study is being planned, which will likely include drought yield modeling associated with observed nutrient levels, and an evaluation/pilot of nutrient modeling equipment.

20. Moores Creek Cogeneration Upgrades

Design Engineer:	SEH
Project Start:	October 2021
Project Status:	Preliminary Engineering/Study (99%)
Completion:	June 2024
Budget:	$2,145,000

Current Status: Manufacturers in the Cogeneration Industry are being interviewed and additional information is being gathered to determine acceptable providers before engineering plans and specifications are completed.

Other Significant Projects

21. Urgent and Emergency Repairs

Staff are currently working on several urgent repairs within the water and wastewater systems as listed below:

Project No.	Project Description	Approx. Cost
2021-01/2022-03	WBI and RVI Erosion	$50,000
2022-09	CZI Force Main ARV Replacements	$300,000
2022-02/05/12	Miscellaneous MCI/PCI/RVI MH Repairs	$70,000

- WBI and RVI Erosion: In February 2022, RWSA Maintenance staff notified Engineering staff of some ditch lines along the Rivanna Interceptor that are in need of repair. In addition, during the previous round of manhole inspections on the Woodbrook Interceptor, there was one small ditch identified to be in need of repairs there as well. Staff visited these sites in August and will be issuing the work to its On-Call Maintenance Contractors for repairs. The scope of work is likely to include installation of erosion control at the ditch crossings over the various sewer lines.
- CZI Force Main ARV Replacements: Over the past several years, staff have been monitoring the condition of the air release valves (ARVs) up and down the force main portions of the Crozet Interceptor, as they have been continuing to degrade. These valves are 1980s-vintage, and while they have been serviced and partially rebuilt over the years by the RWSA Maintenance Department, replacement of the tapping saddle and corporation stop has not been possible, since shutdown of the force main is required. Historically, it has taken several hours to drain the force main to allow for the work to take place, and by the time that has occurred, the upstream pump stations need to turn on to prevent overflow. Now with the Flow Equalization Tank complete, this work can take place with the force main offline for up to a 24-hr period. Staff is waiting for the final few required materials to arrive, and is coordinating with VDOT on necessary permitting requirements. The work is anticipated to start in early December, pending crew availability, completion of permitting, and arrival of the required materials.
- Miscellaneous MCI/PCI/RVI MH Repairs: Over the past several months, staff have identified issues with various manholes on the Moores Creek, Powell Creek, and Rivanna Interceptors (MCI, PCI, and RVI, respectively). These include one manhole on MCI that needs to be raised, as it was historically buried but found in Summer 2021 by the RWSA Maintenance & Engineering Departments, one manhole on RVI that needs a failing HDPE liner to be removed and cementitious mortar to be installed, and one manhole each on PCI and MCI that need to be coated with cementitious mortar due to root intrusion and groundwater infiltration. This work will be performed through the On-Call Maintenance contract with Digs, and staff visited the site with the Contractor on July 15th. The appropriate MH on MCI was raised on November 1st, 2022. The remaining coating efforts will take place in January 2023.

22. Security Enhancements

Design Engineer: Hazen & Sawyer

Construction Contractor:	Security 101 (Richmond, VA)
Construction Start:	March 2020
Percent Complete:	70% (WA5), 0% (WA6), 0% (WA7)
Based Construction Contract + Change Orders to Date = Current Value:	$718,428 (WA1) + $91,130 (WA2) + $128,166 (WA3) + $189,698 (WA4) + $76,920 (WA5) + $120,994 (WA6) + $4,853 (WA7) = $1,330,192 (Total)
Completion:	October 2022 (WA5), May 2023 (WA6)
Budget:	$2,810,000

Current Status: WA5, which authorizes card access installation at Glenmore Water Resource Recovery Facility (GWRRF), Scottsville Water Resource Recovery Facility (SVWRRF), and Red Hill Water Treatment Plant (RHWTP), began during the week of June 20th. Conduit and cable pulling is complete at all facilities covered in the WA, and the only work that remains is wiring at RHWTP, and programming by Security 101 at each facility, likely to be completed this Winter. WA6 will include card access installation at RWSA's remote sites, including all dams and pump stations. This work was authorized in early August, with completion scheduled for May 2023. WA7, which includes a pilot of a program that will test electronic padlocks at several RWSA facilities, has been authorized. These electronic padlocks have the potential to add an extra layer of security to unmanned facilities such as tanks, dams, and other facilities. If the pilot is successful, wide scale implementation of this technology is possible. Staff has also kicked off final design of a project with Hazen & Sawyer to improve the front entrance of MCAWRRF and install additional fencing, gates, and card access. This will allow staff to better control access to the facility and provide staff with the means to vet access by visitors, vendors, consultants, and contractors. A pre-application meeting was held with the County on November 7th, which confirmed permitting requirements for the project.

History

Under Construction

1. **South Rivanna and Observatory Water Treatment Plant Renovations**

An informational meeting with prospective contractors was held on September 26, 2019 to maximize interest in the project. A project kickoff meeting with staff was held on November 14, 2018 and 30% design documents were provided in February. A Value Engineering Workshop took place the week of April 8, 2019, and a memo summarizing the results has been completed. Agreed upon results were incorporated into the project. The project was advertised, and bids were received. English Construction was awarded the contract and a Notice to Proceed was issued on May 18, 2020. Coordination with UVA and Dominion on a new electrical easement at the plant has been completed and documents are being finalized.

Observatory: This project will upgrade the plant from 7.7 to 10 MGD capacity. Costs to upgrade the plant to 12 MGD were determined to be too high at this time. Much of the Observatory Water Treatment Plant is original to the 1953 construction. A Condition Assessment Report was completed by SEH in October of 2013. The approved Capital Improvement Plan project was based on the findings from this report. The flocculator systems were replaced and upgraded as part of the Drinking Water Activated Carbon and WTP Improvements project (GAC). Four additional GAC contactors will be included in the design.

South Rivanna: The work herein includes expansion of the coagulant storage facilities; installation of additional filters to meet firm capacity needs; the addition of a second variable frequency drive at the Raw Water Pump Station; the relocation for the electrical gear from a sub terrain location at the Sludge Pumping Station; a new building on site for additional office, lab, control room and storage space; improvements to storm sewers to accept allowable WTP discharges; of new metal building to cover the existing liquid lime feed piping and tanks. The scope of this project will not increase the 12 MGD plant treatment capacity.

2. **Airport Road Water Pump Station and Piping**

The Rt. 29 Pump Station and Pipeline master plan was developed in 2007 and originally envisioned a multi-faceted project that reliably connected the North and South Rivanna pressure bands, reduced excessive operating pressures, and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan update was completed in June of 2018 to reflect the changes in the system and demands since 2007. This project, along with the South Rivanna River Crossing and North Rivanna Transmission Main project, will provide a reliable and redundant finished water supply to the North Rivanna area. The proposed pump station will be able to serve system demands at both the current high pressure and future low-pressure conditions. These facilities will also lead to future phase implementation which will include a storage tank and the creation of the Airport water pressure zone. The North Rivanna Transmission Main improvements included under a separate CIP project have been added to this project to allow connection of the pump station to the distribution system.

Bids were opened on October 7, 2021 and this work was awarded at the October 2021 Board of Directors meeting. The contract was signed, and the pre-construction conference was held on December 9, 2021.

3. **MC 5 kV Electrical System Upgrades**

After discussions through the Moores Creek Facilities Master Plan, it was identified that several areas of the MCAWRRF, including the Blower Building, Sludge Pumping Building, Grit Removal Building, Moores Creek Pumping Station, and the Administration Building are all still connected to the original 5kV switchgear in the Blower Building. This equipment, including the associated cabling, switchgear, transformers, and motor control centers (MCCs), has a useful life expectancy of 20-30 years. Most of this equipment was installed around 1980. With the equipment having well exceeded its useful life expectancy at this point, safety is a concern given the large electric loads that the cabling and other equipment are handling on a day-to-day basis. Failure of the existing 5kV infrastructure could also result in temporary outages of certain treatment processes, and repairs could take weeks to months given the lead times associated with equipment of this age. A technical memo was provided in July 2020 by Hazen & Sawyer, which recommended that a CIP Project be added immediately to encompass replacement of the original 1980s-vintage 5kV cables, switchgear, transformers, and MCCs. A CIP Amendment Recommendation and Engineering Services Work Authorization was approved during the August 2020 Board of Directors Meeting. The Design Work Authorization was executed on October 6, 2020.

A Design Kickoff Meeting was held virtually on October 20, 2020. A site visit was attended on November 5, 2020 by Hazen & Sawyer staff, as well as RWSA Maintenance and Engineering Department staff. 50% Design Documents were provided in Spring 2021, with staff feedback provided soon thereafter. A follow-up site visit by Hazen was performed in July 2021, in order to confirm the availability of spare conduits across the site and plan for the associated cable replacements. 95% Design Documents were provided by Hazen in September 2021, and staff returned comments in October 2021. Field work was conducted in Fall 2021 to evaluate the condition of conduits within the existing duct bank network, as well as verify pathways and connectivity within the network.

A Request for Bids (RFB) was issued on December 22, 2021, and bids were submitted on February 3, 2022. A Construction Contract Award for Pyramid Electrical Contractors was approved by the RWSA Board of Directors on February 22, 2022, and a Notice of Award (NOA) was provided to Pyramid on March 4, 2022. Notice to Proceed (NTP) was issued on May 17, 2022.

Design and Bidding

4. **Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Raw Water Pump Station**

   A Work Authorization was executed in December 2018 with Michael Baker International for the raw water line routing study, preliminary design, plat creation and the easement acquisition process for this portion of the project. Raw water is transferred from the Ragged Mountain Reservoir (RMR) to the Observatory Water Treatment Plant (WTP) by way of two 18-inch cast iron pipelines, which have been in service for more than 110 and 70 years, respectively. The increased frequency of emergency repairs and expanded maintenance requirements are one impetus for replacing these pipelines. The proposed water line will be able to reliably transfer water to the expanded Observatory plant. The new pipeline will be constructed of 36-inch ductile iron and will be approximately 2.6 miles feet in length. The segment of the project immediately east of the RMR will constitute a portion of the proposed South Rivanna Reservoir to RMR raw water main project as part of the approved 50-year Community Water Supply Plan.

   The RMR to Observatory WTP raw water pump station is planned to replace the existing Stadium Road and Royal pump stations, which have exceeded their design lives or will require significant upgrades with the Observatory WTP expansion. The pump station will pump up to 10 million gallons per day (MGD) of raw water to the Observatory WTP. The new pump station site selection and design are being conducted in coordination with the South Rivanna Reservoir to RMR pipeline in the interest of improved operational and cost efficiencies. An integrated pump station would also include the capacity to transfer up to 16 MGD of raw water from RMR back to the SR WTP.

   Both Design Work Authorizations received Board of Directors approval on July 27, 2021. A kickoff meeting was held on September 17, 2021, and a meeting to begin establishing boundary conditions for the RMR Pump Station was held on October 25, 2021. An internal RMR Pump Station Operations workshop was held on February 23, 2022 to set the boundary conditions for the facility, and this information was provided promptly to the Design Consultant to allow design efforts to continue progressing. The waterline was the primary focus throughout the Spring and Summer months. A subsequent workshop was held on November 1, 2022, in which pump type and other internal staff preferences were confirmed.

5. **South Rivanna Reservoir to Ragged Mtn. Reservoir Raw Water Line -Birdwood to Old Garth**

   This project is the continuation of the SRR to RMR 36” raw water pipeline built on the Birdwood Golf Course. Design efforts were authorized in June 2021 with construction anticipated in Summer 2023.

6. **Beaver Creek Dam and Pump Station Improvements**

Dam: A spillway upgrade alternative for the dam has been selected and was presented in a public meeting on October 6, 2021. A new raw water pump station site and pipe access route were selected and approved by the Board in August 2021. RWSA operates the Beaver Creek Dam and reservoir as the sole raw water supply for the Crozet Area. In 2011, an analysis of the Dam Breach inundation areas and changes to Virginia Department of Conservation and Recreation (DCR) *Impounding Structures Regulations* prompted a change in hazard classification of the dam from Significant to High Hazard. This change in hazard classification requires that the capacity of the spillway be increased. This CIP project includes investigation, preliminary design, public outreach, permitting, easement acquisition, final design, and construction of the anticipated modifications. Work for this project will be coordinated with the new relocated raw water pump station and intake and a reservoir oxygenation system project.

Schnabel Engineering developed three alternatives for upgrading the capacity of the Beaver Creek Dam Spillway in 2012. Following the adoption of a new Probable Maximum Precipitation (PMP) Study on December 9, 2015 and the release of DCR guidelines for implementing the PMP study in March of 2016, RWSA determined it would proceed with an updated alternatives analysis and Preliminary Engineering Report for upgrading the dam spillway. Following the completion of an updated alternatives analysis by Schnabel Engineering, staff met with members of Albemarle County and ACSA staff to discuss the preferred alternative. It was determined that staff would proceed with design of a labyrinth spillway and chute through the existing dam with a bridge to allow Browns Gap Turnpike to cross over the new spillway.

In 2020, staff received grant funding for a planning and environmental study from the Natural Resources Conservation Service (NRCS). The project kicked off in August 2020 and is expected to be completed in early 2023. Following completion of the study and acceptance of the Plan-Environmental document by NRCS, staff will pursue additional grant funding through NRCS that, if available, could cover up to 65% of final design and construction costs.

Pump Station: The Drinking Water Infrastructure Plan for the Crozet water service area, developed by Hazen and Sawyer, recommends installation of a new Raw Water Pump Station and Intake at the Beaver Creek Dam in order to meet new minimum instream flow requirements and provide adequate raw water pumping capacity to serve the growing Crozet community for the next 50 years. The pump station will be moved out of its existing location at the toe of the dam to a new location, to be determined during design. The new intake structure will include enhanced controls to allow for access to the best quality water at any given time.

7. **South Rivanna River Crossing**

RWSA has previously identified through master planning that a 24-inch water main will be needed from the South Rivanna Water Treatment Plant (SRWTP) to Hollymead Town Center to meet future water demands. Two segments of this water main were constructed as part of the VDOT Rt. 29 Solutions projects, including approximately 10,000 LF of 24-inch water main along Rt. 29 and 600 LF of 24-inch water main along the new Berkmar Drive Extension, behind the Kohl’s department store. To complete the connection between the SRWTP and the new 24-inch water main in Rt. 29, there is a need to construct a new river crossing at the South Fork Rivanna River. Acquisition of right-of-way will be required at the river crossing.

8. **Central Water Line**

Route alignment determination, hydraulic modeling, and preliminary design were underway in 2017. Due to the complicated nature of our finished water systems, it was decided at the August 2018 Board meeting that a more comprehensive approach was warranted, and we should complete the Finished Water Master Plan prior to moving forward with final design and construction of the Central Water Line (formerly referred to as the Avon to Pantops Water Main). The focus of this project was on the southern half of the urban area water system which is currently served predominantly by the Avon Street and Pantops water storage tanks. The Avon Street tank is hydraulically well connected to the Observatory Water Treatment Plant, while the Pantops tank is well connected to the South Rivanna Water Treatment Plant. The hydraulic connectivity between the two tanks, however, is less than desired, creating operational challenges and reduced system flexibility. In 1987, the City and ACSA developed the Southern Loop Agreement which laid out two key phases (with the first being built at the time). The 1987 Agreement and planning efforts were a starting point for this current project. An engineering contract was approved by the Board of Directors in July 2017. Recent efforts and modeling for the Urban Finished Water Infrastructure Master Plan have determined that a central water line corridor through the City is the best option to hydraulically connect the Observatory Water Treatment Plant to the Pantops area, with connections to City water lines to support the water distribution system in the City and County. The RWSA Board approved the Southern (Cherry Ave) Route in June 2022.

9. **Moores Creek Administration Building Renovation and Addition**

RWSA currently has its administrative headquarters in two buildings on the grounds of the Moores Creek Advanced Water Resource Recovery Facility. The two-story Administration Building was constructed in the early 1980's and houses offices, IT server space, meeting space and a full-service laboratory. The second building is a series of four trailers installed between 2003-2010 that house the Engineering department. There is currently a need to house additional staff; increase office and meeting space; plan for the replacement of the trailers; bring the IT server workrooms to modern standards; and provide classroom space for educational outreach. This project was coordinated with the recent MCAWRRF Master Plan and expansion of the building will take place in the lower parking lot adjacent to the existing building.

10. **Upper Schenks Branch Interceptor, Phase II**

The Schenks Branch Sanitary Sewer interceptor is a pipeline operated by RWSA that serves the City of Charlottesville. The 21-inch sewer line was originally constructed by the City in the 1950s. Evaluations from the flow metering and modeling from the Comprehensive Sanitary Sewer Interceptor Study, and negotiations with the ACSA and City, resulted in an inflow and infiltration reduction plan from which it was concluded that increased capacity of the Schenks Branch Interceptor was needed for wet weather peak flow. Due to several road construction projects and the construction of the Meadow Creek Interceptor project along the sewer alignment, Schenks Branch was to be constructed in multiple phases. The completed sections, collectively known as the Lower Schenks Branch Interceptor, include the Tie-in to Meadow Creek, the section along McIntire Road Ext, and the section though the Route 250 Interchange.

The remaining sections, which are considered the Upper Schenks Branch Interceptor, were split into 2 phases. The first phase has been completed and is located within City-owned Schenks Greenway adjacent to McIntire Road, and the second phase is being evaluated to determine whether it will be installed in an easement on County property (baseball field and County Office Building) adjacent to McIntire Road or in McIntire Road itself.

11. Red Hill Water Treatment Plant – Upgrades

The Red Hill WTP was constructed in a joint effort of ACSA and RWSA in 2009 and consists of a well, a pneumatic tank and pump house that provides treated water to the Red Hill Elementary School and adjoining neighborhood. The project was constructed in response to groundwater contamination as a result of a nearby leak of underground fuel storage tanks. Originally the facility was operated primarily as a well head and pump house. More recently the facility has operated more as a water treatment facility with a well as source water. As such, there have been several chemical process additions, automation, online monitoring and an increase in operator wet chemistry testing. The current building is well beyond its physical capacity and this project will serve to expand the building and improve the configuration of the process and laboratory needs of the WTP.

12. Emmet Street Water Line Betterment

The Urban Finished Water Master Plan identified several necessary upgrades to the urban water distribution system to improve system performance and reliability. One of the identified improvements is an upgrade and extension of the existing RWSA water main along the Emmet Street corridor from the University of Virginia to Hydraulic Road. This project will utilize planned road, streetscape, utility, and development projects along the Emmet Street corridor to complete portions of the Emmet Street water main improvements as betterment, with the goal of completing the water main improvements by 2030. The project scope includes planning and coordination between RWSA, UVA, the City of Charlottesville, and VDOT, design services for the betterment and "gap" sections of water line, construction funding, and construction management services. Current identified projects with betterment opportunities include: the UVA Ivy Corridor Redevelopment, UVA Contemplative Commons, the City of Charlottesville Emmet Streetscape Projects (multiple phases), and VDOT intersection improvements at Barracks Road, the US-250/Emmet Street Interchange, and Hydraulic Road.

13. Scottsville WRRF Whole Plant Generator and ATS

The current back-up power generator at the Scottsville Water Treatment Plant does not power the entire plant, serving only the facilities needed to send flow to the lagoons. This project will offer greater treatment flexibility and monitoring capability for the operations staff, particularly when the plant is unmanned and monitored remotely.

14. Crozet Pump Station Rehabilitation

The Crozet Pump Stations were constructed in the 1980's and many of the components are original. This project includes the replacement of pump and valves and other components at Pump Station 2 to improve pumping capabilities at this location, as well as Pump Stations 1 and 3 as the pumps are reaching the end of their useful life. It also includes roof replacements at all four pump stations, siding replacement for the wet well enclosure at Pump Station 3, and installation of new wells at pump stations 3 and 4. This project also now intends to include new back-up generators at Pump Stations 1 through 3 as the generators have also reached the end of their useful life.

15. Moores Creek AWRRF Concrete Repairs

The two Holding Ponds and the two Equalization Basins were built with the 1977 Moores Creek Upgrades and are critical to the plant infrastructure to contain wet weather flows. The 40-year-old concrete is showing signs of degradation. Following inspections in the Fall 2020, Hazen recommended we implement concrete repairs soon to extend the life of the concrete basins. Work will include crack repair, spalling repair, joint repair, and coating of miscellaneous metals and valves in the basins.

16. **Moores Creek AWRRF Compost Shed Roof Rehabilitation**
In the early 1980's a large metal-framed shed roof was constructed to house the biosolids composting operations. Subsequent to stopping composting at Moores Creek AWRRF, the shed serves as an equipment maintenance yard, solids handling facility and material storage lock-up. The shed roof is showing signs of rafter deterioration and ongoing drainage issues. This project will evaluate and perform remediation needs at this facility.

Planning and Studies

17. **South Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way**
The approved 50-year Community Water Supply Plan includes the construction of a raw water line from the South Rivanna Reservoir to the Ragged Mountain Reservoir. This water line will replace the existing Upper Sugar Hollow Pipeline and increase raw water transfer capacity in the Urban Water System. The preliminary route for the water line followed the proposed Route 29 Charlottesville Bypass; however, the Bypass project was suspended by VDOT in 2014, requiring a more detailed routing study for the future water line. This project includes a routing study, preliminary design, and preparation of easement documents, as well as acquisition of water line easements along the approved route. Baker has completed the routing study. Preliminary design, plat creation and the acquisition of easements are underway. Property owners were contacted to request permission to access properties for topographical surveying. A community information meeting was held in June 2018.

18. **Asset Management Plan**
Asset management is the practice of managing our infrastructure to minimize the total cost of owning and operating these assets while providing desired service levels. In doing so, it is used to make sure planned maintenance activities take place and that capital assets are replaced, repaired, or upgraded at the right time, while ensuring that the money necessary to perform those activities is available. RWSA has some components of an asset management program in place (i.e. GIS, work order system), but has identified the need to further develop the program as part of our Strategic Planning process. In order to continue to build the program, a consultant has been procured to assist with a three-phase process that will include facilitation and development of an asset management strategic plan, development, and management of a pilot study where the results of the strategic plan will be applied to a specific class of assets, and assistance through a full implementation process. As part of this three-phase process, the consultant also assisted RWSA with the procurement of a new CMMS software package to facilitate the overall program. Cityworks was selected and implementation has begun.

19. **SRR to RMR Pipeline – Pretreatment Pilot Study**
As part of the SRR to RMR Pipeline project, the impact of sending raw water from the SRR to RMR has been previously studied and a significant amount of pretreatment was initially identified as being needed to avoid reducing the quality of the raw water contained within the RMR. With the pipeline easement acquisition process well underway and additional information now available associated with the proposed timing of this overall project based on water demand projections, the intent of this project is to update the pretreatment needs anticipated.

The study is anticipated to be completed in 4 phases: 1. Analysis and Correlation of Existing Water Quality and Seasonal Weather Data 2. Enhanced Water Quality Sampling 3. Pretreatment Piloting 4. Level Setting for the Final Pretreatment Solution. Phase 1 commenced in January 2021 and was completed in July 2021. Phase 2 began in June 2021. The Excel Desktop Modeling portion of the analysis was completed in February 2022. The more detailed nutrient model development began in March 2022.

20. <u>MCAWRRF Cogeneration Upgrades</u>

The MCAWRRF has an existing cogeneration facility that was constructed in 2011. The purpose of the facility was to provide a beneficial use of the methane gas produced by the digester process at the plant, and in doing so, provide both digester heating and energy to the plant's electrical distribution system. Unfortunately, the existing cogeneration facility requires expensive recurring maintenance services, has proprietary equipment which further complicates servicing needs, and has had a number of operational issues that have impeded the benefit this facility was intended to provide. As a result, a Cogeneration System Analysis was performed to determine a recommended approach for proceeding with improvements to the existing facility, installation of a new cogeneration facility without the issues of the previous facility or removing the cogeneration facility altogether and providing a backup boiler. This project includes costs for installation of a new cogeneration facility as described in the Cogeneration System Analysis.

A state of the industry study was initiated, to confirm the appropriate manufacturers of such cogeneration units and to determine how the unit would be procured. This study began in December 2021.

Other Significant Projects

21. <u>Urgent and Emergency Repairs</u>

- <u>MCAWRRF Primary Clarifier Building 36" Sanitary Sewer Leak:</u> On July 7th, RWSA Engineering Staff was made aware of a small leak through the wall in the basement of the Primary Clarifier Building at MCAWRRF. An inspection was performed by Hazen & Sawyer on August 3rd, and a report with repair recommendations has been prepared. The repairs will include specialty grouting work to plug the voids discovered in the field in order to stop the leak, as well as possible installation of a coating system for further protection of the concrete. During the week of September 26th, RWSA Maintenance staff performed the required grouting work on the inside of the splitter box to stop the leak. Some further grouting work on the building side of the wall was completed on October 31st to ensure that the repair holds long-term, and then a coating system will be applied inside of the splitter box in the affected areas during the MCAWRRF Concrete Repairs CIP Project.

22. <u>Security Enhancements</u>

As required by the Federal Bioterrorism Act of 2002 and the American Water Infrastructure Act of 2018, water utilities must conduct Vulnerability Assessments and have Emergency Response Plans. RWSA recently completed an updated Risk Assessment of its water system in collaboration with the Albemarle County Service Authority (ACSA), City of Charlottesville (City), and University of Virginia (UVA). A number of security improvements that could be applied to both the water and wastewater systems were identified. The purpose of this project will be to install security improvements at RWSA facilities including additional security gate and fencing components, vehicle bollards, facility signage, camera system enhancements, additional security lighting, intrusion detection systems, door and window hardening, installation of industrial strength locks, communication technology and cable hardening, and an enhanced access control program.

RWSA Engineering staff held a meeting with Operations staff to discuss overall project needs and priorities in October 2018. Meetings with ACSA and City staff were held in Fall/Winter 2018-2019 to discuss how access control and intrusion detection systems have been implemented into the day-to-day operations of the two utilities. A Request for Proposal (RFP) for an Implementer to facilitate selection of an access control system, confirmation of design requirements based upon RWSA's facilities and project goals, and installation of the selected system was issued on June 6, 2019. RWSA conducted a Pre-Proposal Meeting on June 14, 2019, and proposals were opened on June 27, 2019. Interviews were conducted on July 15-16, 2019, and a Contract Award Recommendation was approved by the Board on July 23, 2019. Access Control System Installation at MCAWRRF began in March 2020. Access Control System Installation was completed in the Administration and Engineering Buildings by the week of November 30, 2020, completing installation of the physical access control system across the MCAWRRF site. Training for staff was completed on November 10, 2020. RWSA authorized improvements to locks and doors across the MCAWRRF site on May 4, 2021, in order to improve the condition of the hardware and subsequently, operations of the access control system. In addition, installation of the card access system on all exterior doors at the Scottsville and Crozet Water Treatment Plants (SVWTP and CZWTP, respectively) was authorized shortly thereafter. RWSA also authorized installation of security conduits not already included at SRWTP and OBWTP under the Improvements Project in August 2021.

Access Control on exterior doors at the CZWTP and SVWTP was substantially completed in November 2021. Conduit work at SRWTP and OBWTP was substantially complete in May 2022.

Access Control on Exterior doors at RHWTP, SVWRRF, and GWRRF was authorized in March 2022, and Access Control on Exterior Doors at remaining dams, pump stations, and other remote facilities (twelve total) was authorized in August 2022. A pilot program for electronic padlocks, utilized at remote facilities where traditional padlocks would normally be used, was authorized in September 2022.

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MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING & MAINTENANCE

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: WHOLESALE METERING REPORT FOR NOVEMBER 2022

DATE: DECEMBER 13, 2022

The monthly and average daily Urban water system usages by the City and the ACSA for November 2022 were as follows:

	Month	***Daily Average***	
City Usage (gal)	129,001,269	4,300,342	**49.4%**
ACSA Usage (gal)	131,970,509	4,399,017	**50.6%**
Total (gal)	**260,971,778**	**8,699,059**	

The *RWSA Wholesale Metering Administrative and Implementation Policy* requires that water use be measured based upon the annual average daily water demand of the City and ACSA over the trailing twelve (12) consecutive month period. The *Water Cost Allocation Agreement (2012)* established a maximum water allocation for each party. If the annual average water usage of either party exceeds this value, a financial true-up would be required for the debt service charges related to the Ragged Mountain Dam and the SRR-RMR Pipeline projects. Below are graphs showing the calculated monthly water usage by each party, the trailing twelve-month average (extended back to December 2021), and that usage relative to the maximum allocation for each party (6.71 MGD for the City and 11.99 MGD for ACSA). Completed in 2019 for a cost of about $3.2 M, our Wholesale Metering Program consists of 25 remote meter locations around the City boundary and 3 finished water flow meters at treatment plants.

All of the wholesale meters were functioning properly in November.

Figure 1: City of Charlottesville Monthly Water Usage and Allocation

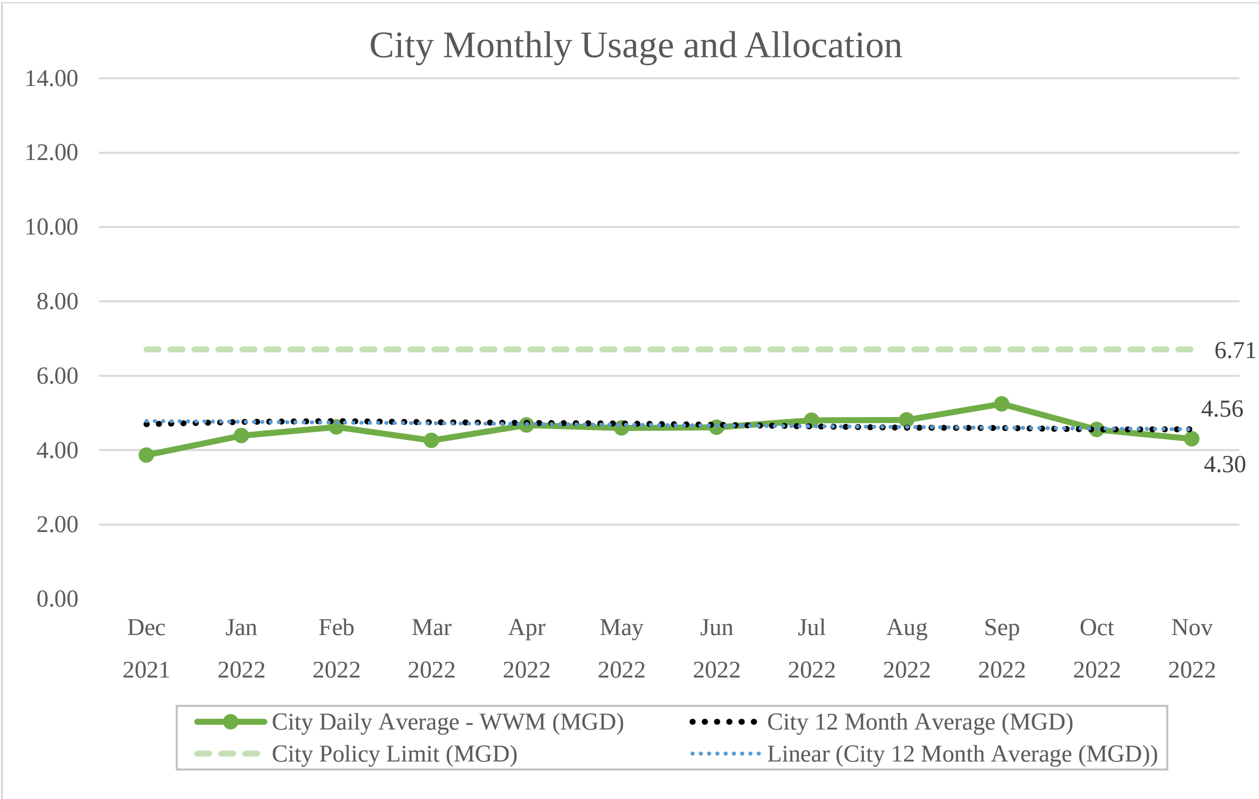
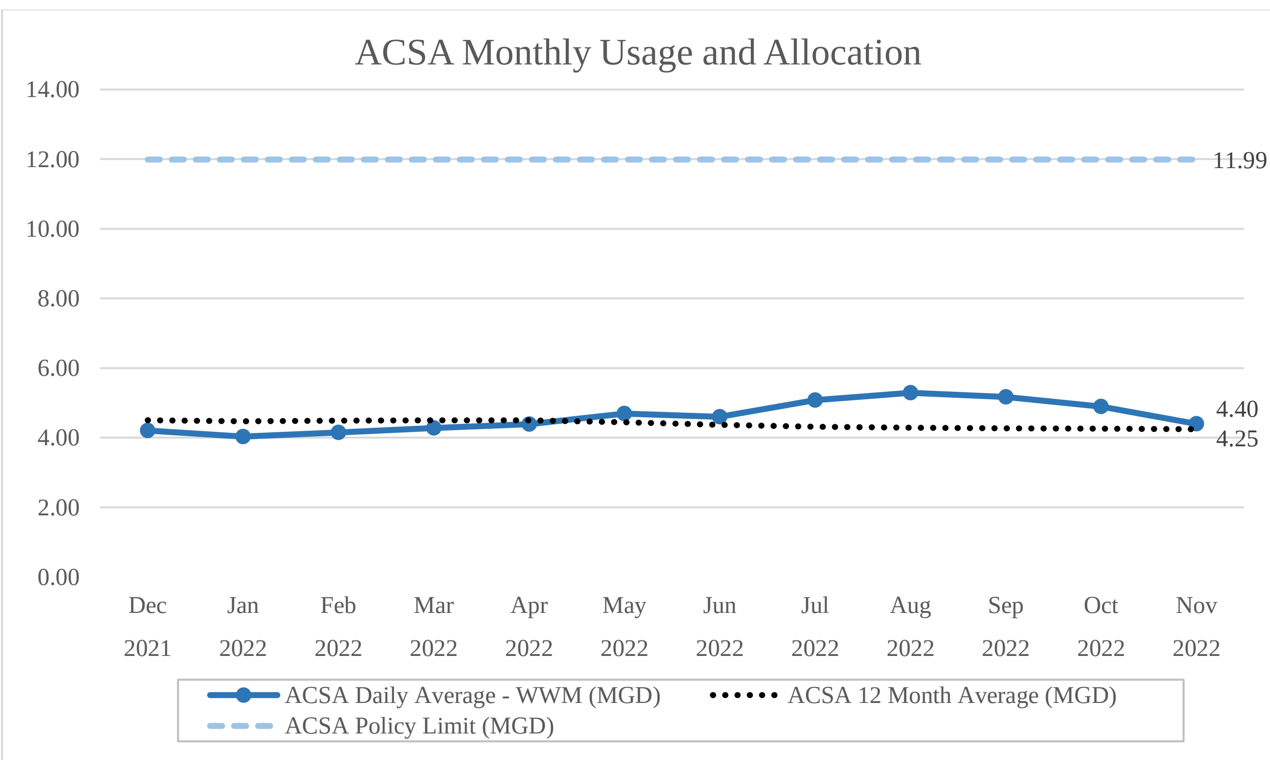


Figure 2: Albemarle County Service Authority Monthly Water Usage and Allocation



Meter Locations for the Wholesale Water Metering Project

Miles

0 0.25 0.5

N

Date: 4/21/2017

RIVANNA
WATER & SEWER AUTHORITY

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Meter Site Locations - WWMP

01, Pepsi Place
02, Michael Pl / Wilson Ct
03, Wilder Dr
06, Long St / River Rd
08, Franklin St / Carlton Ave / Broadway St
09, Moores Creek Ln
11, Avon St
12, Loma Ln / Harris Rd
14, Old Lynchburg Rd
15, Ivy Rd / Colonnade Dr
16, Ricky Rd / Barracks Rd
17, Ricky Rd (near Wayne Ave)
18, North Berkshire Rd
19, Hydraulic Rd / Inglewood Dr
20, Trader Joes
22, Rio Rd @ Church of Our Savior
23, Greenbrier Dr / Rio Rd
24, Greenbrier Ter
25, University Heights Apts
26, Seminole Trl
28, Rio Rd / Melbourne Rd
29, Pen Park Ln
30, Darden Towe Park
31, Stribling Ave
32, Fontaine Ave

RIVANNA WATER & SEWER AUTHORITY

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MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: LONNIE WOOD, DIRECTOR OF FINANCE & ADMINISTRATION
BETSY NEMETH, HUMAN RESOURCES MANAGER

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: APPROVAL OF FLEXIBLE BENEFITS PLAN

DATE: DECEMBER 13, 2022

This request is for approval of our updated Cafeteria Plan for flexible employee pre-tax health benefits. As of November 2022, the Rivanna Water & Sewer Authority's Cafeteria Plan has been updated by our plan administrator, Flexible Benefits Administrators. The plan has been updated to reflect increases in pre-tax contributions to, and increases in the annual carryover amounts for, flexible spending accounts, as allowed by the Internal Revenue Service.

A Cafeteria Plan is a written plan maintained by an employer for employees that meet the specific requirements and regulations of section 125 of the Internal Revenue Code. It provides participants an opportunity to receive certain benefits on a pretax basis. The Cafeteria Plan specifically describes the benefits plans and establishes rules of eligibility and elections. Employer contributions to the Cafeteria Plan are usually made pursuant to salary reduction agreements between the employer and the employee in which the employee agrees to contribute a portion of his or her salary on a pre-tax basis to pay for the qualified benefits. Salary reduction contributions are not actually or constructively received by the participant. Therefore, those contributions are not considered wages for federal income tax purposes. In addition, those sums generally are not subject to FICA and FUTA.

Board Action Requested:
Approve the updated Cafeteria Plan document and authorize the Executive Director to execute all related documents. The updated Cafeteria Plan will be effective immediately.

RIVANNA WATER AND SEWER AUTHORITY
FLEXIBLE BENEFIT PLAN

SUMMARY PLAN DESCRIPTION

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SUMMARY

RIVANNA WATER AND SEWER AUTHORITY
FLEXIBLE BENEFIT PLAN

INTRODUCTION

We have amended the "Flexible Benefits Plan" that we previously established for you and other eligible employees. Under this Plan, you will be able to choose among certain benefits that we make available. The benefits that you may choose are outlined in this Summary Plan Description. We will also tell you about other important information concerning the amended Plan, such as the rules you must satisfy before you can join and the laws that protect your rights.

One of the most important features of our Plan is that the benefits being offered are generally ones that you are already paying for, but normally with money that has first been subject to income and Social Security taxes. Under our Plan, these same expenses will be paid for with a portion of your pay before Federal and State income or Social Security taxes are withheld. This means that you will pay less tax and have more money to spend and save.

Read this Summary Plan Description carefully so that you understand the provisions of our amended Plan and the benefits you will receive. This SPD describes the Plan's benefits and obligations as contained in the legal Plan document, which governs the operation of the Plan. The Plan document is written in much more technical and precise language. If the non-technical language in this SPD and the technical, legal language of the Plan document conflict, the Plan document always governs. Also, if there is a conflict between an insurance contract and either the Plan document or this Summary Plan Description, the insurance contract will control. If you wish to receive a copy of the legal Plan document, please contact the Administrator.

This SPD describes the current provisions of the Plan which are designed to comply with applicable legal requirements. The Plan is subject to federal laws, such as the Internal Revenue Code and other federal and state laws which may affect your rights. The provisions of the Plan are subject to revision due to a change in laws or due to pronouncements by the Internal Revenue Service (IRS) or other federal agencies. We may also amend or terminate this Plan. If the provisions of the Plan that are described in this SPD change, we will notify you.

We have attempted to answer most of the questions you may have regarding your benefits in the Plan. If this SPD does not answer all of your questions, please contact the Administrator (or other plan representative). The name and address of the Administrator can be found in the Article of this SPD entitled "General Information About the Plan."

I
ELIGIBILITY

1. When can I become a participant in the Plan?

Before you become a Plan member (referred to in this Summary Plan Description as a "Participant"), there are certain rules which you must satisfy. First, you must meet the eligibility requirements and be an active employee. After that, the next step is to actually join the Plan on the "entry date" that we have established for all employees. The "entry date" is defined in Question 3 below. You will also be required to complete certain application forms before you can enroll in the Plan.

2. What are the eligibility requirements for our Plan?

You will be eligible to join the Plan as of your date of hire with us. Of course, if you were already a participant before this amendment, you will remain a participant.

3. When is my entry date?

Once you have met the eligibility requirements, your entry date will be the first day of the month coinciding with or following the date you met the eligibility requirements.

4. Are there any employees who are not eligible?

Yes, there are certain employees who are not eligible to join the Plan. They are:

-- Employees who are part-time. A part-time employee is someone who works, or is expected to work, less than 30 hours a week.

5. What must I do to enroll in the Plan?

Before you can join the Plan, you must complete an application to participate in the Plan. The application includes your personal choices for each of the benefits which are being offered under the Plan. You must also authorize us to set some of your earnings aside in order to pay for the benefits you have elected.

II
OPERATION

1. How does this Plan operate?

Before the start of each Plan Year, you will be able to elect to have some of your upcoming pay contributed to the Plan. These amounts will be used to pay for the benefits you have chosen. The portion of your pay that is paid to the Plan is not subject to Federal or State income or Social Security taxes. In other words, this allows you to use tax-free dollars to pay for certain kinds of benefits and expenses which you normally pay for with out-of-pocket, taxable dollars. However, if you receive a reimbursement for an expense under the Plan, you cannot claim a Federal income tax credit or deduction on your return. (See the Article entitled "General Information About Our Plan" for the definition of "Plan Year.")

III
CONTRIBUTIONS

1. How much of my pay may the Employer redirect?

Each year, you may elect to have us contribute on your behalf enough of your compensation to pay for the benefits that you elect under the Plan. These amounts will be deducted from your pay over the course of the year.

2. What happens to contributions made to the Plan?

Before each Plan Year begins, you will select the benefits you want and how much of the contributions should go toward each benefit. It is very important that you make these choices carefully based on what you expect to spend on each covered benefit or expense during the Plan Year. Later, they will be used to pay for the expenses as they arise during the Plan Year.

3. When must I decide which accounts I want to use?

You are required by Federal law to decide before the Plan Year begins, during the election period (defined below). You must decide two things. First, which benefits you want and, second, how much should go toward each benefit.

4. When is the election period for our Plan?

You will make your initial election on or before your entry date. (You should review Section I on Eligibility to better understand the eligibility requirements and entry date.) Then, for each following Plan Year, the election period is established by the Administrator and applied uniformly to all Participants. It will normally be a period of time prior to the beginning of each Plan Year. The Administrator will inform you each year about the election period. (See the Article entitled "General Information About Our Plan" for the definition of Plan Year.)

5. May I change my elections during the Plan Year?

Generally, you cannot change the elections you have made after the beginning of the Plan Year. However, there are certain limited situations when you can change your elections. You are permitted to change elections if you have a "change in status" and you make an election change that is consistent with the change in status. Currently, Federal law considers the following events to be a change in status:

-- Marriage, divorce, death of a spouse, legal separation or annulment;

-- Change in the number of dependents, including birth, adoption, placement for adoption, or death of a dependent;

-- Any of the following events for you, your spouse or dependent: termination or commencement of employment, a strike or lockout, commencement or return from an unpaid leave of absence, a change in worksite, or any other change in employment status that affects eligibility for benefits;

-- One of your dependents satisfies or ceases to satisfy the requirements for coverage due to change in age, student status, or any similar circumstance; and

-- A change in the place of residence of you, your spouse or dependent that would lead to a change in status, such as moving out of a coverage area for insurance.

In addition, if you are participating in the Dependent Care Flexible Spending Account, then there is a change in status if your dependent no longer meets the qualifications to be eligible for dependent care.

However, with respect to the Health Savings Account, you may modify or revoke your elections without having to have a change in status.

There are detailed rules on when a change in election is deemed to be consistent with a change in status. In addition, there are laws that give you rights to change health coverage for you, your spouse, or your dependents. If you change coverage due to rights you have under the law, then you can make a corresponding change in your elections under the Plan. If any of these conditions apply to you, you should contact the Administrator.

If the cost of a benefit provided under the Plan increases or decreases during a Plan Year, then we will automatically increase or decrease, as the case may be, your salary redirection election. If the cost increases significantly, you will be permitted to either make corresponding changes in your payments or revoke your election and obtain coverage under another benefit package option with similar coverage, or revoke your election entirely.

If the coverage under a Benefit is significantly curtailed or ceases during a Plan Year, then you may revoke your elections and elect to receive on a prospective basis coverage under another plan with similar coverage. In addition, if we add a new coverage option or eliminate an existing option, you may elect the newly-added option (or elect another option if an option has been eliminated) and make corresponding election changes to other options providing similar coverage. If you are not a Participant, you may elect to join the Plan. There are also certain situations when you may be able to change your elections on account of a change under the plan of your spouse's, former spouse's or dependent's employer.

These rules on change due to cost or coverage do not apply to the Health Flexible Spending Account, and you may not change your election to the Health Flexible Spending Account if you make a change due to cost or coverage for insurance or if you decide to participate in the Health Savings Account.

You may not change your election under the Dependent Care Flexible Spending Account if the cost change is imposed by a dependent care provider who is your relative.

You may revoke your coverage under the employer's group health plan outside of our open enrollment period, if your employment status changes from working at least 30 hours per week to less than 30 hours. This is regardless of whether the reduction in hours has resulted in loss of eligibility. You must show intent to enroll in another health plan.

You may also revoke your coverage under our Employer sponsored group health plan if you are eligible to obtain coverage through the health exchanges.

6. May I make new elections in future Plan Years?

Yes, you may. For each new Plan Year, you may change the elections that you previously made. You may also choose not to participate in the Plan for the upcoming Plan Year. If you do not make new elections during the election period before a new Plan Year begins, we will assume you want your elections for insured benefits only to remain the same and you will not be considered a Participant for the non-insured benefit options under the Plan for the upcoming Plan Year.

IV
BENEFITS

1. Health Flexible Spending Account

The Health Flexible Spending Account enables you to pay for expenses allowed under Sections 105 and 213(d) of the Internal Revenue Code which are not covered by our insured medical plan and save taxes at the same time. The Health Flexible Spending Account allows you to be reimbursed by the Employer for expenses incurred by you and your dependents.

Drug costs, including insulin, may be reimbursed.

You may not be reimbursed for the cost of other health care coverage maintained outside of the Plan, or for long-term care expenses. A list of covered expenses is available from the Administrator.

For 2022, the most you can contribute is $2,850. After 2022, the dollar limit may increase for cost of living adjustments. In addition, for 2022 you will be eligible to carryover amounts left in your Health Flexible Spending Account, up to $570. This means that amounts you do not use during a Plan Year can be carried over to the next Plan Year and used for expenses incurred in the next Plan Year.

In order to be reimbursed for a health care expense, you must submit to the Administrator an itemized bill from the service provider. We will also provide you with a debit or credit card to use to pay for medical expenses. The Administrator will provide you with further details. Amounts reimbursed from the Plan may not be claimed as a deduction on your personal income tax return. Reimbursement from the fund shall be paid at least once a month. Expenses under this Plan are treated as being "incurred" when you are provided with the care that gives rise to the expenses, not when you are formally billed or charged, or you pay for the medical care.

You may be reimbursed for expenses for any child until the end of the calendar year in which the child reaches age 26. A child is a natural child, stepchild, foster child, adopted child, or a child placed with you for adoption. If a child gains or regains eligibility due to these new rules, that qualifies as a change in status to change coverage.

Newborns' and Mothers' Health Protection Act: Group health plans generally may not, under Federal law, restrict benefits for any hospital length of stay in connection with childbirth for the mother or newborn child to less than 48 hours following a vaginal delivery, or less than 96 hours following a cesarean section. However, Federal law generally does not prohibit the mother's or newborn's attending provider, after consulting with the mother, from discharging the mother or her newborn earlier than 48 hours (or 96 hours as applicable). In any case, plans and issuers may not, under Federal law, require that a provider obtain authorization from the plan or the issuer for prescribing a length of stay not in excess of 48 hours (or 96 hours).

Women's Health and Cancer Rights Act: This plan, as required by the Women's Health and Cancer Rights Act of 1998, will reimburse up to plan limits for benefits for mastectomy-related services including reconstruction and surgery to achieve symmetry between the breasts, prostheses, and complications resulting from a mastectomy (including lymphedema). Contact your Plan Administrator for more information.

2. Dependent Care Flexible Spending Account

The Dependent Care Flexible Spending Account enables you to pay for out-of-pocket, work-related dependent day-care cost with pre-tax dollars. If you are married, you can use the account if you and your spouse both work or, in some situations, if your spouse goes to school full-time. Single employees can also use the account.

An eligible dependent is someone for whom you can claim expenses on Federal Income Tax Form 2441 "Credit for Child and Dependent Care Expenses." Children must be under age 13. Other dependents must be physically or mentally unable to care for themselves. Dependent Care arrangements which qualify include:

(a) A Dependent (Day) Care Center, provided that if care is provided by the facility for more than six individuals, the facility complies with applicable state and local laws;

(b) An Educational Institution for pre-school children. For older children, only expenses for non-school care are eligible; and

(c) An "Individual" who provides care inside or outside your home: The "Individual" may not be a child of yours under age 19 or anyone you claim as a dependent for Federal tax purposes.

You should make sure that the dependent care expenses you are currently paying for qualify under our Plan. We will also provide you with a debit or credit card to use to pay for dependent care expenses. The Administrator will provide you with further details.

The law places limits on the amount of money that can be paid to you in a calendar year from your Dependent Care Flexible Spending Account. Generally, your reimbursements may not exceed the lesser of: (a) $5,000 (if you are married filing a joint return or you are head of a household) or $2,500 (if you are married filing separate returns); (b) your taxable compensation; (c) your spouse's actual or deemed earned income (a spouse who is a full time student or incapable of caring for himself/herself has a monthly earned income of $250 for one dependent or $500 for two or more dependents).

Also, in order to have the reimbursements made to you from this account be excludable from your income, you must provide a statement from the service provider including the name, address, and in most cases, the taxpayer identification number of the service provider on your tax form for the year, as well as the amount of such expense as proof that the expense has been incurred. In addition, Federal tax laws permit a tax credit for certain dependent care expenses you may be paying for even if you are not a Participant in this Plan. You may save more money if you take advantage of this tax credit rather than using the Dependent Care Flexible Spending Account under our Plan. Ask your tax adviser which is better for you.

3. Premium Expense Account

A Premium Expense Account allows you to use tax-free dollars to pay for certain premium expenses under various insurance programs that we offer you. These premium expenses include:

-- Health care premiums under our insured group medical plan.

-- Group term life insurance premiums.

-- Dental insurance premiums.

-- Disability insurance premiums.

-- Cancer insurance premiums.

-- Vision insurance premiums.

-- Accident insurance premiums.

Under our Plan, we will establish sub-accounts for you for each different type of insurance coverage that is available. Also, certain limits on the amount of coverage may apply.

The Administrator may terminate or modify Plan benefits at any time, subject to the provisions of any insurance contracts providing benefits described above. We will not be liable to you if an insurance company fails to provide any of the benefits described above. Also, your insurance will end when you leave employment, are no longer eligible under the terms of any insurance policies, or when insurance terminates.

Any benefits to be provided by insurance will be provided only after (1) you have provided the Administrator the necessary information to apply for insurance, and (2) the insurance is in effect for you.

If you cover your children up to age 26 under your insurance, you can pay for that coverage through the Plan.

4. May I direct Plan contributions to my Health Savings Account?

Yes. Any monies that you do not apply toward available benefits can be contributed to your Health Savings Account, which enables you to pay for expenses which are not covered by our insured medical plan and save taxes at the same time. Please see your Plan Administrator for further details.

V
BENEFIT PAYMENTS

1. When will I receive payments from my accounts?

During the course of the Plan Year, you may submit requests for reimbursement of expenses you have incurred. Expenses are considered "incurred" when the service is performed, not necessarily when it is paid for. The Administrator will provide you with acceptable forms for submitting these requests for reimbursement. If the request qualifies as a benefit or expense that the Plan has agreed to pay, you will receive a reimbursement payment soon thereafter. Remember, these reimbursements which are made from the Plan are generally not subject to federal or state income tax or withholding. Nor are they subject to Social Security taxes. Requests for payment of insured benefits should be made directly to the insurer. You will only be reimbursed from the Dependent Care Flexible Spending Account to the extent that there are sufficient funds in the Account to cover your request.

2. What happens if I don't spend all Plan contributions during the Plan Year?

If you have not spent all the amounts in your Dependent Care Flexible Spending Account by the end of the Plan Year, you may continue to incur claims for expenses during the "Grace Period." The "Grace Period" extends 2 1/2 months after the end of the Plan Year, during which time you can continue to incur claims and use up all amounts remaining in your Dependent Care Flexible Spending Account.

Any monies left at the end of the Plan Year and the Grace Period will be forfeited, except for amounts contributed to your Health Savings Account. Obviously, qualifying expenses that you incur late in the Plan Year or during the Grace Period for which you seek reimbursement after the end of such Plan Year and Grace Period will be paid first before any amount is forfeited. For the Health Flexible Spending Account, you must submit claims no later than 90 days after the end of the Plan Year. For the Dependent Care Flexible Spending Account, you must submit claims no later than 90 days after the end of the Plan Year. Because it is possible that you might forfeit amounts in the Plan if you do not fully use the contributions that have been made, it is important that you decide how much to place in each account carefully and conservatively. Remember, you must decide which benefits you want to contribute to and how much to place in each account before the Plan Year begins. You want to be as certain as you can that the amount you decide to place in each account will be used up entirely.

3. Family and Medical Leave Act (FMLA)

If you take leave under the Family and Medical Leave Act, you may revoke or change your existing elections for health insurance, group-term life insurance and the Health Flexible Spending Account. If your coverage in these benefits terminates, due to your revocation of the benefit while on leave or due to your non-payment of contributions, you will be permitted to reinstate coverage for the remaining part of the Plan Year upon your return. For the Health Flexible Spending Account, you may continue your coverage or you may revoke your coverage and resume it when you return. You can resume your coverage at its original level and make payments for the time that you are on leave. For example, if you elect $1,200 for the year and are out on leave for 3 months, then return and elect to resume your coverage at that level, your remaining payments will be increased to cover the difference - from $100 per month to $150 per month. Alternatively your maximum amount will be reduced proportionately for the time that you were gone. For example, if you elect $1,200 for the year and are out on leave for 3 months, your amount will be reduced to $900. The expenses you incur during the time you are not in the Health Flexible Spending Account are not reimbursable.

If you continue your coverage during your unpaid leave, you may pre-pay for the coverage, you may pay for your coverage on an after-tax basis while you are on leave, or you and your Employer may arrange a schedule for you to "catch up" your payments when you return.

4. Uniformed Services Employment and Reemployment Rights Act (USERRA)

If you are going into or returning from military service, you may have special rights to health care coverage under your Health Flexible Spending Account under the Uniformed Services Employment and Reemployment Rights Act of 1994. These rights can include extended health care coverage. If you may be affected by this law, ask your Administrator for further details.

5. What happens if I terminate employment?

If you terminate employment during the Plan Year, your right to benefits will be determined in the following manner:

(a) You will remain covered by insurance, but only for the period for which premiums have been paid prior to your termination of employment.

(b) You will still be able to request reimbursement for qualifying dependent care expenses incurred during the remainder of the Plan Year from the balance remaining in your dependent care account at the time of termination of employment. However, no further salary redirection contributions will be made on your behalf after you terminate. You must submit claims within 90 days after the end of the Plan Year in which termination occurs.

(c) Your Health Savings Account amounts will remain yours even after your termination of employment.

(d) For health benefit coverage and Health Flexible Spending Account coverage on termination of employment, please see the Article entitled "Continuation Coverage Rights Under COBRA." Upon your termination of employment, your participation in the Health Flexible Spending Account will cease, and no further salary redirection contributions will be contributed on your behalf. However, you will be able to submit claims for health care expenses that were incurred before the end of the period for which payments to the Health Flexible Spending Account have already been made. Your further participation will be governed by "Continuation Coverage Rights Under COBRA."

6. Will my Social Security benefits be affected?

Your Social Security benefits may be slightly reduced because when you receive tax-free benefits under our Plan, it reduces the amount of contributions that you make to the Federal Social Security system as well as our contribution to Social Security on your behalf.

VI
HIGHLY COMPENSATED AND KEY EMPLOYEES

1. Do limitations apply to highly compensated employees?

Under the Internal Revenue Code, highly compensated employees and key employees generally are Participants who are officers, shareholders or highly paid. You will be notified by the Administrator each Plan Year whether you are a highly compensated employee or a key employee.

If you are within these categories, the amount of contributions and benefits for you may be limited so that the Plan as a whole does not unfairly favor those who are highly paid, their spouses or their dependents. Federal tax laws state that a plan will be considered to unfairly favor the key employees if they as a group receive more than 25% of all of the nontaxable benefits provided for under our Plan.

Plan experience will dictate whether contribution limitations on highly compensated employees or key employees will apply. You will be notified of these limitations if you are affected.

VII
PLAN ACCOUNTING

1. Periodic Statements

The Administrator will provide you with a statement of your account periodically during the Plan Year that shows your account balance. It is important to read these statements carefully so you understand the balance remaining to pay for a benefit. Remember, you want to spend all the money you have designated for a particular benefit by the end of the Plan Year.

VIII
GENERAL INFORMATION ABOUT OUR PLAN

This Section contains certain general information which you may need to know about the Plan.

1. General Plan Information

Rivanna Water and Sewer Authority Flexible Benefit Plan is the name of the Plan.

Your Employer has assigned Plan Number 504 to your Plan.

The provisions of your amended Plan become effective on July 1, 2022. Your Plan was originally effective on January 1, 2006.

Your Plan's records are maintained on a twelve-month period of time. This is known as the Plan Year. The Plan Year begins on July 1 and ends on June 30.

2. **Employer Information**

Your Employer's name, address, and identification number are:

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlotesville, Virginia 22902
54-0934608

3. **Plan Administrator Information**

The name, address and business telephone number of your Plan's Administrator are:

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlotesville, Virginia 22902
(434) 977-2970

The Administrator keeps the records for the Plan and is responsible for the administration of the Plan. The Administrator will also answer any questions you may have about our Plan. You may contact the Administrator for any further information about the Plan.

4. **Service of Legal Process**

The name and address of the Plan's agent for service of legal process are:

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlotesville, Virginia 22902

5. **Type of Administration**

The type of Administration is Employer Administration.

6. **Claims Submission**

Claims for expenses should be submitted to:

Flexible Benefit Administrators, Inc.
Post Office Drawer 8188
Virginia Beach, VA 23450

IX
ADDITIONAL PLAN INFORMATION

1. **Claims Process**

You should submit all reimbursement claims during the Plan Year. For the Health Flexible Spending Account, you must submit claims no later than 90 days after the end of the Plan Year. For the Dependent Care Flexible Spending Account, you must submit claims no later than 90 days after the end of the Plan Year. Any claims submitted after that time will not be considered.

Claims that are insured will be handled in accordance with procedures contained in the insurance policies. All other general requests should be directed to the Administrator of our Plan. If a dependent care or medical expense claim under the Plan is denied in whole or in part, you or your beneficiary will receive written notification. The notification will include the reasons for the denial, with reference to the specific provisions of the Plan on which the denial was based, a description of any additional information needed to process the claim and an explanation of the claims review procedure. Within 60 days after denial, you or your beneficiary may submit a written request for reconsideration of the denial to the Administrator.

Any such request should be accompanied by documents or records in support of your appeal. You or your beneficiary may review pertinent documents and submit issues and comments in writing. The Administrator will review the claim and provide, within 60 days, a written response to the appeal. (This period may be extended an additional 60 days under certain circumstances.) In this response, the Administrator will explain the reason for the decision, with specific reference to the provisions of the Plan on which the decision is based. The Administrator has the exclusive right to interpret the appropriate plan provisions. Decisions of the Administrator are conclusive and binding.

X
CONTINUATION COVERAGE RIGHTS UNDER COBRA

Under federal law, the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA), certain employees and their families covered under health benefits under this Plan will be entitled to the opportunity to elect a temporary extension of health coverage (called "COBRA continuation coverage") where coverage under the Plan would otherwise end. This notice is intended to inform Plan Participants and beneficiaries, in summary fashion, of their rights and obligations under the continuation coverage provisions of COBRA, as amended and reflected in final and proposed regulations published by the Department of the Treasury. This notice is intended to reflect the law and does not grant or take away any rights under the law.

The Plan Administrator or its designee is responsible for administering COBRA continuation coverage. Complete instructions on COBRA, as well as election forms and other information, will be provided by the Plan Administrator or its designee to Plan Participants who become Qualified Beneficiaries under COBRA. While the Plan itself is not a group health plan, it does provide health benefits. Whenever "Plan" is used in this section, it means any of the health benefits under this Plan including the Health Flexible Spending Account.

1. What is COBRA continuation coverage?

COBRA continuation coverage is the temporary extension of group health plan coverage that must be offered to certain Plan Participants and their eligible family members (called "Qualified Beneficiaries") at group rates. The right to COBRA continuation coverage is triggered by the occurrence of a life event that results in the loss of coverage under the terms of the Plan (the "Qualifying Event"). The coverage must be identical to the coverage that the Qualified Beneficiary had immediately before the Qualifying Event, or if the coverage has been changed, the coverage must be identical to the coverage provided to similarly situated active employees who have not experienced a Qualifying Event (in other words, similarly situated non-COBRA beneficiaries).

There may be other options available when you lose group health coverage**.** For example, you may be eligible to buy an individual plan through the Health Insurance Marketplace. By enrolling in coverage through the Marketplace, you may qualify for lower costs on your monthly premiums and lower out-of-pocket costs. Additionally, you may qualify for a 30-day special enrollment period for another group health plan for which you are eligible (such as a spouse's plan), even if that plan generally doesn't accept late enrollees.

2. Who can become a Qualified Beneficiary?

In general, a Qualified Beneficiary can be:

(a) Any individual who, on the day before a Qualifying Event, is covered under a Plan by virtue of being on that day either a covered Employee, the Spouse of a covered Employee, or a Dependent child of a covered Employee. If, however, an individual who otherwise qualifies as a Qualified Beneficiary is denied or not offered coverage under the Plan under circumstances in which the denial or failure to offer constitutes a violation of applicable law, then the individual will be considered to have had the coverage and will be considered a Qualified Beneficiary if that individual experiences a Qualifying Event.

(b) Any child who is born to or placed for adoption with a covered Employee during a period of COBRA continuation coverage, and any individual who is covered by the Plan as an alternate recipient under a qualified medical support order. If, however, an individual who otherwise qualifies as a Qualified Beneficiary is denied or not offered coverage under the Plan under circumstances in which the denial or failure to offer constitutes a violation of applicable law, then the individual will be considered to have had the coverage and will be considered a Qualified Beneficiary if that individual experiences a Qualifying Event.

The term "covered Employee" includes any individual who is provided coverage under the Plan due to his or her performance of services for the employer sponsoring the Plan. However, this provision does not establish eligibility of these individuals. Eligibility for Plan coverage shall be determined in accordance with Plan Eligibility provisions.

An individual is not a Qualified Beneficiary if the individual's status as a covered Employee is attributable to a period in which the individual was a nonresident alien who received from the individual's Employer no earned income that constituted income from sources within the United States. If, on account of the preceding reason, an individual is not a Qualified Beneficiary, then a Spouse or Dependent child of the individual will also not be considered a Qualified Beneficiary by virtue of the relationship to the individual. A domestic partner is not a Qualified Beneficiary.

Each Qualified Beneficiary (including a child who is born to or placed for adoption with a covered Employee during a period of COBRA continuation coverage) must be offered the opportunity to make an independent election to receive COBRA continuation coverage.

3. What is a Qualifying Event?

A Qualifying Event is any of the following if the Plan provided that the Plan participant would lose coverage (i.e., cease to be covered under the same terms and conditions as in effect immediately before the Qualifying Event) in the absence of COBRA continuation coverage:

(a) The death of a covered Employee.

(b) The termination (other than by reason of the Employee's gross misconduct), or reduction of hours, of a covered Employee's employment.

(c) The divorce or legal separation of a covered Employee from the Employee's Spouse. If the Employee reduces or eliminates the Employee's Spouse's Plan coverage in anticipation of a divorce or legal separation, and a divorce or legal separation later occurs, then the divorce or legal separation may be considered a Qualifying Event even though the Spouse's coverage was reduced or eliminated before the divorce or legal separation.

(d) A covered Employee's enrollment in any part of the Medicare program.

(e) A Dependent child's ceasing to satisfy the Plan's requirements for a Dependent child (for example, attainment of the maximum age for dependency under the Plan).

If the Qualifying Event causes the covered Employee, or the covered Spouse or a Dependent child of the covered Employee, to cease to be covered under the Plan under the same terms and conditions as in effect immediately before the Qualifying Event, the persons losing such coverage become Qualified Beneficiaries under COBRA if all the other conditions of COBRA are also met. For example, any increase in contribution that must be paid by a covered Employee, or the Spouse, or a Dependent child of the covered Employee, for coverage under the Plan that results from the occurrence of one of the events listed above is a loss of coverage.

The taking of leave under the Family and Medical Leave Act of 1993, as amended ("FMLA") does not constitute a Qualifying Event. A Qualifying Event will occur, however, if an Employee does not return to employment at the end of the FMLA leave and all other COBRA continuation coverage conditions are present. If a Qualifying Event occurs, it occurs on the last day of FMLA leave and the applicable maximum coverage period is measured from this date (unless coverage is lost at a later date and the Plan provides for the extension of the required periods, in which case the maximum coverage date is measured from the date when the coverage is lost.) Note that the covered Employee and family members will be entitled to COBRA continuation coverage even if they failed to pay the employee portion of premiums for coverage under the Plan during the FMLA leave.

4. What factors should be considered when determining to elect COBRA continuation coverage?

When considering options for health coverage, Qualified Beneficiaries should consider:

- **Premiums:** This plan can charge up to 102% of total plan premiums for COBRA coverage. Other options, like coverage on a spouse's plan or through the Marketplace, may be less expensive. Qualified Beneficiaries have special enrollment rights under federal law (HIPAA). They have the right to request special enrollment in another group health plan for which they are otherwise eligible (such as a plan sponsored by a spouse's employer) within 30 days after Plan coverage ends due to one of the Qualifying Events listed above.

- **Provider Networks:** If a Qualified Beneficiary is currently getting care or treatment for a condition, a change in health coverage may affect access to a particular health care provider. You may want to check to see if your current health care providers participate in a network in considering options for health coverage.

- **Drug Formularies:** For Qualified Beneficiaries taking medication, a change in health coverage may affect costs for medication – and in some cases, the medication may not be covered by another plan. Qualified beneficiaries should check to see if current medications are listed in drug formularies for other health coverage.

- **Severance payments:** If COBRA rights arise because the Employee has lost his job and there is a severance package available from the employer, the former employer may have offered to pay some or all of the Employee's COBRA payments for a period of time. This can affect the timing of coverage available in the Marketplace. In this scenario, the Employee may want to contact the Department of Labor at 1-866-444-3272 to discuss options.

- **Medicare Eligibility:** You should be aware of how COBRA coverage coordinates with Medicare eligibility. If you are eligible for Medicare at the time of the Qualifying Event, or if you will become eligible soon after the Qualifying Event, you should know that you have 8 months to enroll in Medicare after your employment –related health coverage ends. Electing COBRA coverage does not extend this 8-month period. For more information, see medicare.gov/sign-up-change-plan.

- **Service Areas:** If benefits under the Plan are limited to specific service or coverage areas, benefits may not be available to a Qualified Beneficiary who moves out of the area.

- **Other Cost-Sharing:** In addition to premiums or contributions for health coverage, the Plan requires participants to pay copayments, deductibles, coinsurance, or other amounts as benefits are used. Qualified beneficiaries should check to see what the cost-sharing requirements are for other health coverage options. For example, one option may have much lower monthly premiums, but a much higher deductible and higher copayments.

Are there other coverage options besides COBRA Continuation Coverage? Yes. Instead of enrolling in COBRA continuation coverage, there may be other coverage options for Qualified Beneficiaries through the Health Insurance Marketplace, Medicaid, or other group health plan coverage options (such as a spouse's plan) through what is called a "special enrollment period." Some of these options may cost less than COBRA continuation coverage. You can learn more about many of these options at www.healthcare.gov.

5. What is the procedure for obtaining COBRA continuation coverage?

The Plan has conditioned the availability of COBRA continuation coverage upon the timely election of such coverage. An election is timely if it is made during the election period.

6. What is the election period and how long must it last?

The election period is the time period within which the Qualified Beneficiary must elect COBRA continuation coverage under the Plan. The election period must begin no later than the date the Qualified Beneficiary would lose coverage on account of the Qualifying Event and ends 60 days after the later of the date the Qualified Beneficiary would lose coverage on account of the Qualifying Event or the date notice is provided to the Qualified Beneficiary of her or his right to elect COBRA continuation coverage. If coverage is not elected within the 60 day period, all rights to elect COBRA continuation coverage are forfeited.

Note: If a covered Employee who has been terminated or experienced a reduction of hours qualifies for a trade readjustment allowance or alternative trade adjustment assistance under a federal law called the Trade Act of 2002, as extended by the Trade Preferences Extension Act of 2015, and the employee and his or her covered dependents have not elected COBRA coverage within the normal election period, a second opportunity to elect COBRA coverage will be made available for themselves and certain family members, but only within a limited period of 60 days or less and only during the six months immediately after their group health plan coverage ended. Any person who qualifies or thinks that he or she and/or his or her family members may qualify for assistance under this special provision should contact the Plan Administrator or its designee for further information about the special second election period. If continuation coverage is elected under this extension, it will not become effective prior to the beginning of this special second election period.

7. Is a covered Employee or Qualified Beneficiary responsible for informing the Plan Administrator of the occurrence of a Qualifying Event?

The Plan will offer COBRA continuation coverage to Qualified Beneficiaries only after the Plan Administrator or its designee has been timely notified that a Qualifying Event has occurred. The Employer (if the Employer is not the Plan Administrator) will notify the Plan Administrator or its designee of the Qualifying Event within 30 days following the date coverage ends when the Qualifying Event is:

(a) the end of employment or reduction of hours of employment,

(b) death of the employee,

(c) commencement of a proceeding in bankruptcy with respect to the Employer, or

(d) entitlement of the employee to any part of Medicare.

IMPORTANT:

For the other Qualifying Events (divorce or legal separation of the employee and spouse or a dependent child's losing eligibility for coverage as a dependent child), you or someone on your behalf must notify the Plan Administrator or its designee in writing within 60 days after the Qualifying Event occurs, using the procedures specified below. If these procedures are not followed or if the notice is not provided in writing to the Plan Administrator or its designee during the 60-day notice period, any spouse or dependent child who loses coverage will not be offered the option to elect continuation coverage. You must send this notice to the Plan Administrator or its designee.

NOTICE PROCEDURES:

Any notice that you provide must be ***in writing***. Oral notice, including notice by telephone, is not acceptable. You must mail, fax or hand-deliver your notice to the person, department or firm listed below, at the following address:

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlotesville, Virginia 22902

If mailed, your notice must be postmarked no later than the last day of the required notice period. Any notice you provide must state:

- the **name of the plan or plans** under which you lost or are losing coverage,
- the **name and address of the employee** covered under the plan,
- the **name(s) and address(es) of the Qualified Beneficiary(ies)**, and
- the **Qualifying Event** and the **date** it happened.

If the Qualifying Event is a **divorce or legal separation**, your notice must include **a copy of the divorce decree or the legal separation agreement**.

Be aware that there are other notice requirements in other contexts, for example, in order to qualify for a disability extension.

Once the Plan Administrator or its designee receives *timely notice* that a Qualifying Event has occurred, COBRA continuation coverage will be offered to each of the qualified beneficiaries. Each Qualified Beneficiary will have an independent right to elect COBRA continuation coverage. Covered employees may elect COBRA continuation coverage for their spouses, and parents may elect COBRA continuation coverage on behalf of their children. For each Qualified Beneficiary who elects COBRA continuation coverage, COBRA continuation coverage will begin on the date that plan coverage would otherwise have been lost. If you or your spouse or dependent children do not elect continuation coverage within the 60-day election period described above, the right to elect continuation coverage will be lost.

8. Is a waiver before the end of the election period effective to end a Qualified Beneficiary's election rights?

If, during the election period, a Qualified Beneficiary waives COBRA continuation coverage, the waiver can be revoked at any time before the end of the election period. Revocation of the waiver is an election of COBRA continuation coverage. However, if a waiver is later revoked, coverage need not be provided retroactively (that is, from the date of the loss of coverage until the waiver is revoked). Waivers and revocations of waivers are considered made on the date they are sent to the Plan Administrator or its designee, as applicable.

9. Is COBRA coverage available if a Qualified Beneficiary has other group health plan coverage or Medicare?

Qualified Beneficiaries who are entitled to elect COBRA continuation coverage may do so even if they are covered under another group health plan or are entitled to Medicare benefits on or before the date on which COBRA is elected. However, a Qualified Beneficiary's COBRA coverage will terminate automatically if, after electing COBRA, he or she becomes entitled to Medicare or becomes covered under other group health plan coverage.

10. When may a Qualified Beneficiary's COBRA continuation coverage be terminated?

During the election period, a Qualified Beneficiary may waive COBRA continuation coverage. Except for an interruption of coverage in connection with a waiver, COBRA continuation coverage that has been elected for a Qualified Beneficiary must extend for at least the period beginning on the date of the Qualifying Event and ending not before the earliest of the following dates:

(a) The last day of the applicable maximum coverage period.

(b) The first day for which Timely Payment is not made to the Plan with respect to the Qualified Beneficiary.

(c) The date upon which the Employer ceases to provide any group health plan (including a successor plan) to any employee.

(d) The date, after the date of the election, that the Qualified Beneficiary first becomes entitled to Medicare (either part A or part B, whichever occurs earlier).

(e) In the case of a Qualified Beneficiary entitled to a disability extension, the later of:

(1) (i) 29 months after the date of the Qualifying Event, or (ii) the first day of the month that is more than 30 days after the date of a final determination under Title II or XVI of the Social Security Act that the disabled Qualified Beneficiary whose disability resulted in the Qualified Beneficiary's entitlement to the disability extension is no longer disabled, whichever is earlier; or

(2) the end of the maximum coverage period that applies to the Qualified Beneficiary without regard to the disability extension.

The Plan can terminate for cause the coverage of a Qualified Beneficiary on the same basis that the Plan terminates for cause the coverage of similarly situated non-COBRA beneficiaries, for example, for the submission of a fraudulent claim.

In the case of an individual who is not a Qualified Beneficiary and who is receiving coverage under the Plan solely because of the individual's relationship to a Qualified Beneficiary, if the Plan's obligation to make COBRA continuation coverage available to the Qualified Beneficiary ceases, the Plan is not obligated to make coverage available to the individual who is not a Qualified Beneficiary.

11. What are the maximum coverage periods for COBRA continuation coverage?

The maximum coverage periods are based on the type of the Qualifying Event and the status of the Qualified Beneficiary, as shown below.

(a) In the case of a Qualifying Event that is a termination of employment or reduction of hours of employment, the maximum coverage period ends 18 months after the Qualifying Event if there is not a disability extension and 29 months after the Qualifying Event if there is a disability extension.

(b) In the case of a covered Employee's enrollment in the Medicare program before experiencing a Qualifying Event that is a termination of employment or reduction of hours of employment, the maximum coverage period for Qualified Beneficiaries ends on the later of:

(1) 36 months after the date the covered Employee becomes enrolled in the Medicare program. This extension does not apply to the covered Employee; or

(2) 18 months (or 29 months, if there is a disability extension) after the date of the covered Employee's termination of employment or reduction of hours of employment.

(c) In the case of a Qualified Beneficiary who is a child born to or placed for adoption with a covered Employee during a period of COBRA continuation coverage, the maximum coverage period is the maximum coverage period applicable to the Qualifying Event giving rise to the period of COBRA continuation coverage during which the child was born or placed for adoption.

(d) In the case of any other Qualifying Event than that described above, the maximum coverage period ends 36 months after the Qualifying Event.

12. Under what circumstances can the maximum coverage period be expanded?

If a Qualifying Event that gives rise to an 18-month or 29-month maximum coverage period is followed, within that 18- or 29-month period, by a second Qualifying Event that gives rise to a 36-months maximum coverage period, the original period is expanded to 36 months, but only for individuals who are Qualified Beneficiaries at the time of and with respect to both Qualifying Events. In no circumstance can the COBRA maximum coverage period be expanded to more than 36 months after the date of the first Qualifying Event. The Plan Administrator must be notified of the second qualifying event within 60 days of the second qualifying event. This notice must be sent to the Plan Administrator or its designee in accordance with the procedures above.

13. How does a Qualified Beneficiary become entitled to a disability extension?

A disability extension will be granted if an individual (whether or not the covered Employee) who is a Qualified Beneficiary in connection with the Qualifying Event that is a termination or reduction of hours of a covered Employee's employment, is determined under Title II or XVI of the Social Security Act to have been disabled at any time during the first 60 days of COBRA continuation coverage. To qualify for the disability extension, the Qualified Beneficiary must also provide the Plan Administrator with notice of the disability determination on a date that is both within 60 days after the date of the determination and before the end of the original 18-month maximum coverage. This notice must be sent to the Plan Administrator or its designee in accordance with the procedures above.

14. Does the Plan require payment for COBRA continuation coverage?

For any period of COBRA continuation coverage under the Plan, Qualified Beneficiaries who elect COBRA continuation coverage may be required to pay up to 102% of the applicable premium and up to 150% of the applicable premium for any expanded period of COBRA continuation coverage covering a disabled Qualified Beneficiary due to a disability extension. Your Plan Administrator will inform you of the cost. The Plan will terminate a Qualified Beneficiary's COBRA continuation coverage as of the first day of any period for which timely payment is not made.

15. Must the Plan allow payment for COBRA continuation coverage to be made in monthly installments?

Yes. The Plan is also permitted to allow for payment at other intervals.

16. What is Timely Payment for COBRA continuation coverage?

Timely Payment means a payment made no later than 30 days after the first day of the coverage period. Payment that is made to the Plan by a later date is also considered Timely Payment if either under the terms of the Plan, covered Employees or Qualified Beneficiaries are allowed until that later date to pay for their coverage for the period or under the terms of an arrangement between the Employer and the entity that provides Plan benefits on the Employer's behalf, the Employer is allowed until that later date to pay for coverage of similarly situated non-COBRA beneficiaries for the period.

Notwithstanding the above paragraph, the Plan does not require payment for any period of COBRA continuation coverage for a Qualified Beneficiary earlier than 45 days after the date on which the election of COBRA continuation coverage is made for that Qualified Beneficiary. Payment is considered made on the date on which it is postmarked to the Plan.

If Timely Payment is made to the Plan in an amount that is not significantly less than the amount the Plan requires to be paid for a period of coverage, then the amount paid will be deemed to satisfy the Plan's requirement for the amount to be paid, unless the Plan notifies the Qualified Beneficiary of the amount of the deficiency and grants a reasonable period of time for payment of the deficiency to be made. A "reasonable period of time" is 30 days after the notice is provided. A shortfall in a Timely Payment is not significant if it is no greater than the lesser of $50 or 10% of the required amount.

17. Must a Qualified Beneficiary be given the right to enroll in a conversion health plan at the end of the maximum coverage period for COBRA continuation coverage?

If a Qualified Beneficiary's COBRA continuation coverage under a group health plan ends as a result of the expiration of the applicable maximum coverage period, the Plan will, during the 180-day period that ends on that expiration date, provide the Qualified Beneficiary with the option of enrolling under a conversion health plan if such an option is otherwise generally available to similarly situated non-COBRA beneficiaries under the Plan. If such a conversion option is not otherwise generally available, it need not be made available to Qualified Beneficiaries.

18. How is my participation in the Health Flexible Spending Account affected?

You can elect to continue your participation in the Health Flexible Spending Account for the remainder of the Plan Year, subject to the following conditions. You may only continue to participate in the Health Flexible Spending Account if you have elected to contribute more money including any carryover amounts than you have taken out in claims. For example, if you elected to contribute an annual amount of $500 and, at the time you terminate employment, you have contributed $300 but only claimed $150, you may elect to continue coverage under the Health Flexible Spending Account. If you elect to continue coverage, then you would be able to continue to receive your health reimbursements up to the $500. However, you must continue to pay for the coverage, just as the money has been taken out of your paycheck, but on an after-tax basis. The Plan can also charge you an extra amount (as explained above for other health benefits) to provide this benefit.

IF YOU HAVE QUESTIONS

If you have questions about your COBRA continuation coverage, you should contact the Plan Administrator or its designee. For more information about your rights under ERISA, including COBRA, the Health Insurance Portability and Accountability Act (HIPAA), and other laws affecting group health plans, contact the nearest Regional or District Office of the U.S. Department of Labor's Employee Benefits Security Administration (EBSA). Addresses and phone numbers of Regional and District EBSA Offices are available through EBSA's website at www.dol.gov/ebsa.

KEEP YOUR PLAN ADMINISTRATOR INFORMED OF ADDRESS CHANGES

In order to protect your family's rights, you should keep the Plan Administrator informed of any changes in the addresses of family members. You should also keep a copy, for your records, of any notices you send to the Plan Administrator or its designee.

XI
SUMMARY

The money you earn is important to you and your family. You need it to pay your bills, enjoy recreational activities and save for the future. Our flexible benefits plan will help you keep more of the money you earn by lowering the amount of taxes you pay. The Plan is the result of our continuing efforts to find ways to help you get the most for your earnings.

If you have any questions, please contact the Administrator.

RIVANNA WATER AND SEWER AUTHORITY
FLEXIBLE BENEFIT PLAN

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RIVANNA WATER AND SEWER AUTHORITY
FLEXIBLE BENEFIT PLAN

INTRODUCTION

The Employer has amended this Plan effective July 1, 2022, to recognize the contribution made to the Employer by its Employees. Its purpose is to reward them by providing benefits for those Employees who shall qualify hereunder and their Dependents and beneficiaries. The concept of this Plan is to allow Employees to choose among different types of benefits based on their own particular goals, desires and needs. This Plan is a restatement of a Plan which was originally effective on January 1, 2006. The Plan shall be known as Rivanna Water and Sewer Authority Flexible Benefit Plan (the "Plan").

The intention of the Employer is that the Plan qualify as a "Cafeteria Plan" within the meaning of Section 125 of the Internal Revenue Code of 1986, as amended, and that the benefits which an Employee elects to receive under the Plan be excludable from the Employee's income under Section 125(a) and other applicable sections of the Internal Revenue Code of 1986, as amended.

ARTICLE I
DEFINITIONS

1.1 **"Administrator"** means the Employer unless another person or entity has been designated by the Employer pursuant to Section 9.1 to administer the Plan on behalf of the Employer. If the Employer is the Administrator, the Employer may appoint any person, including, but not limited to, the Employees of the Employer, to perform the duties of the Administrator. Any person so appointed shall signify acceptance by filing written acceptance with the Employer. Upon the resignation or removal of any individual performing the duties of the Administrator, the Employer may designate a successor.

1.2 **"Affiliated Employer"** means the Employer and any corporation which is a member of a controlled group of corporations (as defined in Code Section 414(b)) which includes the Employer; any trade or business (whether or not incorporated) which is under common control (as defined in Code Section 414(c)) with the Employer; any organization (whether or not incorporated) which is a member of an affiliated service group (as defined in Code Section 414(m)) which includes the Employer; and any other entity required to be aggregated with the Employer pursuant to Treasury regulations under Code Section 414(o).

1.3 **"Benefit"** or **"Benefit Options"** means any of the optional benefit choices available to a Participant as outlined in Section 4.1.

1.4 **"Cafeteria Plan Benefit Dollars"** means the amount available to Participants to purchase Benefit Options as provided under Section 4.1. Each dollar contributed to this Plan shall be converted into one Cafeteria Plan Benefit Dollar.

1.5 **"Code"** means the Internal Revenue Code of 1986, as amended or replaced from time to time.

1.6 **"Compensation"** means the amounts received by the Participant from the Employer during a Plan Year.

1.7 **"Dependent"** means any individual who qualifies as a dependent under an Insurance Contract for purposes of coverage under that Contract only or under Code Section 152 (as modified by Code Section 105(b)).

"Dependent" shall include any Child of a Participant who is covered under an Insurance Contract, as defined in the Contract, or under the Health Flexible Spending Account or as allowed by reason of the Affordable Care Act.

For purposes of the Health Flexible Spending Account, a Participant's "Child" includes his/her natural child, stepchild, foster child, adopted child, or a child placed with the Participant for adoption. A Participant's Child will be an eligible Dependent until reaching the limiting age of 26, without regard to student status, marital status, financial dependency or residency status with the Employee or any other person. When the child reaches the applicable limiting age, coverage will end at the end of the calendar year.

The phrase "placed for adoption" refers to a child whom the Participant intends to adopt, whether or not the adoption has become final, who has not attained the age of 18 as of the date of such placement for adoption. The term "placed" means the assumption and retention by such Employee of a legal obligation for total or partial support of the child in anticipation of adoption of the child. The child must be available for adoption and the legal process must have commenced.

1.8 **"Effective Date"** means January 1, 2006.

1.9 **"Election Period"** means the period immediately preceding the beginning of each Plan Year established by the Administrator, such period to be applied on a uniform and nondiscriminatory basis for all Employees and Participants. However, an Employee's initial Election Period shall be determined pursuant to Section 5.1.

1.10 **"Eligible Employee"** means any Employee who has satisfied the provisions of Section 2.1.

An individual shall not be an "Eligible Employee" if such individual is not reported on the payroll records of the Employer as a common law employee. In particular, it is expressly intended that individuals not treated as common law employees by the

Employer on its payroll records are not "Eligible Employees" and are excluded from Plan participation even if a court or administrative agency determines that such individuals are common law employees and not independent contractors.

However, any Employee who is a "part-time" Employee shall not be eligible to participate in this Plan. A "part-time" Employee is any Employee who works, or is expected to work on a regular basis, less than 30 hours a week and is designated as a part-time Employee on the Employer's personnel records.

1.11 **"Employee"** means any person who is employed by the Employer. The term Employee shall include leased employees within the meaning of Code Section 414(n)(2).

1.12 **"Employer"** means Rivanna Water and Sewer Authority and any successor which shall maintain this Plan; and any predecessor which has maintained this Plan. In addition, where appropriate, the term Employer shall include any Participating, Affiliated or Adopting Employer.

1.13 **"Grace Period"** means, with respect to any Plan Year, the time period ending on the fifteenth day of the third calendar month after the end of such Plan Year, during which Employment-Related Dependent Care Expenses incurred by a Participant will be deemed to have been incurred during such Plan Year.

1.14 **"Insurance Contract"** means any contract issued by an Insurer underwriting a Benefit.

1.15 **"Insurance Premium Payment Plan"** means the plan of benefits contained in Section 4.1 of this Plan, which provides for the payment of Premium Expenses.

1.16 **"Insurer"** means any insurance company that underwrites a Benefit under this Plan.

1.17 **"Key Employee"** means an Employee described in Code Section 416(i)(1) and the Treasury regulations thereunder.

1.18 **"Participant"** means any Eligible Employee who elects to become a Participant pursuant to Section 2.3 and has not for any reason become ineligible to participate further in the Plan.

1.19 **"Plan"** means this instrument, including all amendments thereto.

1.20 **"Plan Year"** means the 12-month period beginning July 1 and ending June 30. The Plan Year shall be the coverage period for the Benefits provided for under this Plan. In the event a Participant commences participation during a Plan Year, then the initial coverage period shall be that portion of the Plan Year commencing on such Participant's date of entry and ending on the last day of such Plan Year.

1.21 **"Premium Expenses"** or **"Premiums"** mean the Participant's cost for the Benefits described in Section 4.1.

1.22 **"Premium Expense Reimbursement Account"** means the account established for a Participant pursuant to this Plan to which part of his Cafeteria Plan Benefit Dollars may be allocated and from which Premiums of the Participant may be paid or reimbursed. If more than one type of insured Benefit is elected, sub-accounts shall be established for each type of insured Benefit.

1.23 **"Salary Redirection"** means the contributions made by the Employer on behalf of Participants pursuant to Section 3.1. These contributions shall be converted to Cafeteria Plan Benefit Dollars and allocated to the funds or accounts established under the Plan pursuant to the Participants' elections made under Article V.

1.24 **"Salary Redirection Agreement"** means an agreement between the Participant and the Employer under which the Participant agrees to reduce his Compensation or to forego all or part of the increases in such Compensation and to have such amounts contributed by the Employer to the Plan on the Participant's behalf. The Salary Redirection Agreement shall apply only to Compensation that has not been actually or constructively received by the Participant as of the date of the agreement (after taking this Plan and Code Section 125 into account) and, subsequently does not become currently available to the Participant.

1.25 **"Spouse"** means spouse as determined under Federal law.

ARTICLE II
PARTICIPATION

2.1 ELIGIBILITY

Any Eligible Employee shall be eligible to participate hereunder as of his date of employment (or the Effective Date of the Plan, if later). However, any Eligible Employee who was a Participant in the Plan on the effective date of this amendment shall continue to be eligible to participate in the Plan.

2.2 EFFECTIVE DATE OF PARTICIPATION

An Eligible Employee shall become a Participant effective as of the first day of the month coinciding with or next following the date on which he met the eligibility requirements of Section 2.1.

2.3 APPLICATION TO PARTICIPATE

An Employee who is eligible to participate in this Plan shall, during the applicable Election Period, complete an application to participate in a manner set forth by the Administrator. The election shall be irrevocable until the end of the applicable Plan Year unless the Participant is entitled to change his Benefit elections pursuant to Section 5.4 hereof.

An Eligible Employee shall also be required to complete a Salary Redirection Agreement during the Election Period for the Plan Year during which he wishes to participate in this Plan. Any such Salary Redirection Agreement shall be effective for the first pay period beginning on or after the Employee's effective date of participation pursuant to Section 2.2.

2.4 TERMINATION OF PARTICIPATION

A Participant shall no longer participate in this Plan upon the occurrence of any of the following events:

(a) **Termination of employment.** The Participant's termination of employment, subject to the provisions of Section 2.6;

(b) **Change in employment status.** The end of the Plan Year during which the Participant became a limited Participant because of a change in employment status pursuant to Section 2.5;

(c) **Death.** The Participant's death, subject to the provisions of Section 2.7; or

(d) **Termination of the plan.** The termination of this Plan, subject to the provisions of Section 10.2.

2.5 CHANGE OF EMPLOYMENT STATUS

If a Participant ceases to be eligible to participate because of a change in employment status or classification (other than through termination of employment), the Participant shall become a limited Participant in this Plan for the remainder of the Plan Year in which such change of employment status occurs. As a limited Participant, no further Salary Redirection may be made on behalf of the Participant, and, except as otherwise provided herein, all further Benefit elections shall cease, subject to the limited Participant's right to continue coverage under any Insurance Contracts. However, any balances in the limited Participant's Dependent Care Flexible Spending Account may be used during such Plan Year to reimburse the limited Participant for any allowable Employment-Related Dependent Care incurred during the Plan Year. Subject to the provisions of Section 2.6, if the limited Participant later becomes an Eligible Employee, then the limited Participant may again become a full Participant in this Plan, provided he otherwise satisfies the participation requirements set forth in this Article II as if he were a new Employee and made an election in accordance with Section 5.1.

2.6 TERMINATION OF EMPLOYMENT

If a Participant's employment with the Employer is terminated for any reason other than death, his participation in the Benefit Options provided under Section 4.1 shall be governed in accordance with the following:

(a) **Insurance Benefit.** With regard to Benefits which are insured, the Participant's participation in the Plan shall cease, subject to the Participant's right to continue coverage under any Insurance Contract for which premiums have already been paid.

(b) **Dependent Care FSA.** With regard to the Dependent Care Flexible Spending Account, the Participant's participation in the Plan shall cease and no further Salary Redirection contributions shall be made. However, such Participant may submit claims for employment related Dependent Care Expense reimbursements for claims incurred through the remainder of the Plan Year in which such termination occurs and submitted within 90 days after the end of the Plan Year, based on the level of the Participant's Dependent Care Flexible Spending Account as of the date of termination.

(c) **COBRA applicability.** With regard to the Health Flexible Spending Account, the Participant may submit claims for expenses that were incurred during the portion of the Plan Year before the end of the period for which payments to the Health Flexible Spending Account have already been made. Thereafter, the health benefits under this Plan including the Health Flexible Spending Account shall be applied and administered consistent with such further rights a Participant and his Dependents may be entitled to pursuant to Code Section 4980B and Section 11.14 of the Plan.

2.7 DEATH

If a Participant dies, his participation in the Plan shall cease. However, such Participant's spouse or Dependents may submit claims for expenses or benefits for the remainder of the Plan Year or until the Cafeteria Plan Benefit Dollars allocated to each specific benefit are exhausted. In no event may reimbursements be paid to someone who is not a spouse or Dependent. If the Plan is subject to the provisions of Code Section 4980B, then those provisions and related regulations shall apply for purposes of the Health Flexible Spending Account.

ARTICLE III
CONTRIBUTIONS TO THE PLAN

3.1 SALARY REDIRECTION

Benefits under the Plan shall be financed by Salary Redirections sufficient to support Benefits that a Participant has elected hereunder and to pay the Participant's Premium Expenses. The salary administration program of the Employer shall be revised to allow each Participant to agree to reduce his pay during a Plan Year by an amount determined necessary to purchase the elected Benefit Options. The amount of such Salary Redirection shall be specified in the Salary Redirection Agreement and shall be applicable for a Plan Year. Notwithstanding the above, for new Participants, the Salary Redirection Agreement shall only be applicable from the first day of the pay period following the Employee's entry date up to and including the last day of the Plan Year. These contributions shall be converted to Cafeteria Plan Benefit Dollars and allocated to the funds or accounts established under the Plan pursuant to the Participants' elections made under Article IV.

Any Salary Redirection shall be determined prior to the beginning of a Plan Year (subject to initial elections pursuant to Section 5.1) and prior to the end of the Election Period and shall be irrevocable for such Plan Year. However, a Participant may revoke a Benefit election or a Salary Redirection Agreement after the Plan Year has commenced and make a new election with respect to the remainder of the Plan Year, if both the revocation and the new election are on account of and consistent with a change in status and such other permitted events as determined under Article V of the Plan and consistent with the rules and regulations of the Department of the Treasury. Salary Redirection amounts shall be contributed on a pro rata basis for each pay period during the Plan Year. All individual Salary Redirection Agreements are deemed to be part of this Plan and incorporated by reference hereunder.

3.2 APPLICATION OF CONTRIBUTIONS

As soon as reasonably practical after each payroll period, the Employer shall apply the Salary Redirection to provide the Benefits elected by the affected Participants. Any contribution made or withheld for the Health Flexible Spending Account or Dependent Care Flexible Spending Account shall be credited to such fund or account. Amounts designated for the Participant's Premium Expense Reimbursement Account shall likewise be credited to such account for the purpose of paying Premium Expenses.

3.3 PERIODIC CONTRIBUTIONS

Notwithstanding the requirement provided above and in other Articles of this Plan that Salary Redirections be contributed to the Plan by the Employer on behalf of an Employee on a level and pro rata basis for each payroll period, the Employer and Administrator may implement a procedure in which Salary Redirections are contributed throughout the Plan Year on a periodic basis that is not pro rata for each payroll period. However, with regard to the Health Flexible Spending Account, the payment schedule for the required contributions may not be based on the rate or amount of reimbursements during the Plan Year.

ARTICLE IV
BENEFITS

4.1 BENEFIT OPTIONS

Each Participant may elect any one or more of the following optional Benefits:

(1) Health Flexible Spending Account

(2) Dependent Care Flexible Spending Account

(3) Insurance Premium Payment Plan

- (i) Health Insurance Benefit
- (ii) Dental Insurance Benefit
- (iii) Group-Term Life Insurance Benefit
- (iv) Disability Insurance Benefit
- (v) Cancer Insurance Benefit
- (vi) Vision Insurance Benefit
- (vii) Accident Insurance Benefit

(4) Health Savings Account Benefit

4.2 HEALTH FLEXIBLE SPENDING ACCOUNT BENEFIT

Each Participant may elect to participate in the Health Flexible Spending Account option, in which case Article VI shall apply.

4.3 DEPENDENT CARE FLEXIBLE SPENDING ACCOUNT BENEFIT

Each Participant may elect to participate in the Dependent Care Flexible Spending Account option, in which case Article VII shall apply.

4.4 HEALTH INSURANCE BENEFIT

(a) **Coverage for Participant and Dependents.** Each Participant may elect to be covered under a health Insurance Contract for the Participant, his or her Spouse, and his or her Dependents.

(b) **Employer selects contracts.** The Employer may select suitable health Insurance Contracts for use in providing this health insurance benefit, which policies will provide uniform benefits for all Participants electing this Benefit.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the benefits payable from such health Insurance Contract shall be determined therefrom, and such Insurance Contract shall be incorporated herein by reference.

4.5 DENTAL INSURANCE BENEFIT

(a) **Coverage for Participant and/or Dependents.** Each Participant may elect to be covered under the Employer's dental Insurance Contract. In addition, the Participant may elect either individual or family coverage under such Insurance Contract.

(b) **Employer selects contracts.** The Employer may select suitable dental Insurance Contracts for use in providing this dental insurance benefit, which policies will provide uniform benefits for all Participants electing this Benefit.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the benefits payable from such dental Insurance Contract shall be determined therefrom, and such dental Insurance Contract shall be incorporated herein by reference.

4.6 GROUP-TERM LIFE INSURANCE BENEFIT

(a) **Coverage for Participant only.** Each Participant may elect to be covered under the Employer's group-term life Insurance Contract.

(b) **Employer selects contracts.** The Employer may select suitable group-term life Insurance Contracts for use in providing this group-term life insurance benefit, which policies will provide benefits for all Participants electing this Benefit on a uniform basis.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the benefits payable from such group-term life Insurance Contract shall be determined therefrom, and such group-term life Insurance Contract shall be incorporated herein by reference.

4.7 DISABILITY INSURANCE BENEFIT

(a) **Coverage for Participant and/or Dependents.** Each Participant may elect to be covered under the Employer's disability Insurance Contract.

(b) **Long term and/or short term coverage selected by Employer.** The Employer may select suitable disability Insurance Contracts for use in providing this disability Benefit. The disability Insurance Contracts may provide for long-term or short-term coverage.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the Benefits payable from such disability Insurance Contract shall be determined therefrom, and such disability Insurance Contract shall be incorporated herein by reference.

4.8 CANCER INSURANCE BENEFIT

(a) **Coverage for Participant and/or Dependents.** Each Participant may elect to be covered under the Employer's cancer Insurance Contract. In addition, the Participant may elect either individual or family coverage.

(b) **Employer selects contracts.** The Employer may select suitable cancer Insurance Contracts for use in providing this cancer insurance benefit, which policies will provide uniform benefits for all Participants electing this Benefit.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the benefits payable from such cancer Insurance Contract shall be determined therefrom, and such cancer Insurance Contract shall be incorporated herein by reference.

4.9 VISION INSURANCE BENEFIT

(a) **Coverage for Participant and/or Dependents.** Each Participant may elect to be covered under the Employer's vision Insurance Contract. In addition, the Participant may elect either individual or family coverage.

(b) **Employer selects contracts.** The Employer may select suitable vision Insurance Contracts for use in providing this vision insurance benefit, which policies will provide uniform benefits for all Participants electing this Benefit.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the benefits payable from such vision Insurance Contract shall be determined therefrom, and such vision Insurance Contract shall be incorporated herein by reference.

4.10 ACCIDENT INSURANCE BENEFIT

(a) **Coverage for Participant and/or Dependents.** Each Participant may elect to be covered under the Employer's accident Insurance Contract.

(b) **Employer selects contracts.** The Employer may select suitable accident policies for use in providing this accident insurance benefit, which policies will provide uniform benefits for all Participants electing this Benefit.

(c) **Contract incorporated by reference.** The rights and conditions with respect to the benefits payable from such accident Insurance Contract shall be determined therefrom, and such accident Insurance Contract shall be incorporated herein by reference.

4.11 HEALTH SAVINGS ACCOUNT BENEFIT

Each Participant may elect to have a portion of his Salary Redirections contributed to a Health Savings Account, as defined in Code Section 223. The amounts contributed shall be subject to the terms of the Health Savings Account as established.

4.12 NONDISCRIMINATION REQUIREMENTS

(a) **Intent to be nondiscriminatory.** It is the intent of this Plan to provide benefits to a classification of employees which the Secretary of the Treasury finds not to be discriminatory in favor of the group in whose favor discrimination may not occur under Code Section 125.

(b) **25% concentration test.** It is the intent of this Plan not to provide qualified benefits as defined under Code Section 125 to Key Employees in amounts that exceed 25% of the aggregate of such Benefits provided for all Eligible Employees under the Plan. For purposes of the preceding sentence, qualified benefits shall not include benefits which (without regard to this paragraph) are includible in gross income.

(c) **Adjustment to avoid test failure.** If the Administrator deems it necessary to avoid discrimination or possible taxation to Key Employees or a group of employees in whose favor discrimination may not occur in violation of Code Section 125, it may, but shall not be required to, reject any election or reduce contributions or non-taxable Benefits in order to assure compliance with the Code and regulations. Any act taken by the Administrator shall be carried out in a uniform and nondiscriminatory manner. With respect to any affected Participant who has had Benefits reduced pursuant to this Section, the reduction shall be made proportionately among Health Flexible Spending Account Benefits and Dependent Care Flexible Spending Account Benefits, and once all these Benefits are expended, proportionately among insured Benefits. Contributions which are not utilized to provide Benefits to any Participant by virtue of any administrative act under this paragraph shall be forfeited and deposited into the benefit plan surplus.

ARTICLE V
PARTICIPANT ELECTIONS

5.1 INITIAL ELECTIONS

An Employee who meets the eligibility requirements of Section 2.1 on the first day of, or during, a Plan Year may elect to participate in this Plan for all or the remainder of such Plan Year, provided he elects to do so on or before his effective date of participation pursuant to Section 2.2.

5.2 SUBSEQUENT ANNUAL ELECTIONS

During the Election Period prior to each subsequent Plan Year, each Participant shall be given the opportunity to elect, on an election of benefits form to be provided by the Administrator, which Benefit options he wishes to select. Any such election shall be effective for any Benefit expenses incurred during the Plan Year which follows the end of the Election Period. With regard to subsequent annual elections, the following options shall apply:

(a) A Participant or Employee who failed to initially elect to participate may elect different or new Benefits under the Plan during the Election Period;

(b) A Participant may terminate his participation in the Plan by notifying the Administrator in writing during the Election Period that he does not want to participate in the Plan for the next Plan Year;

(c) An Employee who elects not to participate for the Plan Year following the Election Period will have to wait until the next Election Period before again electing to participate in the Plan, except as provided for in Section 5.4.

5.3 FAILURE TO ELECT

With regard to Benefits available under the Plan for which no Premium Expenses apply, any Participant who fails to complete a new benefit election form pursuant to Section 5.2 by the end of the applicable Election Period shall be deemed to have elected not to participate in the Plan for the upcoming Plan Year. No further Salary Redirections shall therefore be authorized or made for the subsequent Plan Year for such Benefits.

With regard to Benefits available under the Plan for which Premium Expenses apply, any Participant who fails to complete a new benefit election form pursuant to Section 5.2 by the end of the applicable Election Period shall be deemed to have made the same Benefit elections as are then in effect for the current Plan Year. The Participant shall also be deemed to have elected Salary Redirection in an amount necessary to purchase such Benefit options.

5.4 CHANGE IN STATUS

(a) **Change in status defined.** Any Participant may change a Benefit election after the Plan Year (to which such election relates) has commenced and make new elections with respect to the remainder of such Plan Year if, under the facts and circumstances, the changes are necessitated by and are consistent with a change in status which is acceptable under rules and regulations adopted by the Department of the Treasury, the provisions of which are incorporated by reference. Notwithstanding anything herein to the contrary, if the rules and regulations conflict, then such rules and regulations shall control.

In general, a change in election is not consistent if the change in status is the Participant's divorce, annulment or legal separation from a Spouse, the death of a Spouse or Dependent, or a Dependent ceasing to satisfy the eligibility requirements for coverage, and the Participant's election under the Plan is to cancel accident or health insurance coverage for any individual other than the one involved in such event. In addition, if the Participant, Spouse or Dependent gains or loses eligibility for coverage, then a Participant's election under the Plan to cease or decrease coverage for that individual under the Plan corresponds with that change in status only if coverage for that individual becomes applicable or is increased under the family member plan.

Regardless of the consistency requirement, if the individual, the individual's Spouse, or Dependent becomes eligible for continuation coverage under the Employer's group health plan as provided in Code Section 4980B or any similar state law, then the individual may elect to increase payments under this Plan in order to pay for the continuation coverage. However, this does not apply for COBRA eligibility due to divorce, annulment or legal separation.

Any new election shall be effective at such time as the Administrator shall prescribe, but not earlier than the first pay period beginning after the election form is completed and returned to the Administrator. For the purposes of this subsection, a change in status shall only include the following events or other events permitted by Treasury regulations:

(1) Legal Marital Status: events that change a Participant's legal marital status, including marriage, divorce, death of a Spouse, legal separation or annulment;

(2) Number of Dependents: Events that change a Participant's number of Dependents, including birth, adoption, placement for adoption, or death of a Dependent;

(3) Employment Status: Any of the following events that change the employment status of the Participant, Spouse, or Dependent: termination or commencement of employment, a strike or lockout, commencement or return from an unpaid leave of absence, or a change in worksite. In addition, if the eligibility conditions of this Plan or other employee benefit plan of the Employer of the Participant, Spouse, or Dependent depend on the employment status of that individual and there is a change in that individual's employment status with the consequence that the individual becomes (or ceases to be) eligible under the plan, then that change constitutes a change in employment under this subsection;

(4) Dependent satisfies or ceases to satisfy the eligibility requirements: An event that causes the Participant's Dependent to satisfy or cease to satisfy the requirements for coverage due to attainment of age, student status, or any similar circumstance; and

(5) Residency: A change in the place of residence of the Participant, Spouse or Dependent, that would lead to a change in status (such as a loss of HMO coverage).

For the Dependent Care Flexible Spending Account, a Dependent becoming or ceasing to be a "Qualifying Dependent" as defined under Code Section 21(b) shall also qualify as a change in status.

Notwithstanding anything in this Section to the contrary, the gain of eligibility or change in eligibility of a child, as allowed under Code Sections 105(b) and 106, and guidance thereunder, shall qualify as a change in status.

(b) **Special enrollment rights.** Notwithstanding subsection (a), the Participants may change an election for group health coverage during a Plan Year and make a new election that corresponds with the special enrollment rights provided in Code Section 9801(f), including those authorized under the provisions of the Children's Health Insurance Program Reauthorization Act of 2009 (SCHIP); provided that such Participant meets the sixty (60) day notice requirement imposed by Code Section 9801(f) (or such longer period as may be permitted by the Plan and communicated to Participants). Such change shall take place on a prospective basis, unless otherwise required by Code Section 9801(f) to be retroactive.

(c) **Qualified Medical Support Order.** Notwithstanding subsection (a), in the event of a judgment, decree, or order (including approval of a property settlement) ("order") resulting from a divorce, legal separation, annulment, or change in legal custody which requires accident or health coverage for a Participant's child (including a foster child who is a Dependent of the Participant):

(1) The Plan may change an election to provide coverage for the child if the order requires coverage under the Participant's plan; or

(2) The Participant shall be permitted to change an election to cancel coverage for the child if the order requires the former Spouse to provide coverage for such child, under that individual's plan and such coverage is actually provided.

(d) **Medicare or Medicaid.** Notwithstanding subsection (a), a Participant may change elections to cancel or reduce accident or health coverage for the Participant or the Participant's Spouse or Dependent if the Participant or the Participant's Spouse or Dependent is enrolled in the accident or health coverage of the Employer and becomes entitled to coverage (i.e., enrolled) under Part A or Part B of the Title XVIII of the Social Security Act (Medicare) or Title XIX of the Social Security Act (Medicaid), other than coverage consisting solely of benefits under Section 1928 of the Social Security Act (the program for distribution of pediatric vaccines). If the Participant or the Participant's Spouse or Dependent who has been entitled to Medicaid or Medicare coverage loses eligibility, that individual may prospectively elect coverage under the Plan if a benefit package option under the Plan provides similar coverage.

(e) **Cost increase or decrease.** If the cost of a Benefit provided under the Plan increases or decreases during a Plan Year, then the Plan shall automatically increase or decrease, as the case may be, the Salary Redirections of all affected Participants for such Benefit. Alternatively, if the cost of a benefit package option increases significantly, the Administrator shall permit the affected Participants to either make corresponding changes in their payments or revoke their elections and, in lieu thereof, receive on a prospective basis coverage under another benefit package option with similar coverage, or drop coverage prospectively if there is no benefit package option with similar coverage.

A cost increase or decrease refers to an increase or decrease in the amount of elective contributions under the Plan, whether resulting from an action taken by the Participants or an action taken by the Employer.

(f) **Loss of coverage.** If the coverage under a Benefit is significantly curtailed or ceases during a Plan Year, affected Participants may revoke their elections of such Benefit and, in lieu thereof, elect to receive on a prospective basis coverage under another plan with similar coverage, or drop coverage prospectively if no similar coverage is offered.

(g) **Addition of a new benefit.** If, during the period of coverage, a new benefit package option or other coverage option is added, an existing benefit package option is significantly improved, or an existing benefit package option or other coverage option is eliminated, then the affected Participants may elect the newly-added option, or elect another option if an option has been eliminated prospectively and make corresponding election changes with respect to other benefit package options providing similar coverage. In addition, those Eligible Employees who are not participating in the Plan may opt to become Participants and elect the new or newly improved benefit package option.

(h) **Loss of coverage under certain other plans.** A Participant may make a prospective election change to add group health coverage for the Participant, the Participant's Spouse or Dependent if such individual loses group health coverage sponsored by a governmental or educational institution, including a state children's health insurance program under the Social Security Act, the Indian Health Service or a health program offered by an Indian tribal government, a state health benefits risk pool, or a foreign government group health plan.

(i) **Change of coverage due to change under certain other plans.** A Participant may make a prospective election change that is on account of and corresponds with a change made under the plan of a Spouse's, former Spouse's or Dependent's employer if (1) the cafeteria plan or other benefits plan of the Spouse's, former Spouse's or Dependent's employer permits its participants to make a change; or (2) the cafeteria plan permits participants to make an election for a period of coverage that is different from the period of coverage under the cafeteria plan of a Spouse's, former Spouse's or Dependent's employer.

(j) **Change in dependent care provider.** A Participant may make a prospective election change that is on account of and corresponds with a change by the Participant in the dependent care provider. The availability of dependent care services from a new childcare provider is similar to a new benefit package option becoming available. A cost change is allowable in the Dependent Care Flexible Spending Account only if the cost change is imposed by a dependent care provider who is not related to the Participant, as defined in Code Section 152(a)(1) through (8).

(k) **Health FSA cannot change due to insurance change.** A Participant shall not be permitted to change an election to the Health Flexible Spending Account as a result of a cost or coverage change under any health insurance benefits.

(l) **Health Savings Account changes.** With regard to the Health Savings Account Benefit specified in Section 4.11, a Participant who has elected to make elective contributions under such arrangement may modify or revoke the election prospectively, provided such change is consistent with Code Section 223 and the Treasury regulations thereunder.

(m) **Changes due to reduction in hours or enrollment in an Exchange Plan.** A Participant may prospectively revoke coverage under the group health plan (that is not a health Flexible Spending Account) which provides minimum essential coverage (as defined in Code §5000A(f)(1)) provided the following conditions are met:

Conditions for revocation due to reduction in hours of service:

(1) The Participant has been reasonably expected to average at least 30 hours of service per week and there is a change in that Participant's status so that the Participant will reasonably be expected to average less than 30 hours of service per week after the change, even if that reduction does not result in the Participant ceasing to be eligible under the group health plan; and

(2) The revocation of coverage under the group health plan corresponds to the intended enrollment of the Participant, and any related individuals who cease coverage due to the revocation, in another plan that provides minimum essential coverage with the new coverage effective no later than the first day of the second month following the month that includes the date the original coverage is revoked.

The Administrator may rely on the reasonable representation of the Participant who is reasonably expected to have an average of less than 30 hours of service per week for future periods that the Participant and related individuals have enrolled or intend to enroll in another plan that provides minimum essential coverage for new coverage that is effective no later than the first day of the second month following the month that includes the date the original coverage is revoked.

Conditions for revocation due to enrollment in a Qualified Health Plan:

(1) The Participant is eligible for a Special Enrollment Period to enroll in a Qualified Health Plan through a Marketplace (federal or state exchange) pursuant to guidance issued by the Department of Health and Human Services and any other applicable guidance, or the Participant seeks to enroll in a Qualified Health Plan through a Marketplace during the Marketplace's annual open enrollment period; and

(2) The revocation of the election of coverage under the group health plan corresponds to the intended enrollment of the Participant and any related individuals who cease coverage due to the revocation in a Qualified Health Plan through a Marketplace for new coverage that is effective beginning no later than the day immediately following the last day of the original coverage that is revoked.

The Administrator may rely on the reasonable representation of a Participant who has an enrollment opportunity for a Qualified Health Plan through a Marketplace that the Participant and related individuals have enrolled or intend to enroll in a Qualified Health Plan for new coverage that is effective beginning no later than the day immediately following the last day of the original coverage that is revoked.

ARTICLE VI
HEALTH FLEXIBLE SPENDING ACCOUNT

6.1 ESTABLISHMENT OF PLAN

This Health Flexible Spending Account is intended to qualify as a medical reimbursement plan under Code Section 105 and shall be interpreted in a manner consistent with such Code Section and the Treasury regulations thereunder. Participants who elect to participate in this Health Flexible Spending Account may submit claims for the reimbursement of Medical Expenses. All amounts reimbursed shall be periodically paid from amounts allocated to the Health Flexible Spending Account. Periodic payments reimbursing Participants from the Health Flexible Spending Account shall in no event occur less frequently than monthly.

6.2 DEFINITIONS

For the purposes of this Article and the Cafeteria Plan, the terms below have the following meaning:

(a) **"Health Flexible Spending Account"** means the account established for Participants pursuant to this Plan to which part of their Cafeteria Plan Benefit Dollars may be allocated and from which all allowable Medical Expenses incurred by a Participant, his or her Spouse and his or her Dependents may be reimbursed.

(b) **"Highly Compensated Participant"** means, for the purposes of this Article and determining discrimination under Code Section 105(h), a participant who is:

(1) one of the 5 highest paid officers;

(2) a shareholder who owns (or is considered to own applying the rules of Code Section 318) more than 10 percent in value of the stock of the Employer; or

(3) among the highest paid 25 percent of all Employees (other than exclusions permitted by Code Section 105(h)(3)(B) for those individuals who are not Participants).

(c) **"Medical Expenses"** means any expense for medical care within the meaning of the term "medical care" as defined in Code Section 213(d) and the rulings and Treasury regulations thereunder, and not otherwise used by the Participant as a deduction in determining his tax liability under the Code. "Medical Expenses" can be incurred by the Participant, his or her Spouse and his or her Dependents. "Incurred" means, with regard to Medical Expenses, when the Participant is provided with the medical care that gives rise to the Medical Expense and not when the Participant is formally billed or charged for, or pays for, the medical care.

A Participant may not be reimbursed for the cost of other health coverage such as premiums paid under plans maintained by the employer of the Participant's Spouse or individual policies maintained by the Participant or his Spouse or Dependent.

A Participant may not be reimbursed for "qualified long-term care services" as defined in Code Section 7702B(c).

(d) The definitions of Article I are hereby incorporated by reference to the extent necessary to interpret and apply the provisions of this Health Flexible Spending Account.

6.3 FORFEITURES

The amount in the Health Flexible Spending Account as of the end of any Plan Year (and after the processing of all claims for such Plan Year pursuant to Section 6.7 hereof, excluding any carryover) shall be forfeited and credited to the benefit plan surplus. In such event, the Participant shall have no further claim to such amount for any reason, subject to Section 8.2.

6.4 LIMITATION ON ALLOCATIONS

(a) Notwithstanding any provision contained in this Health Flexible Spending Account to the contrary, the maximum amount of salary reductions that may be allocated to the Health Flexible Spending Account by a Participant in or on account of any Plan Year is the statutory amount under Code Section 125(i), as adjusted for increases in the cost of living. The cost of living adjustment in effect for a calendar year applies to any Plan Year beginning with or within such calendar year. The dollar increase in effect on January 1 of any calendar year shall be effective for the Plan Year beginning with or within such calendar year. For any short Plan Year, the limit shall be an amount equal to the limit for the calendar year in which the Plan Year begins multiplied by the ratio obtained by dividing the number of full months in the short Plan Year by twelve (12).

(b) **Participation in Other Plans.** All employers that are treated as a single employer under Code Sections 414(b), (c), or (m), relating to controlled groups and affiliated service groups, are treated as a single employer for purposes of the statutory limit. If a Participant participates in multiple cafeteria plans offering health flexible spending accounts maintained by members of a controlled group or affiliated service group, the Participant's total Health Flexible Spending Account contributions under all of the cafeteria plans are limited to the statutory limit (as adjusted). However, a Participant employed by two or more employers that are not members of the same controlled group may elect up to the statutory limit (as adjusted) under each Employer's Health Flexible Spending Account.

(c) **Carryover.**A Participant in the Health Flexible Spending Account may roll over unused amounts in the Health Flexible Spending Account remaining at the end of one Plan Year to the immediately following Plan Year, up to 20% of the statutory amount under Code Section 125(i), as adjusted for increases in the cost of living. The cost of living adjustment in effect for a calendar year applies to any Plan Year beginning with or within such calendar year. The dollar increase in effect on January 1 of any calendar year shall be effective for the Plan Year beginning with or within such calendar year. These amounts can be used during the following Plan Year for expenses incurred in that Plan Year. Amounts carried over do not affect the maximum amount of salary redirection contributions for the Plan Year to which they are carried over. Unused amounts are those remaining after expenses have been reimbursed during the runout period. These amounts may not be cashed out or converted to any other taxable or nontaxable benefit. Amounts in excess will be forfeited. The Plan is allowed, but not required, to treat claims as being paid first from the current year amounts, then from the carryover amounts.

6.5 NONDISCRIMINATION REQUIREMENTS

(a) **Intent to be nondiscriminatory.** It is the intent of this Health Flexible Spending Account not to discriminate in violation of the Code and the Treasury regulations thereunder.

(b) **Adjustment to avoid test failure.** If the Administrator deems it necessary to avoid discrimination under this Health Flexible Spending Account, it may, but shall not be required to, reject any elections or reduce contributions or Benefits in order to assure compliance with this Section. Any act taken by the Administrator under this Section shall be carried out in a uniform and nondiscriminatory manner. If the Administrator decides to reject any elections or reduce contributions or Benefits, it shall be done in the following manner. First, the Benefits designated for the Health Flexible Spending Account by the member of the group in whose favor discrimination may not occur pursuant to Code Section 105 that elected to contribute the highest amount to the fund for the Plan Year shall be reduced until the nondiscrimination tests set forth in this Section or the Code are satisfied, or until the amount designated for the fund equals the amount designated for the fund by the next member of the group in whose favor discrimination may not occur pursuant to Code Section 105 who has elected the second highest contribution to the Health Flexible Spending Account for the Plan Year. This process shall continue until the nondiscrimination tests set forth in this Section or the Code are satisfied. Contributions which are not utilized to provide Benefits to any Participant by virtue of any administrative act under this paragraph shall be forfeited and credited to the benefit plan surplus.

6.6 COORDINATION WITH CAFETERIA PLAN

All Participants under the Cafeteria Plan are eligible to receive Benefits under this Health Flexible Spending Account. The enrollment under the Cafeteria Plan shall constitute enrollment under this Health Flexible Spending Account. In addition, other matters concerning contributions, elections and the like shall be governed by the general provisions of the Cafeteria Plan.

6.7 HEALTH FLEXIBLE SPENDING ACCOUNT CLAIMS

(a) **Expenses must be incurred during Plan Year.** All Medical Expenses incurred by a Participant, his or her Spouse and his or her Dependents during the Plan Year shall be reimbursed during the Plan Year subject to Section 2.6, even though the submission of such a claim occurs after his participation hereunder ceases; but provided that the Medical Expenses were incurred during the applicable Plan Year. Medical Expenses are treated as having been incurred when the Participant is provided with the medical care that gives rise to the medical expenses, not when the Participant is formally billed or charged for, or pays for the medical care.

(b) **Reimbursement available throughout Plan Year.** The Administrator shall direct the reimbursement to each eligible Participant for all allowable Medical Expenses, up to a maximum of the amount designated by the Participant for the Health Flexible Spending Account for the Plan Year. Reimbursements shall be made available to the Participant throughout the year without regard to the level of Cafeteria Plan Benefit Dollars which have been allocated to the fund at any given point in time. Furthermore, a Participant shall be entitled to reimbursements only for amounts in excess of any payments or other reimbursements under any health care plan covering the Participant and/or his Spouse or Dependents.

(c) **Payments.** Reimbursement payments under this Plan shall be made directly to the Participant. However, in the Administrator's discretion, payments may be made directly to the service provider. The application for payment or reimbursement shall be made to the Administrator on an acceptable form within a reasonable time of incurring the debt or paying for the service. The application shall include a written statement from an independent third party stating that the Medical Expense has been incurred and the amount of such expense. Furthermore, the Participant shall provide a written statement that the Medical Expense has not been reimbursed or is not reimbursable under any other health plan coverage and, if reimbursed from the Health Flexible Spending Account, such amount will not be claimed as a tax deduction. The Administrator shall retain a file of all such applications.

(d) **Claims for reimbursement.** Claims for the reimbursement of Medical Expenses incurred in any Plan Year shall be paid as soon after a claim has been filed as is administratively practicable; provided however, that if a Participant fails to submit a claim within 90 days after the end of the Plan Year, those Medical Expense claims shall not be considered for reimbursement by the Administrator.

6.8 DEBIT AND CREDIT CARDS

Participants may, subject to a procedure established by the Administrator and applied in a uniform nondiscriminatory manner, use debit and/or credit (stored value) cards ("cards") provided by the Administrator and the Plan for payment of Medical Expenses, subject to the following terms:

(a) **Card only for medical expenses.** Each Participant issued a card shall certify that such card shall only be used for Medical Expenses. The Participant shall also certify that any Medical Expense paid with the card has not already been reimbursed by any other plan covering health benefits and that the Participant will not seek reimbursement from any other plan covering health benefits.

(b) **Card issuance.** Such card shall be issued upon the Participant's Effective Date of Participation and reissued for each Plan Year the Participant remains a Participant in the Health Flexible Spending Account. Such card shall be automatically cancelled upon the Participant's death or termination of employment, or if such Participant has a change in status that results in the Participant's withdrawal from the Health Flexible Spending Account.

(c) **Maximum dollar amount available.** The dollar amount of coverage available on the card shall be the amount elected by the Participant for the Plan Year. The maximum dollar amount of coverage available shall be the maximum amount for the Plan Year as set forth in Section 6.4.

(d) **Only available for use with certain service providers.** The cards shall only be accepted by such merchants and service providers as have been approved by the Administrator following IRS guidelines.

(e) **Card use.** The cards shall only be used for Medical Expense purchases at these providers, including, but not limited to, the following:

(1) Co-payments for doctor and other medical care;

(2) Purchase of drugs prescribed by a health care provider, including, if permitted by the Administrator, over-the-counter medications as allowed under IRS regulations;

(3) Purchase of medical items such as eyeglasses, syringes, crutches, etc.

(f) **Substantiation.** Such purchases by the cards shall be subject to substantiation by the Administrator, usually by submission of a receipt from a service provider describing the service, the date and the amount. The Administrator shall also follow the requirements set forth in Revenue Ruling 2003-43 and Notice 2006-69. All charges shall be conditional pending confirmation and substantiation.

(g) **Correction methods.** If such purchase is later determined by the Administrator to not qualify as a Medical Expense, the Administrator, in its discretion, shall use one of the following correction methods to make the Plan whole. Until the amount is repaid, the Administrator shall take further action to ensure that further violations of the terms of the card do not occur, up to and including denial of access to the card.

(1) Repayment of the improper amount by the Participant;

(2) Withholding the improper payment from the Participant's wages or other compensation to the extent consistent with applicable federal or state law;

(3) Claims substitution or offset of future claims until the amount is repaid; and

(4) if subsections (1) through (3) fail to recover the amount, consistent with the Employer's business practices, the Employer may treat the amount as any other business indebtedness.

ARTICLE VII
DEPENDENT CARE FLEXIBLE SPENDING ACCOUNT

7.1 ESTABLISHMENT OF ACCOUNT

This Dependent Care Flexible Spending Account is intended to qualify as a program under Code Section 129 and shall be interpreted in a manner consistent with such Code Section. Participants who elect to participate in this program may submit claims for the reimbursement of Employment-Related Dependent Care Expenses. All amounts reimbursed shall be paid from amounts allocated to the Participant's Dependent Care Flexible Spending Account.

7.2 DEFINITIONS

For the purposes of this Article and the Cafeteria Plan the terms below shall have the following meaning:

(a) **"Dependent Care Flexible Spending Account"** means the account established for a Participant pursuant to this Article to which part of his Cafeteria Plan Benefit Dollars may be allocated and from which Employment-Related Dependent Care Expenses of the Participant may be reimbursed for the care of the Qualifying Dependents of Participants.

(b) **"Earned Income"** means earned income as defined under Code Section 32(c)(2), but excluding such amounts paid or incurred by the Employer for dependent care assistance to the Participant.

(c) **"Employment-Related Dependent Care Expenses"** means the amounts paid for expenses of a Participant for those services which if paid by the Participant would be considered employment related expenses under Code Section 21(b)(2). Generally, they shall include expenses for household services and for the care of a Qualifying Dependent, to the extent that such expenses are incurred to enable the Participant to be gainfully employed for any period for which there are one or more Qualifying Dependents with respect to such Participant. Employment-Related Dependent Care Expenses are treated as having been incurred when the Participant's Qualifying Dependents are provided with the dependent care that gives rise to the Employment-Related Dependent Care Expenses, not when the Participant is formally billed or charged for, or pays for the dependent care. The determination of whether an amount qualifies as an Employment-Related Dependent Care Expense shall be made subject to the following rules:

(1) If such amounts are paid for expenses incurred outside the Participant's household, they shall constitute Employment-Related Dependent Care Expenses only if incurred for a Qualifying Dependent as defined in Section 7.2(d)(1) (or deemed to be, as described in Section 7.2(d)(1) pursuant to Section 7.2(d)(3)), or for a Qualifying Dependent as defined in Section 7.2(d)(2) (or deemed to be, as described in Section 7.2(d)(2) pursuant to Section 7.2(d)(3)) who regularly spends at least 8 hours per day in the Participant's household;

(2) If the expense is incurred outside the Participant's home at a facility that provides care for a fee, payment, or grant for more than 6 individuals who do not regularly reside at the facility, the facility must comply with all applicable state and local laws and regulations, including licensing requirements, if any; and

(3) Employment-Related Dependent Care Expenses of a Participant shall not include amounts paid or incurred to a child of such Participant who is under the age of 19 or to an individual who is a Dependent of such Participant or such Participant's Spouse.

(d) **"Qualifying Dependent"** means, for Dependent Care Flexible Spending Account purposes,

(1) a Participant's Dependent (as defined in Code Section 152(a)(1)) who has not attained age 13;

(2) a Dependent or the Spouse of a Participant who is physically or mentally incapable of caring for himself or herself and has the same principal place of abode as the Participant for more than one-half of such taxable year; or

(3) a child that is deemed to be a Qualifying Dependent described in paragraph (1) or (2) above, whichever is appropriate, pursuant to Code Section 21(e)(5).

(e) The definitions of Article I are hereby incorporated by reference to the extent necessary to interpret and apply the provisions of this Dependent Care Flexible Spending Account.

7.3 DEPENDENT CARE FLEXIBLE SPENDING ACCOUNTS

The Administrator shall establish a Dependent Care Flexible Spending Account for each Participant who elects to apply Cafeteria Plan Benefit Dollars to Dependent Care Flexible Spending Account benefits.

7.4 INCREASES IN DEPENDENT CARE FLEXIBLE SPENDING ACCOUNTS

A Participant's Dependent Care Flexible Spending Account shall be increased each pay period by the portion of Cafeteria Plan Benefit Dollars that he has elected to apply toward his Dependent Care Flexible Spending Account pursuant to elections made under Article V hereof.

7.5 DECREASES IN DEPENDENT CARE FLEXIBLE SPENDING ACCOUNTS

A Participant's Dependent Care Flexible Spending Account shall be reduced by the amount of any Employment-Related Dependent Care Expense reimbursements paid or incurred on behalf of a Participant pursuant to Section 7.12 hereof.

7.6 ALLOWABLE DEPENDENT CARE REIMBURSEMENT

Subject to limitations contained in Section 7.9 of this Program, and to the extent of the amount contained in the Participant's Dependent Care Flexible Spending Account, a Participant who incurs Employment-Related Dependent Care Expenses shall be entitled to receive from the Employer full reimbursement for the entire amount of such expenses incurred during the Plan Year or portion thereof during which he is a Participant.

7.7 ANNUAL STATEMENT OF BENEFITS

On or before January 31st of each calendar year, the Employer shall furnish to each Employee who was a Participant and received benefits under Section 7.6 during the prior calendar year, a statement of all such benefits paid to or on behalf of such Participant during the prior calendar year. This statement is set forth on the Participant's Form W-2.

7.8 FORFEITURES

The amount in a Participant's Dependent Care Flexible Spending Account as of the end of any Plan Year (and after the processing of all claims for such Plan Year pursuant to Section 7.12 hereof) shall be forfeited and credited to the benefit plan surplus. In such event, the Participant shall have no further claim to such amount for any reason.

7.9 LIMITATION ON PAYMENTS

(a) **Code limits.** Notwithstanding any provision contained in this Article to the contrary, amounts paid from a Participant's Dependent Care Flexible Spending Account in or on account of any taxable year of the Participant shall not exceed the lesser of the Earned Income limitation described in Code Section 129(b) or $5,000 ($2,500 if a separate tax return is filed by a Participant who is married as determined under the rules of paragraphs (3) and (4) of Code Section 21(e)).

7.10 NONDISCRIMINATION REQUIREMENTS

(a) **Intent to be nondiscriminatory.** It is the intent of this Dependent Care Flexible Spending Account that contributions or benefits not discriminate in favor of the group of employees in whose favor discrimination may not occur under Code Section 129(d).

(b) **25% test for shareholders.** It is the intent of this Dependent Care Flexible Spending Account that not more than 25 percent of the amounts paid by the Employer for dependent care assistance during the Plan Year will be provided for the class of individuals who are shareholders or owners (or their Spouses or Dependents), each of whom (on any day of the Plan Year) owns more than 5 percent of the stock or of the capital or profits interest in the Employer.

(c) **Adjustment to avoid test failure.** If the Administrator deems it necessary to avoid discrimination or possible taxation to a group of employees in whose favor discrimination may not occur in violation of Code Section 129 it may, but shall not be required to, reject any elections or reduce contributions or non-taxable benefits in order to assure compliance with this Section. Any act taken by the Administrator under this Section shall be carried out in a uniform and nondiscriminatory manner. If the Administrator decides to reject any elections or reduce contributions or Benefits, it shall be done in the following manner. First, the Benefits designated for the Dependent Care Flexible Spending Account by the affected Participant that elected to contribute the highest amount to such account for the Plan Year shall be reduced until the nondiscrimination tests set forth in this Section are satisfied, or until the amount designated for the account equals the amount designated for the account of the affected Participant who has elected the second highest contribution to the Dependent Care Flexible Spending Account for the Plan Year. This process shall continue until the nondiscrimination tests set forth in this Section are satisfied. Contributions which are not utilized to provide Benefits to any Participant by virtue of any administrative act under this paragraph shall be forfeited.

7.11 COORDINATION WITH CAFETERIA PLAN

All Participants under the Cafeteria Plan are eligible to receive Benefits under this Dependent Care Flexible Spending Account. The enrollment and termination of participation under the Cafeteria Plan shall constitute enrollment and termination of participation under this Dependent Care Flexible Spending Account. In addition, other matters concerning contributions, elections and the like shall be governed by the general provisions of the Cafeteria Plan.

7.12 DEPENDENT CARE FLEXIBLE SPENDING ACCOUNT CLAIMS

The Administrator shall direct the payment of all such Dependent Care claims to the Participant upon the presentation to the Administrator of documentation of such expenses in a form satisfactory to the Administrator. However, in the Administrator's discretion, payments may be made directly to the service provider. In its discretion in administering the Plan, the Administrator may utilize forms and require documentation of costs as may be necessary to verify the claims submitted. At a minimum, the form shall include a statement from an independent third party as proof that the expense has been incurred during the Plan Year including the Grace Period and the amount of such expense. In addition, the Administrator may require that each Participant who desires to receive reimbursement under this Program for Employment-Related Dependent Care Expenses submit a statement which may contain some or all of the following information:

(a) The Dependent or Dependents for whom the services were performed;

(b) The nature of the services performed for the Participant, the cost of which he wishes reimbursement;

(c) The relationship, if any, of the person performing the services to the Participant;

(d) If the services are being performed by a child of the Participant, the age of the child;

(e) A statement as to where the services were performed;

(f) If any of the services were performed outside the home, a statement as to whether the Dependent for whom such services were performed spends at least 8 hours a day in the Participant's household;

(g) If the services were being performed in a day care center, a statement:

(1) that the day care center complies with all applicable laws and regulations of the state of residence,

(2) that the day care center provides care for more than 6 individuals (other than individuals residing at the center), and

(3) of the amount of fee paid to the provider.

(h) If the Participant is married, a statement containing the following:

(1) the Spouse's salary or wages if he or she is employed, or

(2) if the Participant's Spouse is not employed, that

(i) he or she is incapacitated, or

(ii) he or she is a full-time student attending an educational institution and the months during the year which he or she attended such institution.

(i) **Grace Period.** Notwithstanding anything in this Section to the contrary, Employment-Related Dependent Care Expenses incurred during the Grace Period, up to the remaining account balance, shall also be deemed to have been incurred during the Plan Year to which the Grace Period relates.

(j) **Claims for reimbursement.** If a Participant fails to submit a claim within 90 days after the end of the Plan Year, those claims shall not be considered for reimbursement by the Administrator.

7.13 DEBIT AND CREDIT CARDS

Participants may, subject to a procedure established by the Administrator and applied in a uniform nondiscriminatory manner, use debit and/or credit (stored value) cards ("cards") provided by the Administrator and the Plan for payment of Employment-Related Dependent Care Expenses, subject to the following terms:

(a) **Card only for dependent care expenses.** Each Participant issued a card shall certify that such card shall only be used for Employment-Related Dependent Care Expenses. The Participant shall also certify that any Employment-Related Dependent Care Expense paid with the card has not already been reimbursed by any other plan covering dependent care benefits and that the Participant will not seek reimbursement from any other plan covering dependent care benefits.

(b) **Card issuance.** Such card shall be issued upon the Participant's Effective Date of Participation and reissued for each Plan Year the Participant remains a Participant in the Dependent Care Flexible Spending Account. Such card shall be automatically cancelled upon the Participant's death or termination of employment, or if such Participant has a change in status that results in the Participant's withdrawal from the Dependent Care Flexible Spending Account.

(c) **Only available for use with certain service providers.** The cards shall only be accepted by such service providers as have been approved by the Administrator. The cards shall only be used for Employment-Related Dependent Care Expenses from these providers.

(d) **Substantiation.** Such purchases by the cards shall be subject to substantiation by the Administrator, usually by submission of a receipt from a service provider describing the service, the date and the amount. The Administrator shall also follow the requirements set forth in Revenue Ruling 2003-43 and Notice 2006-69. All charges shall be conditional pending confirmation and substantiation.

(e) **Correction methods.** If such purchase is later determined by the Administrator to not qualify as an Employment-Related Dependent Care Expense, the Administrator, in its discretion, shall use one of the following correction methods to make the Plan whole. Until the amount is repaid, the Administrator shall take further action to ensure that further violations of the terms of the card do not occur, up to and including denial of access to the card.

(1) Repayment of the improper amount by the Participant;

(2) Withholding the improper payment from the Participant's wages or other compensation to the extent consistent with applicable federal or state law;

(3) Claims substitution or offset of future claims until the amount is repaid; and

(4) if subsections (1) through (3) fail to recover the amount, consistent with the Employer's business practices, the Employer may treat the amount as any other business indebtedness.

ARTICLE VIII
BENEFITS AND RIGHTS

8.1 CLAIM FOR BENEFITS

(a) **Insurance claims.** Any claim for Benefits underwritten by Insurance Contract(s) shall be made to the Insurer. If the Insurer denies any claim, the Participant or beneficiary shall follow the Insurer's claims review procedure.

(b) **Dependent Care Flexible Spending Account or Health Flexible Spending Account claims.** Any claim for Dependent Care Flexible Spending Account or Health Flexible Spending Account Benefits shall be made to the Administrator. For the Health Flexible Spending Account, if a Participant fails to submit a claim within 90 days after the end of the Plan Year, those claims shall not be considered for reimbursement by the Administrator. For the Dependent Care Flexible Spending Account, if a Participant fails to submit a claim within 90 days after the end of the Plan Year, those claims shall not be considered for reimbursement by the Administrator. If the Administrator denies a claim, the Administrator may provide notice to the Participant or beneficiary, in writing, within 90 days after the claim is filed unless special circumstances require an extension of time for processing the claim. The notice of a denial of a claim shall be written in a manner calculated to be understood by the claimant and shall set forth:

(1) specific references to the pertinent Plan provisions on which the denial is based;

(2) a description of any additional material or information necessary for the claimant to perfect the claim and an explanation as to why such information is necessary; and

(3) an explanation of the Plan's claim procedure.

(c) **Appeal.** Within 60 days after receipt of the above material, the claimant shall have a reasonable opportunity to appeal the claim denial to the Administrator for a full and fair review. The claimant or his duly authorized representative may:

(1) request a review upon written notice to the Administrator;

(2) review pertinent documents; and

(3) submit issues and comments in writing.

(d) **Review of appeal.** A decision on the review by the Administrator will be made not later than 60 days after receipt of a request for review, unless special circumstances require an extension of time for processing (such as the need to hold a hearing), in which event a decision should be rendered as soon as possible, but in no event later than 120 days after such receipt. The decision of the Administrator shall be written and shall include specific reasons for the decision, written in a manner calculated to be understood by the claimant, with specific references to the pertinent Plan provisions on which the decision is based.

(e) **Forfeitures.** Any balance remaining in the Participant's Health Flexible Spending Account (excluding any carryover) or Dependent Care Flexible Spending Account as of the end of the time for claims reimbursement for each Plan Year and Grace Period (if applicable) shall be forfeited and deposited in the benefit plan surplus of the Employer pursuant to Section 6.3 or Section 7.8, whichever is applicable, unless the Participant had made a claim for such Plan Year, in writing, which has been denied or is pending; in which event the amount of the claim shall be held in his account until the claim appeal procedures set forth above have been satisfied or the claim is paid. If any such claim is denied on appeal, the amount held beyond the end of the Plan Year shall be forfeited and credited to the benefit plan surplus.

8.2 APPLICATION OF BENEFIT PLAN SURPLUS

Any forfeited amounts credited to the benefit plan surplus by virtue of the failure of a Participant to incur a qualified expense or seek reimbursement in a timely manner may, but need not be, separately accounted for after the close of the Plan Year (or after such further time specified herein for the filing of claims) in which such forfeitures arose. In no event shall such amounts be carried over to reimburse a Participant for expenses incurred during a subsequent Plan Year for the same or any other Benefit available under the Plan (excepting any carryover); nor shall amounts forfeited by a particular Participant be made available to such Participant in any other form or manner, except as permitted by Treasury regulations. Amounts in the benefit plan surplus shall be used to defray any administrative costs and experience losses or used to provide additional benefits under the Plan. No amounts attributable to the Health Savings Account shall be subject to the benefit plan surplus.

ARTICLE IX
ADMINISTRATION

9.1 PLAN ADMINISTRATION

The Employer shall be the Administrator, unless the Employer elects otherwise. The Employer may appoint any person, including, but not limited to, the Employees of the Employer, to perform the duties of the Administrator. Any person so appointed shall signify acceptance by filing acceptance in writing (or such other form as acceptable to both parties) with the Employer. Upon the resignation or removal of any individual performing the duties of the Administrator, the Employer may designate a successor.

If the Employer elects, the Employer shall appoint one or more Administrators. Any person, including, but not limited to, the Employees of the Employer, shall be eligible to serve as an Administrator. Any person so appointed shall signify acceptance by filing acceptance in writing (or such other form as acceptable to both parties) with the Employer. An Administrator may resign by delivering a resignation in writing (or such other form as acceptable to both parties) to the Employer or be removed by the Employer by delivery of notice of removal (in writing or such other form as acceptable to both parties), to take effect at a date specified therein, or upon delivery to the Administrator if no date is specified. The Employer shall be empowered to appoint and remove the Administrator from time to time as it deems necessary for the proper administration of the Plan to ensure that the Plan is being operated for the exclusive benefit of the Employees entitled to participate in the Plan in accordance with the terms of the Plan and the Code.

The operation of the Plan shall be under the supervision of the Administrator. It shall be a principal duty of the Administrator to see that the Plan is carried out in accordance with its terms, and for the exclusive benefit of Employees entitled to participate in the Plan. The Administrator shall have full power and discretion to administer the Plan in all of its details and determine all questions arising in connection with the administration, interpretation, and application of the Plan. The Administrator may establish procedures, correct any defect, supply any information, or reconciles any inconsistency in such manner and to such extent as shall be deemed necessary or advisable to carry out the purpose of the Plan. The Administrator shall have all powers necessary or appropriate to accomplish the Administrator's duties under the Plan. The Administrator shall be charged with the duties of the general administration of the Plan as set forth under the Plan, including, but not limited to, in addition to all other powers provided by this Plan:

(a) To make and enforce such procedures, rules and regulations as the Administrator deems necessary or proper for the efficient administration of the Plan;

(b) To interpret the provisions of the Plan, the Administrator's interpretations thereof in good faith to be final and conclusive on all persons claiming benefits by operation of the Plan;

(c) To decide all questions concerning the Plan and the eligibility of any person to participate in the Plan and to receive benefits provided by operation of the Plan;

(d) To reject elections or to limit contributions or Benefits for certain highly compensated participants if it deems such to be desirable in order to avoid discrimination under the Plan in violation of applicable provisions of the Code;

(e) To provide Employees with a reasonable notification of their benefits available by operation of the Plan and to assist any Participant regarding the Participant's rights, benefits or elections under the Plan;

(f) To keep and maintain the Plan documents and all other records pertaining to and necessary for the administration of the Plan;

(g) To review and settle all claims against the Plan, to approve reimbursement requests, and to authorize the payment of benefits if the Administrator determines such shall be paid if the Administrator decides in its discretion that the applicant is entitled to them. This authority specifically permits the Administrator to settle disputed claims for benefits and any other disputed claims made against the Plan;

(h) To appoint such agents, counsel, accountants, consultants, and other persons or entities as may be required to assist in administering the Plan.

Any procedure, discretionary act, interpretation or construction taken by the Administrator shall be done in a nondiscriminatory manner based upon uniform principles consistently applied and shall be consistent with the intent that the Plan shall continue to comply with the terms of Code Section 125 and the Treasury regulations thereunder.

9.2 EXAMINATION OF RECORDS

The Administrator shall make available to each Participant, Eligible Employee and any other Employee of the Employer such records as pertain to their interest under the Plan for examination at reasonable times during normal business hours.

9.3 PAYMENT OF EXPENSES

Any reasonable administrative expenses shall be paid by the Employer unless the Employer determines that administrative costs shall be borne by the Participants under the Plan or by any Trust Fund which may be established hereunder. The Administrator may impose reasonable conditions for payments, provided that such conditions shall not discriminate in favor of highly compensated employees.

9.4 INSURANCE CONTROL CLAUSE

In the event of a conflict between the terms of this Plan and the terms of an Insurance Contract of an independent third party Insurer whose product is then being used in conjunction with this Plan, the terms of the Insurance Contract shall control as to those Participants receiving coverage under such Insurance Contract. For this purpose, the Insurance Contract shall control in defining the persons eligible for insurance, the dates of their eligibility, the conditions which must be satisfied to become insured, if any, the benefits Participants are entitled to and the circumstances under which insurance terminates.

9.5 INDEMNIFICATION OF ADMINISTRATOR

The Employer agrees to indemnify and to defend to the fullest extent permitted by law any Employee serving as the Administrator or as a member of a committee designated as Administrator (including any Employee or former Employee who previously served as Administrator or as a member of such committee) against all liabilities, damages, costs and expenses (including attorney's fees and amounts paid in settlement of any claims approved by the Employer) occasioned by any act or omission to act in connection with the Plan, if such act or omission is in good faith.

ARTICLE X
AMENDMENT OR TERMINATION OF PLAN

10.1 AMENDMENT

The Employer, at any time or from time to time, may amend any or all of the provisions of the Plan without the consent of any Employee or Participant. No amendment shall have the effect of modifying any benefit election of any Participant in effect at the time of such amendment, unless such amendment is made to comply with Federal, state or local laws, statutes or regulations.

10.2 TERMINATION

The Employer reserves the right to terminate this Plan, in whole or in part, at any time. In the event the Plan is terminated, no further contributions shall be made. Benefits under any Insurance Contract shall be paid in accordance with the terms of the Insurance Contract.

No further additions shall be made to the Health Flexible Spending Account or Dependent Care Flexible Spending Account, but all payments from such fund shall continue to be made according to the elections in effect until 90 days after the termination date of the Plan. Any amounts remaining in any such fund or account as of the end of such period shall be forfeited and deposited in the benefit plan surplus after the expiration of the filing period.

ARTICLE XI
MISCELLANEOUS

11.1 PLAN INTERPRETATION

All provisions of this Plan shall be interpreted and applied in a uniform, nondiscriminatory manner. This Plan shall be read in its entirety and not severed except as provided in Section 11.12.

11.2 GENDER, NUMBER AND TENSE

Wherever any words are used herein in one gender, they shall be construed as though they were also used in all genders in all cases where they would so apply; whenever any words are used herein in the singular or plural form, they shall be construed as though they were also used in the other form in all cases where they would so apply; and whenever any words are used herein in the past or present tense, they shall be construed as though they were also used in the other form in all cases where they would so apply.

11.3 WRITTEN DOCUMENT

This Plan, in conjunction with any separate written document which may be required by law, is intended to satisfy the written Plan requirement of Code Section 125 and any Treasury regulations thereunder relating to cafeteria plans.

11.4 EXCLUSIVE BENEFIT

This Plan shall be maintained for the exclusive benefit of the Employees who participate in the Plan.

11.5 PARTICIPANT'S RIGHTS

This Plan shall not be deemed to constitute an employment contract between the Employer and any Participant or to be a consideration or an inducement for the employment of any Participant or Employee. Nothing contained in this Plan shall be deemed to give any Participant or Employee the right to be retained in the service of the Employer or to interfere with the right of the Employer to discharge any Participant or Employee at any time regardless of the effect which such discharge shall have upon him as a Participant of this Plan.

11.6 ACTION BY THE EMPLOYER

Whenever the Employer under the terms of the Plan is permitted or required to do or perform any act or matter or thing, it shall be done and performed by a person duly authorized by its legally constituted authority.

11.7 EMPLOYER'S PROTECTIVE CLAUSES

(a) **Insurance purchase.** Upon the failure of either the Participant or the Employer to obtain the insurance contemplated by this Plan (whether as a result of negligence, gross neglect or otherwise), the Participant's Benefits shall be limited to the insurance premium(s), if any, that remained unpaid for the period in question and the actual insurance proceeds, if any, received by the Employer or the Participant as a result of the Participant's claim.

(b) **Validity of insurance contract.** The Employer shall not be responsible for the validity of any Insurance Contract issued hereunder or for the failure on the part of the Insurer to make payments provided for under any Insurance Contract. Once insurance is applied for or obtained, the Employer shall not be liable for any loss which may result from the failure to pay Premiums to the extent Premium notices are not received by the Employer.

11.8 NO GUARANTEE OF TAX CONSEQUENCES

Neither the Administrator nor the Employer makes any commitment or guarantee that any amounts paid to or for the benefit of a Participant under the Plan will be excludable from the Participant's gross income for federal or state income tax purposes, or that any other federal or state tax treatment will apply to or be available to any Participant. It shall be the obligation of each Participant to determine whether each payment under the Plan is excludable from the Participant's gross income for federal and state income tax purposes, and to notify the Employer if the Participant has reason to believe that any such payment is not so excludable. Notwithstanding the foregoing, the rights of Participants under this Plan shall be legally enforceable.

11.9 INDEMNIFICATION OF EMPLOYER BY PARTICIPANTS

If any Participant receives one or more payments or reimbursements under the Plan that are not for a permitted Benefit, such Participant shall indemnify and reimburse the Employer for any liability it may incur for failure to withhold federal or state income tax or Social Security tax from such payments or reimbursements. However, such indemnification and reimbursement shall not exceed the amount of additional federal and state income tax (plus any penalties) that the Participant would have owed if the payments or reimbursements had been made to the Participant as regular cash compensation, plus the Participant's share of any Social Security tax that would have been paid on such compensation, less any such additional income and Social Security tax actually paid by the Participant.

11.10 FUNDING

Unless otherwise required by law, contributions to the Plan need not be placed in trust or dedicated to a specific Benefit, but may instead be considered general assets of the Employer. Furthermore, and unless otherwise required by law, nothing herein shall be construed to require the Employer or the Administrator to maintain any fund or segregate any amount for the benefit of any Participant, and no Participant or other person shall have any claim against, right to, or security or other interest in, any fund, account or asset of the Employer from which any payment under the Plan may be made.

11.11 GOVERNING LAW

This Plan is governed by the Code and the Treasury regulations issued thereunder (as they might be amended from time to time). In no event shall the Employer guarantee the favorable tax treatment sought by this Plan. To the extent not preempted by Federal law, the provisions of this Plan shall be construed, enforced and administered according to the laws of the Commonwealth of Virginia.

11.12 SEVERABILITY

If any provision of the Plan is held invalid or unenforceable, its invalidity or unenforceability shall not affect any other provisions of the Plan, and the Plan shall be construed and enforced as if such provision had not been included herein.

11.13 CAPTIONS

The captions contained herein are inserted only as a matter of convenience and for reference, and in no way define, limit, enlarge or describe the scope or intent of the Plan, nor in any way shall affect the Plan or the construction of any provision thereof.

11.14 CONTINUATION OF COVERAGE (COBRA)

Notwithstanding anything in the Plan to the contrary, in the event any benefit under this Plan subject to the continuation coverage requirement of Code Section 4980B becomes unavailable, each Participant will be entitled to continuation coverage as prescribed in Code Section 4980B, and related regulations. This Section shall only apply if the Employer employs at least twenty (20) employees on more than 50% of its typical business days in the previous calendar year.

11.15 FAMILY AND MEDICAL LEAVE ACT (FMLA)

Notwithstanding anything in the Plan to the contrary, in the event any benefit under this Plan becomes subject to the requirements of the Family and Medical Leave Act and regulations thereunder, this Plan shall be operated in accordance with Regulation 1.125-3.

11.16 HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA)

Notwithstanding anything in this Plan to the contrary, this Plan shall be operated in accordance with HIPAA and regulations thereunder.

11.17 UNIFORMED SERVICES EMPLOYMENT AND REEMPLOYMENT RIGHTS ACT (USERRA)

Notwithstanding any provision of this Plan to the contrary, contributions, benefits and service credit with respect to qualified military service shall be provided in accordance with the Uniform Services Employment And Reemployment Rights Act (USERRA) and the regulations thereunder.

11.18 COMPLIANCE WITH HIPAA PRIVACY STANDARDS

(a) **Application.** If any benefits under this Cafeteria Plan are subject to the Standards for Privacy of Individually Identifiable Health Information (45 CFR Part 164, the "Privacy Standards"), then this Section shall apply.

(b) **Disclosure of PHI.** The Plan shall not disclose Protected Health Information to any member of the Employer's workforce unless each of the conditions set out in this Section are met. "Protected Health Information" shall have the same definition as set forth in the Privacy Standards but generally shall mean individually identifiable information about the past, present or future physical or mental health or condition of an individual, including genetic information and information about treatment or payment for treatment.

(c) **PHI disclosed for administrative purposes.** Protected Health Information disclosed to members of the Employer's workforce shall be used or disclosed by them only for purposes of Plan administrative functions. The Plan's administrative functions shall include all Plan payment functions and health care operations. The terms "payment" and "health care operations" shall have the same definitions as set out in the Privacy Standards, but the term "payment" generally shall mean activities taken to determine or fulfill Plan responsibilities with respect to eligibility, coverage, provision of benefits, or reimbursement for health care. Protected Health Information that consists of genetic information will not be used or disclosed for underwriting purposes.

(d) **PHI disclosed to certain workforce members.** The Plan shall disclose Protected Health Information only to members of the Employer's workforce who are designated and authorized to receive such Protected Health Information, and only to the extent and in the minimum amount necessary for that person to perform his or her duties with respect to the Plan. "Members of the Employer's workforce" shall refer to all employees and other persons under the control of the Employer. The Employer shall keep an updated list of those authorized to receive Protected Health Information.

(1) An authorized member of the Employer's workforce who receives Protected Health Information shall use or disclose the Protected Health Information only to the extent necessary to perform his or her duties with respect to the Plan.

(2) In the event that any member of the Employer's workforce uses or discloses Protected Health Information other than as permitted by this Section and the Privacy Standards, the incident shall be reported to the Plan's privacy official. The privacy official shall take appropriate action, including:

(i) investigation of the incident to determine whether the breach occurred inadvertently, through negligence or deliberately; whether there is a pattern of breaches; and the degree of harm caused by the breach;

(ii) appropriate sanctions against the persons causing the breach which, depending upon the nature of the breach, may include oral or written reprimand, additional training, or termination of employment;

(iii) mitigation of any harm caused by the breach, to the extent practicable; and

(iv) documentation of the incident and all actions taken to resolve the issue and mitigate any damages.

(e) **Certification.** The Employer must provide certification to the Plan that it agrees to:

(1) Not use or further disclose the information other than as permitted or required by the Plan documents or as required by law;

(2) Ensure that any agent or subcontractor, to whom it provides Protected Health Information received from the Plan, agrees to the same restrictions and conditions that apply to the Employer with respect to such information;

(3) Not use or disclose Protected Health Information for employment-related actions and decisions or in connection with any other benefit or employee benefit plan of the Employer;

(4) Report to the Plan any use or disclosure of the Protected Health Information of which it becomes aware that is inconsistent with the uses or disclosures permitted by this Section, or required by law;

(5) Make available Protected Health Information to individual Plan members in accordance with Section 164.524 of the Privacy Standards;

(6) Make available Protected Health Information for amendment by individual Plan members and incorporate any amendments to Protected Health Information in accordance with Section 164.526 of the Privacy Standards;

(7) Make available the Protected Health Information required to provide an accounting of disclosures to individual Plan members in accordance with Section 164.528 of the Privacy Standards;

(8) Make its internal practices, books and records relating to the use and disclosure of Protected Health Information received from the Plan available to the Department of Health and Human Services for purposes of determining compliance by the Plan with the Privacy Standards;

(9) If feasible, return or destroy all Protected Health Information received from the Plan that the Employer still maintains in any form, and retain no copies of such information when no longer needed for the purpose for which disclosure was made, except that, if such return or destruction is not feasible, limit further uses and disclosures to those purposes that make the return or destruction of the information infeasible; and

(10) Ensure the adequate separation between the Plan and members of the Employer's workforce, as required by Section 164.504(f)(2)(iii) of the Privacy Standards and set out in (d) above.

11.19 COMPLIANCE WITH HIPAA ELECTRONIC SECURITY STANDARDS

Under the Security Standards for the Protection of Electronic Protected Health Information (45 CFR Part 164.300 et. seq., the "Security Standards"):

(a) **Implementation.** The Employer agrees to implement reasonable and appropriate administrative, physical and technical safeguards to protect the confidentiality, integrity and availability of Electronic Protected Health Information that the Employer creates, maintains or transmits on behalf of the Plan. "Electronic Protected Health Information" shall have the same definition as set out in the Security Standards, but generally shall mean Protected Health Information that is transmitted by or maintained in electronic media.

(b) **Agents or subcontractors shall meet security standards.** The Employer shall ensure that any agent or subcontractor to whom it provides Electronic Protected Health Information shall agree, in writing, to implement reasonable and appropriate security measures to protect the Electronic Protected Health Information.

(c) **Employer shall ensure security standards.** The Employer shall ensure that reasonable and appropriate security measures are implemented to comply with the conditions and requirements set forth in Section 11.18.

11.20 MENTAL HEALTH PARITY AND ADDICTION EQUITY ACT

Notwithstanding anything in the Plan to the contrary, the Plan will comply with the Mental Health Parity and Addiction Equity Act.

11.21 GENETIC INFORMATION NONDISCRIMINATION ACT (GINA)

Notwithstanding anything in the Plan to the contrary, the Plan will comply with the Genetic Information Nondiscrimination Act.

11.22 WOMEN'S HEALTH AND CANCER RIGHTS ACT

Notwithstanding anything in the Plan to the contrary, the Plan will comply with the Women's Health and Cancer Rights Act of 1998.

11.23 NEWBORNS' AND MOTHERS' HEALTH PROTECTION ACT

Notwithstanding anything in the Plan to the contrary, the Plan will comply with the Newborns' and Mothers' Health Protection Act.

IN WITNESS WHEREOF, this Plan document is hereby executed this ___________ day of _____________________________.

Rivanna Water and Sewer Authority

By ____
EMPLOYER

RIVANNA WATER & SEWER AUTHORITY
695 Moores Creek Lane | Charlottesville, Virginia 22902-9016
434.977.2970
434.293.8858
www.rivanna.org

MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND ADMINISTRATION

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: ANNUAL COMPREHENSIVE FINANCIAL REPORT FISCAL YEAR ENDING JUNE 30, 2022

DATE: DECEMBER 13, 2022

The Authority's Annual Comprehensive Financial Report for the fiscal year ending June 30, 2022 is included with your Board packet. A large part of preparing the financial statements involves having the financial reports audited for the purposes of obtaining an opinion from an independent Certified Public Accountant as to the accuracy of the information presented in the report.

The audit also reviews internal accounting controls and tests for compliance with relevant laws and regulations as a function of expressing the firm's opinion on the financial information. I am pleased to inform you that the Authority received an unmodified opinion, which is the highest opinion that the financial statements are materially accurate and fairly presented.

Mr. Matthew McLearen, a principal of the Charlottesville office of Robinson, Farmer, Cox Associates, will be at the meeting to give a brief review of the audit and discuss any audit findings the firm may have. A letter communicating several aspects of the review is attached for you as well.

I would also like to thank Kathy Ware, Senior Accountant, who performed much of the detailed work in the preparation of this report. The entire administrative staff deserves management's appreciation for their hard work during the year in processing our transactions and their assistance during the audit.

This report will be submitted to the Certification Program of the Government Finance Officers Association.

Attachment: Annual Comprehensive Financial Report
Communication with Those Charged with Governance

ROBINSON, FARMER, COX ASSOCIATES, PLLC

Certified Public Accountants

CPAs | CONSULTANTS

Communication with Those Charged with Governance

To the Board of Directors
Rivanna Water & Sewer Authority

We have audited the financial statements of financial statements of Rivanna Water & Sewer Authority for the year ended June 30, 2022. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated August 1, 2022. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by Rivanna Water & Sewer Authority are described in Note 1 to the financial statements. As described in Note 16 to the financial statements, Rivanna Water & Sewer Authority changed accounting policies by adopting Statement of Governmental Accounting Standard (GASB Statement) No. 87, *Leases*. We noted no transactions entered into by the entity during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting the Authority's financial statements were:

> Management's estimate of the useful lives of depreciable assets is based on industry standards. Pension and OPEB estimates were determined by valuations performed by actuaries. We evaluated the key factors and assumptions used to develop the estimates in determining that they are reasonable in relation to the financial statements taken as a whole.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of audit procedures and corrected by management were material, either individually or in the aggregate, to each opinion unit's financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditors' report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated October 31, 2022.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the entity's financial statements or a determination of the type of auditors' opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as the entity's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to management's discussion and analysis and the schedules related to pension and OPEB funding, which are required supplementary information (RSI) that supplements the basic financial statements. Our procedures consisted of inquiries of management regarding 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 did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were not engaged to report on the introductory section or statistical section which accompany the financial statements but are not RSI. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Restriction on Use

This information is intended solely for the use of the Board of Directors and management of Rivanna Water & Sewer Authority and is not intended to be, and should not be, used by anyone other than these specified parties.

Robinson, Farmer, Cox Associates
Charlottesville, Virginia
October 31, 2022

RIVANNA

WATER & SEWER AUTHORITY

ANNUAL COMPREHENSIVE FINANCIAL REPORT
YEAR ENDED JUNE 30, 2022

Serving Charlottesville & Albemarle County, Virginia

Front cover photo is Beaver Creek Reservoir

Rivanna Water & Sewer Authority
Charlottesville, Virginia

Annual Comprehensive Financial Report

Year Ended June 30, 2022

Prepared By:

Department of Finance and Administration

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RIVANNA WATER & SEWER AUTHORITY

Annual Comprehensive Financial Report
Year Ended June 30, 2022

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RIVANNA WATER & SEWER AUTHORITY

Annual Comprehensive Financial Report
Year Ended June 30, 2022

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BOARD MEMBERS

Michael A. Gaffney, Chair

Michael C. Rogers, Vice-Chair

Jeff Richardson, Secretary-Treasurer

Lauren Hildebrand

Ann Mallek

Gary B. O'Connell

Brian Pinkston

EXECUTIVE DIRECTOR

William I. Mawyer, Jr., P.E.

DIRECTOR OF FINANCE/ADMINISTRATION

Lonzy E. Wood, III

GENERAL COUNSEL

Williams, Mullen, Clark & Dobbins, P.C.
Richmond, Virginia

TRUSTEE AND ESCROW AGENT

Bank of New York Mellon
New York, New York

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695 MOORES CREEK LANE
CHARLOTTESVILLE, VA 22902-9016
TEL: 434.977.2970
FAX: 434.293.8858
WWW.RIVANNA.ORG

October 31, 2022

To the Board of Directors
Rivanna Water and Sewer Authority
Charlottesville, Virginia

The Annual Comprehensive Financial Report (ACFR) of the Rivanna Water and Sewer Authority (the Authority) for the fiscal year ended June 30, 2022 is submitted herewith. This report has been prepared in conformity with the reporting and accounting standards promulgated by the Government Accounting Standards Board and the Financial Accounting Standards Board and with the accounting and reporting standards for enterprise funds set out by the Government Finance Officers Association of the United States and Canada, with such modifications as apply to our status as an independently chartered corporation.

Based upon a comprehensive framework of internal control that it has established for this purpose, management assumes responsibility for the completeness and reliability of the information contained in this report. The objective of internal control is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements, because the cost of each internal control should not outweigh the potential benefit.

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. MD&A complements this letter of transmittal and should be read in conjunction with it.

ORGANIZATION AND SERVICES PROVIDED

The Rivanna Water and Sewer Authority is a regional non-profit public corporation and political subdivision of the Commonwealth of Virginia chartered in 1972 under the Virginia Water and Waste Authorities Act (1950, as amended), that supplies drinking water to and treats the wastewater of Charlottesville (City) and certain areas of Albemarle County (County). The Authority is a wholesale agency and bills monthly both Charlottesville and the Albemarle County Service Authority, which handle retail distribution of water and collection of sewage in their respective service areas.

The Authority is charged to acquire, finance, construct, operate and maintain facilities for the impoundment, production, storage, treatment and transmission of potable water and for the interception, treatment and discharge of wastewater. The Authority operates under the terms of a Service Agreement signed June 12, 1973 by the officers of the Charlottesville City Council, the Albemarle County Board of Supervisors, the Albemarle County Service Authority and the Rivanna Water and Sewer Authority. The Authority has determined that it is not part of the reporting entity of either the City of Charlottesville or the County of Albemarle and will not be included in the financial report of either (see Note 1 to the Financial Statements).

ORGANIZATION AND SERVICES PROVIDED: (CONTINUED)

The Authority is governed by a seven-member Board of Directors (Board). The Board appoints an Executive Director, who manages Authority operations under its direction. The Authority is now organized in administration, laboratory, engineering, maintenance, water, and wastewater departments. The Authority operates and maintains six water treatment plants and four wastewater treatment plants and the associated water storage facilities, pump stations, transmission mains and interceptor sewers. Retail distribution of water and collection of wastewater is performed by the Authority's two customers: the City of Charlottesville's Utilities Division and the Albemarle County Service Authority.

JOINT ADMINISTRATION

By mutual agreement of the respective Boards of Directors, the Authority currently shares administrative staff and office space with the Rivanna Solid Waste Authority, which is billed monthly for its portion of the costs. Administrative procedures were implemented to ensure proper segregation of funds, purchasing activity, personnel, and similar matters. The Authorities also agreed to administer joint Safety Regulations and a joint Safety Program.

ECONOMIC CONDITION AND PROSPECTS

Both Charlottesville and Albemarle County traditionally enjoy low unemployment rates, steady economic growth and high bond ratings. The local economy was dramatically affected by the COVID-19 pandemic like the rest of the state and nation several years ago but appears to have fully recovered. Recently, unemployment rates have started to increase slightly to 2.9% in June of 2022 compared to a low of 2.3% in December of 2021. However, those rates are comparable to pre-pandemic unemployment rate of 2.1%.

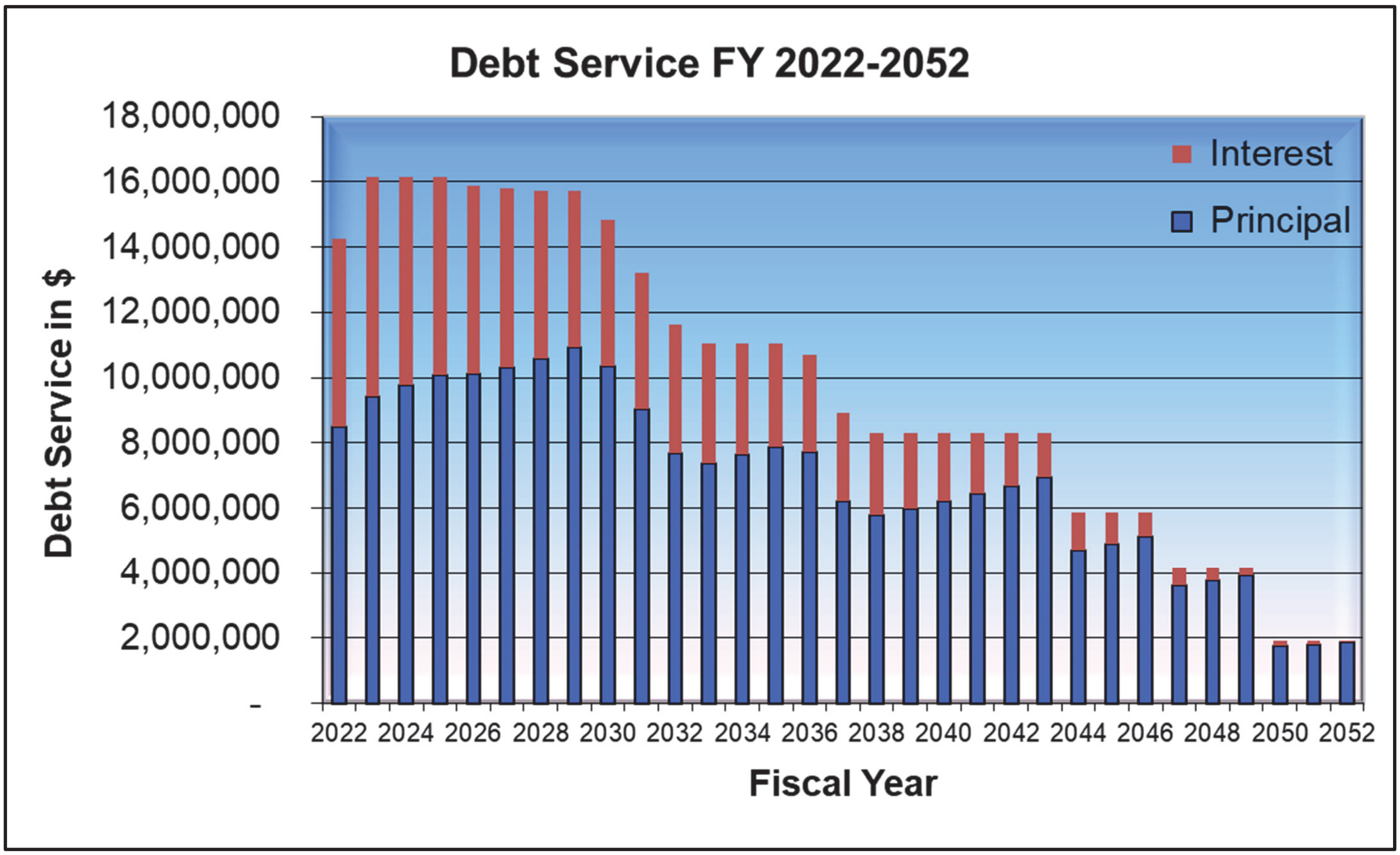
The water and wastewater services of the Authority are considered essential services, and none of our facilities were closed during the pandemic. The Administrative offices were closed to the public and were still closed for most of the year, however, most staff were working in the office as business continued for such things as deliveries, processing transactions, mail processing, bid openings, employee onboarding, etc. Some employees were on staggered schedules and others in a work-from-home status. The Authority did not have to furlough any of its employees. There were no impacts to our operations and budget.

The University of Virginia provides a significant buffer against large swings in the economy of our service area. In addition, the Charlottesville urban area is a major retail trade center for the surrounding region. Housing growth remains steady. As inflation increased during the year, interest rates and house activity began to cool off. After a very active market for housing in early 2021, there was a drop in sales of 11% in the second quarter of 2022 compared to a year earlier according to the Charlottesville Area Association of Realtors. Despite the slowdown, housing prices still gained $41,850 per unit with the median price climbing to $417,850.

ECONOMIC CONDITION AND PROSPECTS (CONTINUED)

LONG-TERM FINANCIAL PLANNING

Despite the significant infrastructure needs identified in the CIP, the Authority is positioned to provide for these needs by using more cash up front for projects and having a debt and rate structure (and a system for increasing debt charges to our customers) that will accommodate more debt in the future. The Authority has slowly but consistently been implementing rate increases to pay for such infrastructure needs in 5-year increments. This practice encourages the creation of reserves for capital spending until a project is started and partially financed with debt proceeds. As shown in the following graph, which represents debt service payments on existing debt, the Authority has a consistent to a declining debt structure for the next 10 years with large declines thereafter. Additionally, the rates are currently programmed to generate $19.7 million annually in debt service revenues; however, the water and wastewater capital needs will require additional rate increases in the future to maintain solid cash positions and fund future debt service needs.



MAJOR INITIATIVES

The Authority uses our strategic plan developed several years ago to guide our budgeting, policy development and daily operational efforts. The coming year, staff will update the plan with new priorities, measures, and strategies. The draft framework is shown below:

VISION

To serve the community as a recognized leader in environmental stewardship by providing exceptional water and solid waste services.

MISSION

Our knowledgeable and professional team serves the Charlottesville, Albemarle, and UVA community by providing high-quality water and wastewater treatment, refuse, and recycling services in a financially responsible and sustainable manner.

VALUES

INTEGRITY: We are open and transparent, led by example, and are committed to ethical behavior

TEAMWORK: We work collaboratively to help each other succeed and serve the community

RESPECT: We treat our fellow employees, customers, business partners, and stakeholders with dignity and respect by embracing their diverse backgrounds and experiences

QUALITY: We deliver exceptional services and products, serve our community responsibly, and safeguard natural resources

There are several capital improvements that were under construction this year with the Observatory and South Rivanna water treatment plants improvements projects. These three projects are estimated to cost $43 million. The plants must stay on-line during the construction process which takes great efforts to plan out the improvements and coordinate with operating staff to meet our production and construction goals.

Future Projects:

Two of the largest projects in the next 5 years.

- Beaver Creek dam and raw water pump station projects. The current dam does not meet dam safety standards and will undergo spillway modifications which will impact the existing raw water pump station. Estimated costs of these projects is $31.8 million.

- The Central Water Line project will construct a new finished water line through the southern parts of the urban area. This will be solving a long-standing hydraulic and redundancy issue between the two main water treatment plants. The plants currently have challenges serving the full pressure zones needs of the entire urban system independently. This project is estimated to cost $24 million.

See the MD&A for more information.

BUDGETARY CONTROLS AND FINANCIAL POLICIES

The Authority is required by the Service Agreement to adopt an annual budget for setting wholesale rates as well as for fiscal guidance to staff. Separate fiscal year budgets are currently prepared for six rate centers to include direct costs and allocations of administrative, engineering, maintenance, lab and debt service expenses. Until the Service Agreement was amended in August 2015, projections of flows and expenses were used to calculate rates per thousand gallons for the two Urban rate centers and flat monthly charges for the other rate centers to cover both operating and debt service costs. Actual flows vary each year from the flows estimated when the rates were set, due to unpredictable weather conditions. Effective with the October 2015 billing, RWSA began charging a fixed monthly rate for the Urban rate center debt service costs while continuing to charge operations rates per thousand gallons. This was a very positive change, because RWSA is required to make fixed debt service payments each fiscal year, and it is important to have a fixed revenue source to pay those expenses.

A proposed budget for each fiscal year is prepared by the Authority Directors and the Executive Director and submitted to the Board of Directors, usually in February, with a public hearing held on the proposed rates in April or May. All budget items lapse at the end of the fiscal year except capital commitments. It should be noted that the budget is prepared for internal use and does not reflect the accrual basis of accounting. An example of this is that principal payments on debt are shown as an expense.

Budgetary compliance is monitored and reported to the Board by the Director of Finance & Administration and the Executive Director. Projections of both revenues and expenses are understood to reflect anticipated service levels and to incorporate a variety of economic, climatic, and demographic forecasts. Variances from budget line items are examined at least monthly to assure a reasonable relation between actual costs and actual service levels, emergencies, or economic conditions. The Authority Board of Directors adopted in August 2011 certain financial policies that help guide the capital and operating budget process by defining reserves, reserve goals, uses of discretionary funds, and setting financial targets on debt and capital funding. The financial policy was revised in October 2014 for continuing disclosure and post issuance compliance requirements, and again in August 2020 to better define reserves and change the way debt service charges are established.

The Authority's accounting records are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned and expenses are recorded when incurred, without regard to receipt or payment of cash. Current controls provide reasonable assurance that the Authority's assets are properly recorded and protected and that the financial data may be used with confidence in the preparation of historical reports and projections. Accounting control is maintained by segregation of duties and data security systems in all areas of record keeping, disbursements, and purchasing authority. These controls are reviewed regularly by staff and are evaluated as part of the annual financial audit (see Annual Audit section below).

ANNUAL AUDIT

The Code of Virginia, the June 12, 1973 Service Agreement, the Trust Agreement and its Supplements require an annual audit of the books and records of the Authority. The opinion of our independent certified public accountants is included in the Financial Section.

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to Rivanna Water and Sewer Authority for its annual comprehensive financial report for the fiscal year ended June 30, 2021. To be awarded a Certificate of Achievement, a governmental unit must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy 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 annual comprehensive financial report 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.

ACKNOWLEDGEMENTS

The help of the Authority's staff, especially Kathy Ware, Senior Accountant, and of our certified public accountants is gratefully acknowledged. Such help and the Board of Directors' support and commitment to financial reporting excellence are essential to the preparation of this report.

Respectfully submitted,

William I. Mawyer, PE
Executive Director

Lonzy E. Wood, III, CPA
Director of Finance and Administration

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Rivanna Water & Sewer Authority
Virginia

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2021

Christopher P. Morrill

Executive Director/CEO

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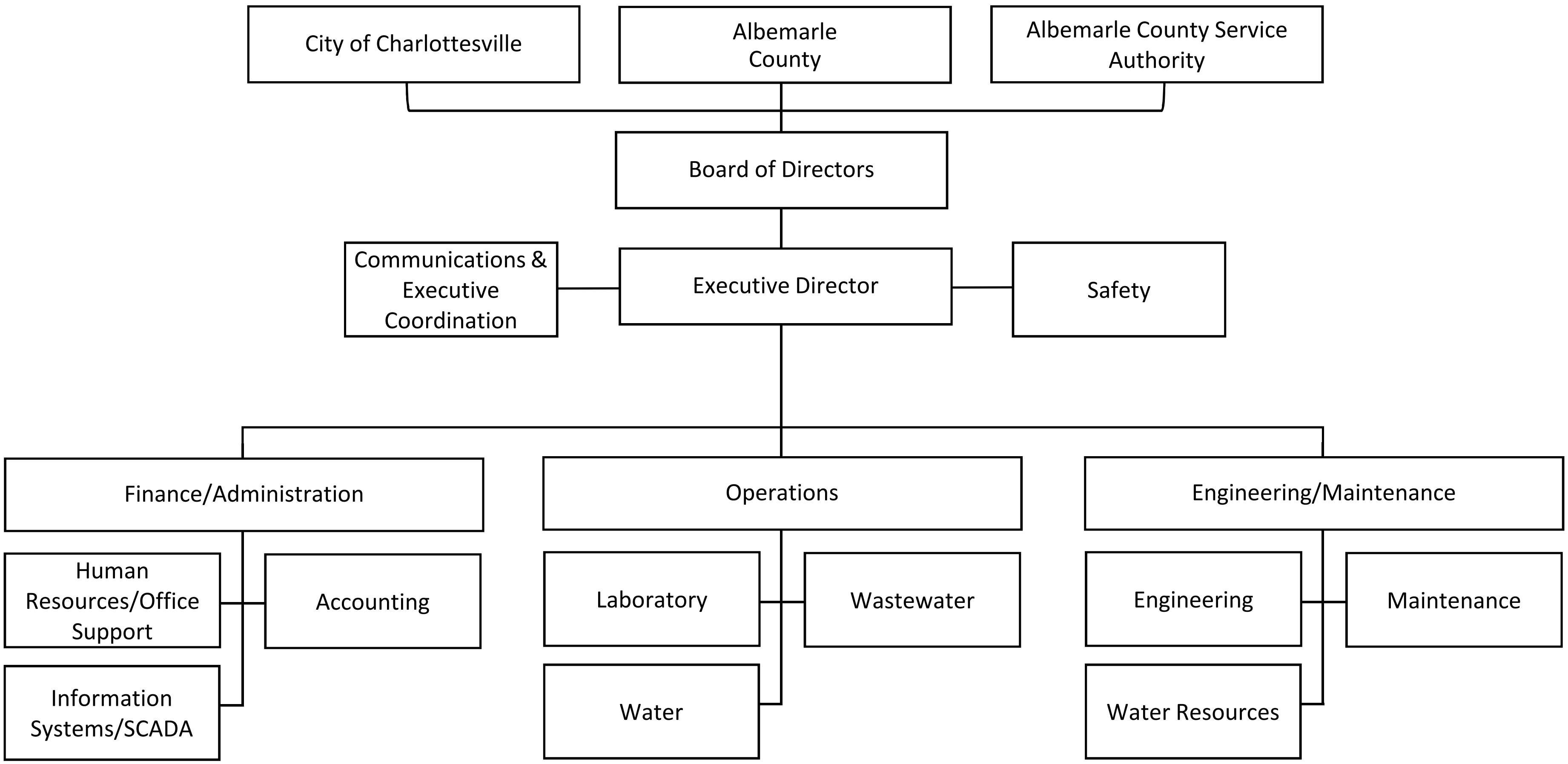
Rivanna Water & Sewer Authority

Organizational Chart



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Independent Auditors' Report

To the Board of Directors
Rivanna Water & Sewer Authority
Charlottesville, Virginia

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the business-type activities of Rivanna Water& Sewer Authority, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the 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 Rivanna Water& Sewer 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 Rivanna Water& Sewer 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 16 to the financial statements, in 2022, the Authority adopted new accounting guidance, GASB Statement Nos. 87, Leases and 92, Omnibus. 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 Rivanna Water& Sewer 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 Standar*ds, 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 Rivanna Water & Sewer 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 Rivanna Water & Sewer 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.

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 do 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 October 31, 2022, on our consideration of Rivanna Water & Sewer 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 Rivanna Water & Sewer 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 Water& Sewer Authority's internal control over financial reporting and compliance.

Robinson, Farmer, Cox Associates

Charlottesville, Virginia
October 31, 2022

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To the Board of Directors
Rivanna Water & Sewer Authority
Charlottesville, Virginia

As management of the Rivanna Water & Sewer 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. We encourage readers to consider the information presented here in conjunction with additional information that we have furnished in our letter of transmittal, which can be found on pages 3 through 8 of this report.

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 only two components: 1) enterprise fund financial statements and 2) notes to the financial statements. This report also contains required supplementary information in addition to the basic financial statements themselves.

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 assets, deferred outflows of resources, liabilities, and deferred inflow of resources with the difference 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 the 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 on pages 30 through 33 of this report.

Notes to the 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 the financial statements can be found on pages 35 through 74 of this report.

Required supplementary information. This report also includes required supplementary information concerning the Authority's progress in funding its obligation to provide pension and other postemployment benefits to its employees. It is located immediately following the notes to financial statements.

Financial Highlights:

- The Authority's total net position increased by $4.7 million in FY 2022.

- Construction in progress increased by $19.7 million this year with $24.7 million in construction costs incurred and $4.9 million in capital projects completed and capitalized.

- Noncurrent liabilities increased by $31.9 million this year. This is primarily the result of new debt being issued with a par amount of $36.9 million.

Financial Highlights: (Continued)

- Adjustments were recorded this year to increase noncurrent assets and deferred inflows of resources by $1.96 million and to increase capital assets and noncurrent liabilities by $4.9 million to implement GASB No. 87, Leases.
- Operating revenues increased by $2.7 million mainly due to rate increases.
- Total operating expenses increased $502,000, primarily due to increased personnel costs and operations and maintenance expenses.

Financial Analysis:

Total net position increased $4.7 million this year, which is an indication that the Authority's overall financial position improved. The Authority's assets and deferred outflows exceeded its liabilities and deferred inflows (net position) by $164.9 million at June 30, 2022. Of this amount, $32.8 million (unrestricted net position) may be used to meet the Authority's normal ongoing operating obligations to customers and creditors while $4.6 million of net position is restricted for the bondholders. The net investment in capital assets net position increased $1.0 million this year primarily due to construction spending. The largest portion of the Authority's net position (77%) reflects its investment in capital assets, net of depreciation and related debt outstanding that was used to acquire those assets. 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 capital assets net position is reported net of related debt, the resources needed to repay this debt are derived from the revenue generating capability of these capital assets and not from the capital assets themselves.

	Net Position	
	2022	**2021**
Current and other assets	$ 80,917,654	$ 57,470,866
Capital assets	316,991,975	295,218,671
Total assets	$ 397,909,629	$ 352,689,537
Deferred outflows of resources	$ 1,891,737	$ 1,953,105
Noncurrent liabilities	$ 211,091,731	$ 179,197,893
Current liabilities	18,610,814	14,731,412
Total liabilities	$ 229,702,545	$ 193,929,305
Deferred inflows of resources	$ 5,239,849	$ 543,229
Net position:		
Net investment in capital assets	$ 127,517,995	$ 126,518,011
Restricted for bond covenants	4,581,454	4,726,258
Unrestricted	32,759,523	28,925,839
Total net position	$ 164,858,972	$ 160,170,108

Due to the implementation of GASB No. 87, Leases, adjustments were made at the beginning of this year to record a lease receivable and an offsetting deferred inflow of resources of $1.96 million as lessor and a right-to-use lease asset (capital asset) and offsetting lease liability of $4.9 million as lessee. See Notes 4, 5, and 16 of the notes to the financial statements for more information.

Financial Analysis: (Continued)

Operating revenues increased by $2.7 million this year. This increase was due to significant increases in the rates charged as formulated in the FY 2022 budget. Rates and charges to our two customers were estimated to increase 11.3%. Rates had not increased since FY 2020. A more detailed look at rates and charges are reviewed in the Review of Operations section.

Total operating expenses increased by $502,000 or 2% in FY 2022 primarily due to increases in personnel and IT costs. Key elements of these changes are explained further in the Review of Operations section.

	Changes in Net Position	
	2022	2021
Revenues:		
Operating revenues:		
Metered water sales	$ 19,279,042	$ 16,395,335
Wastewater service charges	18,694,954	18,887,091
Nonoperating revenues:		
Investment earnings	222,088	125,631
Interest revenue - leases	19,058	-
Administrative reimbursement	557,071	561,473
Lease revenue	143,451	100,804
Other revenues	245,766	546,217
Total revenues	$ 39,161,430	$ 36,616,551
Expenses:		
Operating expenses:		
Personnel costs	$ 9,478,916	$ 9,315,313
Professional services	925,766	1,062,473
Other services and charges	4,275,419	3,812,208
Operations and maintenance	5,579,336	5,825,420
Depreciation and amortization	7,878,076	7,620,209
Nonoperating expenses:		
Interest expense	6,132,303	5,495,857
Debt issuance costs	518,307	90,298
Total expenses	$ 34,788,123	$ 33,221,778
Income before capital grants	$ 4,373,307	$ 3,394,773
Capital grants	315,557	77,500
Change in net position	$ 4,688,864	$ 3,472,273
Net position, beginning of year	160,170,108	156,697,835
Net position, end of year	$ 164,858,972	$ 160,170,108

Capital Asset and Debt Administration:

Capital Assets - The Authority's investment in capital assets net of accumulated depreciation increased 7% in the current year because of costs incurred on construction projects (noted below) less depreciation and amortization on capital assets of $7.9 million. Construction costs of $24.7 million were incurred in FY 2022, and $4.9 million in capital projects were completed and capitalized during the year. This year the Authority recorded a $4.9 million right-to-use lease asset as a capital asset to recognize the Observatory Water Treatment Plant long-term lease with the University of Virginia to conform to GASB 87. More detailed information on the Authority’s capital assets is presented in Notes 4 and 5 of the notes to the financial statements and is addressed further in the Review of Operations section below.

Capital Asset and Debt Administration: (Continued)

The various categories of capital assets net of depreciation and amortization at the end of the past two fiscal years are as follows:

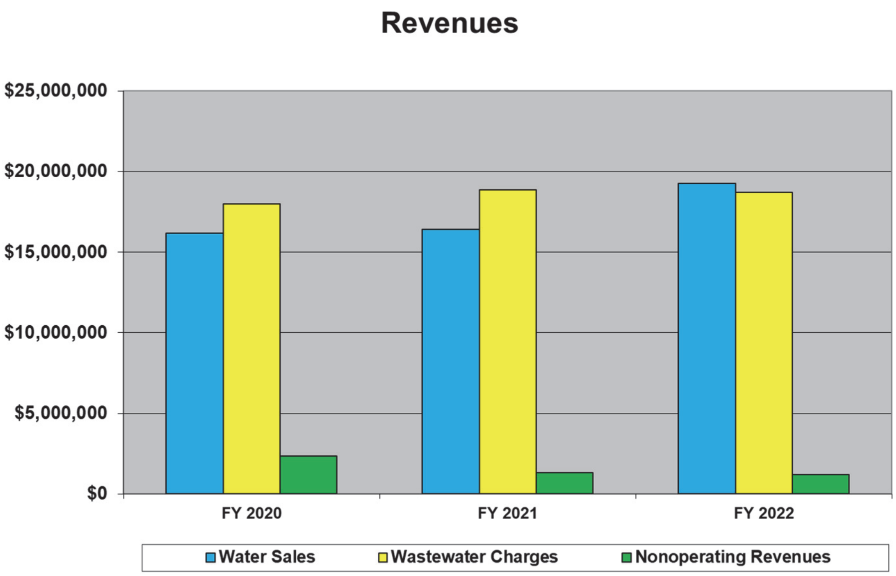
	2022	2021
Land and improvements	$ 12,310,763	$ 12,310,763
Buildings and operating equipment	255,334,708	258,418,648
Trucks and autos	569,223	537,535
Office equipment	303,314	5,920
Construction in progress	43,675,990	23,945,805
Right-to-use lease asset	4,797,977	-
Total capital assets, net	$ 316,991,975	$ 295,218,671

Major capital asset activity for the current fiscal year included:

S. Rivanna WTP Improvements	$ 7,670,703
Observatory WTP Improvements	5,773,890
Crozet Flow Equalization Tank	2,580,710
Airport Rd. Pump Stn. & N. Rivanna Transmission Main	1,727,073
MCAWRRF In-plant Clarifier & Lime Silo Demolition	661,324
MCAWRRF Lighting Upgrade	470,474
Beaver Creek Dam Alteration	424,318
Crozet WTP Expansion	350,503
Central Water Line	350,020
Security Enhancements	349,014
Interceptor Sewer & Manhole Repair-Phase 1	324,448
SH Dam-Rubber Crest Gate Replacement	321,573
MCAWRRF 5kV Electrical System Upgrade	310,922
Emmet Street Waterline Betterment	296,086
MCAWRRF Aluminum Slide Gate Replacement	269,390
Influent Pump & VFD Addition	257,837
Scottsville WTP Lagoon Liner Replacement	235,153
Asset Management	231,772
Ragged Mtn Reservoir to Observatory WTP Raw Water Line	221,153
MCAWRRF Generator Fuel Storage Expansion	175,578
IT Master Plan-Software	148,857
S. Rivanna Reservoir to Ragged Mtn Reservoir Water Line R/W	143,495
Ragged Mtn Reservoir to Observatory Raw Water PS	121,843
S. Fork Rivanna River Crossing	113,005
S. Rivanna Reservoir to Ragged Mtn Reservoir-Birdwood to Old Garth	74,826
New Raw Water Pump Station & Intake (BCR)	63,384
Radio Upgrades	60,557
Other Projects	133,300
Retainage on Construction in Progress	803,037
Total Current Year Construction Costs and Adjustments	$ 24,664,245

Long-Term Debt - At the end of the current fiscal year, the Authority had $214.0 million in bonds outstanding, which is an increase of $31.4 million. There was a bond issue completed during the year. The Series 2021 Bond was issued at a par amount of $36.98 million with a premium in the amount of $3.5 million. More detailed information regarding the Authority's long-term debt is presented in Note 6 of the notes to the financial statements.

Review of Operations:



For FY 2022, total operating revenues increased $2.7 million or 7.6%. The increase was mainly due to a 14.7% increase in debt service charges needed to fund capital spending. Flows for water and wastewater were lower than anticipated resulting in an operations rate revenue increase of just 1.9%. The budget for FY 2022 estimated an overall 5.9% increase in operations rate revenues. COVID-19 did not impact demand for water or wastewater services. Nonoperating revenues were down $146,700 due to a drop in miscellaneous income. In the previous year, the Authority received $128,200 in legal settlement revenue from several chemical providers and $156,300 in cost reimbursements for a UVA Hospital water project, that inflated FY 2021 revenues. Investment earnings increased $96,500 for FY 2022 after sharp decreases the past few years due to construction fund interest earned on the new bond proceeds received in November. Capital grants also increased $238,100 for the Beaver Creek Dam project.

The capital program has been the single largest driver to the Authority's revenue requirements, especially for wastewater rates, for the past several years. Over the past five years, the Authority has invested over $81.0 million in capital infrastructure. The majority of that investment was financed with long-term debt. Roughly $12 million of this spending was funded through cash reserves over that same time. Capital and reserves will be discussed later in this narrative.

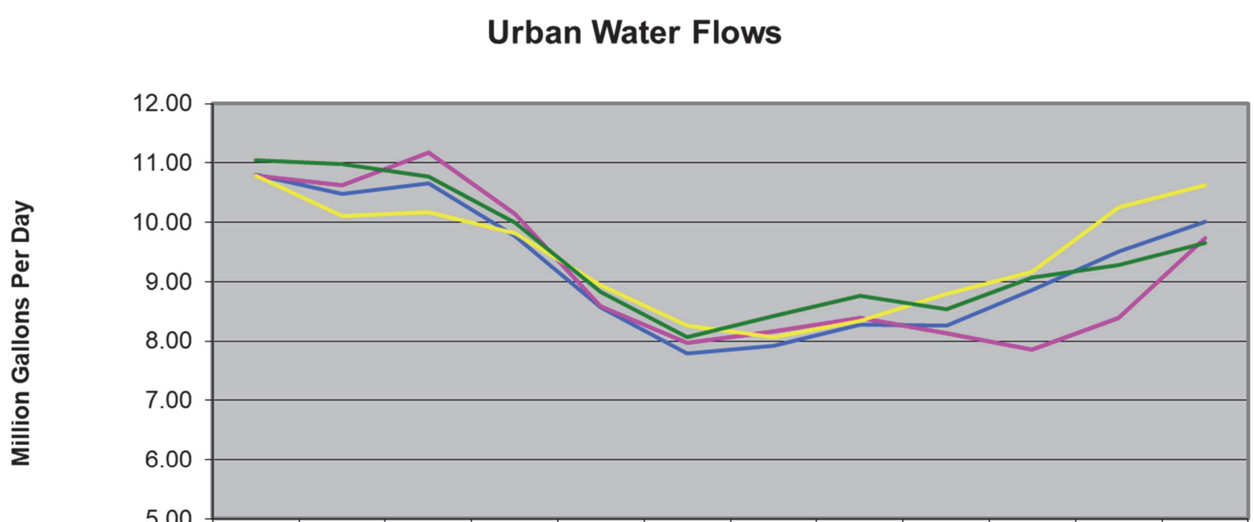
As shown in the chart below, FY 2022 Urban operations rates and debt service rates were scheduled to increase. There were no rate increases in FY 2021 due to the COVID-19 pandemic, so the use of reserves was needed to cover any revenue needs for debt service costs and operating costs that year. Only $516,000 of reserves were used in the current year compared to nearly $1.7 million the previous year.

Urban Rates		Water		Wastewater	
Operations Rates - City & ACSA ($ per 1,000 gallons):					
	FY 2020	$ 2.095	1.2%	$ 2.369	10.4%
	FY 2021	$ 2.095	0.0%	$ 2.369	0.0%
	FY 2022	$ 2.346	12.0%	$ 2.517	6.2%
Debt Service Rates ($ per month):					
City:	FY 2020	$ 193,580	6.9%	$ 407,588	-2.0%
	FY 2021	$ 193,580	0.0%	$ 407,588	0.0%
	FY 2022	$ 246,188	27.2%	$ 376,036	-7.7%
ACSA:	FY 2020	$ 321,303	4.5%	$ 278,174	12.9%
	FY 2021	$ 321,303	0.0%	$ 278,174	0.0%
	FY 2022	$ 388,956	21.1%	$ 337,983	21.5%

Review of Operations: (Continued)

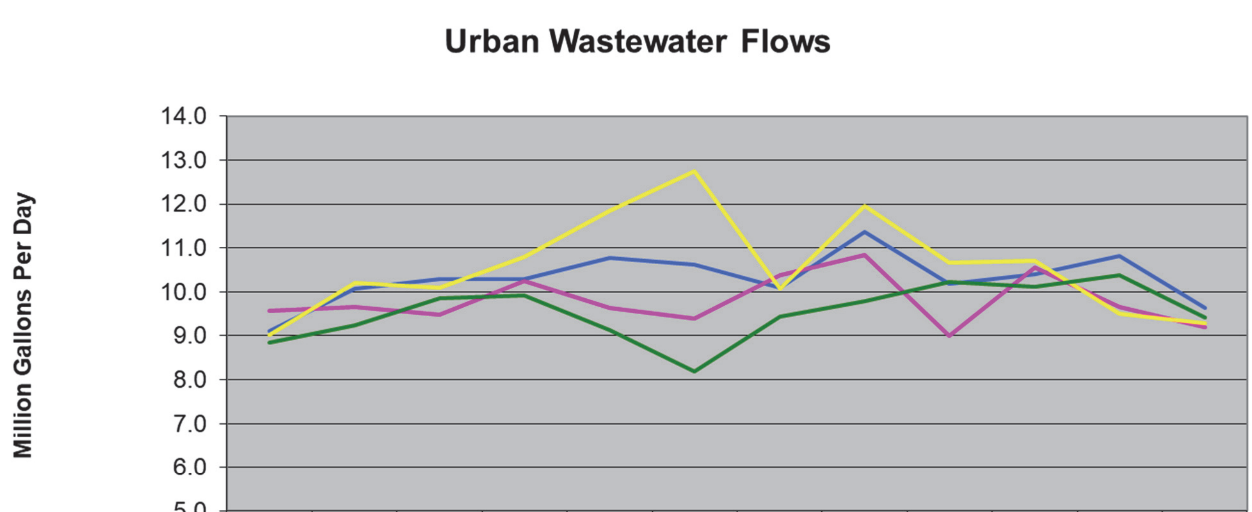
Flows in the two urban rate centers are the single largest determining factor in the revenues billed to our two customers. The graphs below show the flows for the year compared to the last two years and the five-year average.

Urban Water flows were generally consistent within the 5-year trend.



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
5 YR AVG.	10.81	10.48	10.66	9.77	8.57	7.79	7.93	8.28	8.25	8.86	9.51	10.01
FY 2020	10.79	10.62	11.18	10.14	8.59	7.98	8.16	8.39	8.14	7.85	8.39	9.74
FY 2021	10.78	10.10	10.17	9.81	8.94	8.26	8.07	8.35	8.79	9.17	10.26	10.62
FY 2022	11.04	10.98	10.78	9.99	8.82	8.07	8.43	8.77	8.54	9.07	9.28	9.65

Wastewater flows (below) were below average due to a dry fall and winter season. This chart clearly demonstrates how erratic wastewater flow can be compared to the trend due to weather patterns that can significantly affect metered flows and revenues.



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
5 YR AVG	9.11	10.07	10.29	10.29	10.78	10.63	10.10	11.37	10.19	10.39	10.81	9.64
FY 2020	9.58	9.66	9.48	10.26	9.63	9.38	10.37	10.84	8.99	10.56	9.66	9.19
FY 2021	9.03	10.20	10.10	10.79	11.85	12.75	10.06	11.95	10.67	10.72	9.51	9.27
FY 2022	8.84	9.23	9.85	9.92	9.14	8.19	9.43	9.78	10.23	10.13	10.39	9.41

Review of Operations: (Continued)

Total operating expenses increased by $502,000 for FY 2022, and nonoperating expense, including debt issuance costs and interest expense, increased by $1.06 million. Bond interest expense increased by $514,000 and debt issuance costs increased by $428,000 related to the Series 2021 Bond issuance in November. Interest expense in the amount of $122,400 was accrued pursuant to GASB 87 on the UVA property lease.

Direct operating costs in certain categories experienced overall increases in FY 2022. Personnel costs increased 575,000 due to staff pay increases and related benefit costs. Part of these costs were reduced $411,500 for adjustments to the pension liability valuations. IT support was increased this year as various vulnerability and security assessments were completed. Efforts to segment the network and create redundant data communications ability were underway as the year ended. IT spending increased $458,800. Operations costs for items like chemicals and materials and supplies increased $400,000. Line break repairs saw a decrease of $483,000 as there were fewer repairs this year.

Change in Expenses FY 2022 vs. FY 2021:

	FY 2022	FY 2021	Change	
Direct operating*	$ 20,259,437	$ 20,015,414	$ 244,023	1%
Depreciation & amortization	7,878,076	7,620,209	257,867	3%
Interest	6,132,303	5,495,857	636,446	12%
Debt issuance costs	518,307	90,298	428,009	474%
	$ 34,788,123	$ 33,221,778	$ 1,566,345	5%

* - Personnel, Chemicals, Operations & Maintenance, Utilities

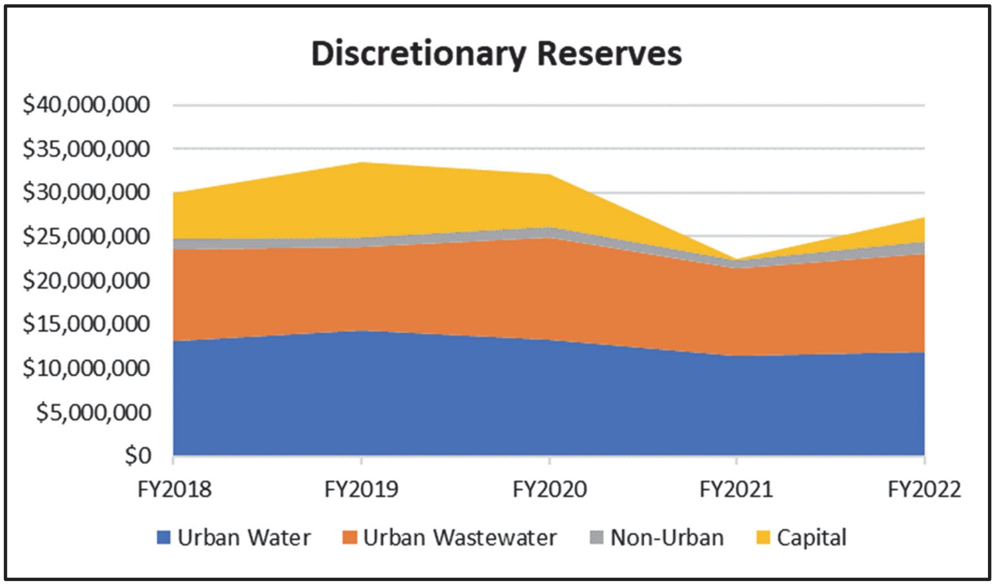
The Authority came out of COVID-19 conditions with little change to operations this year. Most staff were already working on-site as they were before the pandemic. There were some supply chain conditions that affected a few chemical providers which caused changes in suppliers mid-contract. There were some other issues with long lead times on major equipment items related to a few of our capital projects. However, for the most part, there were few impacts to navigate through from COVID-19 this year.

The sharp increases in fuel prices did impact some of our services for hauling biosolids. The contractor could no longer provide this service although there were still several months and renewal periods remaining on the contract. This caused several contracts to have to be rebid mid-year.

Cash balances have been declining the past few years as capital projects have been executed. Restricted cash, which is made up of mostly bond proceeds from the 2021 Series Bond in the construction fund, increased $19.4 million to fund capital spending. This is the sole purpose of the construction fund. The construction fund still had a $31.1 million FY 2022 yearend balance for future capital spending needs. Unrestricted cash and cash equivalent investments, which represents total discretionary reserves balances, were at $34.8 million at the end of FY 2022. This is a $4.3 million increase. The Authority has rate stabilization and other discretionary reserves specifically for the purpose of managing its rates to the retail systems during situations like the COVID-19 pandemic. This year the Authority started recovering from using reserves the previous two years. Rate stabilization reserves totaled $1.5 million at June 30, 2022, which is part of the unrestricted cash. The policy goal is to maintain a $2 million balance for emergencies. Despite relying on reserves and establishing a zero-rate increase budget for FY 2021, the Authority still maintained a fairly strong debt coverage ratio of 1.2. (See Table 8 in the Statistical Section.)

Review of Operations: (Continued)

For the past decade, the Authority slowly built cash reserves for rate stabilization, unforeseen maintenance issues and support for an aggressive capital replacement program through its rate setting policies. The Board of Directors supports the need for a strong cash position to mitigate unforeseen costs in an aging infrastructure, to better handle wide fluctuations in flow, and to manage our rate structure during times of emergency. COVID-19 was one of those events that reserves were used to mitigate an economic need. Over the past two years, $2.2 million in reserves were used, which is shown in the graph below, to soften the rate impacts of a growing budget. The aggressive capital construction activities over the past decade will continue into the future and will further necessitate a strong liquidity position as the Authority has over $214 million in outstanding debt. Recognizing the increase in debt service obligations over the years, the executive management wisely continues to emphasize the need to maintain adequate reserves to provide financial flexibility and maintain an excellent bond rating of AA+ from Standard & Poor's. Below is a chart showing discretionary reserves, which have remained steady for the past five years.



Over the last several years, financial policies have been adopted and revised as needed to formally support this philosophy. The Authority generally targets to have 60 days of working capital on hand for daily operations, which is roughly $6.9 million. The Authority has a financial policy goal of funding 10% of our total capital program costs with cash reserves. Over the last ten years, the Authority has used capital cash to fund roughly $25.1 million in projects. Capital spending using cash and debt financing sources over that same 10-year period was roughly $196.7 million, which means our actual cash reserve funding at 12.7% is a little better than the policy targets.

Capital Improvements & Future Long-Term Trends

The Authority generally updates the five-year projection of our Capital Improvement Plan (CIP) annually. The following table shows the changes in the CIP adopted in May 2022 (for FY 2023–2027) compared to the previously adopted capital plan:

Changes in Capital Improvement Plan (CIP)			
FY 2022-2026	$	170,153,300	Previously adopted CIP
		(10,658,300)	Budgets for completed or closed projects
		44,125,000	Adjustments on existing projects
		1,500,000	New project budgets added
FY 2023-2027	$	205,120,000	Total 5-year CIP

Review of Operations: (Continued)

The total 5-year CIP is estimated at $205.1 million in capital spending needs through the year 2027. Of this amount, roughly $23.1 million is work-in-progress (nearly 11%) and has already been expended and funded at year end. There is $31.1 million in unspent bond proceeds from the Series 2018 bond and the Series 2021 bond remaining to fund future capital work. The future funding needs will be roughly $121.7 million in additional debt (revenue bonds) to be issued and $14.0 million in future reserves to be placed in the capital fund.

Most of the Authority's capital spending investment over the last decade was to bring the wastewater systems into compliance with a DEQ Consent Order and meet nutrient reduction goals for the Chesapeake Bay clean-up programs. There are still some infrastructure improvements in the wastewater facilities like the interceptor and manhole refurbishment.

The focus of the Authority's current and future capital efforts has turned to the water infrastructure. The water infrastructure needs treatment improvements, capacity increases and general renewal for resiliency purposes.

Water Line Break

The South Rivanna Water Treatment Plant (SR WTP) has gone through a major upgrade to meet firm capacity of 12 million gallon per day (mgd) output.

The Observatory WTP will be next this coming year for major construction. This plant has seen very few upgrades since its construction in the mid-1950s. This plant is going through a system-by-system upgrade and an increase in production capacity from 7.7 million to 10 mgd.

Review of Operations: (Continued)

The northern area of Albemarle County will see some significant changes in the water infrastructure. The North Rivanna WTP will eventually be decommissioned. This plant is operationally inefficient and would require significant upgrades to continue its use. This plant will be replaced by a new pump station at Airport Road and several additional river crossings at the South and North Fork Rivanna rivers. Eventually there will also be a new storage take near the new pump station to meet the pressure needs for this developing area of the County.

Transmission Main for Northern Area

Review of Operations: (Continued)

In addition to the treatment process improvements, the raw water supply infrastructure for the Crozet growth area will need major improvements in the coming years. The Beaver Creek Dam spillway does not meet current dam safety regulations and is classified as a Significant Hazard Dam. A labyrinth spillway (see example below) and chute through the existing dam with a bridge to allow a state roadway, Browns Gap Turnpike, to cross over top will be constructed to correct this deficiency. A new raw water intake will have to be constructed as well. These two projects are estimated to cost $26.9 million over the next 5 years.

Labyrinth Spillway

Requests for Information:

This financial report is designed to provide a general overview of the Authority's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Finance Department at 695 Moores Creek Lane, Charlottesville, Virginia 22902-9016.

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Basic Financial Statements

Statement of Net Position
At June 30, 2022

ASSETS		
Current assets:		
Cash and cash equivalents (Note 1)	$	34,843,581
Restricted cash and cash equivalents		36,910,342
Accounts receivable		3,270,026
Lease receivable - current portion (Note 16)		100,178
Total current assets	$	75,124,127
Noncurrent assets:		
Lease receivable (net of current portion) (Note 16)	$	1,763,583
Restricted assets:		
Cash and cash equivalents		4,029,944
Total restricted assets	$	5,793,527
Capital assets: (Note 4)		
Land and improvements	$	12,310,763
Buildings and operating equipment		369,702,133
Trucks and autos		1,640,614
Office equipment		434,609
Less accumulated depreciation		(115,570,111)
Subtotal	$	268,518,008
Right-to-use lease asset (net of amortization) (Note 16)		4,797,977
Construction in progress (Note 5)		43,675,990
Net capital assets	$	316,991,975
Total noncurrent assets	$	322,785,502
Total assets	$	397,909,629
DEFERRED OUTFLOWS OF RESOURCES		
Deferred charge on refunding	$	514,781
Deferred outflows - pension (Note 8)		1,258,138
Deferred outflows - OPEB - group life insurance (Note 12)		118,818
Total deferred outflows of resources	$	1,891,737

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

Statement of Net Position (Continued)
At June 30, 2022

LIABILITIES		
Current liabilities:		
Accounts payable and other accrued expenses	$	4,898,390
Accrued interest payable-lease		122,391
Compensated absences - current portion (Note 7)		538,000
Lease liability - current portion (Note 16)		175,000
Other long-term obligation - current portion (Note 9)		119,142
Revenue bonds - current portion (Note 6)		5,358,603
Subtotal current liabilities	$	11,211,526
Current liabilities (payable from restricted assets):		
Retainage payable	$	1,602,162
Accrued interest payable-bonds		1,715,672
Revenue bond principal - current portion (Note 6)		4,081,454
Subtotal current liabilities (payable from restricted assets)	$	7,399,288
Total current liabilities	$	18,610,814
Noncurrent liabilities:		
Compensated absences (net of current portion) (Note 7)	$	53,148
Lease liability (net of current portion) (Note 16)		4,550,062
Other long-term obligation (net of current portion) (Note 9)		145,340
Net OPEB liability (Note 12)		325,297
Net pension liability (Note 8)		1,409,421
Revenue bonds (net of current portion) (Note 6)		204,608,463
Total noncurrent liabilities	$	211,091,731
Total liabilities	$	229,702,545
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows - pension (Note 8)	$	2,806,701
Deferred inflows - leases (Note 16)		1,835,551
Deferred gain on partial bond refunding		472,968
Deferred inflows - OPEB - group life insurance (Note 12)		124,629
Total deferred inflows of resources	$	5,239,849
NET POSITION		
Net Position:		
Net investment in capital assets	$	127,517,995
Restricted for bond covenants		4,581,454
Unrestricted		32,759,523
Total net position	$	164,858,972

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

Operating revenues:		
Metered water sales	$	19,279,042
Wastewater service charges		18,694,954
Total operating revenues	$	37,973,996
Operating expenses:		
Personnel costs	$	9,478,916
Professional services		925,766
Other services and charges		4,275,419
Operations and maintenance		5,579,336
Depreciation and amortization		7,878,076
Total operating expenses	$	28,137,513
Operating income	$	9,836,483
Nonoperating revenues (expenses):		
Investment earnings	$	222,088
Interest revenue - leases		19,058
Administrative reimbursement		557,071
Lease revenue		143,451
Other revenues		245,766
Interest expense		(6,132,303)
Debt issuance costs		(518,307)
Total nonoperating revenues (expenses)	$	(5,463,176)
Income before capital grants	$	4,373,307
Capital grants		315,557
Change in net position	$	4,688,864
Net position, beginning of year		160,170,108
Net position, end of year	$	164,858,972

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

Statement of Cash Flows
Year Ended June 30, 2022

Cash flows from operating activities:		
Receipts from customers and users	$	38,858,943
Payments to suppliers of goods and services		(10,435,509)
Payments to and on behalf of employees for services		(9,437,312)
Net cash provided by (used for) operating activities	$	18,986,122
Cash flows from capital and related financing activities:		
Additions to capital assets	$	(22,835,562)
Principal payments on bonds		(8,510,895)
Principal payments on lease liability		(175,000)
Capital grants		315,557
Proceeds of bonds		36,980,000
Premium (discount) on bonds issued		3,516,091
Debt issuance costs		(518,307)
Interest payments		(6,326,179)
Net cash provided by (used for) capital and related financing activities	$	2,445,705
Cash flows from investing activities:		
Maturity of investments	$	2,000,530
Interest and dividends received		244,261
Net cash provided by (used for) investing activities	$	2,244,791
Increase (decrease) in cash and cash equivalents	$	23,676,618
Cash and cash equivalents at beginning of year (including $21,518,459 reported in restricted accounts)		52,107,249
Cash and cash equivalents at end of year (including $40,940,286 reported in restricted accounts)	$	75,783,867
Reconciliation of operating income (loss) to net cash provided by (used for) operating activities:		
Operating income	$	9,836,483
Adjustments to reconcile operating income (loss) to net cash provided by (used for) operating activities:		
Depreciation and amortization		7,878,076
Other nonoperating revenues		965,346
Changes in operating assets, deferred outflows of resources, liabilities and deferred inflows of resources:		
(Increase) decrease in receivables		(52,189)
(Increase) decrease in lease receivable		96,025
Increase (decrease) in compensated absences		35,903
Increase (decrease) in other long-term obligation		(96,766)
Increase (decrease) in net OPEB liability		(126,457)
Increase (decrease) in net pension liability		(2,849,729)
(Increase) decrease in deferred outflows of resources - pension		8,982
Increase (decrease) in deferred inflows of resources - pension		2,768,660
(Increase) decrease in deferred outflows of resources - OPEB		3,309
Increase (decrease) in deferred inflows of resources - OPEB		111,139
Increase (decrease) in deferred inflows of resources - leases		(124,235)
(Increase) decrease in prepaid expenses		123,078
Increase (decrease) in operating payables and accrued expenses		408,497
Net cash provided by (used for) operating activities	$	18,986,122
Noncash investing, capital and financing activities:		
Increase (decrease) in fair value of investments	$	13,971
(Increase) decrease in retainage payable for capital projects		803,037
Increase (decrease) in accrued interest-lease		122,391

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

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Note 1−Summary of Significant Accounting Policies:

In the interest of efficient water quality management for the upper Rivanna River Basin, the Rivanna Water and Sewer Authority was formed on June 7, 1972 as a joint venture of the City of Charlottesville, the Albemarle County Service Authority, and the County of Albemarle, pursuant to the Virginia Water and Waste Authorities Act (1950 as amended). The Authority is responsible for acquiring, financing, constructing and maintaining facilities for the improvement, treatment, storage and transmission of potable water, and for the interception, treatment and discharge of wastewater for the City and County. The Authority operates under the terms of a Service Agreement among the Authority, the Albemarle County Service Authority, the City of Charlottesville, and the County of Albemarle which was signed June 12, 1973.

A. Financial Reporting Entity

The Rivanna Water & Sewer Authority was established according to the Agreement mentioned above for the purposes stated. The participating entities are City of Charlottesville, County of Albemarle, and Albemarle County Service Authority. The City of Charlottesville and the Albemarle County Service Authority have an ongoing financial responsibility to the Authority because a covenant to pay the Authority's rates and charges is included in the operating agreement.

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

The Authority is perpetual. No participating government has access to its resources or surpluses, nor is any participant liable for the Authority's debts or deficits. The Authority also has the ability to finance its capital projects through user charges or the sale of revenue bonds.

Based on the above representations, the Rivanna Water & Sewer Authority has been determined to be a joint venture of the City of Charlottesville, County of Albemarle and Albemarle County Service Authority. The Authority is not a component unit of any of the participating governments. There are no component units to be included within the Authority's financial statements.

For purposes of reporting entity disclosure, it should be noted that a separate entity, the Rivanna Solid Waste Authority, provides garbage and refuse transfer and disposal services to the City of Charlottesville and Albemarle County. Although certain administrative employees provide services to both Authorities, each Authority is operationally and legally independent.

B. Basis of Accounting

Rivanna Water & Sewer Authority operates as an enterprise fund, uses the flow of economic resources measurement focus and its accounts are maintained on the accrual basis of accounting. Under this method, revenues are recognized when earned, and expenses are recorded as liabilities when incurred, without regard to receipt or payment of cash. The Authority accrues revenue for services rendered but not yet billed at the end of the fiscal year. The Authority accounts have been audited by an independent firm annually since its founding in accordance with the requirements of the Service Agreement, dated June 12, 1973, among the Authority, the City of Charlottesville, Albemarle County, and Albemarle County Service Authority.

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

B. Basis of Accounting (Continued)

The Authority distinguishes *operating* revenues and expenses from *nonoperating* items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are charges to customers for sales and services. Operating expenses include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

C. Accounts Receivable

Accounts receivable are stated at book value utilizing the direct write-off method for immaterial uncollectible accounts.

D. Basic Financial Statements

Since the Authority is only engaged in business-type activities, it is required to present only the financial statements required for enterprise funds. For the Authority, the basic financial statements and required supplementary information consist of:

- Management's discussion and analysis
- Enterprise fund financial statements
  - Statement of Net Position
  - Statement of Revenues, Expenses, and Changes in Net Position
  - Statement of Cash Flows
  - Notes to the Financial Statements
- Required Supplementary Information
  - Schedule of Changes in Net Pension Liability and Related Ratios
  - Schedule of Employer Contributions-Pension Plan
  - Notes to Required Supplementary Information-Pension Plan
  - Schedule of Authority's Share of Net OPEB Liability-Group Life Insurance Plan
  - Schedule of Employer Contributions-Group Life Insurance Plan
  - Notes to Required Supplementary Information-Group Life Insurance Plan

E. Capital Assets

Capital assets are tangible and intangible assets, which include property, plant, equipment, and infrastructure assets (e.g., roads, bridges, sidewalks, 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 $10,000 (amount not rounded) and an estimated useful life in excess of one year. Such assets are recorded at historical cost or estimated historical cost if purchased or constructed (except for intangible right-to-use lease assets (lease assets), the measurement of which is discussed in more detail below). Donated capital assets are recorded at acquisition value at the date of donation. Intangible assets follow the same capitalization policies as tangible capital assets and are reported with tangible assets in the appropriate capital asset class.

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

E. Capital Assets (Continued)

The costs of normal maintenance and repairs that do not add to the value of the asset or materially extend its useful life are not capitalized.

Major outlays for capital assets and improvements are capitalized as projects are constructed.

Property, plant, equipment and infrastructure are depreciated using the straight-line method over the following estimated useful lives:

Assets	Years
Buildings & operating equipment	5 to 50
Trucks & autos	5 to 10
Office equipment	5 to 10
Data processing equipment	5

F. Cash and Cash Equivalents

The Authority's Cash and cash equivalents include cash on hand, amounts in demand deposits as well as 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, the Authority considers their demand deposits and all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

G. 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.

H. Budgets and Budgetary Accounting

A budget is prepared for information, fiscal planning purposes, and to provide the basis for setting wholesale rates, in accordance with the requirements of the Service Agreement, dated June 12, 1973, among the Authority, the City of Charlottesville, Albemarle County, and the Albemarle County Service Authority. Rates charged by the six rate centers are not subjected to regulatory scrutiny but may be changed at any time by the Authority's Board of Directors, if necessary, in order to adjust revenues. 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.

I. Inventory

Consumption of materials and supplies is recorded as an expense when used. No inventory amounts are recorded as an asset, as available inventories are not significant.

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

J. Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

K. 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 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.

- 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.

L. Net Position Flow Assumption

Sometimes the Authority will fund outlays for a particular purpose from both restricted (e.g., restricted bond or grant proceeds) 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.

M. Restricted Assets

Certain proceeds of the Authority's revenue bonds, and certain resources set aside for their repayment 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. The "revenue bond general operating reserve" is used to report resources set aside to subsidize potential deficiencies from the Authority's operation that could adversely affect debt service payments. The "revenue bond payment account" is used to segregate resources accumulated for debt service payments over the next twelve months. The "debt service reserve" is used to report resources set aside to make up potential future deficiencies in the revenue bond payment account. The "repair and replacement reserve" is used to report resources set aside to meet unexpected contingencies or to fund asset renewals and replacements.

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

N. Long-Term Obligations

Bond premiums and discounts are amortized over the life of the bonds. Bonds payable are reported net of the applicable bond premium or discount. Bond issuance costs are expensed as incurred.

O. Reclassification

Certain amounts in previously issued financial statements have been restated to conform to the current year's classifications.

P. Deferred Inflows and Outflows of Resources

In addition to assets, the statement of net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net assets that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The Authority has two types of items that qualify for reporting in this category. The first reporting item is comprised of certain items related to the measurement of the net pension liability and net OPEB liability and contributions to the pension and OPEB plans made during the current year and subsequent to the net pension liability and net OPEB liability measurement date. The second reporting item is a deferred charge on refunding resulting 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. For more detailed information on these items reference the related notes.

In addition to liabilities, the statement of net 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 two types of items that qualify for reporting in this category. First, certain items related to the measurement of the net pension liability and net OPEB liability are reported as deferred inflows of resources. The second reporting items is a deferred gain on partial bond refunding resulting 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. For more detailed information on these items reference the related notes.

Q. Pensions

For purposes of measuring the net pension liability, 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 Plan and the additions to/deductions from the Authority's Retirement Plan's fiduciary net position have been determined on the same basis as they were reported by the Virginia Retirement System (VRS). 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.

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

R. Other Postemployment Benefits (OPEB)

Group Life Insurance

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.

S. Leases

Rivanna Water and Sewer 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 asset) with an initial value of $110,000, 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.

- 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.

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

S. Leases (Continued)

- 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−Acquisition of Water and Wastewater Facilities:

Under the terms of the Service Agreement (See Note 1), the Authority agreed to purchase certain water production, transmission and storage facilities and wastewater interception and treatment facilities from the City and the Albemarle County Service Authority. The agreement provides that the sale be consummated ten years from the date of the agreement or at such later time as the debts, if any, attributed to each such facility have been paid or provision is made for their payment, and that the Authority will lease the facility until such time as the sale is consummated. The purchase price is the fair value of the facilities as of June 12, 1973, as determined by all payments paid by the Authority during the term of lease applicable to the principal retired on the debt of such facilities. In accordance with generally accepted accounting principles, the aforementioned agreement has been treated as an installment purchase of the facilities, with the purchase price being discounted at an annual rate of 6% for ten years.

The following tabulation reflects the agreed upon purchase price and accounting thereof:

Fair value as of June 12, 1973:		
Facilities acquired from City of Charlottesville	$	6,128,124
Facilities acquired from Albemarle County Service Authority		3,604,384
Total purchase price	$	9,732,508
Add: Interest portion of rental payments not applied to principal reduction		1,154,074
Total contracts payable	$	10,886,582
Less: Interest included in contract price computed at annual rate of 6% for 10 years		4,940,705
Asset carrying value	$	5,945,877

Note 2−Acquisition of Water and Wastewater Facilities: (Continued)

The contracts payable have been reduced by the amount of the annual rental payments on the facilities as outlined in the following tabulation:

	City of Charlottesville	Albemarle County Service Authority
Contracts payable, June 12, 1973	$ 6,354,634	$ 4,531,948
Rental payments and contract adjustments in prior fiscal years	$ 1,760,676	$ 3,680,395
Total rental payments	$ 1,760,676	$ 3,680,395
Final payment on facilities with no outstanding debt as of June 30, 1983	4,593,958	851,553
Total payments	$ 6,354,634	$ 4,531,948
Contracts payable, June 30, 2022	$ -	$ -

The total annual rental payments over the initial ten-year agreement were not sufficient to retire the contracts payable to the Albemarle County Service Authority. The deferred interest was amortized over the initial ten-year period of the agreement and was fully amortized as of June 30, 1983.

Depreciation has been based upon the engineer's estimates of useful lives remaining as of the valuation date (June 12, 1973). Depreciation expense on these facilities was $51,137 for the year ended June 30, 2022.

Note 3−Deposits and Investments:

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.

Note 3−Deposits and Investments: (Continued)

Investments

Statutes authorize local governments and other public bodies 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).

The Authority does not have a formal investment policy that addresses credit risk or interest rate risk.

Credit Risk of Debt Securities

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

Authority's Rated Debt Investments' Values

Rated Debt Investments	Fair Quality Ratings AAAm	AA+	AA+f
Local Government Investment Pool	$ 11,693,916	$ -	$ -
VML/VACo Virginia Investment Pool	10,585,310	-	-
Virginia State Non-Arbitrage Pool	31,113,216	-	-
U.S. Treasury & Agency Money Market Funds	9,524,730	-	-
Total	$ 62,917,172	$ -	$ -

Interest Rate Risk

Investment Maturities (in years)

Investment Type	Fair Value	Less Than 1 Year	1-5 Years	6-10 Years
Local Government Investment Pool	$ 11,693,916	$ 11,693,916	$ -	$ -
VML/VACo Virginia Investment Pool	10,585,310	10,585,310	-	-
Virginia State Non-Arbitrage Pool	31,113,216	31,113,216	-	-
U.S. Treasury & Agency Money Market Funds	9,524,730	9,524,730	-	-
Total	$ 62,917,172	$ 62,917,172	$ -	$ -

Note 3−Deposits and Investments: (Continued)

External Investment Pools

The Authority invests in the Virginia Investment Pool ("VIP") which is sponsored by VML/VACo Finance and is professionally managed under the governance of the VIP Board of Trustees. The VIP investment strategy is to preserve capital, and it only invests in instruments allowable by the Code of Virginia. The Authority owns shares of the VIP and not the underlying instruments held by the VIP. The VIP limits participants to two withdrawals per month.

The fair 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 pools rest with the Virginia State Treasury. LGIP and SNAP are amortized cost basis portfolios. There are no withdrawal limitations or restrictions imposed on participants in LGIP and SNAP. The VML/VACo Virginia Investment Pool has a limit of two withdrawals per month.

Note 4−Capital Assets:

Details of changes in capital assets for the year ended June 30, 2022 are as follows:

	Balance July 1, 2021	Adjustments	Balance July 1, 2021 As Adjusted	Increases	Decreases	Balance June 30, 2022
Capital assets not being depreciated:						
Land and improvements	$ 12,310,763	$ -	$ 12,310,763	$ -	$ -	$ 12,310,763
Construction in progress	23,945,805	-	23,945,805	24,664,245	4,934,060	43,675,990
Total capital assets not being depreciated	$ 36,256,568	$ -	$ 36,256,568	$ 24,664,245	$ 4,934,060	$ 55,986,753
Other capital assets:						
Buildings and operating equipment	$ 365,127,553	$ -	$ 365,127,553	$ 4,574,580	$ -	$ 369,702,133
Accumulated depreciation	(106,708,905)	-	(106,708,905)	(7,658,520)	-	(114,367,425)
Buildings and operating equipment, net	$ 258,418,648	$ -	$ 258,418,648	$ (3,083,940)	$ -	$ 255,334,708
Trucks and autos	$ 1,527,340	$ -	$ 1,527,340	$ 113,274	$ -	$ 1,640,614
Accumulated depreciation	(989,805)	-	(989,805)	(81,586)	-	(1,071,391)
Trucks and autos, net	$ 537,535	$ -	$ 537,535	$ 31,688	$ -	$ 569,223
Office equipment	$ 101,330	$ -	$ 101,330	$ 333,279	$ -	$ 434,609
Accumulated depreciation	(95,410)	-	(95,410)	(35,885)	-	(131,295)
Office equipment, net	$ 5,920	$ -	$ 5,920	$ 297,394	$ -	$ 303,314
Intangible right-to-use lease asset-leased land	$ -	$ 4,900,062	$ 4,900,062	$ -	$ -	$ 4,900,062
Accumulated amortization	-	-	-	(102,085)	-	(102,085)
Intangible right-to-use lease asset, net	$ -	$ 4,900,062	$ 4,900,062	$ (102,085)	$ -	$ 4,797,977
Total other capital assets, net	$ 258,962,103	$ 4,900,062	$ 263,862,165	$ (2,856,943)	$ -	$ 261,005,222
Total capital assets, net	$ 295,218,671	$ 4,900,062	$ 300,118,733	$ 21,807,302	$ 4,934,060	$ 316,991,975

Note 5−Construction in Progress:

Details of construction in progress for the year ended June 30, 2022 are as follows:

	Balance July 1, 2021	Cost of Construction	Expense/ Transfer to Capital Assets	Balance June 30, 2022
Ragged Mtn Reservoir to Observatory WTP Raw Water Line	$ -	$ 221,153	$ -	$ 221,153
Ragged Mtn Reservoir to Observatory Raw Water PS	-	121,843	-	121,843
S. Rivanna Reservoir to Ragged Mtn Reservoir Water Line R/W	1,566,796	143,495	-	1,710,291
S. Rivanna Reservoir to Ragged Mtn Reservoir -Birdwood to Old Garth	-	74,826	-	74,826
SR Reservoir to RM Reservoir Pipeline, Intake & Facilities	-	32,398	-	32,398
Observatory WTP Improvements	3,316,372	5,773,890	-	9,090,262
SH Dam-Rubber Crest Gate Replacement	1,382,264	321,573	1,703,837	-
Central Water Line	191,666	350,020	-	541,686
S. Fork Rivanna River Crossing	30,896	113,005	-	143,901
Airport Rd. Pump Stn. & N. Rivanna Transmission Main	238,847	1,727,073	-	1,965,920
Emmet Street Waterline Betterment	-	296,086	-	296,086
South Fork Rivanna Hydropower Plant Decommisioning	178,685	26,906	-	205,591
S. Rivanna WTP Improvements	9,967,058	7,670,703	-	17,637,761
North Rivanna WTP-Upgrade	56,627	19,483	-	76,110
Beaver Creek Dam Alteration	459,715	424,318	-	884,033
Crozet Ground Storage Tank Leak Repair	-	3,165	3,165	-
Crozet WTP Expansion	58,587	350,503	409,090	-
New Raw Water Pump Station & Intake (BCR)	239,508	63,384	-	302,892
Scottsville WTP Lagoon Liner Replacement	-	235,153	-	235,153
Schenks Branch Interceptor	50,787	-	-	50,787
Interceptor Sewer & Manhole Repair-Phase 1	659,970	324,448	984,418	-
Crozet Interceptor	255,190	7,060	-	262,250
Crozet Flow Equalization Tank	2,165,244	2,580,710	-	4,745,954
Crozet PS 1,2,3 Rehabilitation	42,267	-	-	42,267
Moores Creek Digester Sludge Storage Improvements	15,450	-	-	15,450
MCAWRRF Aluminum Slide Gate Replacement	284,337	269,390	-	553,727
MCAWRRF Cogeneration Upgrades	-	8,240	-	8,240
MCAWRRF In-plant Clarifier & Lime Silo Demolition	48,139	661,324	709,463	-
MCAWRRF Generator Fuel Storage Expansion	15,445	175,578	191,023	-
MCAWRRF Meter and Valve Replacements	7,549	31,048	-	38,597
MCAWRRF Lighting Upgrade	106,275	470,474	576,749	-
MCAWRRF 5kV Electrical System Upgrade	122,141	310,922	-	433,063
Scottsville Whole Plant Generator and ATS	-	5,000	-	5,000
Influent Pump & VFD Addition	30,676	257,837	-	288,513
Radio Upgrades	280,607	60,557	-	341,164
Asset Management	441,104	231,772	-	672,876
Security Enhancements	727,020	349,014	-	1,076,034
IT Master Plan-Software	207,458	148,857	356,315	-
Retainage on Construction in Progress	799,125	803,037	-	1,602,162
Total	$ 23,945,805	$ 24,664,245	$ 4,934,060	$ 43,675,990

Note 6−Long-Term Obligations:

A. Changes in Long-Term Obligations

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

	Balance July 1, 2021	Adjustments	Balance July 1, 2021 As Adjusted	Add: Issuances	Less: Retirements	Balance June 30, 2022	Due Within One Year
Revenue bonds payable							
Public offerings	$ 21,395,000	$ -	$ 21,395,000	$ -	$ 695,000	$ 20,700,000	$ 725,000
Direct borrowings and direct placements	154,779,359	-	154,779,359	36,980,000	7,815,895	183,943,464	8,715,057
Subtotal	$ 176,174,359	$ -	$ 176,174,359	$ 36,980,000	$ 8,510,895	$ 204,643,464	$ 9,440,057
Add (less) amounts:							
For issuance premiums (discounts)	6,486,499	-	6,486,499	3,516,091	597,534	9,405,056	-
Total revenue bonds	$ 182,660,858	$ -	$ 182,660,858	$ 40,496,091	$ 9,108,429	$ 214,048,520	$ 9,440,057
Compensated absences	555,245	-	555,245	573,028	537,125	591,148	538,000
Lease liability	-	4,900,062	4,900,062	-	175,000	4,725,062	175,000
VERIP liability	361,248	-	361,248	83,747	180,513	264,482	119,142
Net OPEB liablity	451,754	-	451,754	120,616	247,073	325,297	-
Net pension liability	4,259,150	-	4,259,150	3,443,883	6,293,612	1,409,421	-
Totals	$ 188,288,255	$ 4,900,062	$ 193,188,317	$ 44,717,365	$ 16,541,752	$ 221,363,930	$ 10,272,199

B. Details of Long-Term Obligations

All of the Authority's bond issues are direct placements with Virginia Resources Authority or with private banks with the exception of Series 2012B, which is a public offering. All bonds are issued in parity with one another under the 1979 Master Trust Agreement. The trust agreement does not specifically identify fixed amounts to be paid in the event of default. The Authority has no unused lines of credit, and none of its assets are pledged as collateral for any of its debt. There are no terms specified in any of the Authority's debt agreements related to significant (a) events of default with finance-related consequences, (b) termination events with finance-related consequences, or (c) subjective acceleration clauses.

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds		
Public Offerings		
$26,240,000 Water and Sewer System Revenue and Refunding Bonds, Series 2012B - On October 30, 2012, the Authority issued $26,240,000 in Revenue and Refunding Bonds for purposes of financing various water and sewer capital projects including the design, development and construction of a new dam; the implementation of wetlands and streambank mitigation plans and costs of issuance. The bonds were issued at a premium in the amount of $646,250. The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2013 through October 1, 2042. The bonds bear interest at an annual rate ranging from 2.125% to 4.0%. Total payments due each year range from $1,337,000 to $1,342,000. The bonds are subject to federal arbitrage regulations.	$ 20,700,000	$ 725,000
Direct Borrowings and Direct Placements		
Water and Sewer System Revenue Bonds - Series of 2005A - On November 10, 2005, the Authority issued $2,340,929 in bonds for purposes of financing the Moores Creek wastewater pre-treatment project. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that these obligations will be repaid from revenue generated by the Authority and are backed by a restricted cash account. The bond resolution provided a redemption schedule with an interest only payment due in April 2007 and semi-annual payments of principal and interest of $79,670 from October 2007 through October 2026 with interest at 3%. Effective October 1, 2020, the interest rate was reduced to 1%, which resulted in lower semi-annual payments of principal and interest ranging from $71,307 to $75,675 through October 2026.	$ 658,721	$ 144,751

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
\$24,000,000 Regional Water and Sewer System Revenue Bond - Series 2009A - On August 1, 2009 the Authority issued \$24,000,000 in bonds for purposes of financing the Moores Creek Wastewater Treatment Plant upgrades, including the Enhanced Nutrient Removal project. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account. The bond resolution provided a redemption schedule with an interest only payment due in April 2011 and semi-annual payments of principal and 3.35% interest of \$843,077 from October 2011 through October 2030. The interest rate was reduced to 2.65% on October 1, 2014, which reduced the semi-annual payments to \$802,099.	\$ 12,137,527	\$ 1,291,051
\$15,179,718 Regional Water and Sewer System Revenue Bond - Series 2010A - On June 29, 2010 the Authority issued \$15,179,718 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's water and sewer system, including the replacement of the Meadow Creek Sanitary Sewer Interceptor together with related expenses. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account. The bond resolution provided a redemption schedule with an interest only payment due in April 2012 and semi-annual payments of principal and 2.93% interest of \$513,715 from October 2012 through October 2030. Effective October 1, 2016, the interest rate was reduced to 2.05%, reducing semi-annual payments to \$481,261.	7,473,285	813,467

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
$6,982,662 Regional Water and Sewer System Revenue Bond - Series 2011A - On March 17, 2011 the Authority issued $6,982,662 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's sewer system including improvements necessary to address the wet weather flows at the Moores Creek Wastewater Treatment Plant. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.		
The bond resolution provides a redemption schedule with an interest only payment due in April 2012 and semi-annual payments of principal and 2.93% interest of $236,308 from October 2012 through October 2031. Effective October 1, 2016, the interest rate was reduced to 2.05%, reducing semi-annual payments to $221,804.	$ 3,811,640	$ 367,343
$1,017,338 Regional Water and Sewer System Revenue Bond - Series 2011B - On March 17, 2011 the Authority issued $1,017,338 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's sewer system including improvements necessary to address the wet weather flows at the Moores Creek Wastewater Treatment Plant. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.		
The bond resolution provided a redemption schedule with an interest only payment due in April 2012 and semi-annual payments of principal and 2.93% interest of $34,429 from October 2012 through October 2031. The interest rate was reduced to 2.05% as of October 1, 2016, reducing semi-annual payments to $31,666.	544,167	52,443

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
$4,241,488 Regional Water and Sewer System Revenue Bond - Series 2011D - On September 9, 2011 the Authority issued $4,241,488 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's water and sewer system. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.		
The bond resolution provided a redemption schedule with an interest only payment due in October 2012 and semi-annual payments of principal and 2.93% interest of $143,541 from April 2013 through April 2032. The interest rate was reduced to 2.05% effective October 1, 2016, and the semi-annual payments were reduced to $134,475.	$ 2,420,576	$ 220,452
$443,937 Regional Water and Sewer System Revenue Bond - Series 2011E - On September 9, 2011 the Authority issued $443,937 in bonds for purposes of financing the acquisition, construction and equipping of improvements to the Authority's water and sewer system. These bonds are secured by a supplemental trust agreement between the Authority and trustee for the bondholders. This agreement states that the obligation will be repaid from revenue generated by the Authority and is backed by a restricted cash account.		
The bond resolution provided a redemption schedule with an interest only payment due in October 2012 and semi-annual payments of principal and interest of $15,024 from April 2013 through April 2032. The interest rate was reduced to 2.05% effective October 1, 2016, and the semi-annual payments were reduced to $13,997.	251,955	22,946

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
$25,100,000 Water and Sewer System Revenue and Refunding Bonds, Series 2012A - On June 13, 2012, the Authority issued $25,100,000 in Revenue and Refunding Bonds for purposes of financing various water and sewer capital projects and to refund Series 2001 bond with an outstanding amount of $5,490,000 and Series 2003 bond with an outstanding amount of $4,827,000. The bonds were issued at a premium in the amount of $3,706,939.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from October 1, 2012 through October 1, 2042. The bonds bear interest at an annual rate ranging from 2.125% to 5.125%. The Authority refunded the 2001 and 2003 Series bonds to reduce its total debt service payments over the next 13 years by $4.93 million and to obtain a net economic gain (difference between the present values of the debt service payments on the old and new debt) of $1,079,384 after applying existing reserve funds of $3.55 million.		
On November 20, 2019, the Authority issued Bond Series 2019 to refund $15,855,000 of Bond Series 2012A. Annual principal payments of $630,000 to $685,000 and semiannual interest payments are due through October 1, 2022.	$ 685,000	$ 685,000
$29,043,290 Water and Sewer Revenue Bonds, Series 2014A - On March 28, 2014, the Authority issued $29,043,290 in revenue bonds for purposes of financing capital improvements and capacity upgrades of the Rivanna Interceptor and pump station at Moores Creek Wastewater Treatment Plant.		
The bond resolution provided a redemption schedule with interest and principal of $941,168 due semi-annually from April 1, 2017 through April 1, 2036 with interest at 2.45%. An interest only payment was due on October 1, 2016. Effective October 1, 2020, the interest rate was reduced to 1.60%, which resulted in lower semi-annual payments of principal and interest ranging from $814,690 to $888,179 through April 1, 2036.	22,023,266	1,424,076

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
$1,189,672 Water and Sewer Revenue Bonds, Series 2015A - On June 17, 2015, the Authority issued $1,189,672 in revenue bonds for purposes of financing capital improvements including replacing the final phase of the Schenks Branch Interceptor.		
The bond resolution provides a redemption schedule with an interest payment due October 1, 2016 and interest and principal payments of $35,296 due semi-annually from April 1, 2017 through April 1, 2036. The bonds bear interest at an annual rate of 1.5%.	$ 885,327	$ 57,528
$44,495,000 Taxable Water and Sewer System Revenue and Refunding Bonds, Series 2015B - On November 18, 2015, the Authority issued $44,495,000 in Revenue and Refunding Bonds for purposes of financing various water capital projects and to refund Series 2005B bond with an outstanding amount of $20,455,000. The bonds were issued at a premium in the amount of $5,329,294.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2016 through October 1, 2045 for total payments of $1.7 to $3.3 million per year. The bonds bear interest at an annual rate ranging from 3.094% to 5.125%. The Authority refunded the 2005B Series bonds to reduce its total debt service payments over the next 20 years by $4.45 million and to obtain a net economic gain (difference between the present values of the debt service payments on the old and new debt) of $3.51 million.	35,820,000	1,705,000
$10,000,000 Taxable Regional Water and Sewer Revenue Bonds, Series 2016 - On December 8, 2016, the Authority issued $10,000,000 in revenue bonds for purposes of financing various capital improvements.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2017 through October 1, 2036. The bonds bear interest at an annual rate of 2.35%. Total debt service payments are approximately $627,000 per year.	7,922,000	446,000

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
$36,855,000 Taxable Regional Water and Sewer Revenue Bonds, Series 2018 - On November 14, 2018 the Authority issued $36,855,000 in revenue bonds for purposes of financing various capital improvements.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2019 through October 1, 2048. The bonds bear interest at a variable annual rate of 4.125% to 5.125%. Total debt service payments are approximately $2.26 million per year. The bonds were issued at a premium in the amount of $2,389,821.	$ 35,085,000	$ 655,000
$17,610,000 Taxable Water and Sewer System Revenue and Refunding Bonds, Series 2019 - On November 20, 2019, the Authority issued $17,610,000 in Revenue and Refunding Bonds for purpose of partially refunding Series 2012A. The bonds were issued at a discount in the amount of $33,492.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2020 through October 1, 2042 for total payments of $0.7 to $1.4 million per year. The bonds bear interest at an annual rate ranging from 1.952% to 3.424%. The Authority refunded $15,855,000 of the 2012A Series bonds to reduce its total debt service payments over the next 20 years by $2.28 million and to obtain a net economic gain (difference between the present values of the debt service payments on the old and new debt) of $1.64 million.	17,245,000	185,000

Note 6−Long-Term Obligations: (Continued)

B. Details of Long-Term Obligations (Continued)

	Total Amount	Amount Due Within One Year
Revenue Bonds (Continued)		
Direct Borrowings and Direct Placements (Continued)		
$36,980,000 Taxable Regional Water and Sewer System Revenue and Refunding Bonds, Series 2021 - On November 17, 2021, the Authority issued $36,980,000 in revenue bonds for purposes of financing various capital improvements. The bonds were issued at a premium in the amount of $3,516,091.		
The bond resolution provides a redemption schedule with interest due semi-annually and principal due annually from April 1, 2022 through October 1, 2051. The bonds bear interest at an annual rate ranging from 2.213% to 5.125%. Total debt service payments are approximately $1.9 million per year.	$ 36,980,000	$ 645,000
Total Revenue Bonds	$ 204,643,464	$ 9,440,057
Issuance premiums (discounts)	9,405,056	-
Compensated absences	591,148	538,000
Lease liability	4,725,062	175,000
VERIP liability	264,482	119,142
Net OPEB liability	325,297	-
Net pension liability	1,409,421	-
Total	$ 221,363,930	$ 10,272,199

Note 6−Long-Term Obligations: (Continued)

C. Annual Amortization of Long-Term Debt

The annual requirements to amortize all long-term debt outstanding as of June 30, 2022 are as follows:

	Revenue Bonds			
Year Ending	Direct Borrowings and Direct Placements		Public Offerings	
June 30,	Interest	Principal	Interest	Principal
2023	$ 6,108,879	$ 8,715,057	$ 616,306	$ 725,000
2024	5,822,119	9,005,117	586,706	755,000
2025	5,533,016	9,293,118	563,372	775,000
2026	5,241,529	9,303,103	546,194	795,000
2027	4,947,790	9,516,426	528,138	810,000
2028-2032	20,262,983	44,182,481	2,282,038	4,420,000
2033-2037	14,374,357	31,698,162	1,579,400	5,120,000
2038-2042	9,722,110	25,120,000	713,050	5,980,000
2043-2047	4,715,613	23,965,000	21,450	1,320,000
2048-2052	884,641	13,145,000	-	-
Total	$ 77,613,037	$ 183,943,464	$ 7,436,654	$ 20,700,000

D. Prior Year Defeasance of Debt

In prior years, the Authority defeased certain revenue bonds by placing the proceeds of new bonds in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the Authority's financial statements.

Note 7−Compensated Absences:

Authority employees earn vacation leave each month at a scheduled rate in accordance with the years of service and sick leave at the rate of eight hours per month. Accumulated unpaid vacation leave amounts are accrued when incurred. The liability for accrued vacation leave was $591,148 at June 30, 2022.

Note 8−Pension Plan:

Plan Description

All full-time, salaried permanent employees of the Authority are automatically covered by a 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. 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.

Note 8−Pension 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. 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. 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.

Employees Covered by Benefit Terms

As of the June 30, 2020 actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

Inactive members or their beneficiaries currently receiving benefits	74
Inactive members:	
Vested inactive members	21
Non-vested inactive members	27
Long-term disability (LTD)	0
Inactive members active elsewhere in VRS	41
Total inactive members	89
Active members	91
Total covered employees	254

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.

Note 8−Pension Plan: (Continued)

Contributions (Continued)

The Authority's contractually required employer contribution rate for the year ended June 30, 2022 was 8.30% 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 $455,293 and $419,777 for the years ended June 30, 2022 and June 30, 2021, respectively.

Net Pension Liability

The net pension liability (NPL) is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. For the Authority, the net pension liability was measured as of June 30, 2021. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2020 rolled forward to the measurement date of June 30, 2021.

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	2.5%
Salary increases, including inflation	3.5% – 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

Note 8−Pension Plan: (Continued)

Actuarial Assumptions – General Employees: (Continued)

Mortality rates: (Continued)

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

Mortality Improvement:
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 PUB2010 public sector mortality tables. Increased disability life expectancy. 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

Note 8−Pension 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 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 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. 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 40th 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%.

Note 8−Pension 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.

Changes in Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2020	$ 24,919,702	$ 20,660,552	$ 4,259,150
Changes for the year:			
Service cost	$ 445,281	$ -	$ 445,281
Interest	1,639,131	-	1,639,131
Differences between expected and actual experience	403,391	-	403,391
Assumption changes	941,917		941,917
Contributions - employer	-	419,778	(419,778)
Contributions - employee	-	262,120	(262,120)
Net investment income	-	5,611,187	(5,611,187)
Benefit payments, including refunds	(1,272,555)	(1,272,555)	-
Administrative expenses	-	(14,163)	14,163
Other changes	-	527	(527)
Net changes	$ 2,157,165	$ 5,006,894	$ (2,849,729)
Balances at June 30, 2021	$ 27,076,867	$ 25,667,446	$ 1,409,421

Note 8−Pension Plan: (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Authority using the discount rate of 6.75%, as well as what the Authority's net pension 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%)
Rivanna Water & Sewer Authority's Net Pension Liability	$ 4,728,672	$ 1,409,421	$ (1,349,564)

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 $383,207. At June 30, 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 240,733	$ 19,301
Changes in assumptions	562,112	-
Net difference between projected and actual earnings on pension plan investments	-	2,787,400
Employer contributions subsequent to the measurement date	455,293	-
Total	$ 1,258,138	$ 2,806,701

$455,293 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:

Year ended June 30	
2023	$ (130,055)
2024	(377,056)
2025	(649,346)
2026	(847,399)
2027	-
Thereafter	-

Note 8−Pension Plan: (Continued)

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 https://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.

Note 9−Voluntary Early Retirement Incentive Program:

Rivanna Water and Sewer Authority has a Voluntary Early Retirement Incentive Program (VERIP) which provides for monthly payments to eligible employees for a period of up to five years after early retirement or until age 65, whichever comes first. Participants in the VERIP must be regular full-time employees eligible for early or full retirement under the provisions of the Virginia Retirement System (VRS) who have been employed by the Authority for 10 of the last 13 years prior to retirement. Employees retiring under the disability provisions of VRS and/or Social Security are not eligible for the VERIP. VERIP participants receive a stipend equal to the difference between (1) the annual VRS retirement benefit amount as reduced for early VRS retirement if appropriate and (2) the recomputed annual VRS benefit with the addition of the lesser of five more years of service or the number of additional years needed to reach age 65. The stipend is paid on a monthly basis. The participant may also receive a monthly payment equal to the amount of the Board's contribution toward an employee's health insurance, for as long as the employee is covered by VERIP benefits. Applications for the VERIP must be submitted to the Executive Director for approval. The Authority's estimated VERIP liability as of June 30, 2022 was $264,482. The amount payable within the next year is $119,142.

Note 10−Risk Management:

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 Risk Sharing Association, 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 coverage, property and liability insurance. The Agreement for Formation of the association provides that the association will be self-sustaining through member premiums. Settled claims have not exceeded pool coverage in any of the past three fiscal years.

Note 11−Other Postemployment Benefits−Health Insurance:

The Authority previously provided post-retirement healthcare benefits for employees who were eligible under a single employer defined benefit plan. The Plan and benefits have been terminated. Therefore, the Authority has no assets or liabilities to report as of June 30, 2017 or subsequent years.

Note 12−Group Life Insurance (GLI) Plan (OPEB Plan):

Plan Description

The Group Life Insurance (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.

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.

Note 12−Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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, 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 GLI Plan from the entity were $33,670 and $30,919 for the years ended June 30, 2022 and June 30, 2021, respectively.

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

At June 30, 2022, the entity reported a liability of $325,297 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 Program 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 0.02794% as compared to 0.02707% at June 30, 2020.

For the year ended June 30, 2022, the participating employer recognized GLI OPEB expense of $21,978. 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.

Note 12−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:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 37,101	$ 2,479
Net difference between projected and actual earnings on GLI OPEB plan investments	-	77,642
Change in assumptions	17,934	44,508
Changes in proportion	30,113	-
Employer contributions subsequent to the measurement date	33,670	-
Total	$ 118,818	$ 124,629

$33,670 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	
2023	$ (7,374)
2024	(4,629)
2025	(6,099)
2026	(19,399)
2027	(1,980)
Thereafter	-

Note 12−Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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 increases and mortality rates included herein are for relevant employer groups. Information for other groups can be referenced in the VRS Annual Report.

Inflation	2.5%
Salary increases, including inflation	3.5%–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

Note 12−Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

Actuarial Assumptions: (Continued)

Mortality Rates – Non-Largest Ten Locality Employers – General Employees (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):

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

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.

Note 12−Group Life Insurance (GLI) Plan (OPEB Plan): (Continued)

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 40th percentile of expected long-term results of the VRS fund asset allocation at the time, providing a median return of 7.11%, including expected inflation of 2.50%.

Note 12−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 contributions will be made per the VRS guidance and the 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 as of June 30, 2021

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	$ 475,271	$ 325,297	$ 204,187

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 https://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.

Note 13−Related Parties:

Rivanna Solid Waste Authority (RSWA) and Rivanna Water and Sewer Authority (RWSA) share office space and administrative staff. Procedures are in place to ensure proper segregation of funds, purchasing activity, personnel and similar matters. RSWA pays RWSA monthly for its share of joint administrative expenses, which totaled $554,004 this fiscal year and $1,305 for leachate acceptance and treatment. Rivanna Solid Waste Authority billed Rivanna Water & Sewer Authority $28,027 for hauling and tipping fees. RSWA owed RWSA $69,424 as of June 30, 2022.

Note 14−Construction Commitments:

Rivanna Water and Sewer Authority had the following significant construction contract commitments for capital projects as of June 30, 2022:

Project	Remaining Commitment
Ragged Mtn Reservoir to Observatory WTP Raw Water Line	$ 529,992
Ragged Mountain Reservoir to Observatory Raw Water Pump Stn	859,491
Observatory WTP Improvements	12,571,259
Central Water Line	1,243,151
Airport Rd. Pump Stn. & N. Rivanna Transmission Main	7,345,664
Emmet Street Waterline Betterment	761,927
South Rivanna WTP Improvements	2,079,618
MCAWRRF 5kV Electrical System Upgrade	4,449,715

These contracts give the Authority the right to terminate the contract for any reason.

Note 15−Fair Value Measures:

Fair value for investments is determined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. The three-level fair value hierarchy prioritizes the inputs used to measure fair value. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 — Quoted prices (unadjusted) in active markets for identical assets or liabilities.

- Level 2 — Significant observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Note 15−Fair Value Measures: (Continued)

- Level 3 — Significant unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The Authority is providing the following information related to its investments:

		Fair Value Measurements at Reporting Date Using		
	Total June 30, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Treasury & Agency Money Market Funds	$ 9,524,730	$ 9,524,730	$ -	$ -
Total by fair value level	$ 9,524,730	$ 9,524,730	$ -	$ -

Investments measured at the net asset value (NAV)

VML/VACo Virginia Investment Pool	$ 10,585,310
Total measured at the NAV	$ 10,585,310

Note 16−Leases:

Lessee

The Authority leases real property from the Rector and Visitors of the University of Virginia (UVA). The property consists of approximately seven acres of land, improvements, and appurtenances in Albemarle County upon which the Observatory Water Treatment Plant, Royal Pump Station, and Stadium Road Pump Station are located. The initial lease term is a 49-year period from July 1, 2020 to June 30, 2069. The lease will renew for an additional 50-year term from July 1, 2069 through June 30, 2119 under the same terms unless either party provides notice of a desire to terminate or to amend the terms. Such notice must be provided within 36 to 48 months prior to the end of the initial term. The lease requires RWSA to pay UVA $100,000 in 2020 and $175,000 in 2021 annually thereafter, subject to increase every 10 years based on the Consumer Price Index (CPI).

Note 16−Leases: (Continued)

Lessee (Continued)

Due to the implementation of GASB Statement No. 87 on July 1, 2021, the Authority recorded an initial lease liability and a right-of-use lease asset of $4,900,062, measured at the present value of payments expected to be made during the lease term at an interest rate of 2.56%. Future rent increases based on CPI have not been considered in the initial measurement of the lease liability. The right-of-use lease asset is being amortized over 48 years on the straight-line method. As of June 30, 2022, the value of the lease liability was $4,725,062, and the value of the right-of-use lease asset net of $102,085 accumulated amortization was $4,797,977. The future principal and interest payments as of June 30, 2022 were as follows:

Year Ending June 30,	Principal	Interest	Total
2023	$ 52,609	$ 122,391	$ 175,000
2024	53,972	121,028	175,000
2025	55,370	119,630	175,000
2026	56,804	118,196	175,000
2027	58,275	116,725	175,000
2028-2032	314,816	560,184	875,000
2033-2037	357,756	517,244	875,000
2038-2042	406,553	468,447	875,000
2043-2047	462,006	412,994	875,000
2048-2052	525,023	349,977	875,000
2053-2057	596,635	278,365	875,000
2058-2062	678,015	196,985	875,000
2063-2067	770,495	104,505	875,000
2068-2069	336,733	13,267	350,000
Total	$ 4,725,062	$ 3,499,938	$ 8,225,000

Lessor

The Authority owns two parcels of real estate in Albemarle County and the two water tank structures, Crozet Water Tank and South Rivanna Water Tank, located on those sites. The Authority leases portions of the sites and structures to Milestone Development, Inc. (Milestone) under two separate leases with the same terms. The initial lease term is a ten-year period from January 28, 2021 to January 28, 2031, with up to four (4) 5-year extension terms. The term is automatically extended as of the expiration of the then current term unless the lessee provides 30 days advance written notice of its intent not to renew. Monthly rent is equal to 75% of the collected gross revenues derived from the use, leasing or occupancy of the leased property. Milestone leases space on the water tank sites and structures (the Compounds) to telecommunications or other wireless communications providers (Carriers) in compliance with these water tank site leases. The Carriers may install antennas on the structures and construct equipment platforms to support their communications equipment within the Compounds. Milestone currently has 6 Carrier leases.

Note 16−Leases: (Continued)

Lessor (Continued)

On July 1, 2021, the Authority recorded an initial lease receivable and deferred inflow of resources of $1,959,786, as the present value of the future minimum rent payments expected to be received during the lease term. In fiscal year 2022, the Authority recognized $124,235 of lease revenue and $19,058 of interest revenue under these leases.

Note 17−COVID-19 Pandemic:

On March 11, 2020, the World Health Organization declared COVID-19 a pandemic, which has caused an economic downturn on a global scale, disrupted global supply chains, and created significant uncertainty, volatility, and disruption across economies and financial markets. The full impact of the COVID-19 outbreak continues to evolve as of the release date of this report. Management is monitoring the situation and impact that it may have on its financial condition, liquidity, operations, suppliers, industry, and workforce.

Note 18−Upcoming Pronouncements:

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 reporting periods beginning after June 15, 2022.

Statement No. 99, Omnibus 2022, addresses (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 for fiscal years beginning after June 15, 2023.

Statement No. 100, Accounting Changes and Error Corrections – an amendment of GASB Statement No. 62, provides more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability for accounting changes and error corrections. The requirements of this Statement are effective for fiscal years 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 Changes in Net Pension Liability and Related Ratios
Pension Plan
For the Measurement Dates of June 30, 2014 through June 30, 2021

	2021	2020	2019	2018
Total pension liability				
Service cost	$ 445,281	$ 449,134	$ 416,525	$ 414,140
Interest	1,639,131	1,588,668	1,542,498	1,501,555
Changes in benefit terms	-	-	-	-
Differences between expected and actual experience	403,391	(56,781)	75,270	(211,755)
Changes of assumptions	941,917	-	655,287	-
Benefit payments	(1,272,555)	(1,194,287)	(1,184,605)	(1,053,473)
Net change in total pension liability	$ 2,157,165	$ 786,734	$ 1,504,975	$ 650,467
Total pension liability - beginning	24,919,702	24,132,968	22,627,993	21,977,526
Total pension liability - ending (a)	$ 27,076,867	$ 24,919,702	$ 24,132,968	$ 22,627,993
Plan fiduciary net position				
Contributions - employer	$ 419,778	$ 405,038	$ 388,000	$ 438,811
Contributions - employee	262,120	260,592	239,360	227,140
Net investment income	5,611,187	395,913	1,321,667	1,404,233
Benefit payments	(1,272,555)	(1,194,287)	(1,184,605)	(1,053,473)
Administrator charges	(14,163)	(13,678)	(13,329)	(12,231)
Other	527	(466)	(831)	(1,245)
Net change in plan fiduciary net position	$ 5,006,894	$ (146,888)	$ 750,262	$ 1,003,235
Plan fiduciary net position - beginning	20,660,552	20,807,440	20,057,178	19,053,943
Plan fiduciary net position - ending (b)	$ 25,667,446	$ 20,660,552	$ 20,807,440	$ 20,057,178
Authority's net pension liability - ending (a) - (b)	$ 1,409,421	$ 4,259,150	$ 3,325,528	$ 2,570,815
Plan fiduciary net position as a percentage of the total pension liability	94.79%	82.91%	86.22%	88.64%
Covered payroll	$ 5,768,536	$ 5,571,372	$ 5,175,437	$ 4,868,672
Authority's net pension liability as a percentage of covered payroll	24.43%	76.45%	64.26%	52.80%

This schedule is intended to report 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 Changes in Net Pension Liability and Related Ratios
Pension Plan
For the Measurement Dates of June 30, 2014 through June 30, 2021

	2017	2016	2015	2014
Total pension liability				
Service cost	$ 398,833	$ 420,980	$ 397,302	$ 408,618
Interest	1,465,426	1,376,398	1,308,253	1,243,939
Changes in benefit terms	-	-	-	-
Differences between expected and actual experience	(123,760)	343,405	43,130	-
Changes of assumptions	(241,172)	-	-	-
Benefit payments	(912,902)	(825,031)	(725,341)	(742,220)
Net change in total pension liability	$ 586,425	$ 1,315,752	$ 1,023,344	$ 910,337
Total pension liability - beginning	21,391,101	20,075,349	19,052,005	18,141,668
Total pension liability - ending (a)	$ 21,977,526	$ 21,391,101	$ 20,075,349	$ 19,052,005
Plan fiduciary net position				
Contributions - employer	$ 423,473	$ 448,728	$ 434,762	$ 428,309
Contributions - employee	237,015	216,819	230,505	204,334
Net investment income	2,098,047	298,454	754,877	2,256,556
Benefit payments	(912,902)	(825,031)	(725,341)	(742,220)
Administrator charges	(12,137)	(10,631)	(10,246)	(12,143)
Other	(1,862)	(126)	(160)	119
Net change in plan fiduciary net position	$ 1,831,634	$ 128,213	$ 684,397	$ 2,134,955
Plan fiduciary net position - beginning	17,222,309	17,094,096	16,409,699	14,274,744
Plan fiduciary net position - ending (b)	$ 19,053,943	$ 17,222,309	$ 17,094,096	$ 16,409,699
Authority's net pension liability - ending (a) - (b)	$ 2,923,583	$ 4,168,792	$ 2,981,253	$ 2,642,306
Plan fiduciary net position as a percentage of the total pension liability	86.70%	80.51%	85.15%	86.13%
Covered payroll	$ 4,613,774	$ 4,403,235	$ 4,232,146	$ 4,087,133
Authority's net pension liability as a percentage of covered payroll	63.37%	94.68%	70.44%	64.65%

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

RIVANNA WATER & SEWER AUTHORITY

Schedule of Employer Contributions
Pension Plan
For the Years Ended June 30, 2013 through June 30, 2022

Fiscal Year	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	$ 455,293	$ 455,293	$ -	$ 6,281,607	7.25%
2021	419,777	419,777	-	5,768,536	7.28%
2020	403,941	403,941	-	5,571,372	7.25%
2019	389,097	389,097	-	5,175,437	7.52%
2018	438,760	438,760	-	4,868,672	9.01%
2017	423,477	423,477	-	4,613,774	9.18%
2016	451,771	451,771	-	4,403,235	10.26%
2015	435,295	435,295	-	4,232,146	10.29%
2014	428,317	428,317	-	4,087,133	10.48%
2013	426,490	426,490	-	4,078,576	10.46%

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

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

RIVANNA WATER & SEWER AUTHORITY

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)
2021	0.02794%	$ 325,297	$ 5,768,536	5.64%	67.45%
2020	0.02707%	451,754	5,571,372	8.11%	52.64%
2019	0.02636%	428,948	5,175,437	8.29%	52.00%
2018	0.02561%	389,000	4,868,672	7.99%	51.22%
2017	0.02503%	376,000	4,613,774	8.15%	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.

RIVANNA WATER & SEWER AUTHORITY

Schedule of Employer Contributions
Group Life Insurance (GLI) Plan
For the Years Ended June 30, 2017 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	$ 33,670	$ 33,670	$ -	$ 6,281,607	0.54%
2021	30,919	30,919	-	5,768,536	0.54%
2020	29,203	29,203	-	5,571,372	0.52%
2019	27,074	27,074	-	5,175,437	0.52%
2018	25,512	25,512	-	4,868,672	0.52%
2017	24,197	24,197	-	4,613,774	0.52%

Schedule is intended to show information for 10 years. Information prior to 2017 is unavailable. However, additional years will be included as they become available.

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

Statistical Section

Sources: Unless otherwise noted, the information in these tables is derived from the annual comprehensive financial reports for the relevant year.

RIVANNA WATER & SEWER AUTHORITY **Table 1**

Net Position by Component
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Net investment in capital assets	$ 127,517,995	$ 126,518,011	$ 117,610,026	$ 111,443,845	$ 112,898,791	$ 103,493,259	$ 97,972,502	$ 97,345,270	$ 90,167,529	$ 85,187,524
Restricted	4,581,454	4,726,258	4,552,818	4,278,445	3,794,293	3,729,350	3,335,539	2,940,314	2,870,788	2,782,090
Unrestricted	32,759,523	28,925,839	34,534,991	36,545,939	30,379,882	34,540,998	34,346,555	30,488,358	35,760,052	33,625,558
Total net position	$ 164,858,972	$ 160,170,108	$ 156,697,835	$ 152,268,229	$ 147,072,966	$ 141,763,607	$ 135,654,596	$ 130,773,942	$ 128,798,369	$ 121,595,172

RIVANNA WATER & SEWER AUTHORITY **Table 2**

Changes in Net Position
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2022	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Operating revenues:										
Metered water sales	$ 19,279,042	$ 16,395,335	$ 16,196,450	$ 15,216,180	$ 14,034,080	$ 13,753,977	$ 13,014,328	$ 12,555,666	$ 11,353,630	$ 11,728,840
Wastewater service charges	18,694,954	18,887,091	17,999,007	18,821,857	14,858,101	14,444,159	14,799,741	13,625,855	14,620,353	13,889,105
Total operating revenues	$ 37,973,996	$ 35,282,426	$ 34,195,457	$ 34,038,037	$ 28,892,181	$ 28,198,136	$ 27,814,069	$ 26,181,521	$ 25,973,983	$ 25,617,945
Operating expenses:										
Personnel costs	$ 9,478,916	$ 9,315,313	$ 8,693,477	$ 7,728,340	$ 7,385,978	$ 7,483,807	$ 6,155,243	$ 5,878,175	$ 5,756,273	$ 5,928,994
Professional services	925,766	1,062,473	1,048,839	994,207	738,823	885,072	602,891	473,193	418,858	282,427
Other services and charges	4,275,419	3,812,208	3,676,790	3,770,051	3,341,421	2,764,905	2,607,118	2,532,408	2,683,136	2,430,718
Operations and maintenance	5,579,336	5,825,420	5,423,447	5,799,962	4,169,065	4,214,246	4,710,701	3,991,590	3,543,311	3,383,574
Depreciation and amortization	7,878,076	7,620,209	7,330,242	6,704,908	5,773,757	5,411,996	5,396,029	4,983,753	4,662,094	3,601,730
Total operating expenses	$ 28,137,513	$ 27,635,623	$ 26,172,795	$ 24,997,468	$ 21,409,044	$ 20,760,026	$ 19,471,982	$ 17,859,119	$ 17,063,672	$ 15,627,443
Operating income	$ 9,836,483	$ 7,646,803	$ 8,022,662	$ 9,040,569	$ 7,483,137	$ 7,438,110	$ 8,342,087	$ 8,322,402	$ 8,910,311	$ 9,990,502
Nonoperating revenues (expenses):										
Investment earnings	$ 222,088	$ 125,631	$ 1,243,884	$ 1,599,486	$ 525,039	$ 296,433	$ 369,675	$ 82,083	$ 92,839	$ 157,526
Interest revenue - leases	19,058									
Buck Mountain revenue	-	-	57,100	111,700	125,900	115,700	84,000	74,900	89,000	78,000
Administrative reimbursement	557,071	561,473	471,937	474,246	436,329	328,000	299,000	265,000	257,000	257,000
Lease revenue	143,451	100,804	114,826	105,206	94,609	75,461	61,545	71,934	70,242	67,522
Other revenues	245,766	546,217	473,320	275,531	208,311	230,212	308,628	265,214	181,131	157,512
Interest expense	(6,132,303)	(5,495,857)	(5,733,428)	(5,947,988)	(2,643,801)	(2,248,229)	(4,027,843)	(3,608,072)	(2,336,245)	(2,552,331)
Debt issuance costs	(518,307)	(90,298)	(220,695)	(463,487)	-	(126,766)	(556,438)	(59,273)	(61,081)	(580,404)
Total nonoperating revenues (expenses)	$ (5,463,176)	$ (4,252,030)	$ (3,593,056)	$ (3,845,306)	$ (1,253,613)	$ (1,329,189)	$ (3,461,433)	$ (2,908,214)	$ (1,707,114)	$ (2,415,175)
Income before capital grants and contributions	$ 4,373,307	$ 3,394,773	$ 4,429,606	$ 5,195,263	$ 6,229,524	$ 6,108,921	$ 4,880,654	$ 5,414,188	$ 7,203,197	$ 7,575,327
Capital grants	315,557	77,500	-	-	-	-	-	-	-	226,265
Change in net position	$ 4,688,864	$ 3,472,273	$ 4,429,606	$ 5,195,263	$ 6,229,524	$ 6,108,921	$ 4,880,654	$ 5,414,188	$ 7,203,197	$ 7,801,592

RIVANNA WATER & SEWER AUTHORITY **Table 3**

Revenues by Source
Last Ten Fiscal Years

Fiscal Years Ended June 30,	Operating Revenues			Nonoperating Revenues							Other	
	Water Sales	Wastewater Service Charges	Total Operating Revenues	Investment Earnings	Interest Revenue-Leases	Buck Mountain Revenue	Administrative Reimbursement	Lease Revenue	Other Revenue	Total Nonoperating Revenues	Capital Grants and Contributions	Total Revenues
2013	$ 11,728,840	$ 13,889,105	$ 25,617,945	$ 157,526	$ -	$ 78,000	$ 257,000	$ 67,522	$ 157,512	$ 717,560	$ 226,265	$ 26,561,770
2014	11,353,630	14,620,353	25,973,983	92,839	-	89,000	257,000	70,242	181,131	690,212	-	26,664,195
2015	12,555,666	13,625,855	26,181,521	82,083	-	74,900	265,000	71,934	265,214	759,131	-	26,940,652
2016	13,014,328	14,799,741	27,814,069	369,675	-	84,000	299,000	61,545	308,628	1,122,848	-	28,936,917
2017	13,753,977	14,444,159	28,198,136	296,433	-	115,700	328,000	75,461	230,302	1,045,896	-	29,244,032
2018	14,034,080	14,858,101	28,892,181	525,039	-	125,900	436,329	94,609	208,311	1,390,188	-	30,282,369
2019	15,216,180	18,821,857	34,038,037	1,599,486	-	111,700	474,246	105,206	275,531	2,566,169	-	36,604,206
2020	16,196,450	17,999,007	34,195,457	1,243,884	-	57,100	471,937	114,826	473,320	2,361,067	-	36,556,524
2021	16,395,335	18,887,091	35,282,426	125,631	-	-	561,473	100,804	546,217	1,334,125	77,500	36,694,051
2022	19,279,042	18,694,954	37,973,996	222,088	19,058	-	557,071	143,451	245,766	1,187,434	-	39,161,430

Water and Wastewater Rates and Flows
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2022	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Rates:							*****Note 1 (7/1-10/31/15)**			
Urban Water - City (per 1,000 gallons)	***	***	***	***	***	***	$ 2.756	$ 2.663	$ 2.341	$ 2.443
Urban Water - ACSA (per 1,000 gallons)	***	***	***	***	***	***	$ 3.795	$ 3.687	$ 3.333	$ 3.465
Crozet Water (per month)	$ 242,224	$ 195,010	$ 195,010	$ 162,746	$ 133,901	$ 124,149	$ 111,330	$ 91,942	$ 84,630	$ 82,916
Scottsville Water (per month)	$ 54,466	$ 54,130	$ 54,130	$ 47,717	$ 45,140	$ 43,382	$ 49,012	$ 41,343	$ 41,047	$ 36,280
Urban Wastewater - City (per 1,000 gallons)	***	***	***	***	***	***	$ 3.954	$ 3.822	$ 3.593	$ 3.565
Urban Wastewater - ACSA (per 1,000 gallons)	***	***	***	***	***	***	$ 3.560	$ 3.435	$ 3.463	$ 3.732
Glenmore Wastewater (per month)	$ 34,287	$ 31,192	$ 31,192	$ 31,192	$ 29,494	$ 26,694	$ 25,211	$ 24,451	$ 24,189	$ 23,436
Scottsville Wastewater (per month)	$ 28,013	$ 26,536	$ 26,536	$ 25,823	$ 24,410	$ 21,941	$ 21,425	$ 28,879	$ 28,295	$ 27,619

***Note 1:
The Fiscal Year 2016 Urban Water and Urban Wastewater rates were revised from the above stated rates to the following rates, effective 11/1/15-6/30/16:
In FY 2016, the Board of Directors amended the Service Agreement to go from a rate per 1,000 gallons to a fixed monthly charge for all debt service costs.
Urban rates are stated below along with prior years' rates restated below as fixed monthly charges for comparison purposes based on estimated flows.

***Urban Rates:

		2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Urban Water:											
Operations - City & ACSA (per 1,000 gallons)		$ 2.346	$ 2.095	$ 2.070	$ 1.969	$ 1.833	$ 1.713	$ 1.683	$ 1.462	$ 1.320	$ 1.315
Debt Service - City (per month)		$ 246,188	$ 193,580	$ 181,008	$ 160,039	$ 162,968	$ 158,099	$ 148,549	$ 133,156	$ 173,354	$ 177,435
Debt Service - ACSA (per month)		$ 388,956	$ 321,303	$ 307,598	$ 285,439	$ 284,031	$ 279,864	$ 269,379	$ 251,418	$ 282,114	$ 267,054
Urban Wastewater:											
Operations - City & ACSA (per 1,000 gallons)		$ 2.517	$ 2.369	$ 2.146	$ 1.951	$ 1.835	$ 1.789	$ 1.768	$ 1.827	$ 1.869	$ 1.734
Debt Service - City (per month)	*	$ 376,036	$ 407,588	$ 408,260	$ 392,841	$ 369,037	$ 333,645	$ 310,678	$ 272,220	$ 254,371	$ 224,549
Debt Service - ACSA (per month)	*	$ 337,983	$ 278,174	$ 246,308	$ 222,550	$ 222,280	$ 232,493	$ 223,598	$ 214,771	$ 228,557	$ 189,209

*FY 2022 Urban Wastewater Debt Service rates above reflect mid-year rate change effective October 1, 2021

	Fiscal Years Ended June 30,									
	2022	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Flows (in million gallons per day):										
Urban Water	9.456	9.451	9.191	8.967	9.100	9.535	9.359	9.540	9.618	9.647
Crozet Water	0.674	0.641	0.599	0.563	0.532	0.544	0.541	0.546	0.566	0.503
Scottsville Water	0.057	0.055	0.049	0.043	0.045	0.050	0.048	0.049	0.056	0.053
	10.186	10.147	9.839	9.573	9.677	10.129	9.948	10.135	10.240	10.203
Urban Wastewater	9.541	10.566	9.822	12.530	9.083	9.483	10.352	9.481	10.566	9.719
Glenmore Wastewater	0.092	0.117	0.098	0.138	0.120	0.107	0.107	0.101	0.114	0.121
Scottsville Wastewater	0.049	0.080	0.057	0.086	0.056	0.053	0.071	0.050	0.066	0.050
	9.682	10.762	9.977	12.754	9.259	9.643	10.530	9.632	10.746	9.890

RIVANNA WATER & SEWER AUTHORITY **Table 5**

Ten Largest Customers
Current Year and Nine Years Ago

	Fiscal Year 2022 (Current Year)			
	Water Revenue		Wastewater Revenue	
	Amount	%	Amount	%
Albemarle County Service Authority	$ 12,403,735	64.34%	$ 9,520,032	50.92%
City of Charlottesville	$ 6,875,307	35.66%	$ 8,578,416	45.89%
Others	$ -	0.00%	$ 596,506	3.19%
	$ 19,279,042	100.00%	$ 18,694,954	100.00%

	Fiscal Year 2013 (Nine Years Ago)			
	Water Revenue		Wastewater Revenue	
	Amount	%	Amount	%
Albemarle County Service Authority	$ 4,193,865	50.79%	$ 3,332,575	45.56%
City of Charlottesville	$ 4,063,593	49.21%	$ 3,632,099	49.66%
Others	$ -	0.00%	$ 349,854	4.78%
	$ 8,257,458	100.00%	$ 7,314,528	100.00%

Note: The Authority's two wholesale customers, which are both governmental entities, provided 100% of water revenue and 96.8% of wastewater revenue in FY 2022 and 95.2% in FY 2013. The remaining wastewater revenue came from septage acceptance customers. Due to lack of materiality, the number of customers by type that provide that revenue is not presented here.

RIVANNA WATER & SEWER AUTHORITY **Table 6**

Expenses by Type
Last Ten Fiscal Years

Fiscal Years Ended June 30,	Operations	Depreciation and Amortization	Interest	Debt Issuance Costs	Total
2013	$ 12,025,713	$ 3,601,730	$ 2,552,331	$ 580,404	$ 18,760,178
2014	12,401,578	4,662,094	2,336,245	61,081	19,460,998
2015	12,875,366	4,983,753	3,608,072	59,273	21,526,464
2016	14,075,953	5,396,029	4,027,843	556,438	24,056,263
2017	15,348,030	5,411,996	2,248,229	126,766	23,135,021
2018	15,635,287	5,773,757	2,643,801	-	24,052,845
2019	18,292,560	6,704,908	5,947,988	463,487	31,408,943
2020	18,842,553	7,330,242	5,733,428	220,695	32,126,918
2021	20,015,414	7,620,209	5,495,857	90,298	33,221,778
2022	20,259,437	7,878,076	6,132,303	518,307	34,788,123

RIVANNA WATER & SEWER AUTHORITY **Table 7**

Outstanding Debt by Type
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Revenue bonds payable	$ 214,048,520	$ 182,660,858	$ 191,337,136	$ 200,123,490	$ 167,896,198	$ 173,020,453	$ 160,512,250	$ 124,670,205	$ 125,680,526	$ 127,548,686
Total outstanding debt	$ 214,048,520	$ 182,660,858	$ 191,337,136	$ 200,123,490	$ 167,896,198	$ 173,020,453	$ 160,512,250	$ 124,670,205	$ 125,680,526	$ 127,548,686
Debt per capita	$ 1,358	$ 1,159	$ 1,222	$ 1,284	$ 1,082	$ 1,128	$ 1,060	$ 835	$ 853	$ 873
Debt as a percentage of personal income	1.8%	1.5%	1.6%	1.7%	1.5%	1.7%	1.7%	1.4%	1.5%	1.5%

Notes:
Debt per capita was calculated based on population figures for the calendar year (CY) ending within the fiscal year (FY) obtained from U.S. Department of Commerce - Bureau of Economic Analysis for the City of Charlottesville and County of Albemarle. See Table 9.

Debt as a percentage of personal income was calculated based on personal income for the CY ending within the FY obtained from U.S. Department of Commerce - Bureau of Economic Analysis for the City of Charlottesville and County of Albemarle. See Table 9.

RIVANNA WATER & SEWER AUTHORITY **Table 8**

Revenue Bond Debt Service Coverage
Last Ten Fiscal Years

Fiscal Years Ended June 30,	Gross Revenue (1)	Direct Operating Expense (2)	Net Available	Required Debt Service Payments (3)	Coverage
2013	$ 26,335,505	$ 12,025,713	$ 14,309,792	$ 8,234,169	1.7X
2014	26,664,195	12,401,578	14,262,617	9,089,702	1.6X
2015	26,940,652	12,875,366	14,065,286	9,094,732	1.5X
2016	28,936,917	14,075,953	14,860,964	9,567,370	1.6X
2017	29,244,032	15,348,030	13,896,002	11,912,673	1.2X
2018	30,282,369	15,635,287	14,647,082	12,370,197	1.2X
2019	36,604,206	18,292,560	18,311,646	13,087,353	1.4X
2020	36,556,524	18,842,553	17,713,971	14,311,024	1.2X
2021	36,616,551	20,015,414	16,601,137	14,260,273	1.2X
2022	39,161,430	20,259,437	18,901,993	14,837,074	1.3X

(1) Excluding grant revenue
(2) Excluding depreciation expense
(3) Including payments on revenue bonds and excluding any refunding since the payments were not required to be made in that year

RIVANNA WATER AND SEWER AUTHORITY **Table 9**

Demographic Data for the Service Area
City of Charlottesville & Albemarle County, Virginia
Last Ten Calendar Years

Calendar Year	Population (2)	Personal Income (thousands of $) (2)	Per Capita Personal Income ($) (2)	Unemployment Rate (1)
2011	143,974	7,657,164	53,184	5.9%
2012	146,044	8,457,472	57,910	5.4%
2013	147,282	8,329,280	56,553	4.9%
2014	149,250	8,936,944	59,879	4.5%
2015	151,418	9,518,529	62,863	3.9%
2016	153,374	10,184,984	66,406	3.5%
2017	155,231	11,143,225	71,785	3.3%
2018	155,883	11,900,382	76,342	2.7%
2019	156,596	12,160,701	77,657	2.4%
2020	157,602	12,230,910	77,606	5.7%
2021	not available	not available	not available	3.4%

Sources:
(1) Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages - for Charlottesville Metropolitan Service Area (MSA)
(2) U.S. Department of Commerce - Bureau of Economic Analysis - for City of Charlottesville and Albemarle County

RIVANNA WATER & SEWER AUTHORITY **Table 10**

Principal Employers in the Charlottesville Area
Current Year and Nine Years Ago

Employer	First Quarter of 2022 Number of Employees	First Quarter of 2022 Rank	Fourth Quarter of 2012 Number of Employees	Fourth Quarter of 2012 Rank
University of Virginia/ Blue Ridge Hospital	1,000 & over	1	1,000 & over	1
University of Virginia Medical Center			1,000 & over	2
County of Albemarle	1,000 & over	2	1,000 & over	3
Sentara Health Care	1,000 & over	3		
Martha Jefferson Hospital			1,000 & over	4
UVA Health Services Foundation	1,000 & over	4	1,000 & over	5
City of Charlottesville	1,000 & over	5	1,000 & over	6
State Farm Mutual Automobile Insurance			1,000 & over	7
Charlottesville City School Board	1,000 & over	6	500-999	8
U.S. Department of Defense	500-999	7	500-999	9
Wal Mart	250-499	8		
Food Lion	250-499	9		
Servicelink Management Com Inc	500-999	10		
Fluvanna County Public School Board			500-999	10

Source: Virginia Employment Commission, Economic Information & Analytics, Quarterly Census of Employment and Wages - for Charlottesville Metropolitan Service Area (MSA)

Each employer's percentage of total employment is not available.

RIVANNA WATER & SEWER AUTHORITY **Table 11**

Number of Employees by Indentifiable Activity
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2022	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Number of budgeted full-time equivalent positions:										
Water (2)	26	26	26	26	25	23	23	23	22	23
Wastewater	16	16	16	16	16	17	17	17	17	18
Operations Management (2)	1	1	1	1	1	2	2	2	2	2
Administration & IT (3)	19	17	17	17	16	15	13	12	12	12
Laboratory	4	4	4	3	3	3	3	3	3	3
Director of Engineering & Maintenance	1	1	1	1						
Engineering	13	12	11	10	11	9	9	9	9	9
Maintenance (1)	16	16	17	17	16	16	17	17	17	16
Total	96	93	93	91	88	85	84	83	82	83

(1) Maintenance includes mechanics and maintenance workers for Water and Wastewater.

(2) The Water Resources Manager was reclassified from Operations Management to Engineering effective in fiscal year ended June 30, 2018.

(3) Administration staff is shared with Rivanna Solid Waste Authority.

Source: The above information is summarized from annual budgets.

RIVANNA WATER & SEWER AUTHORITY **Table 12**

Operating and Capital Indicators
Last Ten Fiscal Years

	Fiscal Years Ended June 30,									
	2022	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**
Water										
Size of watershed (square miles)	766	766	766	766	766	766	766	766	766	766
Raw water safe yield (mgd)										
Urban system	18.8	18.8	18.8	18.8	18.8	18.8	18.8	12.8	12.8	12.8
Rural system	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Miles of pipelines	67.0	67.0	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
Number of treatment plants	5	5	5	5	5	5	5	5	5	5
Number of pumping stations	7	7	7	7	7	7	7	7	7	7
Number of reservoirs	5	5	5	5	5	5	5	5	5	5
Number of finished water storage tanks	11	11	11	11	11	11	11	11	11	11
Maximum treatment capacity (mgd)	23.306	22.956	22.750	22.750	22.750	22.750	22.750	22.750	22.750	22.750
Water treated (mgd)	10.186	10.147	9.839	9.573	9.677	10.129	9.948	10.135	10.240	10.203
Unused capacity (mgd)	13.120	12.809	12.911	13.177	13.073	12.621	12.802	12.615	12.510	12.547
Percentage of capacity utilized	43.71%	44.20%	43.25%	42.08%	42.54%	44.52%	43.73%	44.55%	45.01%	44.85%
Wastewater										
Miles of pipelines	37	37	37	37	37	37	37	37	37	37
Number of treatment plants	4	4	4	4	4	4	4	4	4	4
Number of pumping stations	7	7	7	7	7	7	7	7	7	7
Maximum treatment capacity (mgd)	15.486	15.486	15.945	15.945	15.945	15.945	15.945	15.945	15.945	15.945
Wastewater treated (mgd)	9.682	10.762	9.977	12.754	9.259	9.643	10.561	9.632	10.746	9.890
Unused capacity (mgd)	5.804	4.724	5.968	3.191	6.686	6.302	5.384	6.313	5.199	6.055
Percentage of capacity utilized	62.52%	69.50%	62.57%	79.99%	58.07%	60.48%	66.23%	60.41%	67.39%	62.03%

Notes mgd = millions of gallons per day
Safe yield is a measure of raw water resources during a drought of record.

Source: Internal reports and records

Miscellaneous Statistical Data
Albemarle County Service Authority

Year of Incorporation: 1964

Type of Entity:
Independent authority created pursuant to the "Virginia Water & Waste Authorities Act",
Section 15.1-1239, Code of Virginia (1950), as amended

Number of water connections	21,595
Number of sewer connections	18,611
Miles of water lines	374
Miles of sewer lines	324
Number of fire hydrants	3,137

Rates (effective FY 2022) per 1,000 gallons metered consumption

Water

Residential Water Rates and all irrigation usage:	
Level 1 (0-3,000 gallons per month)	$4.70
Level 2 (3,001-6,000 gallons per month)	$9.43
Level 3 (6,001-9,000 gallons per month)	$14.13
Level 4 (over 9,000 gallons per month)	$18.86
Non-Residential and Multi-Family Residential Water Rate (except irrigation water)	$9.09
Wastewater	$9.94

Ten Largest Customers in FY 2022

	Water			Wastewater		
	Billed (in gallons)	**Rank**	**Percentage of Total**	**Billed (in gallons)**	**Rank**	**Percentage of Total**
University of Virginia	27,168,485	1	1.53%	26,199,487	2	1.69%
SEMF Charleston	22,579,303	2	1.27%	22,579,303	3	1.46%
Southwood Mobile Homes	21,831,000	3	1.23%	47,324,231	1	3.05%
Martha Jefferson Hospital	21,519,595	4	1.21%			
Abbington Crossing	20,913,323	5	1.18%	20,913,323	4	1.35%
Four Seasons Apts.	18,582,556	6	1.05%	18,582,556	5	1.20%
Old Salem Apts	18,313,700	7	1.03%	18,313,700	6	1.18%
Westminster Canterbury	17,623,050	8	0.99%	15,875,050	7	1.02%
County of Albemarle	16,665,097	9	0.94%			
ACRJ	16,113,290	10	0.91%	14,773,290	9	0.95%
Turtle Creek Apts.				15,459,435	8	1.00%
Westgate Apts.				14,731,875	10	0.95%
	201,309,399		11.34%	214,752,250		13.85%

Miscellaneous Statistical Data
City of Charlottesville, Virginia

Date of incorporation	1888
Date present charter adopted	1976
Form of government	Council Manager
Area	10.4 square miles
Miles of streets	159.91
Number of water customers	14,791
Number of sewer customers	14,691
Miles of water lines	184
Miles of sanitary sewer lines	173
Number of fire hydrants	1187
Bond Rating	AAA/Aaa

Rates FY 2022 per 1,000 cubic feet:

Water	
May - Sept.	$ 70.08
Oct. - Apr.	$ 53.91
Wastewater	$ 81.34

Ten Largest Customers in Fiscal Year 2022:

	Water			**Wastewater**		
	Water Consumption (in cubic feet)	**Billed Revenue**	**Percentage of Total Revenue**	**Wastewater Treated (in cubic feet)**	**Billed Revenue**	**Percentage of Total Revenue**
University of Virginia	53,635,700	$ 3,362,229	23.86%	53,632,484	$ 4,398,642	29.14%
Pepsi Cola	4,153,800	265,053	1.88%	1,387,700	114,387	0.76%
Charlottesville Redevelopment and Housing	2,459,712	154,683	1.10%	2,459,712	206,205	1.37%
Community Housing/Greenstone	1,775,057	124,056	0.88%	1,775,057	150,754	1.00%
Woodard Properties	1,754,848	126,935	0.90%	1,754,848	152,392	1.01%
Cannon Hearthwood	1,599,704	108,105	0.77%	1,599,704	132,583	0.88%
City of Charlottesville	1,571,483	117,488	0.83%	1,206,959	110,322	0.73%
Breit SH Grand Marc at the Corner	1,309,290	84,690	0.60%	1,309,290	108,134	0.72%
Management Services Corp	1,275,641	90,372	0.64%	1,220,553	103,472	0.69%
City Schools	1,245,900	88,229	0.63%	1,075,880	96,393	0.64%
	70,781,135	$ 4,521,840	32.09%	67,422,187	$ 5,573,282	36.92%

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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*

To the Board of Directors
Rivanna Water & Sewer Authority
Charlottesville, 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 Rivanna Water & Sewer Authority, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise Rivanna Water & Sewer Authority's basic financial statements and have issued our report thereon dated October 31, 2022.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered Rivanna Water & Sewer 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 Rivanna Water & Sewer Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of Rivanna Water & Sewer Authority 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 Rivanna Water & Sewer 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
Charlottesville, Virginia
October 31, 2022

Review of the Community's Water Supply Plan

including the

S. Rivanna to Ragged Mtn Reservoir Water Line Project

Presented to the Board of Directors

By: Bill Mawyer, Executive Director

December 13, 2022

RIVANNA WATER & SEWER AUTHORITY

2002 Drought

Rumors Pour When Rain Doesn't

By **Eric M. Weiss**
September 25, 2002

With Charlottesville reservoirs threatening to dry up in just 88 days, some students at the University of Virginia have entertained thoughts of Christmas break starting around Thanksgiving.

Rumors of an early university shutdown were so pervasive in the past week that college officials Monday sent an e-mail to every student denying plans to send all 18,000 of them home early to conserve water. University officials said fall classes and exams will end on schedule -- 82 days from today.

"Closing early is not something that the university itself has talked about," said Louise Dudley, a U-Va. spokeswoman. "It's a leap from understanding how dire the situation is to the saying that the university will close."

Few doubt the seriousness of the water situation. The university is supplied by the municipal system, whose reservoirs are at 54.1 percent of capacity. City officials said that with no rain and unyielding consumption, they would run out of water in three months.

Drought Emergency Declared in Virginia

L.A. TIMES ARCHIVES

AUG. 31, 2002 12 AM PT

FROM TIMES WIRE SERVICES

RICHMOND, Va. — Virginia Gov. Mark Warner on Friday declared a state of emergency because of the ongoing drought and banned lawn watering and car washing in most parts of the state.

2002 drought in the Southeast – states from Virginia to Georgia had their driest August-July on record this year.

The Rapidan River went dry in 2002, down to to 1 cubic foot per second (cfs). That forced the water system in the Town of Orange into emergency status.

USGS

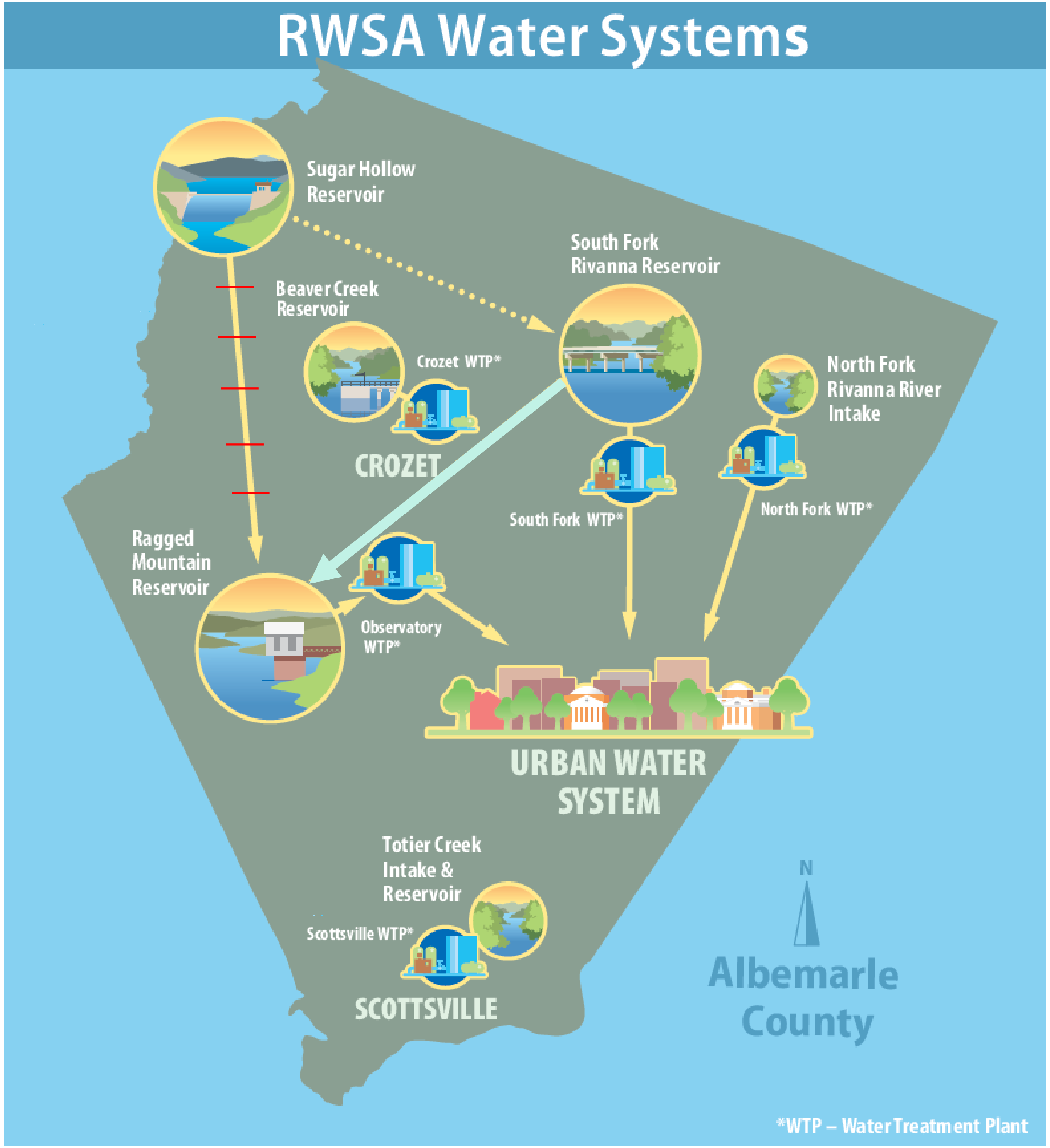
Origin of the CWSP

- A historic drought in Central Virginia in 2002 sparked a decade-long planning process to increase the community's Urban water supply.
- The community evaluated many alternatives, including taking water from the James River, but decided to "drink local" and stay within our Rivanna River watershed.
- A community water supply plan was supported by the Board of Supervisors and approved by City Council and the ACSA in 2012.

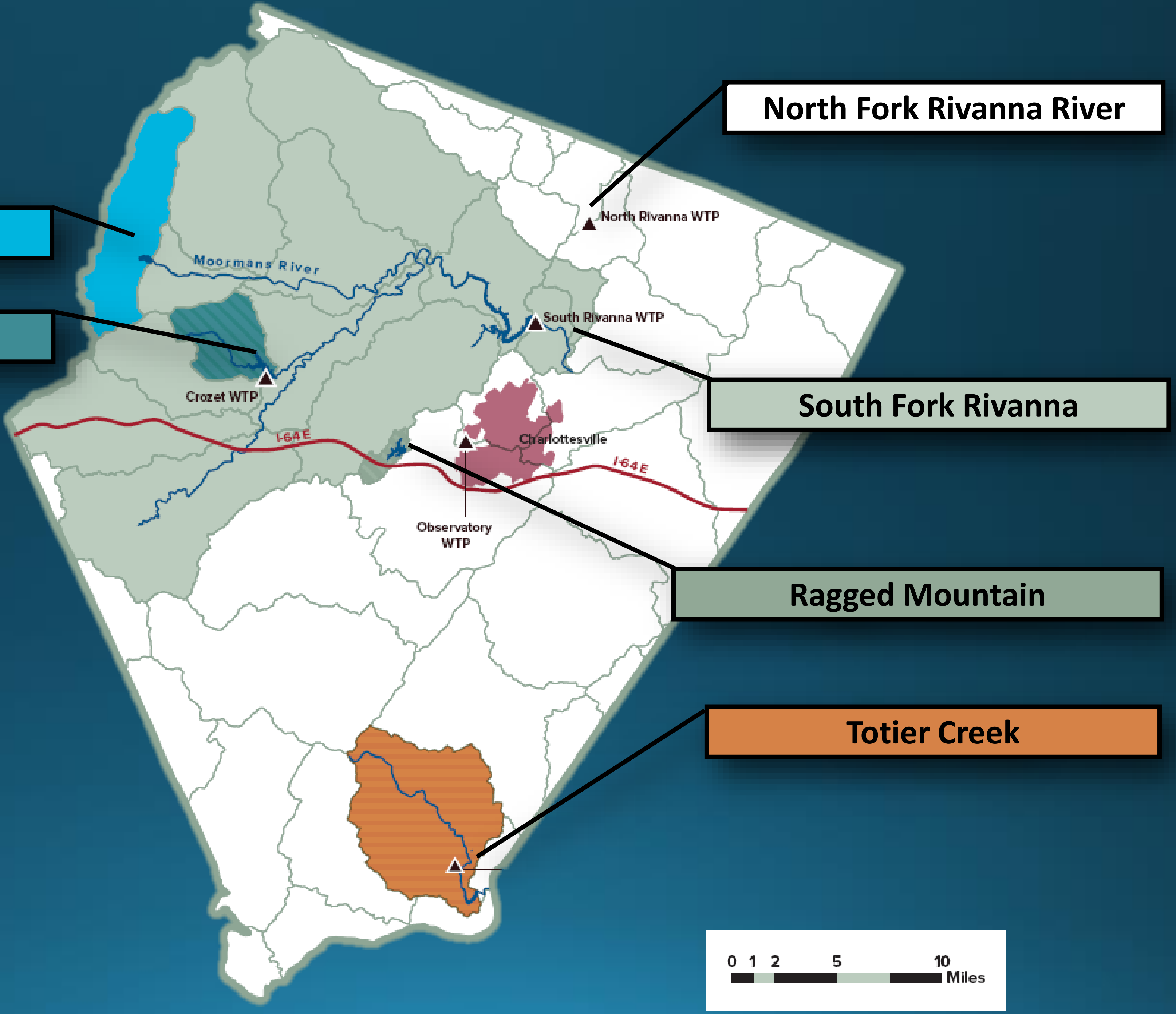

Ragged Mountain Reservoir Dam

Plan to Increase the Capacity and Reliability of our Public Drinking Water Supply

- Build new, higher dam at RMR
- Build new pipe from SRR to RMR
- Close existing pipe from SHR



RWSA Reservoir Watersheds



Reservoir Characteristics

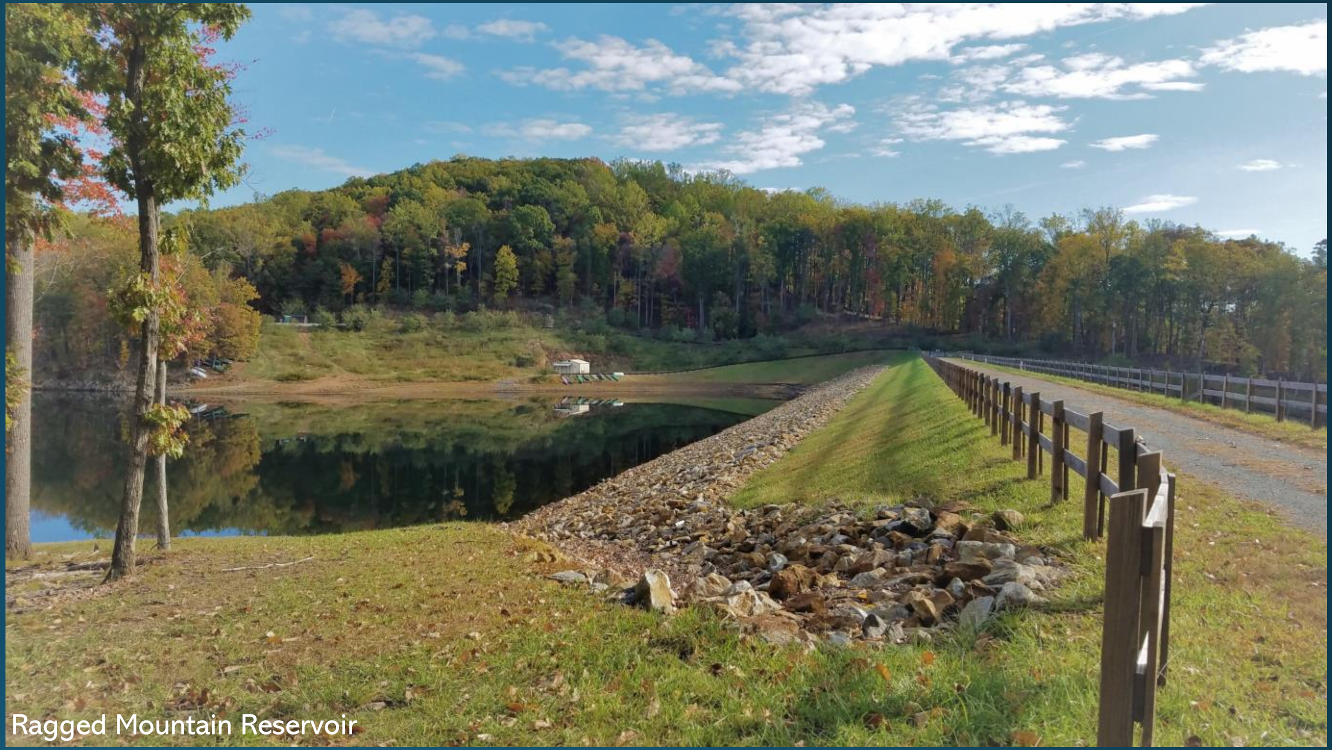
Reservoir	Useable Volume* (MG)	Surface Area (Acres)	Watershed (miles^2)
South Fork Rivanna	885	366	259
Ragged Mountain	1,441	170	2
Sugar Hollow	339	47	18
Beaver Creek	500	104	10
Totier Creek	155	66	29

* Data Sources

- South Rivanna 2018 bathymetry
- Ragged Mountain 2018 bathymetry
- Sugar Hollow 2015 bathymetry
- Beaver Creek Reservoir 2016 bathymetry

Permits were received in 2008 to construct:

- a new dam to increase the capacity of the Ragged Mtn Reservoir from 500 MG to 2.1 BG
- a pipeline between the S. Rivanna Reservoir and the Ragged Mtn Reservoir.
    - U.S. Army Corps of Engineers (10-year permit) expired June 2018; Received extension until 2023.
- Virginia Department of Environmental Quality (15-year permit) expires in February 2023.
  A permit reapplication was submitted in 2022. Received administrative approval from VDEQ to continue operations until the joint permit review process has been completed.


Ragged Mountain Reservoir

Ragged Mountain Dam Project Agreement

- Approved in 2012 by the City, ACSA, and RWSA. Established payment terms and directed RWSA to construct and operate:

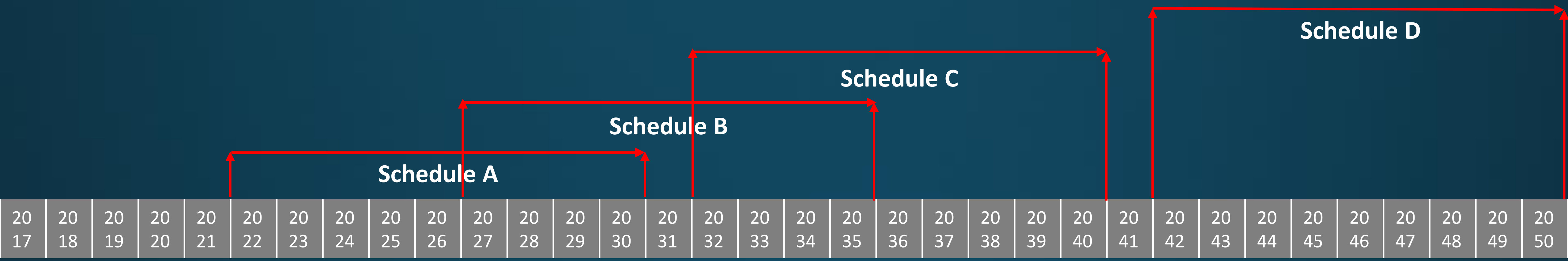
1. A new earthen dam for the RMR: (ACSA 85%, City 15%)
   - *Construction of the new dam was completed in 2014 and the reservoir was filled in 2015*

2. The SRR – RMR Pipeline and Pumping Project: (ACSA 80%, City 20%)
   - *Scheduled for completion in 2027 – 2033*

3. Intake tower modifications and perimeter grading to raise the RMR water level an additional 12 feet = 700 MG of additional storage capacity, 10 years before the community demand equals 85% of the safe yield

- Required RWSA to complete a bathymetric survey of the Urban reservoirs, and an Urban Water Safe Yield and Demand Study, every 10 years beginning in 2020.

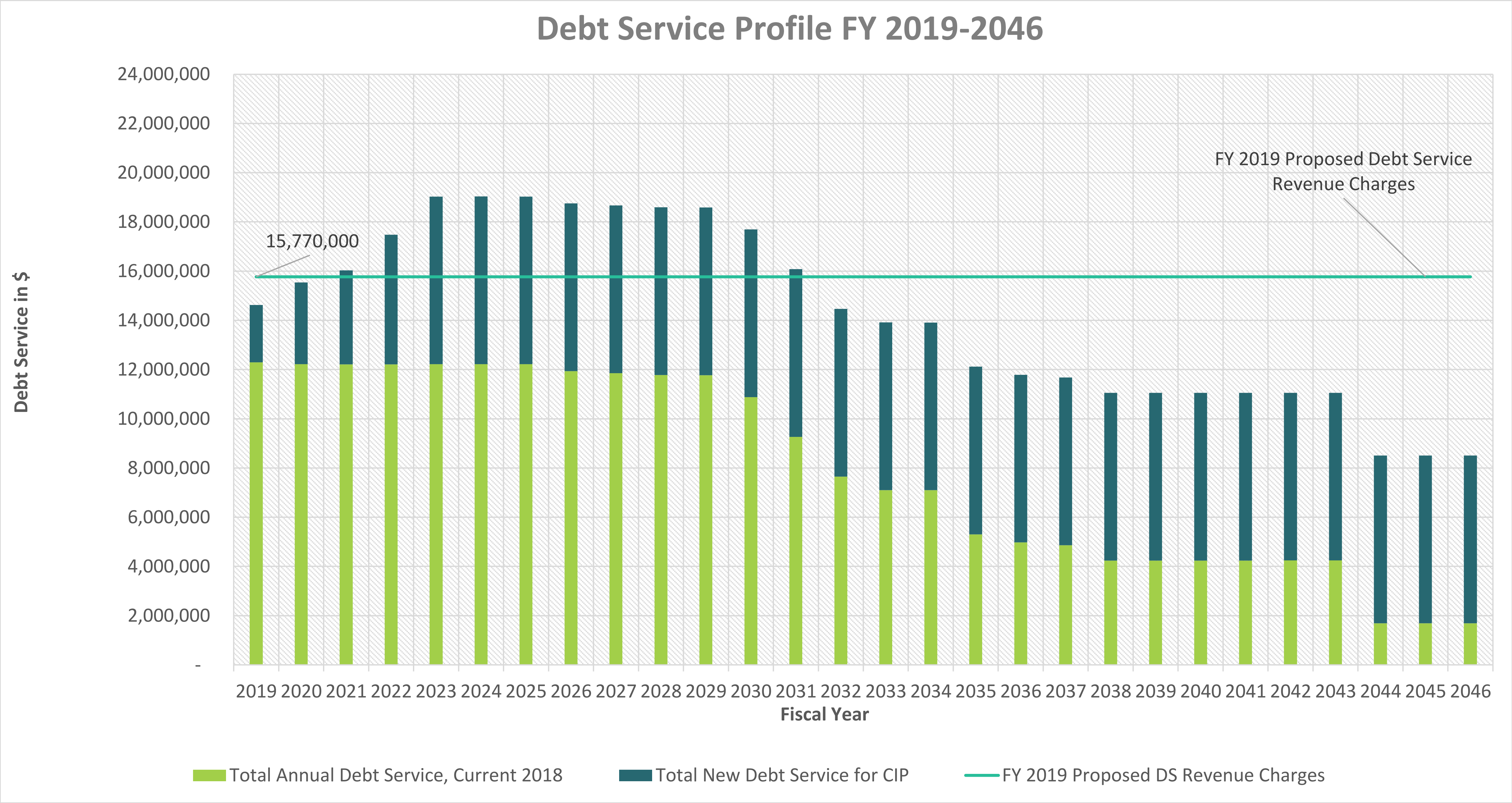
Timeline Options provided by staff in 2018



Scope of Work:

- SRR – RMR WL, WPS, Intake & Pretreatment Project: $80 m

2018 Debt Profile

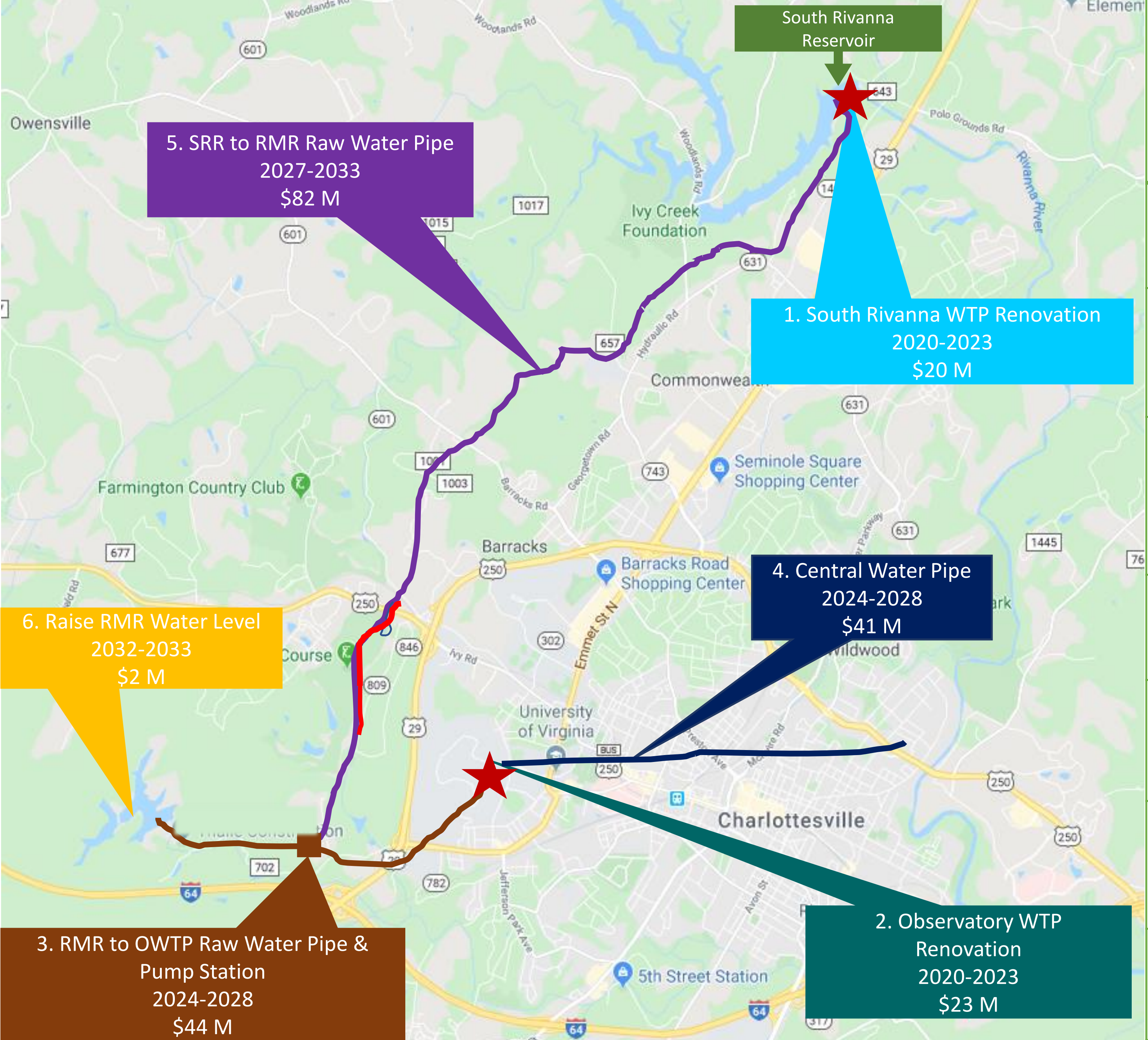


- In 2018, City, ACSA and RWSA approved project completion

Schedule “B”, 2027 – 2035.

- In 2022, higher temperatures, changing weather patterns and drought conditions are occurring across our country.

- We want to be prepared for extended droughts and more intense storms predicted for our future.

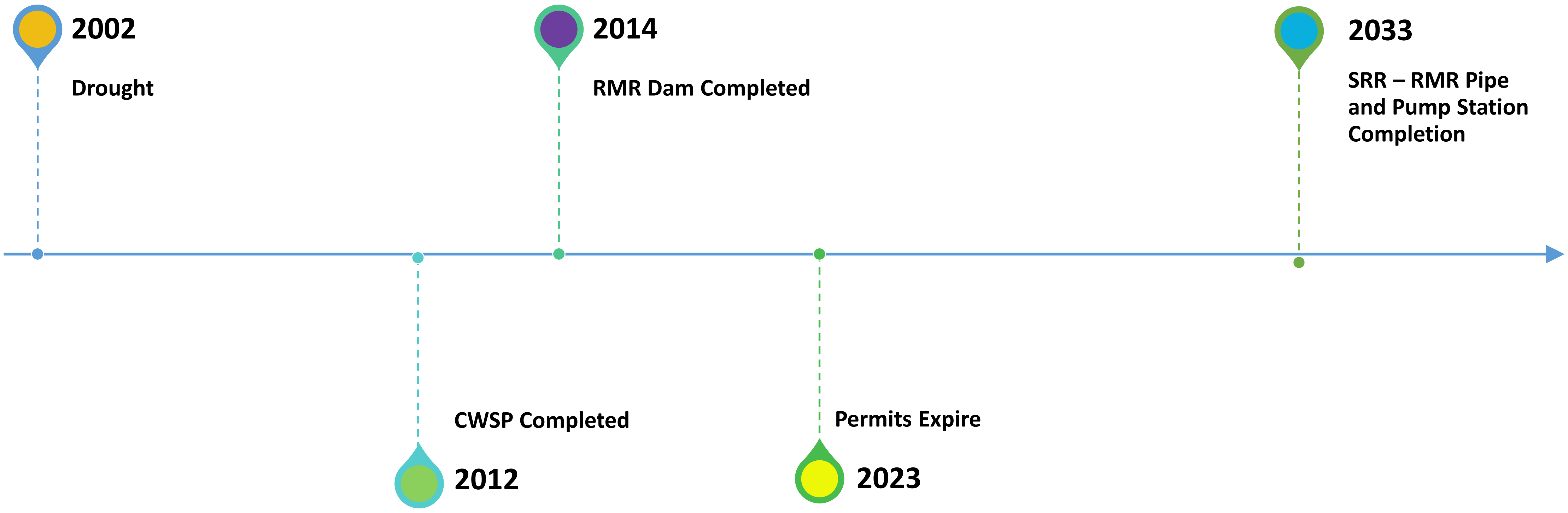


Water Supply Projects Plan

(Dec 2, 2022)

1. SR WTP Renovation 2020-2023	$20 M
2. OB WTP Renovation 2020-2023	$23 M
3. RMR to OB WTP Raw Water Pipe & Pump Station 2024-2028	$44 M
4. Central Water Line 2024-2028	$41 M
5. SRR to RMR Raw Water Pipe 2027-2033	$82 M
6. Raise RMR Water Level 2032-2033	$5 M
City: $79 M ACSA: $136 M	**$215 M**

Timeline for Completion of the CWSP



2022 Drought

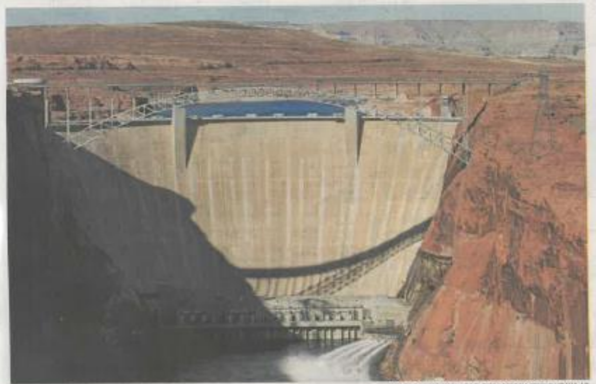
THE DAILY PROGRESS NEWS FRIDAY, MARCH 18, 2022 | A7

JUSTIN SULLIVAN/GETTY IMAGES/TNS

In an aerial view, low water levels are visible at Nicasio Reservoir on April 23, 2021 in Nicasio, Calif.

Calif. saves less water as drought deepens

THURSDAY, MARCH 17, 2022 | dailyprogress.com | SECTION C



ROB SCHUMACHER, FILE, THE ARIZONA REPUBLIC VIA AP

Water is released into the Colorado River at the Glen Canyon Dam Nov. 19, 2017, in Page, Arizona. The elevation of Lake Powell fell below 3,525 feet, a record low that surpasses a critical threshold at which officials have long warned signals their ability to general hydropower is in jeopardy.

Lake's low threatens power for millions

RICHMOND TIMES-DISPATCH
A14 SATURDAY, OCTOBER 29, 2022

Drought conditions: Some U.S. farms are so dry the dirt is repelling fertilizer

BY KIM CHIPMAN AND DOMINIC CAREY
Bloomberg News

Drought is rapidly expanding across America's crop belt, making it so dry that in some grain fields fertilizer is evaporating from the soil and plants are struggling to grow.

Almost three-quarters of U.S. farmland for winter wheat is in moderate to intense drought, the highest since at least 2000, according to government data. Other crop regions are in similarly bad shape, with the country's corn belt at 70%.

The dryness can stunt crop growth and hamper fall fertilizer applications, raising the risk of smaller harvests

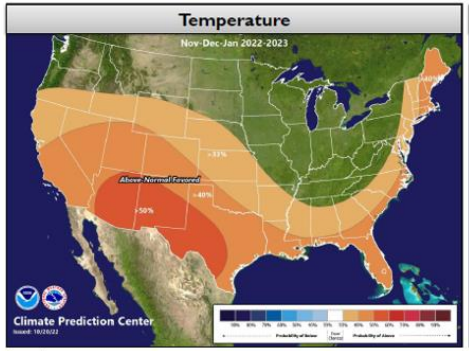
THE ASSOCIATED PRESS

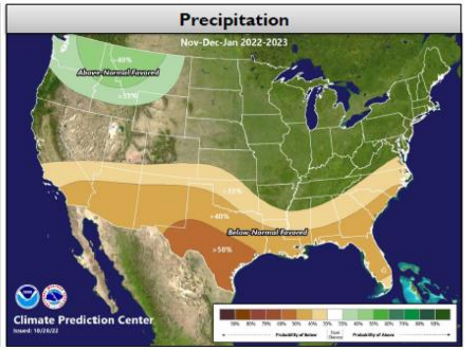
On Oct. 20, exposed ground was seen in a dried bed where a normally wide Mississippi River would flow in Missouri. In Kansas' wheat belt, almost three-quarters of farmland is in drought.

VIRGINIA DROUGHT MONITORING TASK FORCE
Drought Status Report
October 28, 2022

La Niña is favored to continue in the Northern Hemisphere through the spring, resulting in an increased probability of warmer than normal temperatures and below normal precipitation for Virginia.

Three-Month Outlook: Nov-Dec-Jan Wakefield, VA WEATHER FORECAST OFFICE





- Near- to above normal temperatures favored through January.
- Near- to below normal precipitation chances favored through January.

Guidance from Our Strategic Plan 2023

- Planning and Infrastructure

is one of our 5 goals

PLANNING AND INFRASTRUCTURE

To address evolving needs by planning, delivering, and maintaining dependable infrastructure and facilities in a financially responsible manner.

Summary

- Following a “drought of record” in 2002, the community completed a plan to increase the public water supply in 2012.

- The ACSA, City and RWSA have made significant investments in water supply and treatment facilities since 2012 - *about $85 M*.

- To complete the community plan, additional infrastructure must be constructed- *about $85 M*:
  - S. Rivanna to Ragged Mtn Pipe and Pumping project. Scheduled for 2027 – 2033.
  - Intake tower and grading around the RMR reservoir to impound an additional 12 feet of water = 700 MG. Scheduled for 2032 – 2033.

Questions?

Action Requested from the Board:
This presentation is for information only.

Project schedules will be included in the proposed FY 24 – 28 CIP for consideration by the Board in February 2023.

Dam Safety Program Overview

RIVANNA
WATER & SEWER AUTHORITY

Presented to the Board of Directors by:

Victoria Fort, Senior Civil Engineer

December 13, 2022

Agenda

- Dam Safety Regulations
- RWSA Dam Safety Program Overview
- RWSA Dams & Features
- Dam Emergency Planning
  - Terminology and Design Guidelines
  - Emergency Action Plan Overview
- Recent and Current Dam Safety Projects

Virginia Dam Safety Regulations

- The Department of Conservation and Recreation (DCR) is Virginia’s regulatory authority ensuring that Virginia’s dams have proper and safe design, construction, operation, and maintenance to protect public safety.
- All Dams in Virginia are subject to the DCR Dam Safety Regulations, EXCEPT:
  - Dams owned or licensed by the Federal Government (i.e., FERC)
  - Dams under a certain size (height and/or impoundment)
  - Dams operated for Mining, Agricultural, or Canal Purposes

Why is Dam Safety Important?

Dual Dam Failures in Central Michigan

- On May 19, 2020, the Edenville Dam in central Michigan failed following heavy rains, creating flash flood conditions and overtopping the Sanford dam downstream
- Over 2,500 properties were destroyed or damaged, causing an estimated $250 million in damage
- Over 11,000 residents from communities downstream of the dam were evacuated from their homes, preventing loss of life

Why is Dam Safety Important?

College Lake Dam in Lynchburg, VA

- Heavy rain (>6" in 2 hours) caused water levels in the College Lake Dam to rise rapidly on August 2, 2018
- The emergency spillway activated but was unable to pass enough water to prevent overtopping of the dam, causing damage to the road and embankment
- The lake was rapidly dewatered and a catastrophic dam failure was avoided
- ~150 downstream residents were evacuated during the incident
- Removal of the dam and restoration of the streambed will take place beginning in 2023 at a cost of $20M

RWSA Dam Safety Program Overview

- Permitting & Regulatory Compliance
- Emergency Action Plan (EAP) Updates, Training, and Exercises (internal and regional)
- Maintenance & Vegetation Control
- Repairs/Upgrades
- Public Safety
- Studies and Reports
- Inspections and Surveys
- Monitoring
- Operations

RWSA Dam Facilities

- **High Hazard Dams**:
  - South Fork Rivanna Dam (FERC)
  - Ragged Mountain Dam
  - Sugar Hollow Dam
  - Beaver Creek Dam - Crozet
- **Low Hazard Dams**:
  - Totier Creek Dam - Scottsville
  - Lickinghole Creek Dam - Crozet
- **Other RWSA Dams**:
  - North Fork Rivanna Low Head Dam (at NRWTP)
  - Buck Mountain Pond Dam
  - Mechums River Low Head Dam
  - Ivy MUC Pond Dam (RSWA)

South Fork Rivanna Dam

- Federally Regulated Dam (FERC)
- Built in 1965
- Small Hydropower Facility added in 1987 (to be decommissioned in 2023)
- Concrete Gravity Dam
- 700 feet long, 54 feet tall

Ragged Mountain Dam

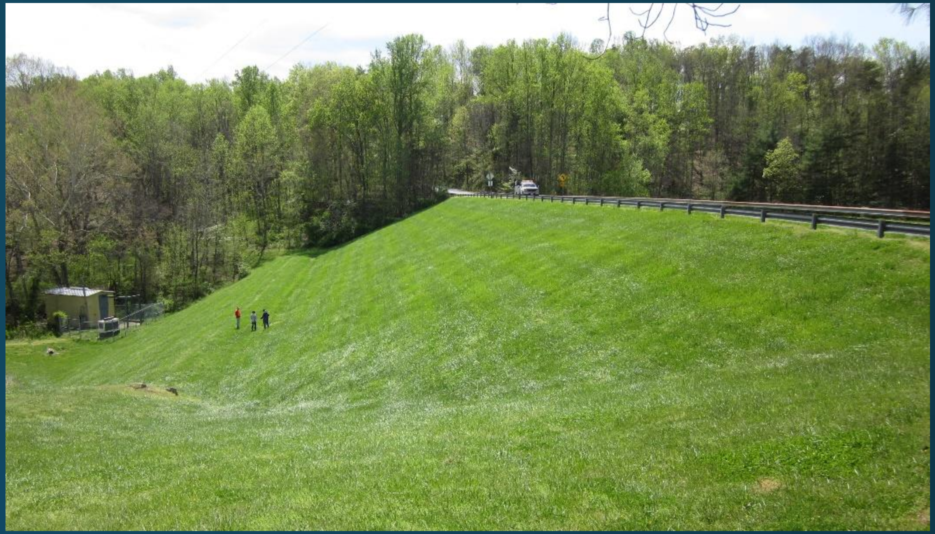
- State Regulated Dam (DCR)
- Built from 2012-2014
- Historical Dams 1885 & 1908
- Earthfill Dam
- 785 feet long, 125 feet tall
- Constructed to impound an additional 12 feet of water = 700 MG

Sugar Hollow Dam

- State Regulated Dam (DCR)
- Built in 1948, upgraded in 1998
- Concrete Gravity Dam
- Rubber Crest Gate (replaced in 2021)
- 480 feet long, 96 feet tall

Beaver Creek Dam

- State Regulated Dam (DCR)
- Built in 1963
- Earthfill
- 530 feet long, 60 feet tall
- Albemarle County Park in Crozet
- State Road on Crest (Browns Gap Turnpike
- Currently undergoing a plan/EA study funded by federal NRCS for spillway upgrades



Totier Creek Dam

- State Regulated Dam (DCR)
- Earthfill Dam, Built in 1971
- 277 feet long, 35 feet tall
- Albemarle County Park in Scottsville

Lickinghole Creek Dam

- State Regulated Dam (DCR) in Crozet
- Built in 1995
- Concrete Gravity Dam, serves as a Sediment Basin
- 458 feet long, 32 feet tall

Dam Safety Emergencies and Design

- Dam Safety Emergencies are *Low Probability Events* with the Potential for High Impact.
- As a result, dams are designed with a high level of conservatism to minimize potential for failure or other emergencies
- Potential Causes of Dam Emergencies
  - Rainfall Exceeds Dam Design
  - Material Failure
  - Vandalism/Terrorism
  - Accidents / Public Safety

Hazard Potential Classification

- Dams are categorized according to the severity of consequences from their failure or misoperation (not a reflection of a dam's condition)
  - **HIGH – upon failure would cause probable loss of life or serious economic damage**
  - **SIGNIFICANT – upon failure might cause loss of life or appreciable economic damage**
  - **LOW – upon failure would lead to no expected loss of life or significant economic damage**
- Dam Hazard Potential dictates design criteria/spillway capacity requirements

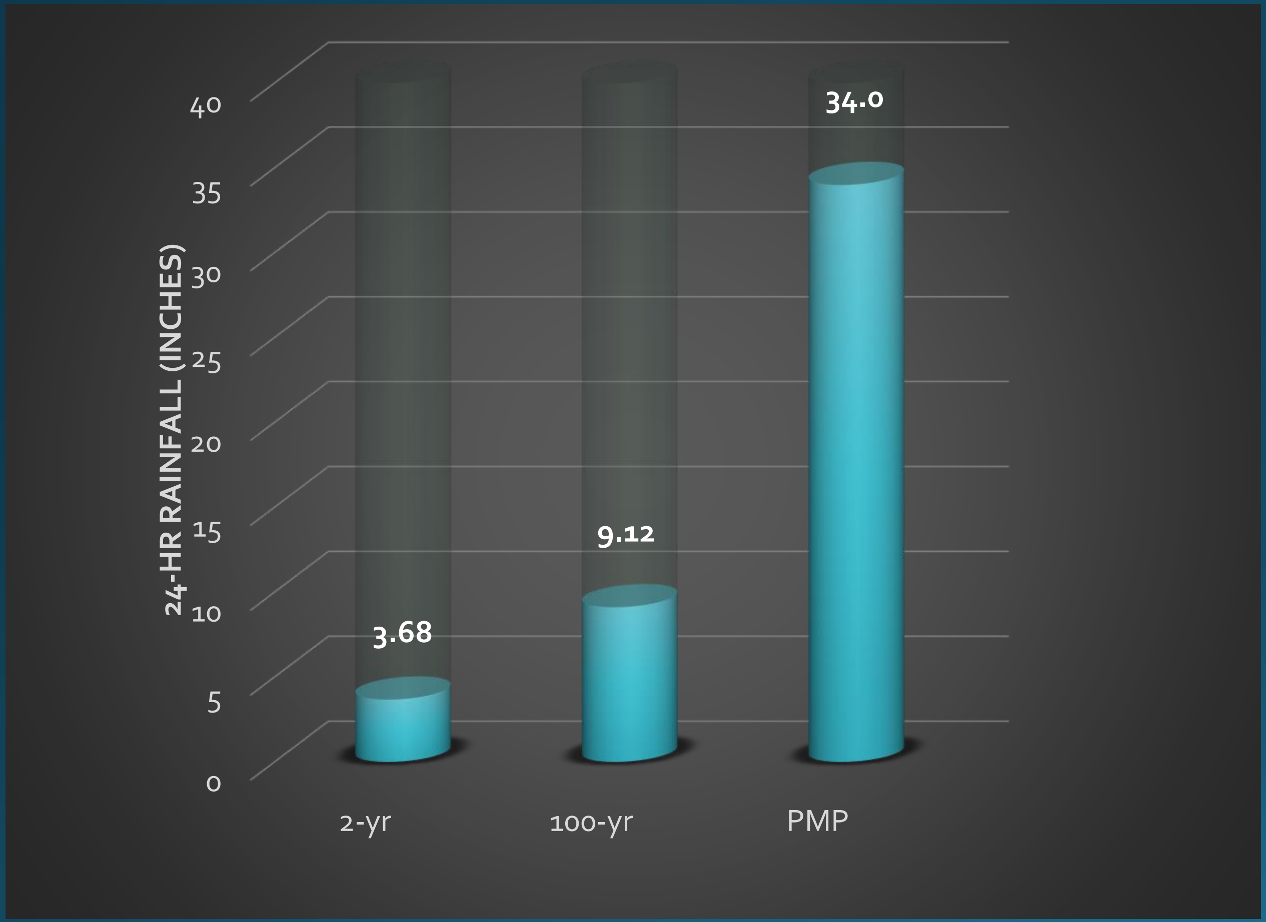
Probable Maximum Precipitation (PMP)

"The theoretically greatest depth of precipitation for a given duration that is physically possible over a particular drainage area at a certain time of the year."

- American Meteorological Society, 1959

Dams with a high hazard potential must be designed to pass the flood resulting from the PMP without failure or overtopping, also known as the Probable Maximum Flood, or PMF

Probable Maximum Precipitation (PMP)



Rainfall Recurrence Intervals for Charlottesville Area, from NOAA Atlas 14 (Volume 2, Version 3) & VA DCR PMP Study for Virginia, November 2015

- PMP is different for each watershed and storm duration
- The chart to the left shows the 2-year, 100-year, and PMP storm rainfall amounts for a 24-hour storm event in the Sugar Hollow watershed
- 24-hour PMP rainfall values for RWSA dams range from 23.7" – 34.0"
- Hurricane Camille in Nelson County (1969) brought >27" of rain overnight, 81% of PMP
- Madison County (1995) saw 25-30" of rain in 16 hours, 86% of the PMP

Emergency Response Planning for Dams

Owners Dam Safety Program

- Dam Safety Policies
- Internal Training and Procedures
- Safe Dam Design and Quality Construction
- Dam Maintenance and Monitoring

Emergency Action Plans (EAP's)

- Coordination with Emergency Response and Planning Agencies

EAP review, Training, and Exercising

- Drills, Functional Exercises

Public Safety Education and Notifications

- Signs, Alarms, Downstream Notifications

Dam Emergency Action Plans

- An Emergency Action Plan (EAP) is a set of preplanned actions to minimize or alleviate emergency conditions at the dam.
  - Contains procedures and information on issuing early warning notifications to minimize loss of life and property damage during an emergency event.
  - Requires coordination among VDEM, ECC, local police, fire and rescue, VDOT, media, local government, and others
- RWSA maintains EAP's for each of its four high-hazard dams

Dam Emergency Action Plans

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Va. Code 2.2 – 3705.2.4

EMERGENCY ACTION PLAN

SOUTH RIVANNA DAM

FERC Project Number P-6841
NATDAM No. VA83007

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlottesville, VA 22902
(434) 977-2970

Internal Copy

Revised:
November 2020

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EMERGENCY ACTION PLAN

New Ragged Mountain Dam

DCR Inventory No.: 003053

High Hazard Dam

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlottesville, VA 22902
(434) 977-2970

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EMERGENCY ACTION PLAN

SUGAR HOLLOW DAM

Inventory No. VA 003124

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlottesville, VA 22902
(434) 977-2970

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EMERGENCY ACTION PLAN

BEAVER CREEK DAM

Inventory No. VA 003122

Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlottesville, VA 22902
(434) 977-2970

Internal Copy

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November 2020

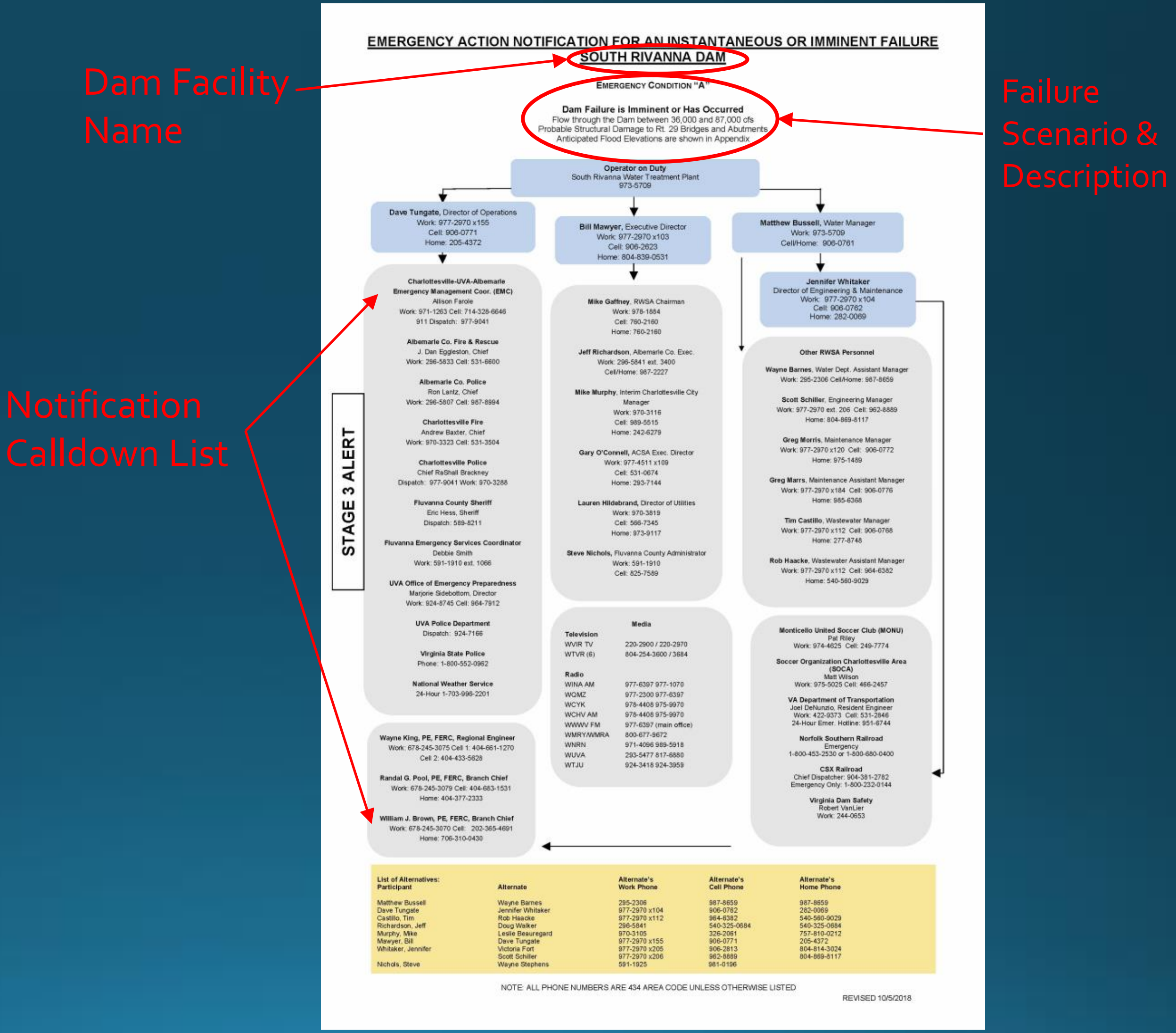
Responsibilities under the EAP's

- **RWSA**:
  - Verify and assess emergency conditions at the dam
  - Notify participating EMA's
  - Take corrective action at facility, if possible
  - Issue condition status reports
  - Declare termination of emergency at facilities

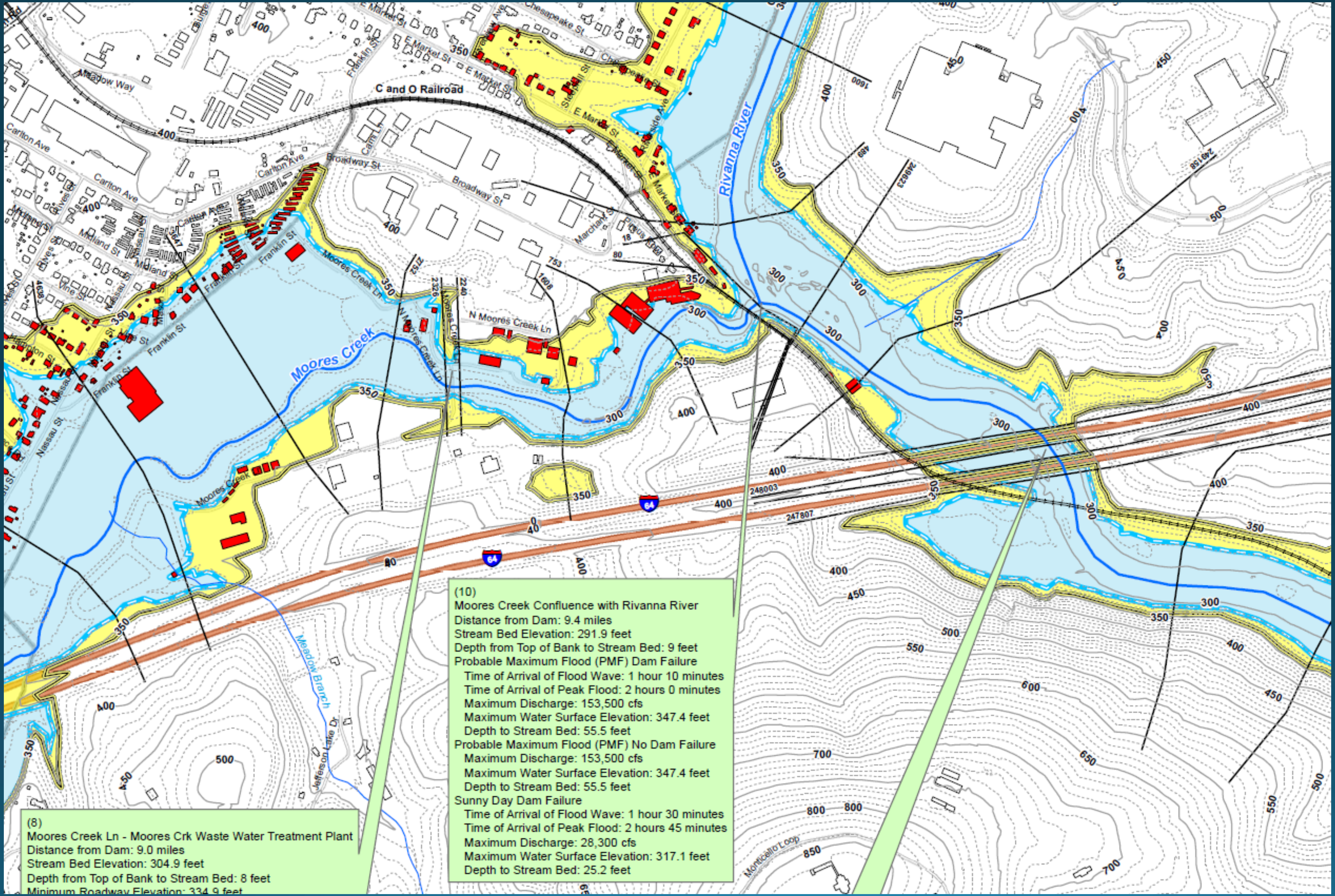
- **Outside Agencies (Emergency Communications Center, County and City Governments)**:
  - Receive condition status reports from RWSA
  - Notify public
  - Coordinate and conduct evacuation from inundation areas, if required
  - Provide mutual aid, if requested and able

EAP Failure Scenarios & Notification Charts

- **Three Failure Scenarios**
  - A) Failure is Imminent or Has Occurred
  - B) Potential Failure Situation is Developing
  - C) Non-Failure Emergency
- Each Scenario has Notification Chart for each Dam



Dam Breach Inundation Maps



RWSA Dam Projects

Recently Completed:

- Drainage improvements at Lickinghole Creek Dam, Ragged Mountain Dam (2022)
- Sugar Hollow Dam Rubber Crest Gate Replacement (2021)
- Ivy MUC Irrigation Pond Dam Alterations (2021)
- South Rivanna Dam Mud Gate, Grouting Repairs, & Safety Improvements (2021)

Planning or Design Phase:

- Buck Mountain Pond Dam – H&H Study & Inspection
- Beaver Creek Dam Spillway Upgrades - Planning/EA Study (NRCS-funded)
- South Rivanna Dam Hydropower Decommissioning (2023 construction)

Regular Ongoing Maintenance Work:

- Monthly tree and brush clearing
- Installation and Maintenance of public-safety measures (signs, buoys, booms)

Questions?