RIVANNA
WATER & SEWER AUTHORITY

# Board of Directors Meeting

November 19, 2024

2:15pm

RIVANNA WATER & SEWER AUTHORITY
695 Moores Creek Lane | Charlottesville, Virginia 22902-9016
434.977.2970
434.293.8858
www.rivanna.org

# BOARD OF DIRECTORS

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

**DATE:** **NOVEMBER 19, 2024**

**LOCATION:** **Rivanna Administration Building (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902**

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

## AGENDA

1. ***CALL TO ORDER***
2. ***AGENDA APPROVAL***
3. ***MINUTES OF PREVIOUS BOARD MEETING ON OCTOBER 22, 2024***
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 CIP Projects*
   d. *Staff Report on Administration and Communications*
   e. *Staff Report on Wholesale Metering*
   f. *Staff Report on Drought Monitoring*
   g. *Approval of Board Meeting Schedule for Calendar Year 2025*

h. *Approval of the Holiday Schedule for Calendar Year 2025*

i. *Approval of Term Contract for Professional Commissioning Services for Utility Buildings and Facilities - Facility Dynamics Engineering*

j. *Approval of Term Contracts for Commissioning Services for Industrial Controls Integration, Management and Inspection Services - E-Merge and Short Elliot Hendrickson*

## *9. OTHER BUSINESS*

a. *Presentation: Long-Range Planning for Water & Wastewater Services*
*Bill Mawyer, Executive Director*

## *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/RSWA Administration office upon request or can be viewed on the Rivanna website.

Rev. September 7, 2022

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# RWSA BOARD OF DIRECTORS
## Minutes of Regular Meeting
## October 22, 2024

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, October 22, 2024 at 2:15 p.m. at Rivanna Administration Building, (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

**Board Members Present:** Mike Gaffney, Jeff Richardson, Sam Sanders, Ann Mallek, Brian Pinkston, Quin Lunsford, Lauren Hildebrand

**Board Members Absent:** none

**Rivanna Staff Present:** Bill Mawyer, Lonnie Wood, David Tungate, Jennifer Whitaker, Betsy Nemeth, Scott Schiller, Austin Marrs, Victoria Fort, Stephanie Deal, Rob Haacke, Annie West, Tom Corrice, Deborah Anama, Jacob Woodson

**Attorney(s) Present:** Valerie Long

### 1. *CALL TO ORDER*

Mr. Gaffney convened the October 22, 2024, regular meeting of the Board of Directors of the Rivanna Water and Sewer Authority at 2:15 p.m.

### 2. *AGENDA APPROVAL*

There were no comments on or questions for the agenda.

**Ms. Mallek moved that the Board approve the agenda. Mr. Sanders seconded the motion, which carried unanimously (7-0).**

### 3. *MINUTES OF PREVIOUS BOARD MEETING ON SEPTEMBER 24, 2024*

There were no comments on or questions regarding the minutes for the meeting held on September 24, 2024.

**Mr. Pinkston moved that the Board to approve the minutes from the meeting held on September 24, 2024. Ms. Hildebrand seconded the motion, which carried unanimously (7-0).**

### 4. *RECOGNITION*

*Resolution of Appreciation for Robert Haacke, Wastewater Department Manager*

Mr. Gaffney presented and read:

***Resolution of Appreciation for Robert Haacke***

***WHEREAS****, Mr. Haacke has served in the Wastewater Department in various positions including Wastewater Operator, Assistant Wastewater Manager, and Wastewater Manager, for the Rivanna Water and Sewer Authority for 35 years; and*

***WHEREAS****, over the same period of 35 years, Mr. Haacke has demonstrated leadership in his field and has been a valuable resource to the Authority and its employees; and*

***WHEREAS,*** *Mr. Haacke's understanding of the Authority's operation and dedication and loyalty to the Authority has positively impacted the Authority, its customers, and its employees; and*

***WHEREAS,*** *Mr. Haacke's understanding of the wastewater operations of the Water & Sewer Authority has supported a strategic decision-making process that provided benefits to the customers served by the City of Charlottesville and the Albemarle County Service Authority as well as the community as a whole. Through the leadership and skillful support of Mr. Haacke, major treatment process improvements were implemented during his tenure including:*

- *A high strength waste sampling program to protect the treatment stream*
- *Aeration basin ammonia control to optimize the air blowers creating an estimated savings of more than 15% on air blower electric expense*
- *Optimization of the sodium hydroxide feed program for long-term savings*

***NOW, THEREFORE, BE IT RESOLVED*** *that the Rivanna Water and Sewer Authority Board of Directors recognizes, thanks, and commends Mr. Haacke for his distinguished service, efforts, and achievements as a member of the Rivanna Water and Sewer Authority, and presents this Resolution as a token of esteem, with its best wishes in his retirement.*

***BE IT FURTHER RESOLVED*** *that this Resolution be entered upon the permanent Minutes of the Rivanna Water and Sewer Authority.*

**Ms. Mallek moved that the Board to approve the Resolution of Appreciation for Robert Haacke, Wastewater Department Manager. Mr. Sanders seconded the motion, which carried unanimously (7-0).**

Mr. Haacke thanked Rivanna for all the good years, during which he raised his two healthy, successful daughters.

Mr. Mawyer stated that no matter what time they got here in the morning, Mr. Haacke was here with his coffee cup. He stated that allegedly, he got here around 4:30 a.m., so it would be a new phenomenon to not have Mr. Haacke at the plant. He asked Mr. Haacke what he would be doing at 4:30 a.m. in the future.

Mr. Haacke stated that he would still be sleeping.

Mr. Mawyer thanked Mr. Haacke and his wife and daughter for attending as well.

## 5. *EXECUTIVE DIRECTOR'S REPORT*

Bill Mawyer, Executive Director, stated that as one career ends, another continues. He stated that Mr. Haacke was their Wastewater Manager, and Brian Haney had been promoted to take Mr. Haacke's place, which left the opening of Assistant Wastewater Manager. He stated that Mr. Tom Corrice had been promoted to Assistant Wastewater Manager. He stated that Mr. Corrice had been with their organization for over seven years, working his way up through the system, and held both a bachelor's degree and a master's degree in education. He stated that they were pleased to see Mr. Corrice's career advancement to Assistant Wastewater Manager.

Mr. Corrice stated that he was honored and excited to start in his new position.

Mr. Mawyer stated that he would like to introduce a new team member, Annie West. He stated that Ms. West was the new Sustainability and Grants Coordinator. He stated that they had hired her directly from college. Ms. West stated that she graduated in May from the University of the South at Sewanee and majored in Environmental Humanities and Anthropology. He stated that she was from Norfolk, Virginia. She stated that she had lived in Crozet for three years during middle school.

Mr. Mawyer stated that he had to look up what anthropology was and was impressed to learn that anthropology majors develop expertise in historical and contemporary cultural and linguistic diversity, as well as skills in reading, research, and writing that prepare them for many professional careers. He stated that he appreciated the skills and expertise that Ms. West would bring to her position as Sustainability and Grants Coordinator, particularly in finding funding to support our projects. He stated that he was grateful to have Ms. West on board and welcomed her to their team.

Mr. Mawyer stated that they took pride in growing their own water and wastewater operators, and he had heard colleagues express difficulties in hiring qualified individuals. He stated that their philosophy was to hire engaged people and train them so they could get their licenses. He stated that they had three individuals who had recently obtained their licenses.

Mr. Mawyer stated that Dennis Barbieri recently passed his Class 1 Wastewater Operator license after four years with their organization. He stated that Dylan Schweickert passed his Water Operator Class 2 license after one year. He stated that Johanna Vaughn also passed her Water Operator Class 2 after one year. He stated that all three individuals had college degrees, which had expedited their licensing process and added valuable skills to their repertoire. He stated that they were thrilled to increase the credentials of their staff.

Mr. Mawyer stated that as part of their strategic plan priority of Communication and Collaboration, they typically invited elected officials to visit during Congress's summer recess. He stated that last year, Senator Deeds and Delegate Amy Laufer visited, and this year, Delegate Katrina Callsen took them up on the offer. He stated that they provided her with a windshield

tour and a virtual presentation about their organization. He stated that Mr. Gaffney also joined the group to meet with Ms. Callsen. He stated that as they applied for grants, she encouraged them to let her know if she could help. He stated that it was good networking opportunity.

Mr. Mawyer stated that at the national level, there was a House Bill H.B. 7944 Water Systems Per- and Polyfluoroalkyl Substances (PFAS) Liability Protection Act. He stated that they had sent a letter to House Speaker Johnson and Congressman Good requesting their support for this bill. He stated that the situation was that Congress had declared PFAS a hazardous substance under the CERCLA federal laws, which prohibited the discharge of hazardous substances on land or water. He stated that unfortunately, they had PFAS in their wastewater they were not removing. He stated that this law would shield utilities like RWSA from litigation for discharging hazardous materials, so they were hopeful the legislation would move forward.

Mr. Mawyer stated that he had previously discussed an amendment to the local and regional water supply planning regulations with the Board last month. He stated that they received comments from Mr. Lunsford and Ms. Hildebrand about that amendment, which they forwarded to DEQ. He stated that DEQ acknowledged the comments, but they had not heard further updates. He stated that the next step was to coordinate with all the members of the planning group and designate representatives for the regional planning area, including the County, ACSA, City, RWSA, and presumably Scottsville.

Mr. Mawyer stated that DEQ would invite them to the first regional planning meeting to be held before April. He stated that this process was moving forward, with the goal of strategically planning regional and local water supply and how they could work together to achieve those goals. He stated that one of their comments was that they were glad to help their neighbors, but they hoped that the DEQ did not make the projects mandatory or require cross-jurisdictional projects. He stated that this was included in the comments.

Mr. Pinkston asked if that comment was formally stated to DEQ.

Mr. Mawyer confirmed that it was included in the comments. He stated that they hoped the concepts would not be made mandatory by DEQ.

Ms. Mallek stated that it was distressing to read in the town hall literature that their analysis was that there would be no impact on local governments or regional authorities, such as this one, and they were giving them $20,000 to conduct this regional planning.

Mr. Mawyer stated that there was still significant coordination required in this process, and the ultimate plan over the next five years aimed to develop a regional plan ensuring clean drinking water for citizens in Albemarle, Greene, Louisa, Buckingham, and Fluvanna Counties, along with the City of Charlottesville.

He stated that on another note, they had conducted a regional dam safety tabletop exercise, which was led by Senior Engineer, Victoria Fort. Ms. Fort effectively brought together representatives from their region, including state police, VDOT, the National Weather Service, and local government agencies. Mr. Mawyer stated that she conducted exercises on potential

scenarios, such as issues with the Beaver Creek Dam or Sugar Hollow Dam, and how they would communicate and prepare for emergencies. He stated that Rivanna has Emergency Action Plans for every dam, which include procedures and processes that should be followed in case of an emergency, with the worst-case requiring evacuation of people from the danger zones.

Mr. Mawyer stated that RWSA co-sponsored the Imagine a Day Without Water program with the City of Charlottesville and Albemarle County Service Authority, a youth art contest with applications due by October 28, featuring the theme "What's Your Drop in the Bucket?" He stated that they were also supporting Breast Cancer Awareness Month, and their team wore pink t-shirts and took a photo outside to express their support for fellow team members and the community.

Mr. Mawyer stated that the recent storm Helene had impacted the pipeline transferring water to Ragged Mountain from Sugar Hollow, and they were currently restoring the 100-year-old pipe. He stated that fortunately, they did not require water at Ragged Mountain at present, and they expected to have the pipe restored in a month or two, allowing them to resume transfers if needed.

Mr. Mawyer stated that thankfully, drought appeared to be behind them, and they had lifted the Drought Watch on October 2 after consulting with the Regional Drought Committee and Chairman Gaffney. He stated that they had notified the City and County of their decision to lift the Drought Watch, and their area had received 9 inches of rainfall in September, which had alleviated dry conditions. He stated that however, some concern remained in the state drought map, primarily due to reservoir levels, which was not a concern for Rivanna.

Mr. Mawyer stated that their daily reports showed Ragged Mountain's water level was slightly lower than usual, but this was intentional as their team had conducted an inspection of the pipe used to release water from the reservoir. He stated that Ms. Fort and their engineers had inspected the pipe, so they had deliberately lowered the reservoir level to prevent water from entering the tunnel during the inspection. He stated that once the pipe was restored, they would replenish the reservoir and reach 100% capacity.

Mr. Mawyer stated that in November 2023, he had reported to the Board that there was a chemical release at the South Rivanna Water Treatment Plant, where liquid lime was inadvertently released from the lime storage building into the storm pipe and entered the South Rivanna River. He stated that they reported this incident to DEQ, who had investigated and issued a civil charge, a fish investigation fee, and a fish replacement fee totaling approximately $16,000. He stated that they had accepted the Consent Order and paid the fees.

Mr. Mawyer stated that in a similar incident, but with a different outcome, they had also reported a submergence of the Rivanna Pump Station in January to DEQ. He stated that to dewater the facility, they had had to pump wastewater into Moores Creek, and they had notified DEQ of this action. He stated that David Tungate, Director of Operations and his staff had effectively communicated with DEQ throughout the pumping process, both before and after, and had conducted a visual inspection of Moores Creek, making multiple reports to DEQ. He stated that additionally, their attorney from Williams Mullen, “Speaker” Pollard, had reviewed their permit

and coordinated with DEQ. He stated that on October 10, DEQ notified them that there was no violation of their permit, resulting in no fine. He stated that this was welcome news.

Mr. Mawyer stated that it had been reported in the news that a court in California had ordered the EPA to reevaluate the risk of adding fluoride to drinking water, citing concerns about its impact on unborn children and children's IQ. He stated that they followed the recommendations of the EPA and the Virginia Department of Health. He stated that they had previously lowered their fluoride level from 1.2 milligrams per liter to 0.7 milligrams per liter, which they currently complied with in our treatment process.

Mr. Mawyer stated that they were waiting for any guidance from the EPA and VDH before making any adjustments to their fluoride level. He stated that fluoride helped prevent tooth decay. He stated that it was noted in his report that the American Dental Association 2018 webpage stated that fluoride was one of the most effective public health measures to prevent tooth decay and was one of the 10 great public health achievements of the 20th century. He stated that they were waiting for guidance from their regulators before making any adjustments to fluoride. Mr. Mawyer stated that he understood Mr. Lunsford had received an inquiry from a resident about whether their community was considering changing the fluoride application. He stated that at this time, they remained at 0.7 milligrams per liter and were waiting for further guidance from VDH.

He stated that this concluded his report. He stated that on a sad note, Fred Landis, the former attorney for both authorities, had passed away the previous month. He stated that they were sorry to hear about his passing.

Mr. Lunsford asked if Mr. Mawyer could provide the letter they sent regarding House Bill 7944.

Mr. Mawyer stated yes, he would send that to the Board members.

Mr. Richardson stated that Ms. Mallek, in her role on the Board of Supervisors, had heard this report several weeks ago, but their Emergency Management team formally presented a report to the Supervisors on the activities in the County during Hurricane Helene. He stated that those staff specifically mentioned and commended Mr. Mawyer and his team for the outstanding work and coordination they provided during the storm event.

Mr. Richardson stated that they shared significant stream and water level data with the EMS teams in real-time, which greatly informed their response efforts. He stated that they were able to deploy swift water rescue teams across the County, with three successful rescues and no fatalities. He stated that Mr. Mawyer and his team played a crucial part in this success. He stated that he would like to extend his gratitude to them, as requested by the team, and express their appreciation for the coordination.

Mr. Mawyer thanked Mr. Richardson. He stated that Ms. Whitaker, Ms. Fort, and Mr. Tungate were integral in those operations.

Ms. Mallek stated that she would like to add that there was discussion at the Board of

Supervisors level and with senior staff regarding the benefits of having more distributed measuring in place. She stated that given the significant topographical differences, it was challenging to accurately predict where high water would be located. She stated that this was an issue that they should all consider as they moved forward to better plan for future storm events.

She stated that she would like to pose a question that she would leave open for now, if necessary, for a future discussion. She asked if the Sugar Hollow Pipeline had been inspected recently, as she had not received any updates since 2008, and there was a lot of wet terrain in pastures in White Hall, which had become more prevalent in recent years.

Ms. Whitaker stated that she could not provide the exact date, but she would locate it and send it. She stated that typically, they tried to walk the entire alignment at least once a year to inspect for broken equipment, as some were located in farm fields where tractors may occasionally hit various objects.

Ms. Mallek stated that subsidence had been a common issue in her fields, which was unrelated to pipeline problems. She stated that the situation was that a pipe that was originally four feet below ground level may now be six inches below due to the surrounding area sinking. She stated that she believed that changes were occurring at a more dramatic pace than they used to be.

Mr. Mawyer stated that this emphasized that the new pipe to be constructed from Rivanna to Ragged reservoirs would replace the pipe that was 100 years old. He stated that this was part of the water supply strategy envisioned, and he was pleased that they would be able to implement the plan.

## 6. *ITEMS FROM THE PUBLIC*

There were none.

## 7. *RESPONSES TO PUBLIC COMMENTS*

There were no comments from the public, therefore, there were no responses.

## 8. *CONSENT AGENDA*

*a. Staff Report on Finance*

*b. Staff Report on Operations*

*c. Staff Report on CIP Projects*

*d. Staff Report on Administration and Communications*

*e. Staff Report on Wholesale metering*

*f. Staff Report on Drought Monitoring*

Mr. Lunsford stated that he had a question regarding project 14 in the Capital Improvement Plan project report. He asked if the water quality study report that was mentioned previously available yet.

Mr. Mawyer stated that it was not yet available, but was expected by the end of October. He stated that they would send it as soon as it was available.

**Ms. Mallek moved that the Board approve the Consent Agenda. Ms. Hildebrand seconded the motion, which carried unanimously (7-0).**

## 9. *OTHER BUSINESS*

*a. Presentation: Financial Update and Year-end Results*
*Lonnie Wood, Director of Finance and Information Technology*
*Stephanie Deal, Finance Manager*

Stephanie Deal, Finance Manager, stated that she and Mr. Wood were presenting a financial update on fiscal year-end 2024 results for the year. She stated she would begin by reviewing the overall presentation, which would include a brief refresher on their specific financial policies, followed by a more in-depth discussion by Mr. Wood. She stated they would cover the policies that applied today, and they would not be discussing all of the policies. She stated Mr. Wood would review the year-end results, the operating working capital target, the disposition of rate center results, and would make a request for Board action to approve the fund transfers.

Ms. Deal stated they would first see the Financial Policies Index, which outlined the components that made up their policies. She stated these policies guided their decisions and prepared them for long-term sustainability. She stated over time, these policies had originated from various sources, including the original four-party agreement, cost allocations with Albemarle County Service Authority and the City, and bond issue requirements, which were overseen by their bond trustees.

Ms. Deal stated that today, she would touch briefly on the policy objectives and the reserve and fund policies, specifically the operating portion of Tier 2 and the discretionary portion of Tier 3. She stated the financial policy objectives were designed to prepare them for and insulate them from fiscal crisis, enhance their financing opportunities by supporting the highest credit ratings possible, promote long-term financial stability by focusing on the total financial picture of the Authority, and link their long-term financial planning with day-to-day operations.

Ms. Deal stated the reserve and fund policies were made up of three tiers, defined mostly by bond requirements or the purpose of use. She stated Tier 1 was a debt service reserve, strictly reviewed, enforced, and held by the bond trustee. She explained that Rivanna made monthly payments to the trustee for this fund, but they did not control the ins and outs after that point.

Ms. Deal stated the operating portion of Tier 2 was the Authority's operating fund, which served

as the daily cash account and was not accounted for by the rate center. She stated all cash received and paid out by the Authority was processed through this account. She stated the reserve balances by rate center were calculated manually following each fiscal year audit, which they would be reviewing today.

Ms. Deal stated the operating account was recommended to have a minimum balance of 20% of the annual budget by the bond indenture, but they were not required to maintain it at that level. She stated that rather, the Authority had agreed to target the operating account to have 60 days' worth of the total annual budget available for daily and monthly cash flow needs. She stated the Tier 3 reserves were internally restricted at the Authority's discretion. She stated they were focusing on the discretionary reserves. She stated the rate center separation was crucial for these reserve accounts to avoid the combination of funds, ensuring true data by rate center.

Ms. Deal stated for the discretionary portion, they maintained a central depository for each rate center to track inflows and outflows. She stated inflows included planned depreciation from operating budgets, yearly surpluses, and planned excess rate revenues from the CIP growth rate. She stated outflows were the yearly deficits being funded from these reserves to replenish the operating account balance using the disposition of year-end results process. She stated the use of these reserves required Board action and approval, which is what they would be asking for today.

Lonnie Wood, Director of Finance and Information Technology, stated that they have brought this agenda item with the Board for the past 15 to 20 years. He stated that as Ms. Deal had mentioned, it was part of their internally developed financial policies, which they had created and adopted in 2011. He stated that this particular item focused on reviewing their operating cash or working capital target amounts and how they related to their year-end results. He stated that their year-end result was approximately $700,000 in surplus, which was a significant improvement over last year's fiscal 2023 year-end results, which showed a $1.4 million deficit.

Mr. Wood stated that the key factor in achieving this improvement was the actual revenue exceeding their budget estimates by $1.1 million, which helped cover their expenses, which came in about $644,000 above their budget estimate. He stated that the two line items that contributed to the deficit, utilities and chemicals, were the main culprits they had discussed in their Fiscal Year 2025 budget work session. He stated that they believed that these issues would be resolved in 2025. He stated that in 2024, the main reason for the budget exceeding their target was these two line items were not keeping up with significant inflation the past several years. He stated that all other line items came in under budget, which helped mitigate the issue.

Mr. Wood stated that after reviewing their year-end results, they examined their year-end target cash balances and compared them to their year-end balance. He stated that in this case, they ended the year with 7.89 in their operating account, which was slightly above their target of 7.84 for 2024. He stated that although it may seem like they should have achieved a $700,000 surplus, one factor to consider was that they had restricted cash reserves held by the trustee at the Bank of New York, which is not included in the operating cash account.

Mr. Wood stated that the interest earnings from these reserves were reported on their income statement, but the cash itself remained with the trustee and was not included in the operating

account. He stated that this was why there was a slight discrepancy. He stated that essentially, they had effectively hit their target.

Mr. Wood stated that they then compared their 2024 target to their 2025 target, which was calculated by dividing the total budget by 365 and then multiplying by 60 to get a 60-day target. He stated that the target increase for the new fiscal year was $1.2 million, which was the difference between their 2025 target and where they had ended up in 2024. He stated that therefore, they were confident that the funds needed to transfer from their discretionary reserve to their operating account to make it whole again were a result of the new policy target for FY 2025

Mr. Wood stated that the transfer process was summarized in the report, based on the year-end results. He stated that they calculated each rate center's share of the transfer amount and showed it on the last slide. He stated that these were the year-end balances of the discretionary reserves, adjusted to prepare for the new fiscal year.

Mr. Wood stated that one notable aspect was the large negative balance in the capital account, which was for specific capital projects. He stated that this balance had been intentionally created as part of a bond issue process. He stated that in June, they had been working on a bond issue, and the Board had passed a resolution to approve it, including a reimbursement resolution. He stated that this resolution allowed them to spend down their capital account, issue bonds, and then replenish the capital account.

Mr. Wood stated that in August, they had closed on the bond and immediately pulled $9 million to $10 million out, bringing the capital account back to a positive or break-even status. He stated that they did this because of IRS regulations for bond issues, which required a two-year spend-down period. He stated that within this two-year window, they had targets to meet, with the first target being to draw 10% of the bond proceeds within six months.

Mr. Wood stated that they had already met this target. He stated that the purpose of building up a healthy reimbursement was to get a head start on the spend-down requirement. He stated that in essence, they followed this process every few years.

He stated that for the last couple of years, they had been tracking this as shown in the chart included with the memo. He stated that some rate centers had a surplus, while others had a deficit. Mr. Wood stated that their goal was to prevent co-mingling of funds between rate centers, as four of these rate centers were fully funded solely by the Service Authority, and these two were split between the Service Authority and City. He stated that they kept the rate centers separate to avoid mixing all of those funds. He stated that they were now requesting the Board to transfer funds from the discretionary reserves to the operating account in the amounts shown to bring their operating account up to their target balance.

Mr. Richardson asked to see the slide referring to the 20% for best practices and the 60-day on-hand requirement. He asked if he understood correctly that they currently had 60 days on hand.

Mr. Wood stated that was right.

Mr. Richardson asked if it was recommended they be at 20% but not mandatory.

Mr. Wood stated that it was in the bond trustee documents; the difference was 13 days. He stated that it was 73 days versus 60 days. He stated that 60 days seemed like a good cutoff point. He stated that they had two customers that paid their bills on time (City and ACSA), so they did not have a problem with delinquent accounts. He stated that in July, they billed their two customers by August 5. He stated that by the end of the month, they were paid by their two customers, so they had to float those 60 days. He stated that they had two debt service payments in July and August, four or five payrolls, and uses that working capital to float these payments that until the first bill was paid in the fiscal year.

Mr. Richardson asked if Mr. Wood had ever felt uncomfortable or if things had thinned too much to where he would have preferred to have 20%.

Mr. Wood stated that historically, yes, but not currently.

Mr. Mawyer asked if they had to get a loan at one time.

Mr. Wood stated that they had to get a loan from the Solid Waste Authority to cover payroll expenses many years ago.

Mr. Mawyer stated that it was the Board's support for building the rates that allowed them to establish those cash balances.

Mr. Gaffney stated that yes, the significant difference was that the Board had changed the policy regarding Rivanna's need for money to build these reserves.

Mr. Wood stated that they continued to gather information and build upon suggested policies until the Board was comfortable adopting some of these policies in 2011. He stated that they had to address the drought, which necessitated a significant mid-year rate increase. He stated that this was particularly challenging, as a rate increase was not ideal when advising people to reduce their water consumption.

Mr. Gaffney stated that one of the Board members made a notable suggestion in the spring after the drought, stating that since they were no longer in a drought, they should reconsider lowering the water rates. He stated that the Board ultimately decided against lowering the rates, citing the need for the Authority to fund its operations, and therefore did not make any changes to the rates.

Mr. Wood stated that this led to the development of the reserve policies and explained why they were necessary, as well as how they would be beneficial during emergencies.

**Mr. Richardson moved that the Board transfer the funds as recommended by staff. Mr. Sanders seconded the motion, which carried unanimously (7-0).**

*b. Presentation and Vote to Consider Approval: Construction Contract Award and CIP Amendment: Ragged Mtn to Observatory WTP Raw Water Pipeline and Pump Station Jennifer Whitaker, Director of Engineering & Maintenance*

Jennifer Whitaker, Director of Engineering & Maintenance, stated that she was here today to present information on the Ragged Mountain Reservoir to Observatory Water Transmission Pipeline and Pump Station Project. She stated that she would like to start by acknowledging the significance of this critical project, which had been in the works for approximately 20 years. She stated that it was first included in their Capital Improvement Plan in 2006, making it a vital project for their Authority. She stated that to provide some background, she would like to briefly review the history of this project.

Ms. Whitaker stated that the Observatory Water Treatment Plant was currently served by two water mains: the Ragged Mountain Water Line, a pipe that from Ragged Mountain Dam to the east, across Rt. 29 passing through Fontaine Research Park, along the railroad, and then on to the Stadium Road Pump Station. She stated that this pipe was built in the 1940s as part of a substantial infrastructure upgrade at the University and within the City. She stated that the second pipe, the Lower Sugar Hollow Water Line, was constructed in the 1920s and originally extended from Sugar Hollow Reservoir.

Ms. Whitaker stated that when they upgraded the Ragged Mountain Dam, they split the pipe into two segments, resulting in an upper and lower Sugar Hollow pipeline. She stated that this pipe followed parallel to Reservoir Road, crossed Route 29, goes uphill to the Royal Pump Station, up Hereford Drive to the back of the Observatory water treatment plant. She stated that both of the mains were 18-inch pipes. She stated that this project aimed to replace both pipes and pump stations with a single, modern main and pump station. She stated that the proposed design featured a 4-mile stretch of 36-inch pipe, with a new pump station located at Foxhaven Farm.

Ms. Whitaker stated that this project would ultimately enable RWSA to transfer 10 million gallons of water per day from Ragged Mountain to the Observatory Treatment Plant, allowing them to utilize the full capacity of the plant, that had recently been constructed. She stated that in the future, they would also be able to pump 16 million gallons per day simultaneously back to South Rivanna WTP, which she would discuss in more detail later. She stated that eventually, the pump station would have a total capacity of 26 million gallons per day. She stated that they anticipated beginning construction in January, and she would elaborate on the budget in a minute.

Ms. Whitaker stated that this project, the Ragged Mountain to Observatory project, is a key component of the greater Community Water Supply Plan. She stated that following the 2002 drought, RWSA developed this concept and began working on it from a planning, design, and legal standpoint. She stated that between 2012 and 2014, they rebuilt Ragged Mountain Dam and Reservoir, increasing its capacity. She stated that they were now planning to raise the pool within an additional 12-feet, as well as construct the pipeline from Ragged Mountain to Observatory, and the small connector piece that heads north.

Ms. Whitaker stated that the pump station at Foxhaven Farm would be a critical component of this project. She stated that in the near future, they expect to begin bidding the remaining portion of the Community Water Supply project, which includes the pipe from South Fork Reservoir, as well as an intake and a pump station. She stated that the provided schematic of the Ragged Mountain Raw Water Pump Station site showed that it was about 1.5 acres located off Reservoir Road.

Ms. Whitaker stated that it was purchased from the University of Virginia Foundation at Foxhaven Farm. She stated that the proposed building depicted on the right of the slide would be about 4800 square feet, climate-controlled and brick-veneered. She stated that there was a small retaining structure around the outside, and it would have solar panels on the roof.

Ms. Whitaker stated that they believed there was some value in being able to run this facility with solar power for a portion of the time. She stated that the facility features seven interior pumps, eight valve vaults in the yard, and a network of pipes that will allow them to interconnect each reservoir and treatment plant. She stated that they will also have a generator and sump system to ensure continuous operation and prevent water submergence. She stated that during construction, they will need to relocate the existing 18-inch water line through the site.

Ms. Whitaker stated that to provide a clearer schematic, she had included a brief overview of the Reservoir Road facility. She stated that on the right side, there will be a driveway entrance with architectural-grade fencing surrounding the facility. She stated that extensive landscaping is planned, although it is not visible in this image. She stated that their agreement with the UVA Foundation includes both architectural and landscaping design control, which had been reviewed extensively by the Foundation and Albemarle County.

Ms. Whitaker stated that the provided mock-up of the facility's interior featured two rooms, including an electrical room on the back side beyond a wall. She stated that the configuration of the seven interior pumps was also shown. She stated that the design included a roll-up door, simple door, and LED lighting with a drop ceiling to minimize the conditioned envelope. She stated that solar panels would be installed on the roof to reduce electrical consumption. She stated that the intent was to minimize electrical consumption while meeting their objectives. She stated that the facility also featured a roll-up door and bridge crane to allow them to move pieces in and out of the facility.

Ms. Whitaker stated that the piping contract had been divided into three segments, with 21,000 linear feet of 36-inch pipe to be installed. She stated that the segments are designated as Line A, Line B, and Line C, with Line A covering the far western portion, Line B connecting to the University, and Line C connecting to the golf course. She stated that the main in the golf course had previously been completed, and they aimed to make this connection while having a contractor on site.

She stated that they had issued an invitation for bids in late August and opened them on October 1.

Ms. Whitaker stated that they received two bids. She stated that the bids were close to each other.

She stated that one was from Thalle Construction for $56.5 million, and they were based in North Carolina, having previously constructed the Ragged Mountain Dam, which meant they were familiar with the area. She stated that English Construction submitted a bid for just over $59 million. She stated that their engineer's estimate on the day of bidding was slightly under $49 million.

Ms. Whitaker stated that piping prices had been extremely volatile over the past couple of years. She stated that the engineer's estimate, six months, three months, nine months, and 12 months prior to this, were lower. She stated that they had been receiving bid tabulations from other municipalities to better understand the construction market. She stated that RWSA staff had also been researching pipe prices and attempting to create their own estimate. She stated that given that the cost estimates came in significantly over budget, staff spent time negotiating with Thalle Construction to see how much they could bring the price down.

Ms. Whitaker stated that they were able to identify approximately $2.6 million worth of cost savings in the project. She stated that as a result, they were able to bring the price down to just shy of $54 million, covering the pipe and pump station. She stated that the per square foot cost for building construction, particularly for this type of building, was still very high. She noted that there was also concern from contractors about rock removal along this alignment. She stated that the difficulty in finding workers and contractors for the building trades was driving up pricing.

Ms. Whitaker stated that in the CIP, the pipeline project had $33.5 million allocated, and the pump station had $12.35 million allocated, leaving them with a total of approximately $46 million. She stated that to move forward with this project, they needed a $61.5 million Capital Improvement Program budget, which represented an increase of $15.6 million, a 34% increase in capital budget.

Mr. Pinkston asked if the difference between $61 and $54 M were the soft costs.

Mr. Mawyer stated yes, the consultant fees, easement fees, permits, and contingency for construction were all costs included in the total project budget of $61.5 M.

Mr. Pinkston asked if any of those costs went up, or if it was just construction.

Ms. Whitaker stated that the increase was primarily for construction. Engineering costs did not increase because those were fixed early in the design.

Mr. Pinkston asked what kinds of reductions they had to take.

Ms. Whitaker stated that the biggest reduction they included was a change in pipe wall thickness. She stated that historically, pipe manufacturers had a thickness class, which was an American National Standards Institute (ANSI)-specified standard. She stated that this was a standard that had been used for a very long time. She stated that the industry and many utilities have been migrating to a pressure class standard. She stated that they chose to accept the pressure class pipe rather than the wall thickness-based classification. She stated that it was a relatively small difference in wall thickness, but it was about $1.5 million in differential cost for the 4 miles of

pipe.

Mr. Gaffney asked if there was any difference in warranty, guarantee, or lifespan of the pipe.

Ms. Whitaker stated no.

Mr. Lunsford asked if they had completed a geotechnical survey or consider classifying some of the type of rock in the original bid.

Ms. Whitaker stated that it was all classified.

Mr. Pinkston asked what classified meant.

Ms. Whitaker stated that they had estimated the quantity of rock within the contract and asked the contractor to provide a unit price based on that removal of that quantity. She stated that this method helped to transfer some of the risk from the contractor and reduce costs. She stated that historically, many utilities would bid unclassified rock, meaning that contractors took all of the responsibility for determining the quantity of rock and removing it from the ground. She stated that however, in the past, they had instances where the contractor was not prepared for the actual quantity of rock, such as during the Schenks Branch Interceptor work. She stated that in that case, they had only a few borings, and they had listed the area as unclassified, only to find that it was solid granite. She stated that the contractor was not well-prepared for this situation, and it was a challenge.

Mr. Mawyer stated that the unit price for removal of rock and the estimated rock quantity were included in the total base bid, making it a competitive price. He stated that the utility took on the risk of the actual quantity of rock required, as it could vary. He stated that they had specified 11,000 cubic yards of rock, and the contractor would be paid their unit bid price for that amount if required to be removed. He stated that if the actual quantity removed exceeded 11,000 cubic yards, they had to make an adjustment and pay additionally; if the actual quantity fell below that amount, they received a credit, thereby sharing the risk.

Ms. Mallek stated that otherwise, the contractor would raise the contingency, in which case they would pay for it anyway.

Ms. Whitaker stated that this classification method involved more accounting in the field, but it generally helped keep everyone on the same page regarding the current quantity and cost of rock.

Mr. Pinkston stated that he would like more information on the difference between the original estimate and the actual bids for the pump station.

Ms. Whitaker stated that their original CIP allocation, which was not the engineer's estimate, was approximately $12 million for construction costs. She stated that in the actual bid, it was over $18 million.

Mr. Pinkston asked if this was mostly due to the cost of equipment now.

Ms. Whitaker stated that it did not appear to be the issue. She stated that when they spoke with the contractor, Thalle stated that they had limited feedback from potential building envelop constructors and were unable to find anyone willing to construct the shell. The cost in the bid reflects their uncertainty.

Mr. Mawyer stated that Thalle's price for constructing the pump station was very similar to English's price.

Ms. Whitaker stated that one of the key takeaways from their conversations with the contractors was that they were all extremely busy. She stated that as a result, the competition for projects within this time window was not as high as one might expect, particularly in terms of location and economic profile. She stated that North Carolina was currently experiencing a high demand for heavy equipment and contractors, which was further reducing the competitiveness of this market.

Mr. Mawyer stated that the University also recently reported they had over $1 billion in projects under construction right now.

Mr. Pinkston stated that he assumed that delaying the project was not a good idea for a variety of reasons. He stated that if they came back in six months, the prices would likely not be better.

Ms. Whitaker stated that they had discussed internally various ways to try to reduce this price. She stated that one option was to go back and rebid, or another was to break this apart into two contracts and rebid. She stated that she believed the risks of not accepting the market as it is, and the risk of not having these two projects coordinated by a single contractor, were relatively high. She stated that therefore, she was not sure they would achieve the desired result by pursuing that route.

Ms. Whitaker stated that they were able to pull approximately $2.6 million out of the costs of the projects. She stated that they were still discussing cost reduction options, particularly for the building. She stated that there was still a possibility of reducing the price via negotiated field orders. She stated that however, they would not be able to make up the $15.6 million difference.

Ms. Mallek stated that having a smaller pipeline would provide a benefit, serving as a form of practice to gain experience. She stated that this experience could then be applied when moving to the larger pipeline, potentially allowing for smoother mobilization and continued progress.

Ms. Whitaker stated that she attended a dam safety conference in September, and Thalle was a sponsor of that conference. She stated that they were interested in the Beaver Creek Dam Spillway project, and the rest of the pipeline work. She stated that this may just be their initial foray into some of the RWSA work.

Ms. Mallek stated that it would give us a chance to try them out too, so they could potentially work with them on bigger projects. She stated that she was not an engineer, but she would guess that there was 20 years of work being scheduled for contractors working in North Carolina, so

they could not wait that long for the market to settle down. She stated that it would take forever to rebuild there.

Ms. Hildebrand stated that Ms. Whitaker mentioned that the cost of the change in piping to pressure piping was approximately $1.5 million of the $2.62 million in reductions. She stated that that this left $1.1 million. She asked if this was a long list of small items.

Ms. Whitaker stated yes, mostly. She stated that they were able to come up with some cost savings on the building envelope by clarifying the specifics on it. She stated that there was a section of pipe that they had originally planned to have several treatments, including poly wrapping and zinc coating; however, they decided not to zinc coat certain sections. She stated that it was a laundry list of $150,000 items such as that. She stated that she could provide the full list if Ms. Hildebrand would like.

Ms. Hildebrand asked if the engineer helped coordinate all of that.

Ms. Whitaker stated yes. She stated that both teams' engineers reviewed these items. She stated that they had three conference calls as well as a few other calls in between to work through the details of where they could look for some opportunities.

Mr. Richardson asked if it was staff's recommendation that the Board increase the budget by $15.5 million and award the project to the bidder.

Ms. Whitaker stated that there were two projects embedded in one, and each one had an increase. She stated that they needed a motion to award the contract and the contingency, as well as to increase the capital budget for the pipeline project as well as the pump station project.

Mr. Gaffney asked if there were three separate amendments or a single amendment that encompassed all three.

Ms. Whitaker stated that she believed they could do them all in one so long as it was clear.

Mr. Pinkston asked if they would see the impact to the CIP in the spring.

Mr. Mawyer stated yes.

Ms. Whitaker stated that staff was beginning to review the other projects in the CIP to try to assess the potential implications.

Mr. Mawyer stated that they had the Central Water Line scheduled to be bid in January, which would provide another significant budget data point. He stated that this information would be incorporated into the next year's five-year CIP, helping them determine where they needed to go, what their rates and charges would be, and whether they needed to reconsider some of the projects they were undertaking. He stated that specifically, they were prioritizing the three waterline projects, including this one, the Central Water Line, and the Rivanna to Ragged projects, as they aligned with their community water supply plan, which had been on the books

for a long time.

Mr. Pinkston asked how they were going to do this.

Mr. Richardson asked if Ms. Long had any advice on how they should handle this.

Ms. Long stated that they could hold three separate votes, which would likely be the most conservative approach.

Mr. Mawyer stated that both the second and third items were for the construction contracts, so if they did not get the money for one of those two, they could not do the construction contract. He stated that they would like them to be all together. He stated that one awarded the contract to the contractor, and the second and third amended the CIP and budgets to fund the project.

Mr. Richardson stated that his suggestion would be to vote on the second and third items with one motion, and then the Board could take up the motion to award the contract.

**Mr. Richardson moved that the Board approve the amendment to the FY 25-29 CIP for the Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line Project, increasing the budget by $7.26 million, bringing the total budget for this project to $40,760,000, and to approve the amendment to the FY 25-29 CIP for the Ragged Mountain Raw Water Pump Station Project to increase the budget by $8.3 million, bringing the total budget for this project to $20,730,000. Ms. Mallek seconded the motion, which carried unanimously (7-0).**

**Mr. Richardson moved that the Board authorize the Executive Director to award the construction contract to Thalle Construction Company for a total negotiated value of $53,908,400, and any change orders to the construction contract necessary for completion of the work not to exceed 10% of the original construction contract award. Ms. Mallek seconded the motion, which carried unanimously (7-0).**

Mr. Pinkston asked when staff would have a pricing estimate for the Ragged to South Fork project.

Ms. Whitaker stated that they would be bidding in October of 2025. She stated that they were at 50% to 60% design completion now.

Mr. Pinkston asked what the schedule was for the Central Water Line Project.

Ms. Whitaker stated that they would be bidding at the end of the year.

Mr. Mawyer stated that they would receive bids in January and hopefully would be before the Board in January or February to approve the award for the Central Water Line Project.

*c. Presentation: Major Capital Projects Update*
*Scott Schiller, Engineering Manager*

Scott Schiller, Engineering Manager, stated that he would be presenting the major capital projects update to the Board. He stated that they would begin with projects currently under construction. He stated that the Rivanna Pump Station Restoration Project had been discussed at length over the past few months. He stated that a control malfunction occurred at the facility on January 9 during a wet weather event, causing the dry well to be inundated with water and affecting the pumps and the electrical equipment. He stated that shortly thereafter, they set up a bypass pump system to maintain flow to the treatment plant and facilitate rehab work within the pump station.

Mr. Schiller stated that they had been working collaboratively with Hazen and Sawyer, SEH, and MEB to design and construct these improvements simultaneously. He stated that they anticipated the work to be completed by May 2025, although this was part of the full project. He stated that they planned to have the bypass pumps removed by February, which cost approximately $330,000 per month to rent. He stated that removing them would result in a significant cost savings. He stated that the estimated budget for the project was between $20 and $22 million, developed shortly after the incident.

Mr. Schiller stated that the dollar value included not only the rehab of the facility but also the betterment work to prevent similar incidents in the future. He stated that the estimated reimbursement from VRSA via an insurance claim was around $10.5 million, which brought them back to the January 8 conditions. He stated that currently, the pricing for the project had been efficient, and staff was hopeful that the total budget number would decrease, but they were not yet in a position to adjust it. He stated that they were proceeding as efficiently as possible.

Mr. Schiller stated that next, he would discuss the 5KV electrical system upgrade. He stated that this was to replace major electrical equipment at this plant, which was nearing the end of its serviceable life, including motor control centers, transformers, and the installation of a new switchgear building, as shown on the screen. He stated that the new switchgear building was being brought in and installed.

Mr. Schiller stated that they had experienced significant equipment delays on this project due to the pandemic and issues discussed during the last Board meeting regarding duct banks. He stated that to provide a visual aid, he would like to show a picture of the wiring and cabling, which consisted of approximately 2- to 3-inch diameter cabling being pulled through the conduits. He stated that as previously discussed, excessive bends in the conduits could make it difficult to pull the cable, leading to the modification. He stated that due to the delays, they were now anticipating completion of this project in June 2025 and a budget of $5.6 million.

Mr. Schiller stated that the Airport Road Pump Station and Piping Project, which aimed to reliably interconnect the urban water system with the Piney Mountain pressure zone, was also underway. He stated that the completed pump station was what they were currently viewing. He stated that they were currently in the demonstration period, which, if successful, would enable them to put the pump station into operation. He stated that they were listing this month as the completion schedule. He stated that the project had a budget of $10 million.

Mr. Gaffney asked if that meant the North Rivanna Water Treatment Plant was no longer

required once the project was fully operational.

Mr. Schiller stated that the agreement they had with the Service Authority was that they needed both the Airport Road Pump Station completed and the second South Rivanna River Crossing installed before they could decommission that facility. He stated that their operations group would have more flexibility in operating the plant with to the pump station in service. He stated that they were considering a schedule of five days on and two days off, or vice versa, as they could not allow the treatment plant to sit idle for an extended period, which would compromise its capabilities. He stated that once the South Rivanna River Crossing was completed, they could begin the decommissioning process.

Mr. Schiller stated that next was the Red Hill Water Treatment Plant Upgrades Project. He stated that the current facility was a well house and hydropneumatic tank. He stated that the facility contained a significant amount of chemicals, and the intent of this project was to add additional chemical storage, monitoring, and automation equipment, as well as include granular activated carbon (GAC) treatment. He stated that they had received bids at the end of last year, but the one bid they received was significantly over budget. He stated that they had worked with the contractor to reduce costs, revising the building expansion layout to achieve this.

Mr. Schiller stated that the recommended prefabbed structure resulted in a more cost-effective solution. He stated that they had revised the layout and submitted the revised site plan to the County for approval. He stated that they were awaiting their response before commencing construction, which was initially expected to begin this month. He stated that the project was scheduled to be completed in March 2026, with a budget of $2 million, which included the cost reduction achieved through collaboration with the contractor. He stated that the project was 100% funded by ACSA, with an additional $400,000 provided by the County via a grant related to ARPA during the pandemic.

Mr. Schiller stated that next was the South Fork Rivanna River Crossing. He stated that the second pipe across the South Rivanna River was a high density polyethylene (HDPE) pipe to be installed via horizontal directional drilling methods. He stated that the yellow line on the map represented the horizontal directional drill length, while the blue lines indicated standard ductile iron pipe installed via open cut methods. He stated that they had previously presented this to the Board last month for award to Faulconer Construction, and they were working with them to establish a notice to proceed date and a pre-construction meeting. He stated that they anticipated on-site construction activities to begin in January 2025 and continue through January 2027, with a budget of $7.3 million.

Mr. Schiller stated that finally, they had the Ragged Mountain Reservoir to Observatory Water Treatment Plant Water Line and Pump Station project. He stated that he would not belabor the details of this project, as there had already been significant discussion on this topic. He stated that they were looking forward to initiating this project and beginning the process with Thalle Construction.

Mr. Schiller stated that next, he would discuss the design phase and upcoming construction projects. He stated that the Crozet Pump Station Rehabilitation Project involved rehabilitating

the four pump stations that conveyed flow from the town of Crozet to their urban wastewater collection system. He stated that these pump stations were interconnected, so upgrading one station required upgrading all of them.

Mr. Schiller stated that this project entailed replacing the pumps, valves, roofs, motor control centers, generators, automatic transfer switches, and PLCs. He stated that it was a comprehensive upgrade of the pump stations, which had been in use for over 40 years. He stated that the bids for this project were currently out, with a deadline of October 31, and they anticipated construction to begin in April 2025 and continue through September 2027, with a budget of $11 million.

Mr. Schiller stated that the Central Water Line project aimed to improve water flow pressure in the urban system by connecting the Observatory Water Treatment Plant directly to the Pantops area. He stated that this project involved approximately five miles of 24- and 36-inch pipe, as well as two railroad crossings. He stated that they were approximately 90% complete with the design of phase one, which spanned from Observatory to the point where they interconnected with East High Street.

Mr. Schiller stated that per previous discussions, they had decided to relocate the water line from East High Street into a City parcel, as well as a couple of other easements. He stated that as a result, they were considering this work as phase two. He stated that phase one would be advertised in late November and early December, with bids due in January. He stated that phase two was expected to be advertised next summer. He stated that construction for phase one was anticipated to take place from May 2025 to March 2029, with a current budget estimate of $47 million, which would be discussed in January.

Mr. Schiller stated that the next project was the Ragged Mountain Reservoir Pool Raise, also previously mentioned, which would raise the normal pool of the reservoir 12 feet, from 671 feet to 683 feet. He stated that it would provide an additional 700 million gallons in capacity to the reservoir. He stated that the project involved predominantly tree clearing around the reservoir, along with minor improvements and modifications to the intake tower.

Mr. Schiller stated that a minor geotechnical investigation of the earthen dam would also be performed as a due diligence measure, due to the increased head pressure on the dam. He stated that this investigation included electrical resistivity imaging to assess the condition of the dam. He stated that the project was at 30% design, construction was anticipated to take place from September 2025 to September 2026, with a budget of $5 million.

Mr. Schiller stated that the South Rivanna to Ragged Mountain Pipeline Intake Facilities Project included a six-mile pipeline from the reservoir and water treatment plant to the northern end of the Birdwood water main, installed near the renovated golf course. He stated that the project also included a 41 MGD pump station intake facility, designed to replace the existing intake and pump station. He stated that they were currently at approximately 50% design, as previously mentioned. He stated that construction was anticipated to take place from February 2026 to December 2030, with a currently estimated budget of $80 million, which may need to be revised based on available data.

Mr. Pinkston asked if the pump station was located near the dam.

Mr. Schiller stated yes. He stated that there was a parking area and boat ramp near the location.

Mr. Mawyer stated that it was City property that they had leased, which was intended for public use, although it would eventually be repurposed due to the construction of the new pump station.

Mr. Schiller stated that he believed that there were plans for future public access to the reservoir at another location, so they were working to coordinate with others to ensure that this was taken into consideration. He stated that the next project was the expansion of granular activated carbon at the Crozet Water Treatment Plant. He stated that this would involve the construction of an additional building and expansion of their GAC system, increasing the GAC treatment capacity from 1 MGD to 2 MGD.

Mr. Schiller stated that the two existing vessels currently in the facility, which were smaller than the ones they typically installed, would be maintained with additional larger vessels installed in the new building. He stated that the new building would be located within the ACSA storage area, and staff was working closely with ACSA to coordinate that. He stated that they were currently at approximately 60% design completion for this project, with construction scheduled to begin in August 2025 and be completed by March 2027. He stated that they had secured a grant from VDH for $6.24 million, which would cover a significant portion of the overall budget of $6.6 million, which was a substantial investment.

Mr. Mawyer stated that they were plus 15 and minus 6 in terms of their budgeting standpoint.

Mr. Schiller stated that next, they would be moving onto South Rivanna for the powdered activated carbon (PAC) upgrades. He stated that this project involved installing a new PAC silo with feed pumps to replace the existing one. He stated that the existing silo on site was actually a repurposed lime silo, which had had two previous uses and was now ready for retirement. He stated that they were proceeding with the design for this project, which was currently approximately 100% complete.

Mr. Schiller stated that they had been notified that they were being considered for a congressionally directed spending grant of $880,000. He stated that as a result, they were holding off on the bidding process until they determined whether this grant would be awarded to them. He stated that this may impact their construction schedule, which was currently planned for August 2025 to December 2026, and their total budget, which was estimated at $1.1 million.

Mr. Mawyer stated that the grants required them to be shovel-ready and prepared to go, but they should not spend any money until they had approved it. He stated that he believed it was taking years for some of these grants to be finalized.

Mr. Schiller stated that it was so they could add in a number of other requirements that they needed to consider. He stated that moving onto the Moores Creek facility, this project involved structural and concrete rehabilitation, including repairs throughout the facility. He stated that they would be conducting concrete repairs in the holding ponds, which were located on the west

side of the campus.

Mr. Schiller stated that they would also be working on the EQ basins, situated on the other side of the admin building, and the digester facility, which was located on the opposite side of the campus. He stated that the compost shed, now considered an equipment shed, would undergo roof replacement, and they would also be implementing a monorail system to improve the removal of pumps in the aeration basins. He stated that they had reached 100% design for this project and planned to advertise it next month, with construction scheduled to take place between February 2025 and May 2027, and a budget of $11.3 million.

Mr. Schiller stated that also at the Moores Creek facility, they had the Building Upfits and Gravity Thickener Improvement Project. He stated that this project involved the renovation of existing wastewater operations and maintenance buildings, which dated back to the 1980s and no longer met their current staffing or operational needs. He stated that the renovation would include the creation of office space, meeting rooms, lunch rooms, break rooms, and conference rooms.

Mr. Schiller stated that furthermore, they would be improving the gravity thickener system, including chemical feed system upgrades and adding clean-outs to the sludge pump suction lines to facilitate cleaning. He stated that a rendering of the proposed renovation was available, depicting a reconstructed maintenance facility, which would include offices, a conference room, and a break room. He stated that they were approximately 90% designed for this project, and they planned to advertise it in November, followed by a similar construction period from February 2025 to December 2026, with an overall budget of $7.5 million.

Mr. Schiller stated that also at Moores Creek, they had recently undertaken the Administration Building Renovation project, which shared similarities with the upfits project. He stated that the building they were currently in was constructed in the 1980s as part of the main plant construction process and was in need of an interior renovation and expansion to accommodate their growing operations. He stated that the new building or modified building would feature a new boardroom, an educational exhibit center, and updated lab space, in addition to other required offices.

Mr. Schiller stated that the exhibit space had undergone refinement during the design process, and they had revised the layout to better incorporate it into the building and its design. He stated that these renderings represented the conclusion of that revised layout process. He stated that they had the most current renderings available, showing the east-facing wall layout and the north-facing side of the structure. He stated that they were at 75% design for the Administration Building Renovation project, with construction anticipated between June 2025 and December 2027, and a current budget of $25 million.

Mr. Schiller stated that the Beaver Creek Dam Pump Station Piping Modifications Project involved upgrading their existing spillway to meet Department of Conservation and Recreation (DCR) dam safety standards. He stated that the intended design for the spillway was a labyrinth spillway, the elaborate zigzag structure, which they were showing on the slide. He stated that as a result of the spillway construction process, they would need to replace the current raw water

pump station, located downstream of the spillway.

Mr. Schiller stated that this project also included a new raw water pump station located to the west of the dam and the replacement of the raw water line that went to the treatment plant, which was currently asbestos cement and needed to be taken out of commission. He stated that they were at 50% design for this project, with construction anticipated between May 2026 and January 2030, and they were anticipating a federal National Resources Conservation Service (NRCS) grant for this project, currently estimated at $17 million. He stated that the total project budget was $47 million.

Mr. Pinkston asked if VRSA was going to give them $10.5 million as reimbursement for the Rivanna Pump Station Restoration.

Mr. Schiller stated that they had developed an estimate for the rehab components, which included the initial evaluation, response, setup of bypass pumps, payment for bypass pumps, investigation work, design work related to the rehab components, and construction work related to the rehab components. He stated that this process was challenging, as they had to sift through the information from their consultants and contractors to break it down. He stated that after going through this process, they arrived at an estimated cost of approximately $10.5 million. He stated that VRSA were conducting their own analysis to verify their value. He stated that they would then meet to discuss any discrepancies and determine the next steps. He stated that it was worth noting that these estimates were preliminary and may change; if the final cost ended up being $12 million, they could revisit the process at the end.

Mr. Mawyer noted that they had been reimbursed $3.8 million from the insurance company for the rehab work. He stated that this was not an addition to the overall total, but rather a portion of the $10.5 million that had been reimbursed, with $3.8 million being the amount that had been received so far.

Ms. Mallek stated that to clarify, the insurance coverage only replaced what was already in place, and the additional $10 million was intended to prevent future disasters from occurring.

Mr. Schiller stated that was correct. He stated that their estimated costs for the rehabilitation work were greater than what they were currently spending. He stated that therefore, he believed that the total budget would have some room for improvement. He stated that based on the current information, the estimated cost for the rehab was $10.5 million.

Mr. Gaffney asked if Mr. Mawyer had included the entire $20 million into their budget.

Mr. Wood stated that they had put the whole project in the CIP and built it into the rates to receive $10 million from insurance.

Mr. Gaffney asked if they were planning on receiving $10 million.

Mr. Wood stated that was correct. He stated that the budget anticipated $10 million from insurance recovery, and another $10 million from the bond issue. He stated that the bond issue

was already there to pay for it and was built into the rate.

Mr. Schiller stated that he wanted to show the Board some pictures from September. He stated that what they would see was that they had temporary lines running across the plant, which was a result of their efforts to replace the headworks valves located just outside this building. He stated that if they had seen the construction effort, they would know that they were essentially creating a bypass for the bypass, which typically occurred during early evening and early morning hours, once a week. He stated that they had one more of these bypasses to complete, and so far, they had had two successful replacements.

Ms. Mallek stated that they had mentioned the geotechnical work being done at Ragged Dam. She stated that it was originally designed for a full depth, but then modified to accommodate the changes.

Mr. Schiller stated that was correct. He stated that they were conducting a thorough review for due diligence to ensure that all necessary steps had been taken and potential issues had been identified before they proceeded with increased pressure.

Ms. Mallek asked if the solar panels at the Ragged Pump Station could operate off-grid. She stated that it would be greatly beneficial if the generator on the site could keep going during Dominion Power outages.

Ms. Whitaker stated that there would be a generator, regardless of whether the solar system could run independently of it. She stated that they may need the generator to be operational in order for the system to function properly, but they would need to investigate this further.

Mr. Pinkston asked how the controls would work at the pump station at Ragged Mountain.

Mr. Schiller stated that there would be a fiber line, so they would have communication with everyone.

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

There were no items to discuss.

**11. *CLOSED MEETING***

**Ms. Mallek moved that that the Rivanna Water & Sewer Authority enter into a closed session to discuss confidential information related to the terms of a purchase and sale agreement or the terms of a lease agreement pertaining to the acquisition or lease of real property located in the City of Charlottesville, Virginia, where discussion or consideration of the acquisition or lease of real property for a public purpose in an open session would adversely affect the bargaining position or negotiating strategy of the Rivanna Water and Sewer Authority, as permitted by the exemptions at Section 2.2-3711-A(3) of the Code of Virginia. Mr. Pinkston seconded the motion, which carried unanimously (7-0).**

**Mr. Pinkston moved that The Rivanna Water and Sewer Authority hereby certifies by recorded vote that, to the best of each member's knowledge, only public business matters lawfully exempted from the open meeting requirements of the Virginia Freedom of Information Act, and those public business matters as were identified in the motion authorizing the closed meeting were heard, discussed or considered in the closed meeting to which this certification resolution applies. Ms. Mallek seconded the motion, which carried unanimously (7-0).**

**12.** ***ADJOURNMENT***

**At 4:05 p.m., Mr. Sanders moved to adjourn the meeting of the Rivanna Water and Sewer Authority. Mr. Pinkston seconded the motion, which carried unanimously (7-0).**

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:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **EXECUTIVE DIRECTOR'S REPORT**

**DATE:** **NOVEMBER 19, 2024**

*STRATEGIC PLAN PRIORITY: EMPLOYEE DEVELOPMENT*

## New Deputy Executive Director

After a competitive national recruitment process, David Tungate has been selected as our first Deputy Executive Director for the Rivanna Authorities. In this new position, Dave will oversee the Operations & Environmental Services Division as well as the Engineering & Maintenance Division while also serving as the backup to the Executive Director.

Dave has 27 years of experience in the water and wastewater industry including 12 years with RWSA. Since 2018, he has served as RWSA's Director of Operations & Environmental Services, leading the division's staff of 47 employees in the Water, Wastewater, Water Resources, and Laboratory Departments. Prior to joining RWSA in 2012 as Manager of the Water Dept, Dave was the Utilities Director and Water Manager in South Bend, Indiana for 15 years. Dave holds a Master of Science degree from the University of Illinois, Bachelor of Science degree from Purdue University, and is a licensed Class 1 Water Operator in VA.

## Professional Coursework

The professional qualifications of our staff continue to improve and enhance our services. We congratulate the following employees for successfully completing classes at Valley Career & Technical Center (ValleyVoTech):

- Steve Minnis - Mechanical Blueprint Reading, Communications
- Matt Walker - Communications
- Joshua Powell - Microsoft 365
- Tyrone Hughes – Mechanical Blueprint Reading
- Garrett Carver – OSHA 30 - Industrial Safety

We congratulate the following staff for successfully completing professional coursework and certifications:

- Leah Beard - Employment Law Graduate Certificate
  - Society for Human Resource Management, Senior Certified Professional- Renewal
- Betsy Nemeth - Professional Human Resources Certification - Renewal

*STRATEGIC PLAN PRIORITY: COMMUNICATION AND COLLABORATION*

**Fan Favorite Voting: Imagine A Day Without Water**


The 10th annual **Imagine a Day without Water Art Contest** has on-line Fan Favorite Voting from November 18th through December 4th at: Imagine A Day Without Water | Charlottesville, VA.

Winners will be announced via press release on December 11th**.** This youth art event is sponsored by the City of Charlottesville, Albemarle County Service Authority, and Rivanna Water & Sewer Authority.

**Employee Appreciation Lunch**

We celebrated the contributions of our staff on November 6th with lunch and service awards presented to employees who have been with Rivanna in increments of 5 years of service. We celebrated the following staff for their years of service:

- Lonnie Wood, 25 years
- Michelle Simpson, 20 years
- Cliff Hunt, Steven Minnis Jr, and Scott Shiller, 10 years
- Thomas Barger, 5+ years
- Josh Bowen, James Hansberry, John Hull, David Jeffries, Dyon Vega, Haider AlSafee, and Ceara Lyon, 5 years

As part of our employee appreciation and sustainability initiatives, each employee was given a Rivanna Authorities Yeti water bottle.

**Civil Engineering Capstone**

Jennifer Whitaker, Director of Engineering and Maintenance presented to the UVA Civil Engineering 4th year capstone class on 10/23/24. Jennifer discussed Public Sector Engineering and provided an overview about the Rivanna Water and Sewer Authority.

*STRATEGIC PLAN PRIORITY: PLANNING AND INFRASTRUCTURE*

**Virginia Municipal Drinking Water Association (VMDWA)**


I attended the VMDWA quarterly membership and Board of Directors meetings in Glen Allen on November 14th and 15th. VMDWA advocates for laws, regulations, and policies that help ensure safe and affordable drinking water for Virginians.

## Sugar Hollow Transfer Pipe

In October, I reported to the Board that an elevated section of 18-inch cast iron pipe over the Mechums River was damaged as a result of Tropical Storm Helene. On October 26th, FEMA added Albemarle County to the list of locations eligible to apply for Public Assistance grants for damages that occurred as a result of this storm. We are in the process of submitting a disaster assistance grant application for this damage.

*STRATEGIC PLAN PRIORITY: ENVIRONMENTAL STEWARDSHIP*

## DEQ Grandfathered Withdrawals

I attended the 3rd meeting of the DEQ's "Grandfathered Water Withdrawals" Workgroup on October 24th. This informal workgroup is formulating a plan for allocation of water resources in the state including implementation of Surface Water Management Areas. Additional meetings are planned in the coming months.

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**MEMORANDUM**

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

**FROM:** **LONNIE WOOD, DIRECTOR OF FINANCE AND INFORMATION TECHNOLOGY**

**REVIEWED:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **SEPTEMBER MONTHLY FINANCIAL SUMMARY – FY 2025**

**DATE:** **NOVEMBER 19, 2024**

**Financial Snapshot**

The Authority's actual operating revenues for the first quarter of this fiscal year are $716,700 more than the prorated annual budget estimates, and operating expenses are over the prorated budget by $1,410,300, resulting in an operating deficit of $172,800. Urban Water and flows and operating rate revenue through September are 13.2% over budget estimates. Urban Wastewater flows and operations rate revenue are 7.2% over budget.

Total revenues are $763,200 over budget estimates, but total expenses are $1,362,500 over budget, resulting in a slight overall deficit of $78,300 for the quarter. Revenues and expenses are summarized in the table below:

| | Urban Water | Urban Wastewater | Total Other Rate Centers | Total Authority |
|---|---|---|---|---|
| **Operations** | | | | |
| Revenues | $ 3,296,803 | $ 3,238,516 | $ 793,070 | $ 7,328,389 |
| Expenses | (3,603,079) | (3,002,060) | (896,041) | (7,501,180) |
| Surplus (deficit) | $ (306,276) | $ 236,456 | $ (102,971) | $ (172,791) |
| **Debt Service** | | | | |
| Revenues | $ 3,365,804 | $ 2,867,642 | $ 748,848 | $ 6,982,294 |
| Expenses | (3,360,847) | (2,779,192) | (747,734) | (6,887,773) |
| Surplus (deficit) | $ 4,957 | $ 88,450 | $ 1,114 | $ 94,521 |
| **Total** | | | | |
| Revenues | $ 6,662,607 | $ 6,106,158 | $ 1,541,918 | $ 14,310,683 |
| Expenses | (6,963,926) | (5,781,252) | (1,643,775) | (14,388,953) |
| Surplus (deficit) | $ (301,319) | $ 324,906 | $ (101,857) | $ (78,270) |

A more detailed financial analysis is in the following monthly report and reviews more closely actual financial performance compared to budgeted estimates. There are comments listed that will reference 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 following comments help explain most of the other budget vs. actual variances.

A. Annual and Quarterly Transactions - Some revenues and expenses exceed the prorated annual budget due to up-front annual receipts of revenue and quarterly or annual payments of expenses. These transactions appear to significantly impact the budget vs. actual monthly comparisons, but they 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 at the beginning of the fiscal year for certain maintenance agreements and for employer contributions to employees' health savings accounts. The annual payment to UVA for the Observatory lease ($175,000) is made in August. Insurance premiums are paid at the beginning of each quarter.

B. Personnel Costs (most departments – pages 2-12) – The prorated budget amounts through September are calculated as 3/12 (or 25%) of the annual budget on these financial statements. However, actual payroll is paid biweekly, and there have been 7 out of 26 total pay periods through September (or 26.92%). This affects the comparison of budget vs. actual payroll costs. Urban Water's salaries are also higher than budgeted due to the loss of spill at the South Rivanna Dam and the transition to extra operations at Observatory WTP.

C. Professional Services (Urban Water, Scottsville Wastewater, Administration, Finance & IT – pages 2, 7, 8, 9) – Urban Water is $100,000 over the prorated budget for engineering and technical services for Glenmore and UVA water quality and the Sugar Hollow pipe joint rehabilitation. Scottsville Wastewater has exceeded the annual budget for engineering and technical services by $19,000 for a needs assessment, and the Administration Department is currently over budget for web page design services. Bond issuance costs totaling $749,000 have been incurred to issue Bond 2024B to fund various water and wastewater capital projects and up to $743,300 in bond issuance costs. A total of $656,600 of issuance costs have been reimbursed so far.

D. Other Services & Charges (Urban Water, Urban Wastewater, Administration – pages 2, 5, 7) – Urban Water paid $20,000 to Rivanna Conservation Alliance for water quality monitoring services for the year. Urban Wastewater is currently over the monthly budget for Crozet Pump Station odor control costs. The Administration department has incurred $12,500 in dues, permit fees and bank fees that were inadvertently left out of the budget and is over budget for executive director recruiting expenses.

E. Operations & Maintenance (Urban Water, Crozet Water, Glenmore Wastewater – pages 2, 3, 6) – Urban Water is currently $391,000 over the prorated budget in this category due to a GAC exchange at South Rivanna WTP costing $188,000 (this will last up to the next 9 to 12 months). Pipeline and appurtenances costs were higher than budget for several smaller line maintenance needs, and $175,000 annual rent was paid to UVA in August as mentioned in section A. Crozet Water is $24,000 over the prorated budget for chemicals

due to a GAC exchange. Glenmore Wastewater is over budget for equipment repair and replacement costs.

F. Information Technology (Urban Wastewater – page 5) – Urban Wastewater is currently $12,500 over budget on computer hardware purchases.

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**
**Fiscal Year 2025**

## *Consolidated Revenues and Expenses Summary*

## *Operating Budget vs. Actual*

| | Notes | Budget FY 2025 | Budget Year-to-Date | Actual Year-to-Date | Budget vs. Actual | Variance Percentage |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Operations Rate Revenue | | $ 25,533,965 | $ 6,383,491 | $ 6,960,190 | $ 576,698 | 9.03% |
| Lease Revenue | | 120,000 | 30,000 | 35,867 | 5,867 | 19.56% |
| Admin., Finance/IT, Maint. & Engineering Revenue | | 905,200 | 226,300 | 236,371 | 10,071 | 4.45% |
| Other Revenues | | 667,768 | 166,942 | 254,617 | 87,675 | 52.52% |
| Use of Reserves (Water Resources Fund) | | - | - | - | - | |
| Interest Allocation | | 165,400 | 41,350 | 77,716 | 36,366 | 87.95% |
| ***Total Operating Revenues*** | | **$ 27,392,333** | **$ 6,848,083** | **$ 7,564,760** | **$ 716,677** | **10.47%** |
| **Expenses** | | | | | | |
| Personnel Cost | **A,B** | $ 12,816,065 | $ 2,683,147 | $ 3,495,780 | $ (812,633) | -30.29% |
| Professional Services | **C** | 492,650 | 123,163 | 350,511 | (227,348) | -184.59% |
| Other Services & Charges | **D** | 4,371,588 | 1,092,897 | 1,145,381 | (52,484) | -4.80% |
| Communication | | 244,950 | 61,238 | 85,210 | (23,972) | -39.15% |
| Information Technology | **F** | 1,470,050 | 367,513 | 335,253 | 32,259 | 8.78% |
| Supplies | | 51,200 | 12,800 | 12,186 | 614 | 4.80% |
| Operations & Maintenance | **A,E** | 6,698,884 | 1,674,721 | 2,008,174 | (333,453) | -19.91% |
| Equipment Purchases | | 316,950 | 79,238 | 72,556 | 6,681 | 8.43% |
| Depreciation | | 930,000 | 232,500 | 232,500 | - | 0.00% |
| ***Total Operating Expenses*** | | **$ 27,392,337** | **$ 6,327,215** | **$ 7,737,551** | **$ (1,410,336)** | **-22.29%** |
| ***Operating Surplus/(Deficit)*** | | **$ (4)** | **$ 520,868** | **$ (172,791)** | | |

## *Debt Service Budget vs. Actual*

| | | | | | | |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Debt Service Rate Revenue | | $ 25,612,554 | $ 6,403,139 | $ 6,403,140 | $ 2 | 0.00% |
| Septage Receiving Support - County | | 109,440 | 27,360 | 109,440 | 82,080 | 300.00% |
| Buck Mountain Lease Revenue | | 10,000 | 2,500 | 1,784 | (716) | -28.66% |
| Trust Fund Interest | | 430,300 | 107,575 | 120,524 | 12,949 | 12.04% |
| Reserve Fund Interest | | 1,580,800 | 395,200 | 347,406 | (47,794) | -12.09% |
| ***Total Debt Service Revenues*** | | **$ 27,743,094** | **$ 6,935,774** | **$ 6,982,294** | **$ 46,520** | **0.67%** |
| **Debt Service Costs** | | | | | | |
| Total Principal & Interest | | $ 16,164,506 | $ 4,041,127 | $ 4,787,066 | $ (745,940) | -18.46% |
| Reserve Additions-Interest | | 1,580,800 | 395,200 | 347,406 | 47,794 | 12.09% |
| Debt Service Ratio Charge | | 725,000 | 181,250 | 181,250 | - | 0.00% |
| Reserve Additions-CIP Growth | | 9,271,960 | 2,317,990 | 1,572,050 | 745,940 | 32.18% |
| ***Total Debt Service Costs*** | | **$ 27,742,266** | **$ 6,935,567** | **$ 6,887,773** | **$ 47,794** | **0.69%** |
| ***Debt Service Surplus/(Deficit)*** | | **$ 828** | **$ 207** | **$ 94,521** | | |

### Summary

| | | | | | |
|---|---|---|---|---|---|
| **Total Revenues** | $ 55,135,427 | $ 13,783,857 | $ 14,547,054 | $ 763,198 | 5.54% |
| **Total Expenses** | 55,134,603 | 13,262,781 | 14,625,324 | (1,362,543) | -10.27% |
| **Surplus/(Deficit)** | **$ 824** | **$ 521,075** | **$ (78,270)** | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

***Urban Water Rate Center***
**Revenues and Expenses Summary**

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| ***Operating Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Operations Rate Revenue | | $ 11,425,341 | $ 2,856,335 | $ 3,234,039 | $ 377,704 | 13.22% |
| Lease Revenue | | 90,000 | 22,500 | 27,491 | 4,991 | 22.18% |
| Miscellaneous | | - | - | 1,700 | 1,700 | |
| Use of Reserves (Water Resources Fund) | | - | - | | - | |
| Interest Allocation | | 71,500 | 17,875 | 33,573 | 15,698 | 87.82% |
| ***Total Operating Revenues*** | | **$ 11,586,841** | **$ 2,896,710** | **$ 3,296,803** | **$ 400,093** | **13.81%** |
| **Expenses** | | | | | | |
| Personnel Cost | **A,B** | $ 2,570,828 | $ 642,707 | $ 771,502 | $ (128,795) | -20.04% |
| Professional Services | **C** | 177,000 | 44,250 | 159,838 | (115,588) | -261.22% |
| Other Services & Charges | **D** | 1,076,746 | 269,187 | 285,033 | (15,846) | -5.89% |
| Communications | | 89,700 | 22,425 | 29,886 | (7,461) | -33.27% |
| Information Technology | | 109,400 | 27,350 | 21,994 | 5,356 | 19.58% |
| Supplies | | 7,900 | 1,975 | 2,510 | (535) | -27.08% |
| Operations & Maintenance | **A,E** | 3,334,814 | 833,704 | 1,225,188 | (391,485) | -46.96% |
| Equipment Purchases | | 23,300 | 5,825 | 7,470 | (1,645) | -28.24% |
| Depreciation | | 300,000 | 75,000 | 75,000 | - | 0.00% |
| ***Subtotal Before Allocations*** | | $ 7,689,688 | $ 1,922,422 | $ 2,578,420 | $ (655,998) | -34.12% |
| Allocation of Support Departments | | 3,897,153 | 980,036 | 1,024,659 | (44,623) | -4.55% |
| ***Total Operating Expenses*** | | **$ 11,586,841** | **$ 2,902,458** | **$ 3,603,079** | **$ (700,622)** | **-24.14%** |
| ***Operating Surplus/(Deficit)*** | | **$ 0** | **$ (5,748)** | **$ (306,276)** | | |
| ***Debt Service Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Debt Service Rate Revenue | | $ 12,593,874 | $ 3,148,469 | $ 3,148,470 | $ 2 | 0.00% |
| Trust Fund Interest | | 185,000 | 46,250 | 51,922 | 5,672 | 12.26% |
| Reserve Fund Interest | | 744,800 | 186,200 | 163,628 | (22,572) | -12.12% |
| Lease Revenue | | 10,000 | 2,500 | 1,784 | (716) | -28.66% |
| ***Total Debt Service Revenues*** | | **$ 13,533,674** | **$ 3,383,419** | **$ 3,365,804** | **$ (17,615)** | **-0.52%** |
| **Debt Service Costs** | | | | | | |
| Total Principal & Interest | | $ 7,078,274 | $ 1,769,569 | $ 2,048,550 | $ (278,982) | -15.77% |
| Reserve Additions-Interest | | 744,800 | 186,200 | 163,628 | 22,572 | 12.12% |
| Debt Service Ratio Charge | | 400,000 | 100,000 | 100,000 | - | 0.00% |
| Est. New Debt Service - CIP Growth | | 5,310,600 | 1,327,650 | 1,048,669 | 278,982 | 21.01% |
| ***Total Debt Service Costs*** | | **$ 13,533,674** | **$ 3,383,419** | **$ 3,360,847** | **$ 22,572** | **0.67%** |
| ***Debt Service Surplus/(Deficit)*** | | **$ -** | **$ -** | **$ 4,957** | | |
| **Rate Center Summary** | | | | | | |
| **Total Revenues** | | $ 25,120,515 | $ 6,280,129 | $ 6,662,607 | $ 382,478 | 6.09% |
| **Total Expenses** | | 25,120,515 | 6,285,876 | 6,963,926 | (678,050) | -10.79% |
| **Surplus/(Deficit)** | | **$ 0** | **$ (5,748)** | **$ (301,319)** | | |
| **Costs per 1000 Gallons** | | $ 3.41 | | $ 3.75 | | |
| **Operating and DS** | | $ 7.39 | | $ 7.24 | | |
| **Thousand Gallons Treated** | | 3,397,700 | 849,425 | 961,653 | 112,228 | 13.21% |
| **or** | | | | | | |
| **Flow (MGD)** | | 9.309 | | 10.453 | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

***Crozet Water Rate Center***
**Revenues and Expenses Summary**

## *Operating Budget vs. Actual*

| | Notes | Budget FY 2025 | Budget Year-to-Date | Actual Year-to-Date | Budget vs. Actual | Variance Percentage |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Operations Rate Revenue | | $ 1,420,644 | $ 355,161 | $ 355,161 | $ - | 0.00% |
| Lease Revenues | | 30,000 | 7,500 | 8,377 | 877 | 11.69% |
| Interest Allocation | | 8,900 | 2,225 | 4,197 | 1,972 | 88.61% |
| ***Total Operating Revenues*** | | **$ 1,459,544** | **$ 364,886** | **$ 367,734** | **$ 2,848** | **0.78%** |
| **Expenses** | | | | | | |
| Personnel Cost | **B** | $ 365,428 | $ 91,357 | $ 107,151 | $ (15,794) | -17.29% |
| Professional Services | | 22,900 | 5,725 | 11,521 | (5,796) | -101.24% |
| Other Services & Charges | | 163,107 | 40,777 | 36,358 | 4,418 | 10.84% |
| Communications | | 19,000 | 4,750 | 5,243 | (493) | -10.38% |
| Information Technology | | 35,000 | 8,750 | 1,805 | 6,945 | 79.37% |
| Supplies | | 1,600 | 400 | 888 | (488) | -122.01% |
| Operations & Maintenance | **E** | 426,600 | 106,650 | 130,577 | (23,927) | -22.43% |
| Equipment Purchases | | 3,300 | 825 | 1,151 | (326) | -39.45% |
| Depreciation | | 60,000 | 15,000 | 15,000 | - | 0.00% |
| ***Subtotal Before Allocations*** | | $ 1,096,935 | $ 274,234 | $ 309,694 | $ (35,461) | -12.93% |
| Allocation of Support Departments | | 362,608 | 91,174 | 95,564 | (4,389) | -4.81% |
| ***Total Operating Expenses*** | | **$ 1,459,543** | **$ 365,408** | **$ 405,258** | **$ (39,850)** | **-10.91%** |
| ***Operating Surplus/(Deficit)*** | | **$ 1** | **$ (522)** | **$ (37,524)** | | |

## *Debt Service Budget vs. Actual*

| | Budget FY 2025 | Budget Year-to-Date | Actual Year-to-Date | Budget vs. Actual | Variance Percentage |
|---|---|---|---|---|---|
| **Revenues** | | | | | |
| Debt Service Rate Revenue | $ 2,590,368 | $ 647,592 | $ 647,592 | $ - | 0.00% |
| Trust Fund Interest | 32,400 | 8,100 | 9,075 | 975 | 12.04% |
| Reserve Fund Interest | 93,800 | 23,450 | 20,497 | (2,953) | -12.59% |
| ***Total Debt Service Revenues*** | **$ 2,716,568** | **$ 679,142** | **$ 677,164** | **$ (1,978)** | **-0.29%** |
| **Debt Service Costs** | | | | | |
| Total Principal & Interest | $ 1,131,172 | $ 282,793 | $ 282,793 | $ - | 0.00% |
| Reserve Additions-Interest | 93,800 | 23,450 | 20,497 | 2,953 | 12.59% |
| Estimated New Principal & Interest | 1,491,600 | 372,900 | 372,900 | - | 0.00% |
| ***Total Debt Service Costs*** | **$ 2,716,572** | **$ 679,143** | **$ 676,190** | **$ 2,953** | **0.43%** |
| ***Debt Service Surplus/(Deficit)*** | **$ (4)** | **$ (1)** | **$ 974** | | |

## Rate Center Summary

| | Budget FY 2025 | Budget Year-to-Date | Actual Year-to-Date | Budget vs. Actual | Variance Percentage |
|---|---|---|---|---|---|
| **Total Revenues** | $ 4,176,112 | $ 1,044,028 | $ 1,044,899 | $ 871 | 0.08% |
| **Total Expenses** | 4,176,115 | 1,044,551 | 1,081,448 | (36,897) | -3.53% |
| **Surplus/(Deficit)** | **$ (3)** | **$ (523)** | **$ (36,549)** | | |
| **Costs per 1000 Gallons** | $ 7.20 | | $ 6.05 | | |
| **Operating and DS** | $ 20.60 | | $ 16.16 | | |
| **Thousand Gallons Treated** | 202,697 | 50,674 | 66,933 | 16,259 | 32.08% |
| **Flow (MGD)** | 0.555 | | 0.728 | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

***Scottsville Water Rate Center***
**Revenues and Expenses Summary**

| | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|
| ***Operating Budget vs. Actual*** | | | | | |
| **Notes** | | | | | |
| **Revenues** | | | | | |
| Operations Rate Revenue | $ 741,984 | $ 185,496 | $ 185,496 | $ - | 0.00% |
| Interest Allocation | 4,600 | 1,150 | 2,176 | 1,026 | 89.22% |
| ***Total Operating Revenues*** | **$ 746,584** | **$ 186,646** | **$ 187,672** | **$ 1,026** | **0.55%** |
| **Expenses** | | | | | |
| Personnel Cost | $ 239,452 | $ 59,863 | $ 66,683 | $ (6,820) | -11.39% |
| Professional Services | 5,000 | 1,250 | 551 | 699 | 55.94% |
| Other Services & Charges | 68,490 | 17,123 | 11,869 | 5,253 | 30.68% |
| Communications | 7,000 | 1,750 | 6,408 | (4,658) | -266.15% |
| Information Technology | 13,400 | 3,350 | 11,743 | (8,393) | -250.53% |
| Supplies | 200 | 50 | 839 | (789) | -1578.30% |
| Operations & Maintenance | 154,600 | 38,650 | 15,908 | 22,742 | 58.84% |
| Equipment Purchases | 2,200 | 550 | 807 | (257) | -46.80% |
| Depreciation | 40,000 | 10,000 | 10,000 | 0 | 0.00% |
| ***Subtotal Before Allocations*** | $ 530,342 | $ 132,586 | $ 124,808 | $ 7,778 | 5.87% |
| Allocation of Support Departments | 216,247 | 54,323 | 56,979 | (2,656) | -4.89% |
| ***Total Operating Expenses*** | **$ 746,589** | **$ 186,909** | **$ 181,786** | **$ 5,122** | **2.74%** |
| ***Operating Surplus/(Deficit)*** | **$ (5)** | **$ (263)** | **$ 5,886** | | |
| ***Debt Service Budget vs. Actual*** | | | | | |
| **Revenues** | | | | | |
| Debt Service Rate Revenue | $ 190,416 | $ 47,604 | $ 47,604 | $ - | 0.00% |
| Trust Fund Interest | 4,000 | 1,000 | 1,109 | 109 | 10.88% |
| Reserve Fund Interest | 7,000 | 1,750 | 1,737 | (13) | -0.74% |
| ***Total Debt Service Revenues*** | **$ 201,416** | **$ 50,354** | **$ 50,450** | **$ 96** | **0.19%** |
| **Debt Service Costs** | | | | | |
| Total Principal & Interest | $ 148,815 | $ 37,204 | $ 37,204 | $ - | 0.00% |
| Reserve Additions-Interest | 7,000 | 1,750 | 1,737 | 13 | 0.74% |
| Estimated New Principal & Interest | 45,600 | 11,400 | 11,400 | - | 0.00% |
| ***Total Debt Service Costs*** | **$ 201,415** | **$ 50,354** | **$ 50,341** | **$ 13** | **0.03%** |
| ***Debt Service Surplus/(Deficit)*** | **$ 1** | **$ 0** | **$ 109** | | |
| **Rate Center Summary** | | | | | |
| **Total Revenues** | $ 948,000 | $ 237,000 | $ 238,122 | $ 1,122 | 0.47% |
| **Total Expenses** | 948,004 | 237,262 | 232,127 | 5,135 | 2.16% |
| **Surplus/(Deficit)** | **$ (4)** | **$ (262)** | **$ 5,995** | | |
| **Costs per 1000 Gallons** | $ 43.33 | | $ 33.99 | | |
| **Operating and DS** | $ 55.02 | | $ 43.40 | | |
| **Thousand Gallons Treated** | 17,230 | 4,308 | 5,349 | 1,042 | 24.18% |
| **or** | | | | | |
| **Flow (MGD)** | 0.047 | | 0.058 | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

***Urban Wastewater Rate Center***
**Revenues and Expenses Summary**

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| ***Operating Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Operations Rate Revenue | | $ 11,007,464 | $ 2,751,866 | $ 2,950,861 | $ 198,995 | 7.23% |
| Stone Robinson WWTP | | 17,768 | 4,442 | 3,036 | (1,406) | -31.66% |
| Septage Acceptance | | 600,000 | 150,000 | 141,076 | (8,924) | -5.95% |
| Nutrient Credits | | 50,000 | 12,500 | 108,805 | 96,305 | 770.44% |
| Miscellaneous Revenue | | - | - | - | - | |
| Interest Allocation | | 74,000 | 18,500 | 34,739 | 16,239 | 87.78% |
| ***Total Operating Revenues*** | | **$ 11,749,232** | **$ 2,937,308** | **$ 3,238,516** | **$ 301,208** | **10.25%** |
| **Expenses** | | | | | | |
| Personnel Cost | **A,B** | $ 1,615,345 | $ 403,836 | $ 452,407 | $ (48,571) | -12.03% |
| Professional Services | | 35,000 | 8,750 | 6,836 | 1,914 | 21.87% |
| Other Services & Charges | **D** | 2,721,750 | 680,438 | 716,269 | (35,831) | -5.27% |
| Communications | | 14,800 | 3,700 | 4,736 | (1,036) | -28.00% |
| Information Technology | **F** | 95,500 | 23,875 | 36,379 | (12,504) | -52.37% |
| Supplies | | 2,600 | 650 | 308 | 342 | 52.69% |
| Operations & Maintenance | | 2,190,500 | 547,625 | 451,941 | 95,684 | 17.47% |
| Equipment Purchases | | 73,500 | 18,375 | 18,375 | - | 0.00% |
| Depreciation | | 470,000 | 117,500 | 117,500 | (0) | 0.00% |
| ***Subtotal Before Allocations*** | | $ 7,218,995 | $ 1,804,749 | $ 1,804,751 | $ (2) | 0.00% |
| Allocation of Support Departments | | 4,530,238 | 1,138,830 | 1,197,310 | (58,480) | -5.14% |
| ***Total Operating Expenses*** | | **$ 11,749,233** | **$ 2,943,578** | **$ 3,002,061** | **$ (58,482)** | **-1.99%** |
| ***Operating Surplus/(Deficit)*** | | **$ (1)** | **$ (6,270)** | **$ 236,456** | | |
| ***Debt Service Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Debt Service Rate Revenue | | $ 10,156,560 | $ 2,539,140 | $ 2,539,140 | $ - | 0.00% |
| Septage Receiving Support - County | | 109,440 | 27,360 | 109,440 | 82,080 | 300.00% |
| Trust Fund Interest | | 208,200 | 52,050 | 58,213 | 6,163 | 11.84% |
| Reserve Fund Interest | | 731,800 | 182,950 | 160,849 | (22,101) | -12.08% |
| ***Total Debt Service Revenues*** | | **$ 11,206,000** | **$ 2,801,500** | **$ 2,867,642** | **$ 66,142** | **2.36%** |
| **Debt Service Costs** | | | | | | |
| Total Principal & Interest | | $ 7,780,072 | $ 1,945,018 | $ 2,411,976 | $ (466,958) | -24.01% |
| Reserve Additions-Interest | | 731,800 | 182,950 | 160,849 | 22,101 | 12.08% |
| Debt Service Ratio Charge | | 325,000 | 81,250 | 81,250 | - | 0.00% |
| Est. New Debt Service - CIP Growth | | 2,368,300 | 592,075 | 125,117 | 466,958 | 78.87% |
| ***Total Debt Service Costs*** | | **$ 11,205,172** | **$ 2,801,293** | **$ 2,779,192** | **$ 22,101** | **0.79%** |
| ***Debt Service Surplus/(Deficit)*** | | **$ 828** | **$ 207** | **$ 88,450** | | |
| **Rate Center Summary** | | | | | | |
| **Total Revenues** | | $ 22,955,232 | $ 5,738,808 | $ 6,106,159 | $ 367,351 | 6.40% |
| **Total Expenses** | | 22,954,405 | 5,744,871 | 5,781,253 | (36,381) | -0.63% |
| **Surplus/(Deficit)** | | **$ 827** | **$ (6,063)** | **$ 324,906** | | |
| **Costs per 1000 Gallons** | | $ 3.47 | | $ 3.30 | | |
| **Operating and DS** | | $ 6.77 | | $ 6.36 | | |
| **Thousand Gallons Treated** | | 3,390,400 | 847,600 | 908,796 | 61,196 | 7.22% |
| **or** | | | | | | |
| **Flow (MGD)** | | 9.289 | | 9.878 | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

***Glenmore Wastewater Rate Center***
**Revenues and Expenses Summary**

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| ***Operating Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Operations Rate Revenue | | $ 533,112 | $ 133,278 | $ 133,278 | $ - | 0.00% |
| Interest Allocation | | 3,700 | 925 | 1,710 | 785 | 84.84% |
| ***Total Operating Revenues*** | | **$ 536,812** | **$ 134,203** | **$ 134,988** | **$ 785** | **0.58%** |
| **Expenses** | | | | | | |
| Personnel Cost | | $ 133,566 | $ 33,391 | $ 37,022 | $ (3,631) | -10.87% |
| Professional Services | | 10,000 | 2,500 | 335 | 2,165 | 86.60% |
| Other Services & Charges | | 41,840 | 10,460 | 9,572 | 888 | 8.49% |
| Communications | | 3,700 | 925 | 5,687 | (4,762) | -514.80% |
| Information Technology | | 14,350 | 3,588 | 429 | 3,159 | 88.05% |
| Supplies | | - | - | - | - | |
| Operations & Maintenance | **E** | 130,600 | 32,650 | 80,350 | (47,700) | -146.10% |
| Equipment Purchases | | 3,500 | 875 | 875 | (0) | 0.00% |
| Depreciation | | 40,000 | 10,000 | 10,000 | 0 | 0.00% |
| ***Subtotal Before Allocations*** | | $ 377,556 | $ 94,389 | $ 144,270 | $ (49,881) | -52.85% |
| Allocation of Support Departments | | 159,262 | 39,946 | 41,450 | (1,504) | -3.76% |
| ***Total Operating Expenses*** | | **$ 536,818** | **$ 134,335** | **$ 185,719** | **$ (51,384)** | **-38.25%** |
| ***Operating Surplus/(Deficit)*** | | **$ (6)** | **$ (132)** | **$ (50,732)** | | |
| ***Debt Service Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Debt Service Rate Revenue | | $ 48,780 | $ 12,195 | $ 12,195 | $ - | 0.00% |
| Trust Fund Interest | | 500 | 125 | 145 | 20 | 15.71% |
| Reserve Fund Interest | | - | - | - | - | |
| ***Total Debt Service Revenues*** | | **$ 49,280** | **$ 12,320** | **$ 12,340** | **$ 20** | **0.16%** |
| **Debt Service Costs** | | | | | | |
| Total Principal & Interest | | $ 18,720 | $ 4,680 | $ 4,680 | $ - | 0.00% |
| Estimated New Principal & Interest | | 30,560 | 7,640 | 7,640 | - | 0.00% |
| Reserve Additions-Interest | | - | - | - | - | |
| ***Total Debt Service Costs*** | | **$ 49,280** | **$ 12,320** | **$ 12,320** | **$ -** | **0.00%** |
| ***Debt Service Surplus/(Deficit)*** | | **$ -** | **$ -** | **$ 20** | | |

**Rate Center Summary**

| | | | | | |
|---|---|---|---|---|---|
| **Total Revenues** | $ 586,092 | $ 146,523 | $ 147,327 | $ 804 | 0.55% |
| **Total Expenses** | 586,098 | 146,655 | 198,039 | (51,384) | -35.04% |
| **Surplus/(Deficit)** | **$ (6)** | **$ (132)** | **$ (50,712)** | | |
| **Costs per 1000 Gallons** | $ 12.97 | | $ 18.12 | | |
| **Operating and DS** | $ 14.16 | | $ 19.32 | | |
| **Thousand Gallons Treated** | 41,401 | 10,350 | 10,252 | (98) | **-0.95%** |
| **or** | | | | | |
| **Flow (MGD)** | 0.113 | | 0.111 | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

***Scottsville Wastewater Rate Center***
**Revenues and Expenses Summary**

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| ***Operating Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Operations Rate Revenue | | $ 405,420 | $ 101,355 | $ 101,355 | $ - | 0.00% |
| Interest Allocation | | 2,700 | 675 | 1,321 | 646 | 95.73% |
| ***Total Operating Revenues*** | | **$ 408,120** | **$ 102,030** | **$ 102,676** | **$ 646** | **0.63%** |
| **Expenses** | | | | | | |
| Personnel Cost | | $ 133,636 | $ 33,409 | $ 37,022 | $ (3,613) | -10.82% |
| Professional Services | C | 5,000 | 1,250 | 20,179 | (18,929) | -1514.30% |
| Other Services & Charges | | 33,400 | 8,350 | 10,043 | (1,693) | -20.27% |
| Communications | | 3,650 | 913 | 274 | 638 | 69.96% |
| Information Technology | | 15,150 | 3,788 | 429 | 3,359 | 88.68% |
| Supplies | | - | - | - | - | |
| Operations & Maintenance | | 44,500 | 11,125 | 10,634 | 491 | 4.42% |
| Equipment Purchases | | 3,500 | 875 | 875 | (0) | 0.00% |
| Depreciation | | 20,000 | 5,000 | 5,000 | (0) | 0.00% |
| ***Subtotal Before Allocations*** | | $ 258,836 | $ 64,709 | $ 84,455 | $ (19,746) | -30.52% |
| Allocation of Support Departments | | 149,278 | 37,450 | 38,822 | (1,372) | -3.66% |
| ***Total Operating Expenses*** | | **$ 408,114** | **$ 102,159** | **$ 123,277** | **$ (21,118)** | **-20.67%** |
| ***Operating Surplus/(Deficit)*** | | **$ 6** | **$ (129)** | **$ (20,601)** | | |
| ***Debt Service Budget vs. Actual*** | | | | | | |
| **Revenues** | | | | | | |
| Debt Service Rate Revenue | | $ 32,556 | $ 8,139 | $ 8,139 | $ - | 0.00% |
| Trust Fund Interest | | 200 | 50 | 60 | 10 | 20.50% |
| Reserve Fund Interest | | 3,400 | 850 | 695 | (155) | -18.26% |
| ***Total Debt Service Revenues*** | | **$ 36,156** | **$ 9,039** | **$ 8,894** | **$ (145)** | **-1.60%** |
| **Debt Service Costs** | | | | | | |
| Total Principal & Interest | | $ 7,453 | $ 1,863 | $ 1,863 | $ - | 0.00% |
| Reserve Additions-Interest | | 3,400 | 850 | 695 | 155 | 18.26% |
| Estimated New Principal & Interest | | 25,300 | 6,325 | 6,325 | - | 0.00% |
| ***Total Debt Service Costs*** | | **$ 36,153** | **$ 9,038** | **$ 8,883** | **$ 155** | **1.72%** |
| ***Debt Service Surplus/(Deficit)*** | | **$ 3** | **$ 1** | **$ 11** | | |
| **Rate Center Summary** | | | | | | |
| **Total Revenues** | | $ 444,276 | $ 111,069 | $ 111,570 | $ 501 | 0.45% |
| **Total Expenses** | | 444,267 | 111,197 | 132,160 | (20,963) | -18.85% |
| **Surplus/(Deficit)** | | **$ 9** | **$ (128)** | **$ (20,590)** | | |
| **Costs per 1000 Gallons** | | $ 17.26 | | $ 26.64 | | |
| **Operating and DS** | | $ 18.79 | | $ 28.56 | | |
| **Thousand Gallons Treated** | | 23,643 | 5,911 | 4,628 | (1,283) | **-21.70%** |
| **or** | | | | | | |
| **Flow (MGD)** | | 0.065 | | 0.050 | | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

## Administration

### *Operating Budget vs. Actual*

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Payment for Services SWA | | $ 364,200 | $ 91,050 | $ 91,050 | $ - | 0.00% |
| Miscellaneous Revenue | | - | - | 4,593 | 4,593 | |
| ***Total Operating Revenues*** | | **$ 364,200** | **$ 91,050** | **$ 95,643** | **$ 4,593** | **5.04%** |
| **Expenses** | | | | | | |
| Personnel Cost | **A,B** | $ 1,348,563 | $ 337,141 | $ 350,885 | $ (13,744) | -4.08% |
| Professional Services | **C** | 153,250 | 38,313 | 47,358 | (9,045) | -23.61% |
| Other Services & Charges | **D** | 161,100 | 40,275 | 58,895 | (18,620) | -46.23% |
| Communications | | 9,700 | 2,425 | 11,341 | (8,916) | -367.67% |
| Information Technology | | 5,000 | 1,250 | 2,911 | (1,661) | -132.89% |
| Supplies | | 14,000 | 3,500 | 3,948 | (448) | -12.79% |
| Operations & Maintenance | | 57,250 | 14,313 | 13,292 | 1,021 | 7.13% |
| Equipment Purchases | | 9,000 | 2,250 | 2,250 | - | 0.00% |
| Depreciation | | - | - | - | - | |
| ***Total Operating Expenses*** | | **$ 1,757,863** | **$ 439,466** | **$ 490,880** | **$ (51,414)** | **-11.70%** |

### Department Summary

| | | | | | |
|---|---|---|---|---|---|
| **Net Costs Allocable to Rate Centers** | **$ (1,393,663)** | **$ (348,416)** | **$ (395,237)** | **$ 46,821** | **-13.44%** |
| **Allocations to the Rate Centers** | | | | | |
| **Urban Water** 44.00% | **$ 613,212** | **$ 153,303** | **$ 173,904** | **$ (20,601)** | |
| **Crozet Water** 4.00% | **$ 55,747** | **13,937** | **15,809** | **(1,873)** | |
| **Scottsville Water** 2.00% | **$ 27,873** | **6,968** | **7,905** | **(936)** | |
| **Urban Wastewater** 48.00% | **$ 668,958** | **167,240** | **189,714** | **(22,474)** | |
| **Glenmore Wastewater** 1.00% | **$ 13,937** | **3,484** | **3,952** | **(468)** | |
| **Scottsville Wastewater** 1.00% | **$ 13,937** | **3,484** | **3,952** | **(468)** | |
| 100.00% | **$ 1,393,663** | **$ 348,416** | **$ 395,237** | **$ (46,821)** | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

## *Finance and Information Technology*

### *Operating Budget vs. Actual*

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Payment for Services SWA | | $ 541,000 | $ 135,250 | $ 135,250 | $ 0 | 0.00% |
| Miscellaneous Revenue | | - | - | | - | |
| ***Total Operating Revenues*** | | **$ 541,000** | **$ 135,250** | **$ 135,250** | **$ 0** | **0.00%** |
| **Expenses** | | | | | | |
| Personnel Cost | **A,B** | $ 2,083,478 | $ 520,870 | $ 561,010 | $ (40,140) | -7.71% |
| Professional Services | **C** | 42,000 | 10,500 | 102,618 | (92,118) | -877.31% |
| Other Services & Charges | | 46,000 | 11,500 | 3,131 | 8,369 | 72.77% |
| Communication | | 65,000 | 16,250 | 9,148 | 7,102 | 43.70% |
| Information Technology | | 962,850 | 240,713 | 236,525 | 4,187 | 1.74% |
| Supplies | | 14,500 | 3,625 | 2,183 | 1,442 | 39.77% |
| Operations & Maintenance | | 5,000 | 14,313 | 145 | 14,168 | 98.99% |
| Equipment Purchases | | 7,500 | 1,875 | 1,875 | - | 0.00% |
| Depreciation | | - | - | - | - | |
| ***Total Operating Expenses*** | | **$ 3,226,328** | **$ 819,645** | **$ 916,635** | **$ (96,991)** | **-11.83%** |

### Department Summary

| | | | | | |
|---|---|---|---|---|---|
| **Net Costs Allocable to Rate Centers** | **$ (2,685,328)** | **$ (684,395)** | **$ (781,385)** | **$ 96,991** | **-14.17%** |
| **Allocations to the Rate Centers** | | | | | |
| **Urban Water** | 44.00% **$ 1,181,544** | **$ 301,134** | **$ 343,810** | **$ (42,676)** | |
| **Crozet Water** | 4.00% **$ 107,413** | **27,376** | **31,255** | **(3,880)** | |
| **Scottsville Water** | 2.00% **$ 53,707** | **13,688** | **15,628** | **(1,940)** | |
| **Urban Wastewater** | 48.00% **$ 1,288,957** | **328,509** | **375,065** | **(46,556)** | |
| **Glenmore Wastewater** | 1.00% **$ 26,853** | **6,844** | **7,814** | **(970)** | |
| **Scottsville Wastewater** | 1.00% **$ 26,853** | **6,844** | **7,814** | **(970)** | |
| | 100.00% **$ 2,685,328** | **$ 684,395** | **$ 781,385** | **$ (96,991)** | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

## Maintenance

### *Operating Budget vs. Actual*

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Payment for Services SWA | | $ - | $ - | $ - | $ - | |
| Miscellaneous Revenue | | - | - | 1,008 | 1,008 | |
| ***Total Operating Revenues*** | | **$ -** | **$ -** | **$ 1,008** | **$ 1,008** | |
| **Expenses** | | | | | | |
| Personnel Cost | **B** | $ 1,645,860 | $ 411,465 | $ 431,690 | $ (20,225) | -4.92% |
| Professional Services | | 10,000 | 2,500 | - | 2,500 | 100.00% |
| Other Services & Charges | | 29,140 | 7,285 | 10,635 | (3,350) | -45.99% |
| Communications | | 16,200 | 4,050 | 6,990 | (2,940) | -72.58% |
| Information Technology | | 7,500 | 1,875 | 278 | 1,597 | 85.16% |
| Supplies | | 3,500 | 875 | - | 875 | 100.00% |
| Operations & Maintenance | | 138,800 | 34,700 | 44,466 | (9,766) | -28.14% |
| Equipment Purchases | | 145,750 | 36,438 | 32,500 | 3,938 | 10.81% |
| Depreciation | | - | - | - | - | |
| ***Total Operating Expenses*** | | **$ 1,996,750** | **$ 499,188** | **$ 526,559** | **$ (27,372)** | **-5.48%** |

### Department Summary

| | | | | | | |
|---|---|---|---|---|---|---|
| **Net Costs Allocable to Rate Centers** | | **$ (1,996,750)** | **$ (499,188)** | **$ (525,551)** | **$ 28,380** | **-5.69%** |
| **Allocations to the Rate Centers** | | | | | | |
| **Urban Water** | 30.00% | **$ 599,025** | **$ 149,756** | **$ 157,665** | **$ (7,909)** | |
| **Crozet Water** | 3.50% | **69,886** | **17,472** | **18,394** | **(923)** | |
| **Scottsville Water** | 3.50% | **69,886** | **17,472** | **18,394** | **(923)** | |
| **Urban Wastewater** | 56.50% | **1,128,164** | **282,041** | **296,936** | **(14,895)** | |
| **Glenmore Wastewater** | 3.50% | **69,886** | **17,472** | **18,394** | **(923)** | |
| **Scottsville Wastewater** | 3.00% | **59,903** | **14,976** | **15,767** | **(791)** | |
| | 100.00% | **$ 1,996,750** | **$ 499,188** | **$ 525,551** | **$ (26,364)** | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

## Laboratory

## *Operating Budget vs. Actual*

| | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|
| **Notes** | | | | | |
| **Revenues** | | | | | |
| **N/A** | | | | | |
| **Expenses** | | | | | |
| Personnel Cost | $ 463,225 | $ 115,806 | $ 124,766 | $ (8,959) | -7.74% |
| Professional Services | - | - | - | - | |
| Other Services & Charges | 9,550 | 2,388 | 271 | 2,116 | 88.64% |
| Communications | 1,050 | 263 | 176 | 87 | 33.09% |
| Information Technology | - | - | 508 | (508) | |
| Supplies | 1,300 | 325 | 32 | 293 | 90.16% |
| Operations & Maintenance | 133,600 | 33,400 | 21,461 | 11,939 | 35.75% |
| Equipment Purchases | 23,900 | 5,975 | 1,003 | 4,972 | 83.21% |
| Depreciation | - | - | - | - | |
| ***Total Operating Expenses*** | **$ 632,625** | **$ 158,156** | **$ 148,216** | **$ 9,940** | **6.28%** |

### Department Summary

| | | | | | |
|---|---|---|---|---|---|
| **Net Costs Allocable to Rate Centers** | **$ (632,625)** | **$ (158,156)** | **$ (148,216)** | **$ (9,940)** | **6.28%** |
| **Allocations to the Rate Centers** | | | | | |
| **Urban Water** 44.00% | **$ 278,355** | **$ 69,589** | **$ 65,215** | **$ 4,374** | |
| **Crozet Water** 4.00% | **25,305** | **6,326** | **5,929** | **398** | |
| **Scottsville Water** 2.00% | **12,653** | **3,163** | **2,964** | **199** | |
| **Urban Wastewater** 47.00% | **297,334** | **74,333** | **69,662** | **4,672** | |
| **Glenmore Wastewater** 1.50% | **9,489** | **2,372** | **2,223** | **149** | |
| **Scottsville Wastewater** 1.50% | **9,489** | **2,372** | **2,223** | **149** | |
| 100.00% | **$ 632,625** | **$ 158,156** | **$ 148,216** | **$ 9,940** | |

**Rivanna Water & Sewer Authority**
**Monthly Financial Statements - September 2024**

## Engineering

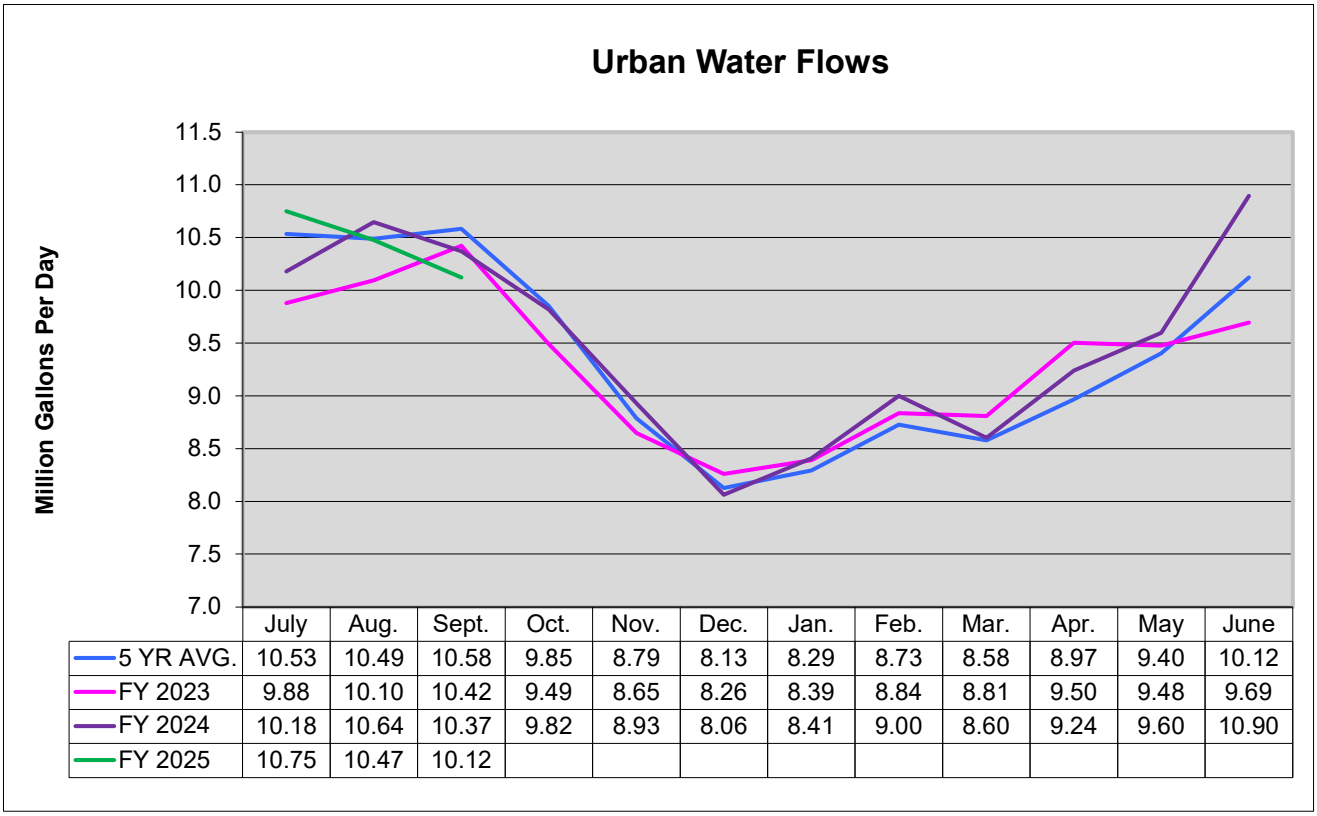
## *Operating Budget vs. Actual*

| | Notes | *Budget FY 2025* | *Budget Year-to-Date* | *Actual Year-to-Date* | *Budget vs. Actual* | *Variance Percentage* |
|---|---|---|---|---|---|---|
| **Revenues** | | | | | | |
| Payment for Services SWA | | $ - | $ - | $ 4,469 | $ 4,469 | |
| ***Total Operating Revenues*** | | **$ -** | **$ -** | **$ 4,469** | **$ 4,469** | |
| **Expenses** | | | | | | |
| Personnel Cost | | $ 2,216,684 | $ 554,171 | $ 555,643 | $ (1,472) | -0.27% |
| Professional Services | | 32,500 | 8,125 | 1,275 | 6,850 | 84.31% |
| Other Services & Charges | | 20,465 | 5,116 | 3,305 | 1,812 | 35.41% |
| Communications | | 15,150 | 3,788 | 5,322 | (1,535) | -40.52% |
| Information Technology | | 211,900 | 52,975 | 22,252 | 30,723 | 58.00% |
| Supplies | | 5,600 | 1,400 | 1,478 | (78) | -5.60% |
| Operations & Maintenance | | 82,620 | 20,655 | 14,212 | 6,443 | 31.19% |
| Equipment Purchases | | 21,500 | 5,375 | 5,375 | 0 | 0.00% |
| Depreciation | | - | - | - | - | |
| ***Total Operating Expenses*** | | **$ 2,606,419** | **$ 651,605** | **$ 608,862** | **$ 42,743** | **6.56%** |

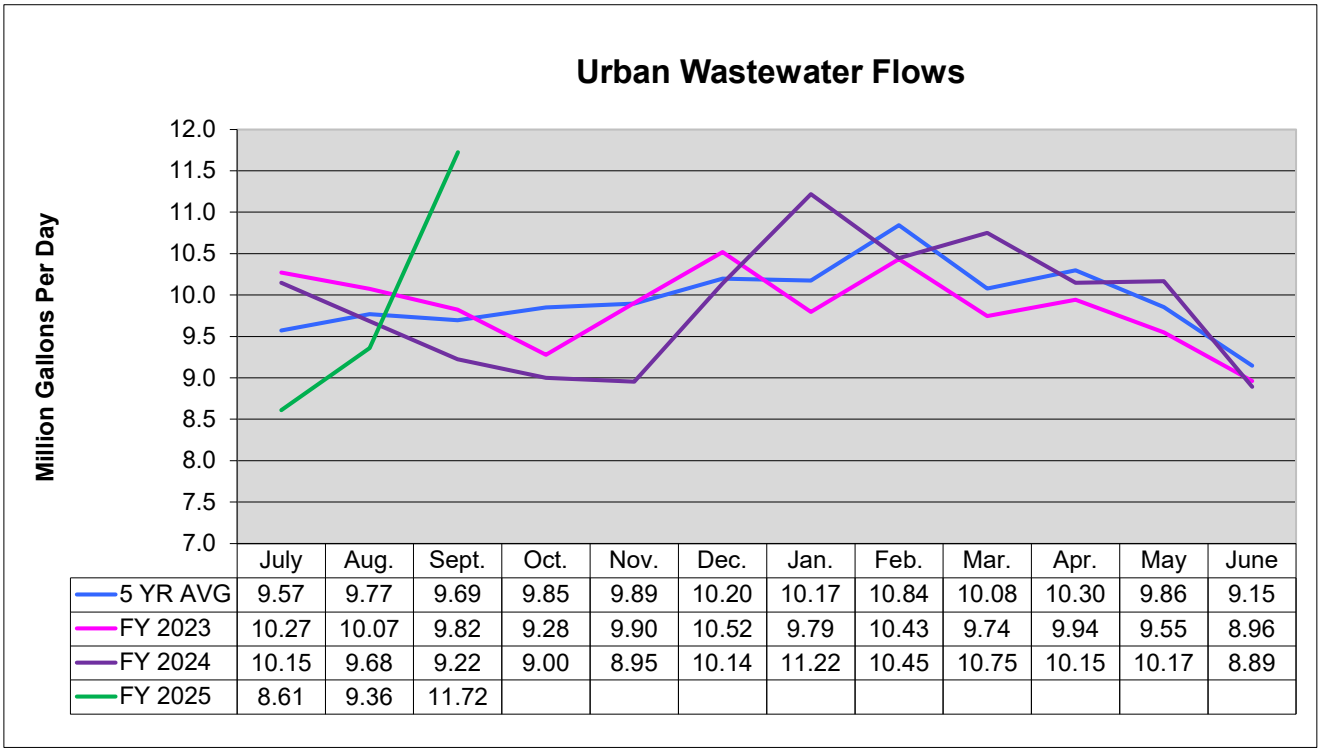
### Department Summary

| | | | | | | |
|---|---|---|---|---|---|---|
| **Net Costs Allocable to Rate Centers** | | **$ (2,606,419)** | **$ (651,605)** | **$ (604,393)** | **$ (38,273)** | **5.87%** |
| **Allocations to the Rate Centers** | | | | | | |
| **Urban Water** | 47.00% | **$ 1,225,017** | **$ 306,254** | **$ 284,065** | **$ 22,190** | |
| **Crozet Water** | 4.00% | **104,257** | **26,064** | **24,176** | **1,888** | |
| **Scottsville Water** | 2.00% | **52,128** | **13,032** | **12,088** | **944** | |
| **Urban Wastewater** | 44.00% | **1,146,824** | **286,706** | **265,933** | **20,773** | |
| **Glenmore Wastewater** | 1.50% | **39,096** | **9,774** | **9,066** | **708** | |
| **Scottsville Wastewater** | 1.50% | **39,096** | **9,774** | **9,066** | **708** | |
| | 100.00% | **$ 2,606,419** | **$ 651,605** | **$ 604,393** | **$ 47,212** | |

**Rivanna Water and Sewer Authority**
**Flow Graphs**




| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 YR AVG. | 10.53 | 10.49 | 10.58 | 9.85 | 8.79 | 8.13 | 8.29 | 8.73 | 8.58 | 8.97 | 9.40 | 10.12 |
| FY 2023 | 9.88 | 10.10 | 10.42 | 9.49 | 8.65 | 8.26 | 8.39 | 8.84 | 8.81 | 9.50 | 9.48 | 9.69 |
| FY 2024 | 10.18 | 10.64 | 10.37 | 9.82 | 8.93 | 8.06 | 8.41 | 9.00 | 8.60 | 9.24 | 9.60 | 10.90 |
| FY 2025 | 10.75 | 10.47 | 10.12 | | | | | | | | | |




| | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 YR AVG | 9.57 | 9.77 | 9.69 | 9.85 | 9.89 | 10.20 | 10.17 | 10.84 | 10.08 | 10.30 | 9.86 | 9.15 |
| FY 2023 | 10.27 | 10.07 | 9.82 | 9.28 | 9.90 | 10.52 | 9.79 | 10.43 | 9.74 | 9.94 | 9.55 | 8.96 |
| FY 2024 | 10.15 | 9.68 | 9.22 | 9.00 | 8.95 | 10.14 | 11.22 | 10.45 | 10.75 | 10.15 | 10.17 | 8.89 |
| FY 2025 | 8.61 | 9.36 | 11.72 | | | | | | | | | |

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:** **DAVE TUNGATE, DIRECTOR OF OPERATIONS & ENVIRONMENTAL SERVICES**

**REVIEWED BY:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **OPERATIONS REPORT FOR OCTOBER 2024**

**DATE:** **NOVEMBER 19, 2024**

**WATER OPERATIONS**:

The average and maximum daily water volumes produced in October 2024 were as follows:

| ***Water Treatment Plant*** | ***Average Daily Production (MGD)*** | ***Maximum Daily Production in the Month (MGD)*** |
|---|---|---|
| South Rivanna | 7.95 | 9.04 (10/30/2024) |
| Observatory | 1.68 | 3.26 (10/25/2024) |
| North Rivanna | 0.17 | 0.51 (10/28/2024) |
| ***Urban Total*** | 9.80 | 10.83 (10/25/2024) |
| Crozet | 0.67 | 0.90 (10/23/2024) |
| Scottsville | 0.06 | 0.151 (10/29/2024) |
| Red Hill | 0.0024 | 0.005 (10/17/2024) |
| ***RWSA Total*** | 10.53 | - |

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

Status of Reservoirs (as of November 12, 2024): Urban Reservoirs are 98% of Total Useable Capacity

- South Rivanna Reservoir is 100% full
- Ragged Mountain Reservoir is 96% full (water level lowered to complete an inspection)
- Sugar Hollow 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 October 2024. Performance of the WRRFs in October 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** | 10.9 | <QL | 9 | <QL | 22 | <QL | 2.2 |
| **Glenmore** | 0.126 | <QL | 15 | 4.0 | 30 | NR | NL |
| **Scottsville** | 0.06 | <QL | 25 | 4.7 | 30 | NR | NL |
| **Stone Robinson** | 0.002 | NA | 30 | NA | 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 October 2024.

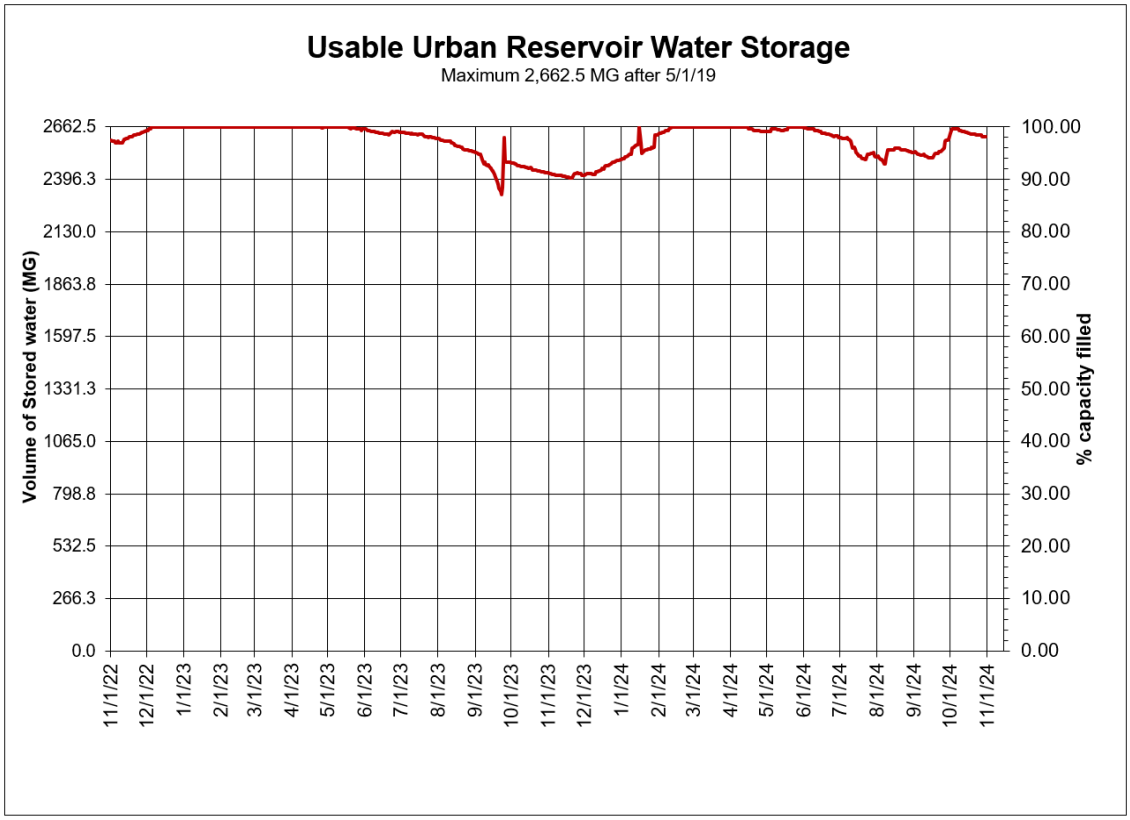
| *State Annual Allocation (lb./yr.) Permit* | | *Average Monthly Allocation (lb./mo.) ** | *Moores Creek Discharge October (lb./mo.)* | *Performance as % of monthly average Allocation** | *Year to Date Performance as % of annual allocation* |
|---|---|---|---|---|---|
| **Nitrogen** | 282,994 | 23,583 | 9,170 | 39% | 32% |
| **Phosphorous** | 18,525 | 1,636 | 815 | 50% | 20% |

*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
11/1/22
12/1/22
1/1/23
2/1/23
3/1/23
4/1/23
5/1/23
6/1/23
7/1/23
8/1/23
9/1/23
10/1/23
11/1/23
12/1/23
1/1/24
2/1/24
3/1/24
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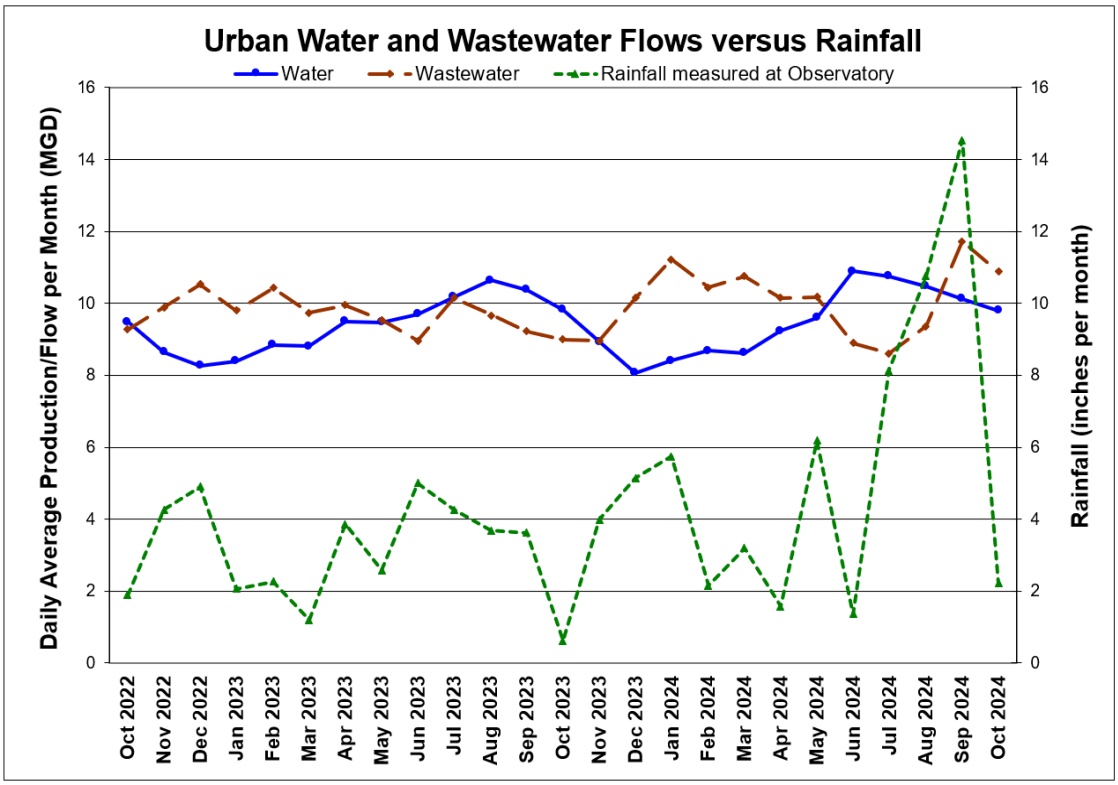
7/1/24
8/1/24
9/1/24
10/1/24
11/1/24


Urban Water and Wastewater Flows versus Rainfall
Water
Wastewater
Rainfall measured at Observatory
Daily Average Production/Flow per Month (MGD)
Rainfall (inches per month)
16
14
12
10
8
6
4
2
0
Oct 2022
Nov 2022
Dec 2022
Jan 2023
Feb 2023
Mar 2023
Apr 2023
May 2023
Jun 2023
Jul 2023
Aug 2023
Sep 2023
Oct 2023
Nov 2023
Dec 2023
Jan 2024
Feb 2024
Mar 2024
Apr 2024
May 2024
Jun 2024
Jul 2024
Aug 2024
Sep 2024
Oct 2024

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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:** **CIP PROJECTS REPORT**

**DATE:** **NOVEMBER 19, 2024**

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

For the current CIP and additional project information, please visit: https://www.rivanna.org/wp-content/uploads/2024/06/2025-2029-CIP-Final-Draft.pdf

## Summary

| | Project | Construction Start Date | Construction Completion Date |
|---|---|---|---|
| 1 | MC 5kV Electrical System Upgrades | May 2022 | June 2025 |
| 2 | Rivanna Pump Station Restoration | July 2024 | May 2025 |
| 3 | Red Hill Water Treatment Plant Upgrades | January 2025 | March 2026 |
| 4 | South Fork Rivanna River Crossing | January 2025 | January 2027 |
| 5 | RMR to OBWTP Raw Water Line and Pump Station | January 2025 | June 2029 |
| 6 | MC Building Upfits and Gravity Thickener Improvements | February 2025 | May 2027 |
| 7 | MC Structural and Concrete Rehabilitation | February 2025 | May 2027 |
| 8 | Crozet Pump Stations Rehabilitation | April 2025 | September 2027 |
| 9 | MC Administration Building Renovation and Addition | June 2025 | December 2027 |
| 10 | Central Water Line | May 2025 | March 2029 |
| 11 | Crozet WTP GAC Expansion – Phase I | August 2025 | March 2027 |
| 12 | SRWTP – PAC Upgrades | August 2025 | December 2026 |
| 13 | RMR Pool Raise | September 2025 | September 2026 |
| 14 | SFRR to RMR Pipeline, Intake, and Facilities | February 2026 | December 2030 |
| 15 | Beaver Creek Dam, Pump Station, and Piping | May 2026 | January 2030 |
| 16 | Upper Schenks Branch Interceptor, Phase II | TBD | TBD |
| 17 | MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades | June 2025 | September 2026 |

Under Construction

1. MC 5kV Electrical System Upgrades
2. Rivanna Pump Station Restoration
3. Red Hill Water Treatment Plant Upgrades
4. South Fork Rivanna River Crossing
5. RMR to OBWTP Raw Water Line and Pump Station
6. Crozet Pump Stations Rehabilitation

Design and Bidding

7. MC Building Upfits and Gravity Thickener Improvements
8. MC Structural and Concrete Rehabilitation
9. MC Administration Building Renovation and Addition
10. Central Water Line
11. Crozet WTP GAC Expansion – Phase I
12. SRWTP – PAC Upgrades
13. RMR Pool Raise
14. SFRR to RMR Pipeline, Intake, and Facilities
15. Beaver Creek Dam, Pump Station, and Piping
16. Upper Schenks Branch Interceptor, Phase II
17. MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades

Planning and Studies

18. MCAWRRF Biogas Upgrades
19. Flood Protection Resiliency Study

Other Significant Projects

20. Urgent and Emergency Repairs
21. Security Enhancements

# Under Construction

## 1. MCAWRRF 5kV Electrical System Upgrades

| | |
|---|---|
| Design Engineer: | Hazen and Sawyer |
| Construction Contractor: | Pyramid Electrical Contractors (Richmond, VA) |
| Construction Start: | May 2022 |
| Percent Complete: | 77% |
| Base Construction Contract + Change Order to Date = Current Value: | $5,180,000 - $800,127 = $4,379,873 |
| Completion: | June 2025 |
| Budget: | $6,200,000 |

Current Status: The startup and integration process of the new 5kV switchgear continues. The Contractor is also working on the replacement of the low-voltage switchboard in the Grit Building, which feeds several processes, as well as the Administration and Engineering Buildings.

**2. Rivanna Pump Station Restoration**

| | |
|---|---|
| Design Engineer: | Hazen/SEH |
| Construction Contractor: | MEB |
| Construction Start: | July 2024 |
| Project Status: | Design, Material Acquisition & Construction |
| Completion: | May 2025 |
| Budget: | $22,000,000 |

Current Status: Contractor continues to order equipment/materials for replacement as design decisions are finalized and has mobilized to the site to begin interior piping modifications in advance of rebuilt pump deliveries. Rebuilt pumps will be installed and bypass pumping system removed by March 2025 with full restoration completed by May 2025.

**3. Red Hill Water Treatment Plant Upgrades**

| | |
|---|---|
| Design Engineer: | Short Elliot Hendrickson (SEH) |
| Construction Contractor: | Anderson Construction (Lynchburg) |
| Construction Start: | January 2025 |
| Percent Complete: | 0% |
| Base Construction Contract + Change Order to Date = Current Value: | $1,742,375 |
| Completion: | March 2026 |
| Budget: | $2,050,000 |

Current Status: Work on-site is expected to begin in January after finalizing site plan details with the County. Submittals are reviewed and materials ordered. This project received partial grant funding from Albemarle County.

**4. South Fork Rivanna River Crossing**

| | |
|---|---|
| Design Engineer: | Michael Baker International (Baker) |
| Construction Contractor: | Faulconer (Charlottesville) |
| Construction Start: | January 2025 |
| Percent Complete: | 0% |
| Base Construction Contract + Change Order to Date = Current Value: | $4,916,940 |
| Completion: | January 2027 |
| Budget: | $7,300,000 |

Current Status: A Pre-Construction meeting is scheduled for this month and issuance of a Notice to Proceed is anticipated next month.

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

| | |
|---|---|
| Design Engineer: | Kimley-Horn |
| Construction Contractor: | Thalle Construction Company, Inc. (North Carolina) |
| Construction Start: | January 2025 |
| Percent Complete: | 0% |
| Base Construction Contract + Change Order to Date = Current Value: | $53,908,400 |
| Completion: | June 2029 |
| Budget: | $61,490,000 |

Current Status: The Notice of Award was provided to Thalle Construction Company, Inc. on October 23rd. Construction contracts are in the process of being finalized. Over the coming weeks, a pre-construction meeting will be held, and issuance of the Notice to Proceed anticipated in December.

**6. Crozet Pump Stations Rehabilitation**

| | |
|---|---|
| Design Engineer: | Wiley \| Wilson |
| Project Start: | July 2023 |
| Project Status: | Award |
| Construction Start: | April 2025 |
| Completion: | September 2027 |
| Budget: | $10,950,000 |

Current Status: One bid was received for this project on October 31st which exceeded our budget by about 10% ($1.5 M). The bid is being reviewed with the contractor (WACO) for possible cost reductions. A recommendation for award is anticipated at the December Board meeting.

# Design and Bidding

**7. MCAWRRF Building Upfits and Gravity Thickener Improvements**

| | |
|---|---|
| Design Engineer: | Short Elliot Hendrickson (SEH) |
| Project Start: | March 2023 |
| Project Status: | Bidding |
| Construction Start: | February 2025 |
| Completion: | May 2027 |
| Budget: | $7,500,000 |

Current Status: The project was advertised for bid on November 6 and bids are due in December.

**8. MCAWRRF Structural and Concrete Rehabilitation**

| | |
|---|---|
| Design Engineer: | Hazen and Sawyer (Hazen) |
| Project Start: | April 2023 |
| Project Status: | Bidding |
| Construction Start: | February 2025 |
| Completion: | May 2027 |
| Budget: | $11,300,000 |

Current Status: The project advertised for bid on November 5, 2024 and bids are due in December.

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

| | |
|---|---|
| Design Engineer: | SEH |
| Project Start: | October 2022 |
| Project Status: | 90% Design |
| Construction Start: | June 2025 |
| Completion: | December 2027 |
| Budget: | $25,000,000 |

Current Status: 90% documents have been completed and a design review workshop has been scheduled for November 20th. Updated documents that include revised exterior and interior renderings have been submitted to the County ARB for approval and the exhibit design process has begun.

**10. Central Water Line**

| | |
|---|---|
| Design Engineer: | Michael Baker International (Baker) |
| Project Start: | July 2021 |
| Project Status: | 95% Design |
| Construction Start: | May 2025 |
| Completion: | March 2029 |
| Budget: | $47,000,000 |

Current Status: **Phase 1 Contract (west end):** The acquisition process continues for one private easement and an easement with UVA along Hereford Drive. Phase 1 will advertise for bids in late November. **Phase 2 Contract (east end):** Redesign efforts in the E. High Street area are in process and survey work is complete. An additional private easement will be required with the redesign as well as new easements on two City parcels. Phase 2 design will be completed in summer 2025.

**11. Crozet GAC Expansion – Phase I**

| | |
|---|---|
| Design Engineer: | SEH |
| Project Start: | July 2023 |
| Project Status: | 95% Design |
| Construction Start: | August 2025 |
| Completion: | March 2027 |
| Budget: | $6,550,000 |

Current Status: 95% documents have been completed and are under review. $6.24 M in grant funds from VDH have been awarded for this project.

**12. SRWTP – PAC Upgrades**

| | |
|---|---|
| Design Engineer: | SEH |
| Project Start: | November 2023 |
| Project Status: | 100% Design |
| Construction Start: | August 2025 |
| Completion: | December 2026 |

Budget: $1,100,000

Current Status: Design documents have been completed and are ready for bidding. RWSA applied for a Congressionally Directed Spending grant from Senators Kaine and Warner for this project in the amount of $880,000 and have received approval of the grant by the Senate committee. Final grant approval will occur upon approval of the federal budget by Congress and the President. Bidding and construction will begin after this grant is finalized.

**13. RMR Pool Raise**

| | |
|---|---|
| Design Engineer: | Schnabel |
| Project Start: | April 2024 |
| Project Status: | 35% Design |
| Construction Start: | September 2025 |
| Completion: | September 2026 |
| Budget: | $5,000,000 |

Current Status: Design Engineer has developed clearing plans around the reservoir and initiated permitting efforts with ACOE, VDCR and Albemarle County.

**14. SFRR to RMR Pipeline, Intake, and Facilities**

| | |
|---|---|
| Design Engineer: | Kimley Horn/SEH |
| Project Start: | July 2023 |
| Project Status: | 55% Design |
| Construction Start: | February 2026 |
| Completion: | December 2030 |
| Budget: | $79,000,000 |

Current Status: Design Engineer continues to work on both the new reservoir intake and the pipe between SFRR and RMR. The Preliminary Engineering Report for the new reservoir intake was submitted this month. The nutrient report has also been submitted for review.

**15. 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: | 60% Design |
| Construction Start: | May 2026 |
| Completion: | January 2030 |
| Budget: | $47,100,000 |

Current Status: Hazen has submitted the PER for the new raw water pump station, intake, raw water main, and hypolimnetic oxygenation system for review. Design work by Schnabel Engineering for the dam spillway upgrades, temporary detour, and spillway bridge is ongoing. Preliminary design submittals for the dam are currently under review by internal staff and NRCS. Discussions with the County have been initiated for acquisition or lease of property for the Pump Station. A significant construction grant from the NRCS is anticipated.

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

| | |
|---|---|
| Design Engineer: | CHA Consulting |
| Project Start: | July 2021 |
| Project Status: | Design |
| Construction Start: | TBD |
| Completion: | TBD |
| Budget: | $4,725,000 |

Current Status: Meetings with the County and City are ongoing to finalize the piping location and design.

### 17. MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades

| | |
|---|---|
| Design Engineer: | Hazen and Sawyer (Hazen) |
| Project Start: | June 2023 |
| Project Status: | 65% Design |
| Construction Start: | June 2025 |
| Completion: | September 2026 |
| Budget: | $3,600,000 |

Current Status: Staff has been interviewing software vendors for additional improvements to the current septage receiving equipment and billing software, and Hazen is completing a flood resiliency evaluation.

## Planning and Studies

### 18. MCAWRRF Biogas Upgrades

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

Current Status: RWSA and City staff continue to discuss all available options to reuse biogas.

### 19. Flood Protection Resiliency Study

| | |
|---|---|
| Design Engineer: | TBD |
| Project Start: | August 2024 |
| Project Status: | Preliminary Engineering/Study |
| Completion: | July 2025 |
| Budget: | $278,500 |

Current Status: This project will identify individualized flood mitigation measures of six facilities to increase their resiliency from a 1% to a 0.2% flooding event. Facilities include: Mechums River Raw Water PS, Glenmore WW PS, Moores Creek AWRRF, Scottsville WWRRF, Crozet FET, and Crozet WW PS #2. A consultant is being selected to perform this study and the specific scope of the evaluation

is being confirmed. This project received $198,930 in grant funding from FEMA and VDEM.

# Other Significant Projects

## 20. 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 |
|---|---|---|
| 2023-01 | Finished Water System ARV Repairs | $150,000 |
| 2024-08 | Sugar Hollow Raw Waterline Break @ Mechums River | $350,000 |

- RWSA Finished Water ARV Repairs: RWSA Engineering staff recently met with Maintenance staff to identify a list of Air Release Valves (ARVs) that need to be repaired, replaced, or abandoned. Several of these locations will require assistance from RWSA On-Call Maintenance Contractors, due to the complexity of the sites (proximity to roadways, depth, etc.). The initial round will include seven (7) sites, all along the South Rivanna Waterline. Three replacements have been completed at this time, with a fourth site in progress. This in progress site included abandonment of an existing manual ARV located in the middle of the Route 29-Hydraulic intersection, which has been completed, and was a major coordination effort with VDOT, as they intend to pave this area in the coming weeks. The Contractor is working with VDOT on permits for the final sites.
- Sugar Hollow Raw Waterline Break at Mechums River: On October 8th, it was discovered that the Sugar Hollow Raw Waterline had failed at its aerial crossing of the Mechums River, due to the impacts associated with Hurricane Helene. RWSA will be utilizing its On-Call Maintenance Contractor, Faulconer Construction, along with its Design Engineer, SEH, to help design and construct the repairs to the aerial crossing. Mobilization occurred on November 5th to address concerns with the existing access road to the site initially. The goal is to have the pipeline back in service prior to the end of the year, pending availability of materials, regulatory agency guidance, and weather/site conditions. Funding opportunities are being pursued through FEMA/VDEM.

## 21. Security Enhancements

| | |
|---|---|
| Design Engineer: | Hazen & Sawyer |
| Construction Contractor: | Security 101 (Richmond, VA) |
| Construction Start: | March 2020 |
| Percent Complete: | 90% (WA9), 99% (WA10) |
| Based Construction Contract + Change Orders to Date = Current Value: | $718,428 (WA1) + $834,742 (WA2-10) |
| Completion: | June 2024 (WA9), August 2024 (WA10) |
| Budget: | $2,810,000 |

Current Status: WA9 will include installation of card access on all exterior doors at the South Rivanna WTP and has been amended to include interior doors at the new IT data center. WA10 will include installation of card access on the exterior doors of the finished water pump station and "795" tank buildings in Scottsville. Device installation is complete here as well, with programming and startup ongoing. Design of MCAWRRF entrance modifications with Hazen & Sawyer continues, with discussions with Dominion Energy also ongoing, as relocation of existing electrical infrastructure will

be required. This relocation process will need to be finalized prior to the project proceeding to the bidding phase. Relocation of existing electrical infrastructure will require coordination with the adjacent landowner, as the infrastructure must be completely relocated from the entrance area. As these discussions are ongoing, staff have submitted appropriate permitting documents to Albemarle County.

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**MEMORANDUM**

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

**FROM:** **BETSY NEMETH, DIRECTOR OF ADMINISTRATION AND COMMUNICATIONS**

**REVIEWED BY:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **ADMINISTRATION AND COMMUNICATIONS REPORT**

**DATE:** **NOVEMBER 19, 2024**

## Human Resources

Fiscal year-to-date turnover for the Rivanna Water and Sewer Authority for the fiscal year beginning on July 1, 2024, is 4.8% through November 5, 2024.

We celebrated our employees on November 6, 2024 with an Employee Appreciation Day luncheon. Several service awards were presented:

- Lonnie Wood – 25 years of service
- Michelle Simpson – 20 years of service
- Clifford Hunt – 10 years of service
- Scott Schiller – 10 years of service
- Steven Minnis Jr. – 10 years of service
- John Hull – 5 years of service
- James Hansberry – 5 years of service
- David Jeffries - 5 years of service
- Joshua Bowen - 5 years of service
- Dyon Vega – 5 years of service
- Haider AlSafee - 5 years of service
- Ceara Lyon - 5 years of service
- Thomas Barger – 5+ years of service

## Safety

On October 16, 2024, we trained our managers on the new Incident Reporting System in Paychex. This system will eliminate paper incident reporting.

We have published a new Electrical Safety chapter as a part of our Safety Manual. Many thanks go to the staff from the University of Virginia for their assistance with this chapter.

## Community Outreach

On October 25, 2025, we welcomed the Environmental Public Health Class from the University of Virginia for a tour of the Moores Creek Advanced Water Resource Recovery Facility. We will be working with the

students in this class next semester when they do their Applied Practice Experience. They will be working with us to develop educational content and communication around what we do and how it affects public health.

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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 OCTOBER 2024**

**DATE:** **NOVEMBER 19, 2024**

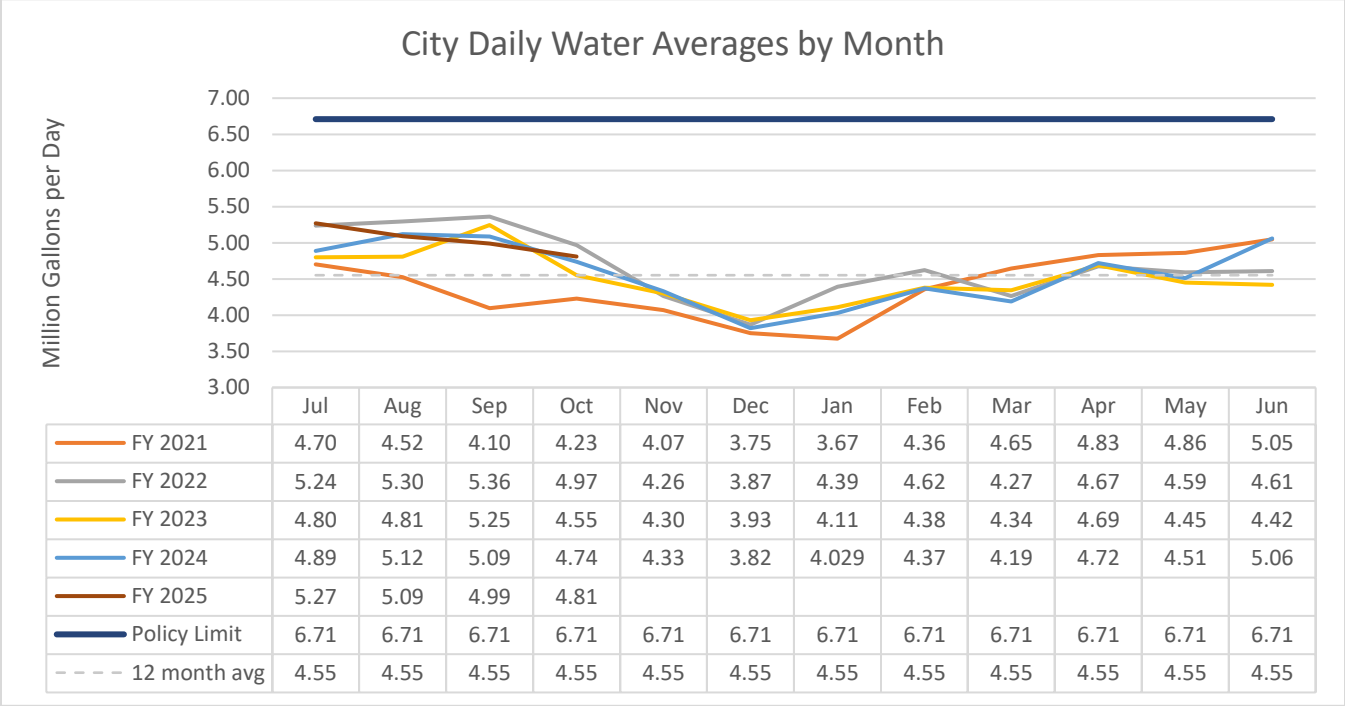
The monthly and average daily Urban water system usages by the City and the ACSA for October 2024 were as follows:

| | | ***Month*** | ***Daily Average*** | |
|---|---|---|---|---|
| City Usage (gal) | | 149,037,059 | 4,807,647 | **49.1%** |
| ACSA Usage (gal) | | 154,279,598 | 4,976,761 | **50.9%** |
| ***Total (gal)*** | | **303,316,657** | **9,784,408** | |

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 dating back to the beginning of FY21, the trailing twelve-month average (extended back to November 2023), 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.

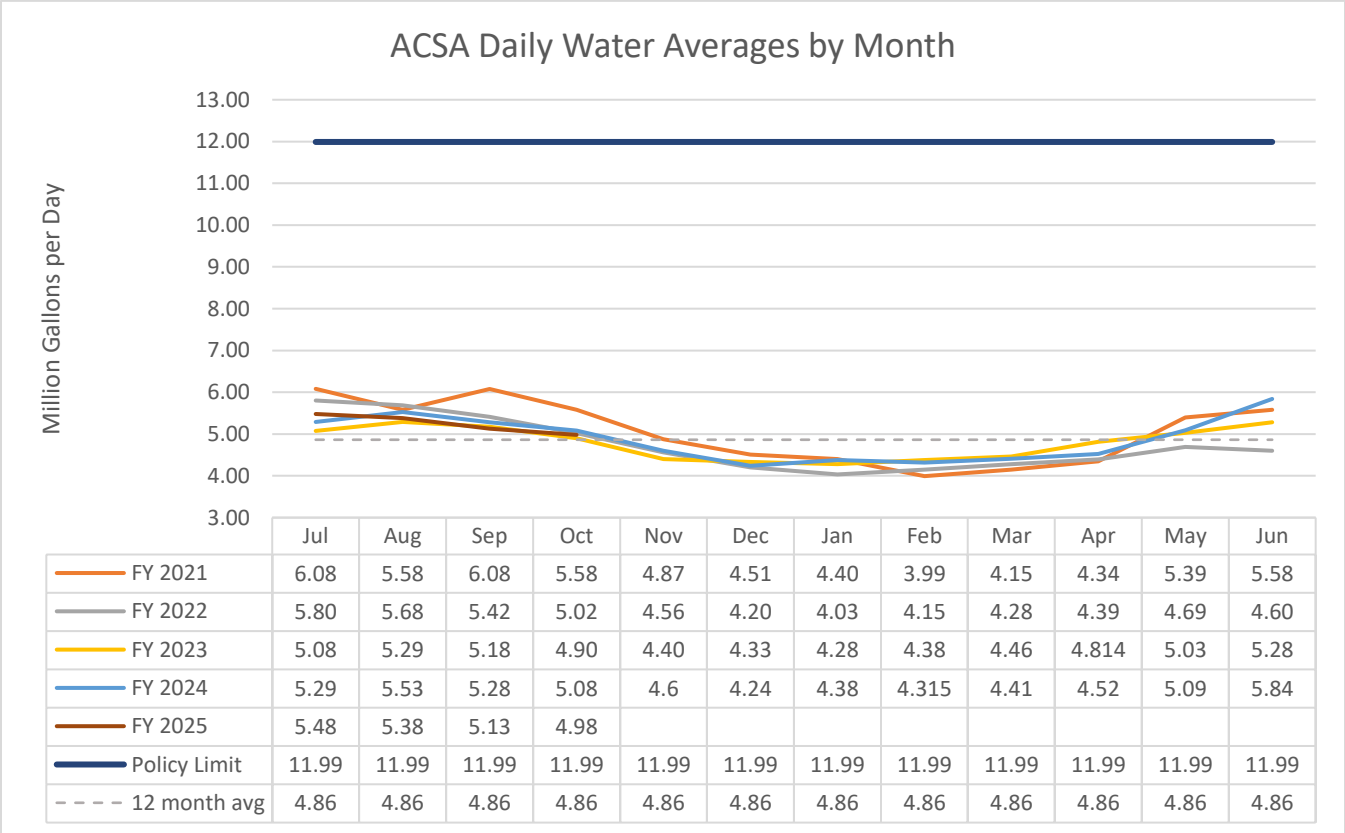
Note 1: Wholesale Meter sites 3 and 14 were down for a portion of November. A 3-month average was used per the wholesale metering policy to fill in the data. Maintenance is in the process of fixing the meter.

*Figure 1: City of Charlottesville Monthly Water Usage and Allocation*




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FY 2021 | 4.70 | 4.52 | 4.10 | 4.23 | 4.07 | 3.75 | 3.67 | 4.36 | 4.65 | 4.83 | 4.86 | 5.05 |
| FY 2022 | 5.24 | 5.30 | 5.36 | 4.97 | 4.26 | 3.87 | 4.39 | 4.62 | 4.27 | 4.67 | 4.59 | 4.61 |
| FY 2023 | 4.80 | 4.81 | 5.25 | 4.55 | 4.30 | 3.93 | 4.11 | 4.38 | 4.34 | 4.69 | 4.45 | 4.42 |
| FY 2024 | 4.89 | 5.12 | 5.09 | 4.74 | 4.33 | 3.82 | 4.029 | 4.37 | 4.19 | 4.72 | 4.51 | 5.06 |
| FY 2025 | 5.27 | 5.09 | 4.99 | 4.81 | | | | | | | | |
| Policy Limit | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 | 6.71 |
| 12 month avg | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 | 4.55 |

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




| | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FY 2021 | 6.08 | 5.58 | 6.08 | 5.58 | 4.87 | 4.51 | 4.40 | 3.99 | 4.15 | 4.34 | 5.39 | 5.58 |
| FY 2022 | 5.80 | 5.68 | 5.42 | 5.02 | 4.56 | 4.20 | 4.03 | 4.15 | 4.28 | 4.39 | 4.69 | 4.60 |
| FY 2023 | 5.08 | 5.29 | 5.18 | 4.90 | 4.40 | 4.33 | 4.28 | 4.38 | 4.46 | 4.814 | 5.03 | 5.28 |
| FY 2024 | 5.29 | 5.53 | 5.28 | 5.08 | 4.6 | 4.24 | 4.38 | 4.315 | 4.41 | 4.52 | 5.09 | 5.84 |
| FY 2025 | 5.48 | 5.38 | 5.13 | 4.98 | | | | | | | | |
| Policy Limit | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 | 11.99 |
| 12 month avg | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 | 4.86 |

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

**FROM:** **BETHANY HOUCHENS, WATER RESOURCES COORDINATOR**
**DAVE TUNGATE, DIRECTOR OF OPERATIONS & ENVIRONMENTAL SERVICES**

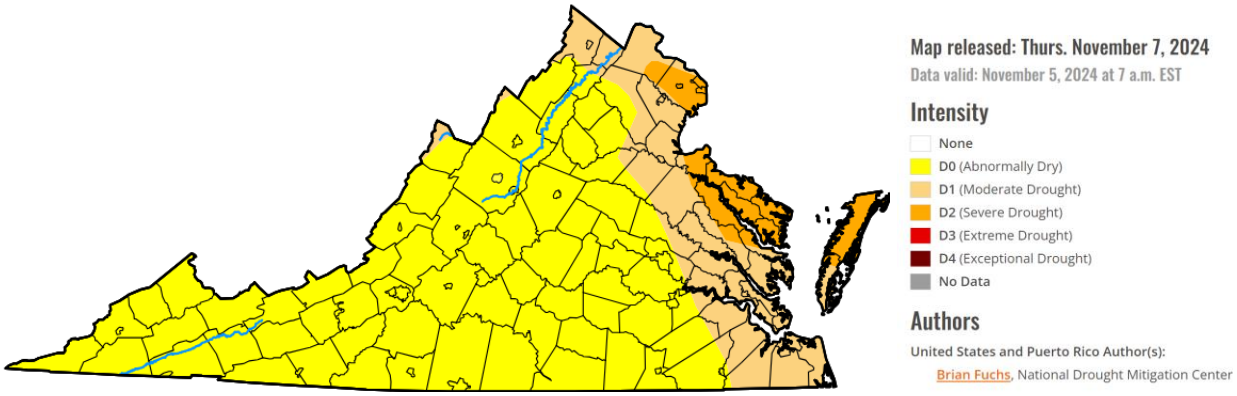
**REVIEWED:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **DROUGHT MONITORING REPORT**

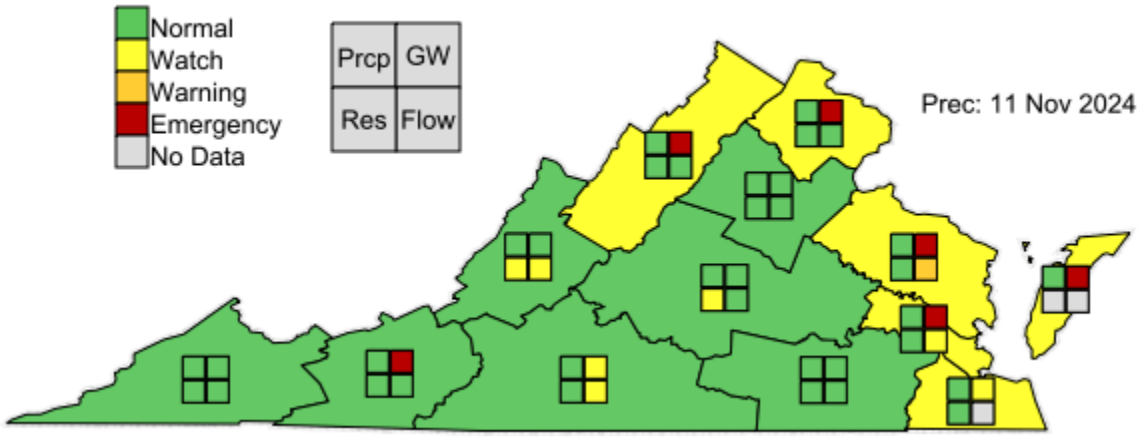
**DATE:** **November 19, 2024**

**State and Federal Drought Monitoring as of November 13, 2024:**

- U.S. Drought Monitoring Report: Indicates the City of Charlottesville and Albemarle County are in abnormally dry conditions.




- VDEQ Drought Status Report: Our region is listed as being in a "Normal" level for precipitation, groundwater, and streamflow. Reservoir levels are in a "Watch" status.



## Precipitation & Stream Flows

| Charlottesville Precipitation | | | | | |
|---|---|---|---|---|---|
| Year | Month | Observed (in.) | Normal (in.) | Departure (in.) | Comparison to Normal (%) |
| 2021 | Jan - Dec | 33.82 | 41.61 | -7.79 | -19 |
| 2022 | Jan - Dec | 43.53 | 41.61 | +1.92 | +5 |
| 2023 | Jan – Dec | 26.95 | 41.61 | -14.66 | -35 |
| 2024 | Jan - Oct | 35.59 | 35.21 | -0.38 | +1.07 |

Source: National Weather Service, National Climatic Data Center, Climate Summary for Charlottesville, Charlottesville Albemarle Airport station

| USGS Stream Gaging Station Near the Urban Area (Oct 31-Nov 6) | | | | |
|---|---|---|---|---|
| Gage Name | Rolling 7-day Avg. Stream Flow | | Median Daily Streamflow | |
| | cfs | mgd | cfs | mgd |
| Mechums River | 57.7 | 37.3 | 54 | 34.9 |
| Moormans River | 26.8 | 17.4 | 27 | 17.5 |
| NF Rivanna River | 41.5 | 26.8 | 57 | 36.8 |
| SF Rivanna River | 114.4 | 74 | 129 | 83.4 |

Median daily flow: November 6 for the period of record (approx. 30 - 80 years)

## Status of Reservoirs as of November 13, 2024

- Urban Reservoirs are 98% of Total Useable Capacity
- Beaver Creek Reservoir (Crozet) is 100% of Total Useable Capacity
- Totier Creek Reservoir (Scottsville) is 100% of Total Useable Capacity

## Drought History in Central Virginia

- Severe: 1838, 1930, 1966, 1982, 2002
- Longest: May 2007 - April 2009; 103 weeks
- Significant: every 10 -15 years
- Drought of Record: 2001- 2002; 18 months

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# Board Meeting Schedule

Listed below are the proposed RWSA Board of Directors meeting dates for calendar year 2025:

Tuesday, January 28, 2025

Tuesday, February 25, 2025

Tuesday, March 25, 2025

Tuesday, April 22, 2025

Tuesday, May 27, 2025

Tuesday, June 24, 2025

Tuesday, July 22, 2025

Tuesday, August 26, 2025

Tuesday, September 23, 2025

Tuesday, October 28, 2025

Tuesday, November 18, 2025 *

Tuesday, December 16, 2025 *

* The November and December meetings are advanced to avoid conflicts with the weeks of Thanksgiving and Christmas.

RWSA meetings will start following the RSWA Board Meetings but not earlier than 2:15 p.m. RWSA meetings will be held in the large conference room on the second floor of the Moores Creek Wastewater Treatment Plant Administration Building, 695 Moores Creek Lane, Charlottesville, VA.

Written comments received from the public before the meeting will be presented by staff at the meeting. The public may view and comment virtually during the meeting via Zoom; a link will be posted on our website prior to each meeting. Video recordings of the meetings will be posted to our website.

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**MEMORANDUM**

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

**FROM:** **BETSY NEMETH, DIRECTOR OF ADMINISTRATION & COMMNICATIONS**

**REVIEWED BY:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **APPROVAL OF THE RIVANNA WATER & SEWER AUTHORITY HOLIDAY SCHEDULE FOR CALENDAR YEAR 2025**

**DATE:** **NOVEMBER 19, 2024**

This memo is to propose a schedule for 13.5 paid holidays to be observed during calendar year 2025, as indicated by the attachment.

This schedule has been determined in accordance with our Personnel Management Plan Holiday Leave Policy. In addition to the 12.5 observed holidays listed in our Personnel Management Plan, this schedule includes Friday, December 26, 2025.

**Board Action Requested**

Approval of the attached Holiday Schedule for Calendar Year 2025.

Attachment

RIVANNA AUTHORITIES

# 2025 Holiday Schedule

**New Year's Day – Wednesday, January 1st**

**Martin Luther King, Jr Day (Floating) – Monday, January 20th**

**President's Day (Floating) – Monday, February 17th**

**Memorial Day – Monday, May 26th**

**Juneteenth (Floating) – Thursday, June 19th**

**Independence Day – Friday, July 4th**

**Labor Day – Monday, September 1st**

**Veteran's Day (Floating) – Tuesday, November 11th**

**1/2 Day Before Thanksgiving – Wednesday, November 26th**

**Thanksgiving Day – Thursday, November 27th**

**Day After Thanksgiving – Friday, November 28th**

**Christmas Eve – Wednesday, December 24th**

**Christmas – Thursday & Friday, December 25th & 26th**

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**MEMORANDUM**

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

**FROM:** **JENNIFER A. WHITAKER, DIRECTOR OF ENGINEERING AND MAINTENANCE**

**REVIEWED BY:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **APPROVAL OF TERM CONTRACT FOR PROFESSIONAL COMMISSIONING SERVICES FOR UTILITY BUILDINGS AND FACILITIES**

**DATE:** **NOVEMBER 19, 2024**

This request is to authorize award of a Term Engineering Services Agreements with Facility Dynamics Engineering (FDE), to provide Professional Commissioning Services for Utility Buildings and Facilities Services and future Work Authorizations less than $300,000 under the conditions of the Term Agreement. Fees for each Work Authorization will be negotiated based on the services required and hourly rates from the consultant which have been approved by staff. The term of the contract will be for one year, with the option for three one-year renewals.

**Background**

RWSA has a significant Capital Improvement Program and is seeking the assistance of technical and managerial consult experts to develop a project commissioning program. The commissioning consultant will support design, construction, inspecting, testing and balancing of building systems including HVAC, lighting, and communications. The selected consultant will coordinate with the RWSA Project team, the engineering consulting design firm, and well as contracted IT service providers to augment and ensure building systems are properly designed, constructed and tested to achieve successful project operations.

A Request for Proposals (RFP 24-07) for a new term contract was developed and advertised on August 30, 2024. Six proposals were received on September 27, 2024. Based on the qualifications of the firms, the RFP selection committee short-listed and scheduled interviews with two firms. Interviews were conducted on October 28, 2024, and the committee determined that one firm was best qualified to provide these services. Facility Dynamics Engineering has been providing commissioning services for 35 years, has a local office, and has extensive experience working for regional partners and other Virginia agencies.

**Board Action Requested**:

Authorize the Executive Director to execute a Professional Engineering Services Term Agreement with Facility Dynamics Engineering for Professional Commissioning Services for Utility Buildings and Facilities and Work Authorities less than $300,000.

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**MEMORANDUM**

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

**FROM:** **JEFF SOUTHWORTH, MANAGER OF INFORMATION TECHNOLOGY**
**LONNIE WOOD, DIRECTOR OF FINANCE & IT**

**REVIEWED BY:** **BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT:** **APPROVAL OF TERM CONTRACT FOR COMMISSIONING SERVICES FOR INDUSTRIAL CONTROLS INTEGRATION, MANAGEMENT AND INSPECTION SERVICES**

**DATE:** **NOVEMBER 19, 2024**

This request is to authorize approval of Term Contracts with E-Merge (Gray Matter Systems) and Short Elliot Hendrickson Engineers to provide Commissioning Services for Industrial Controls Integration, Management and Inspection Services and Work Authorizations less than $300,000 under the conditions of the Term Agreement. Fees for each Work Authorization will be negotiated based on the services required and hourly rates from the consultant which have been approved by staff. The term of the contract will be for one year, with the option for three additional one-year renewals.

Staff have developed software implementation standards (programming, infrastructure, system access and documentation); however, an efficient and effective implementation/inspection/certification program is still being developed. We want to establish a qualified list of technical support providers for industrial control implementation and management services. Over the next 2 years, we will complete design and begin construction of several large capital improvement projects that will have Industrial Controls and SCADA systems. Those projects will require significant technical support and oversight of the implementation, inspection, and certification of those industrial control systems to meet contract specifications and integration into Rivanna's existing operational technology environment. Additional Work Authorizations may be issued under the terms of the Services Agreement. The selected consultants must be able to respond quickly to Rivanna projects that may have short-term deadlines.

A Request for Proposals (RFP 24-08) for a new term contract was developed and advertised on September 7, 2024. Five proposals were received on October 1, 2024. Based on the qualifications of the firms, the RFP selection committee short-listed and interviewed three firms. Based on the written proposals and the interviews conducted on November 4, and November 5, 2024, the committee determined that two firms were best qualified to provide these services. Both firms have offices in Virginia and have extensive experience working under similar municipal term contracts, with E-Merge (Gray Matter Systems) and Short Elliot Hendrickson, both having provided services for RWSA under previous contracts. These consultants will become a part of the capital project design, construction and operational implementation teams along with the general contractors and design engineers. Funding for commissioning on projects will come from the project budget; however, some operating funds will be used to orient and onboard these contractors to the overall industrial control and SCADA ecosystem.

**Board Action Requested**:
Authorize the Executive Director to execute Term Contracts for Commissioning Services for Industrial Controls Integration, Management and Inspection Services with E-Merge (Gray Matter Systems) and Short Elliot Hendrickson and Work Authorizations less than $300,000.

# Long-Range Planning for Water & Wastewater Services

Presented to the Board of Directors

By Bill Mawyer, Executive Director

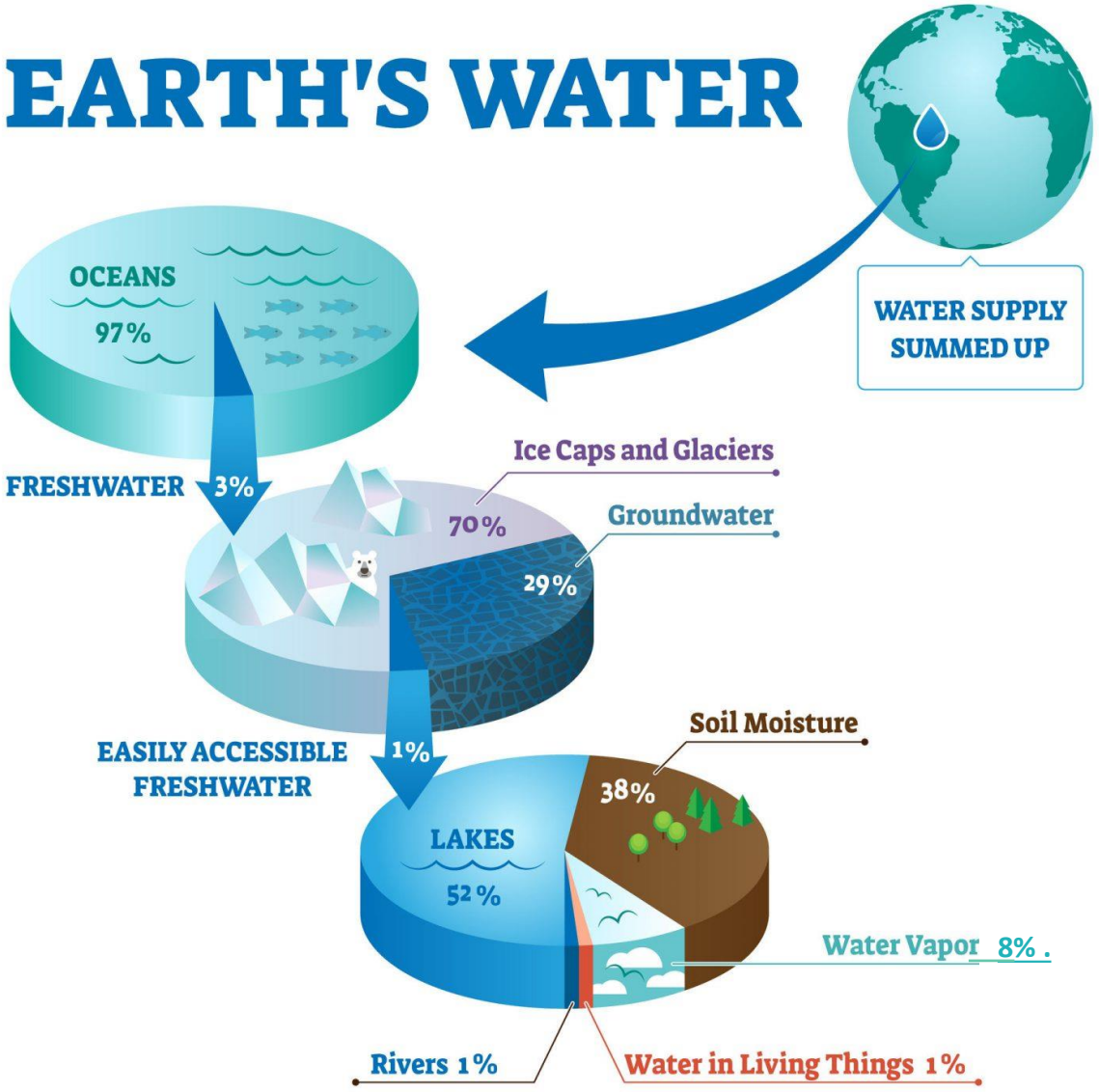
November 19, 2024

RIVANNA WATER & SEWER AUTHORITY

# "When the well is dry, we know the worth of water."

*Benjamin Franklin*

# Will We Have Enough Drinking Water in the Future?




- About 70% of the Earth's surface is water-covered. The oceans hold about 97% of Earth's water.

- Only 3% of Earth's water is freshwater, with only about 0.5 % accessible in lakes and rivers.

- The US is home to the largest freshwater lake system in the world, the Great Lakes, which holds 6 quadrillion gallons of water (6,000,000,000,000,000 gallons).

- According to Colorado State University, nearly half of the 204 freshwater basins studied in the United States may not be able to meet the monthly water demand by 2071.

- Two-thirds of the world's population, 5 billion people, will face at least one month of water shortages by 2050, according to the United Nations report on how climate change is affecting the world's water resources.

# WATER & WASTEWATER DRIVERS

CAPACITY

REGULATIONS

EMERGING CONTAMINANTS

TECHNOLOGY

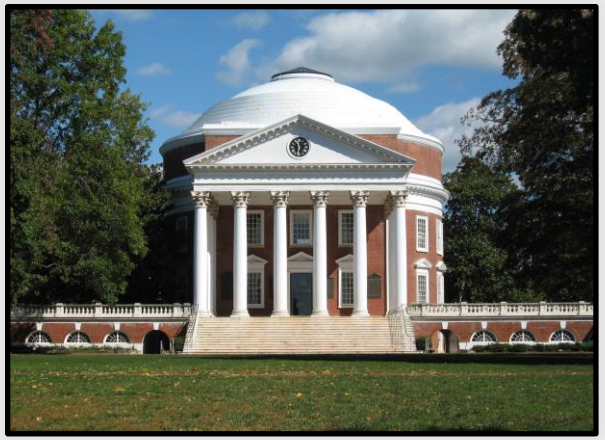
SUSTAINABILITY

AFFORDABILITY

# Capacity & Climate Changes

## UVA - stable driver of local economy

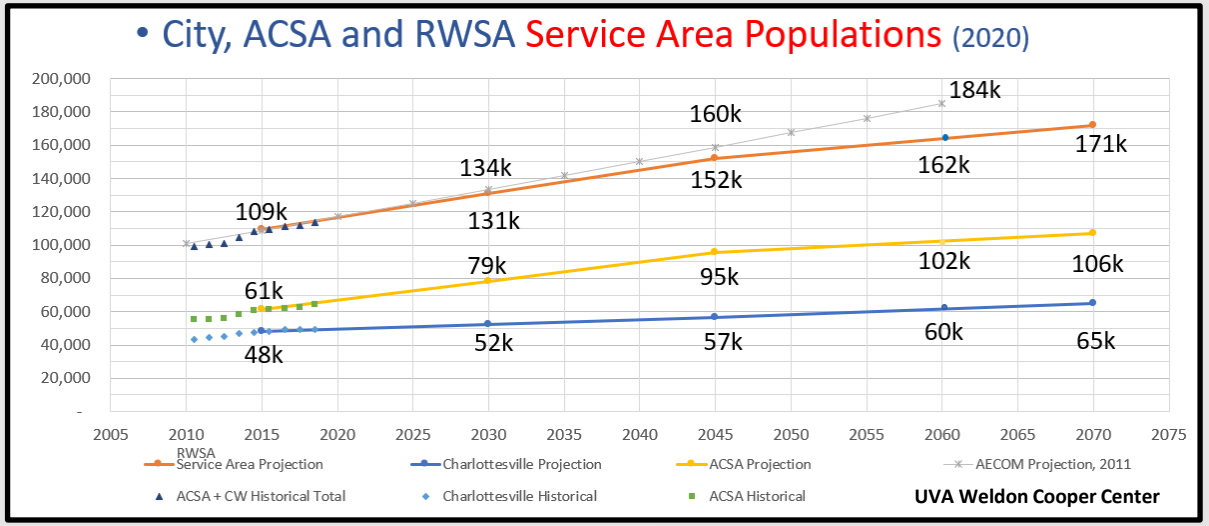
UVA supports almost 30k jobs in Albemarle & Charlottesville. Economic impact on VA's economy is est to be $5.9 B annually.



## Longer Periods of Drought

In October 2024, our area was 20" (13%) below normal precipitation since Jan 2021.

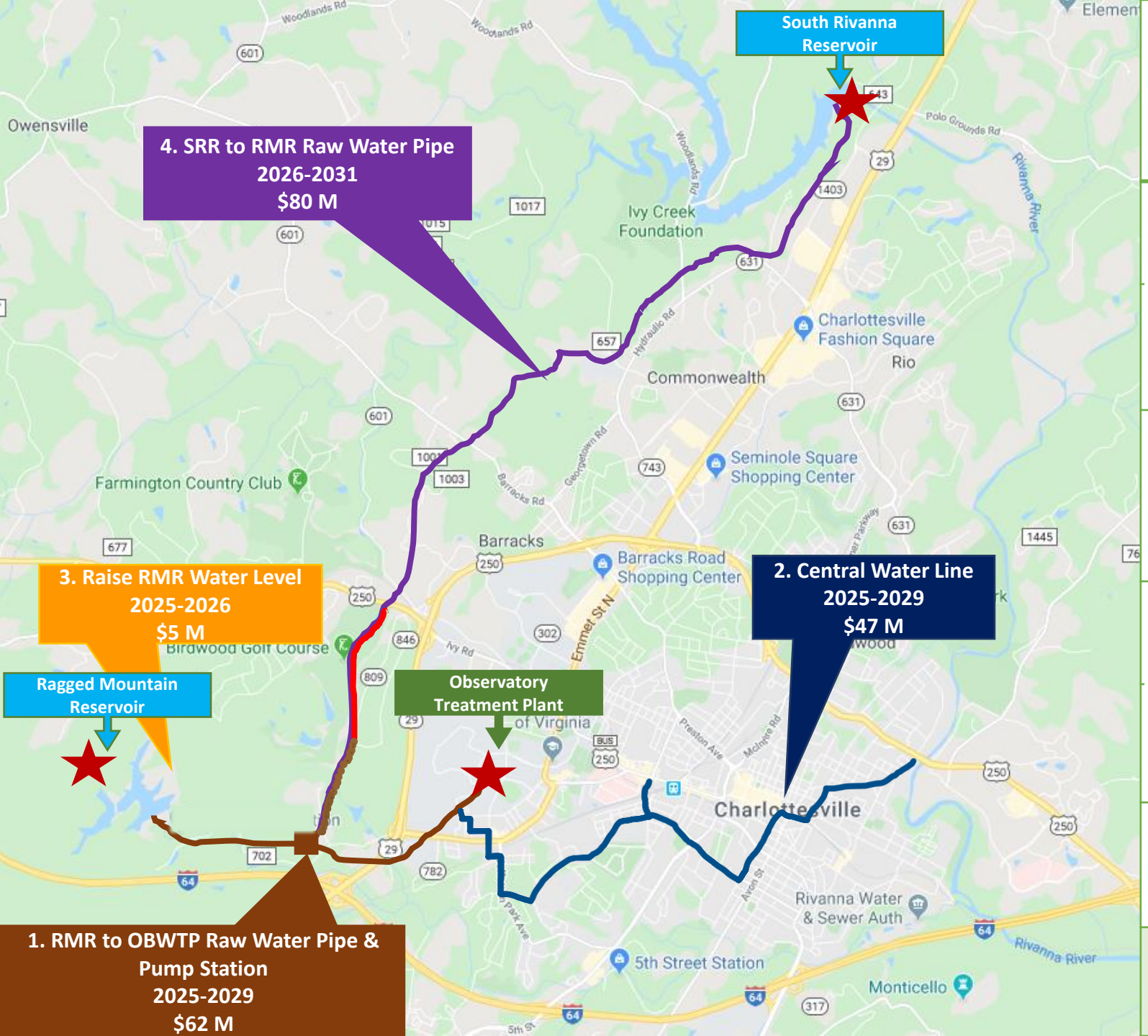

## Population Growth – Urban Water Demand




2070 projected Service Area population for ACSA is 106k and for Charlottesville is 65k.


## More Intense Storms

Hurricane Helene washed away main water transmission lines built to withstand a typical hurricane event and buried 25 feet deep.

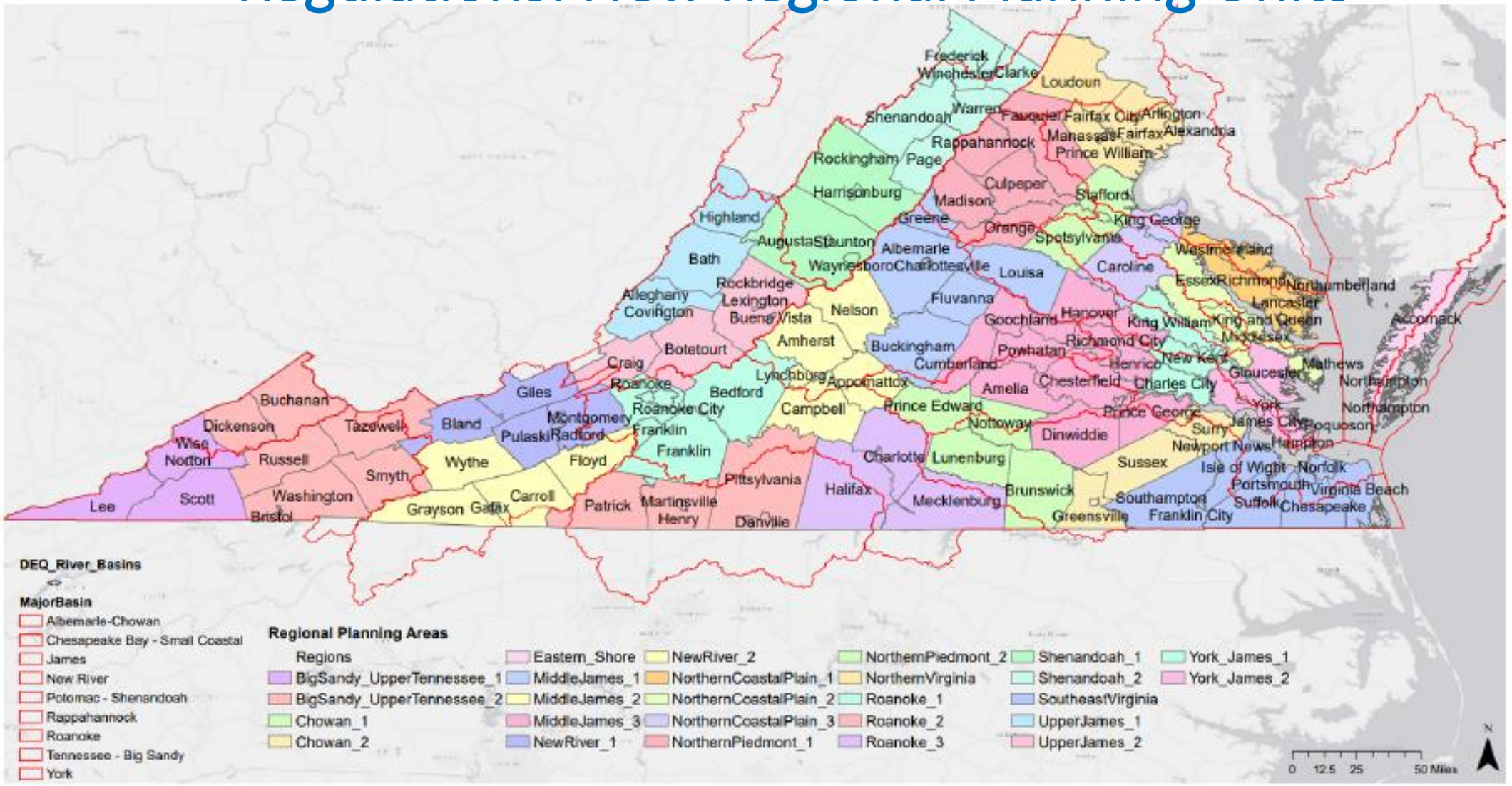



# Water Supply Projects

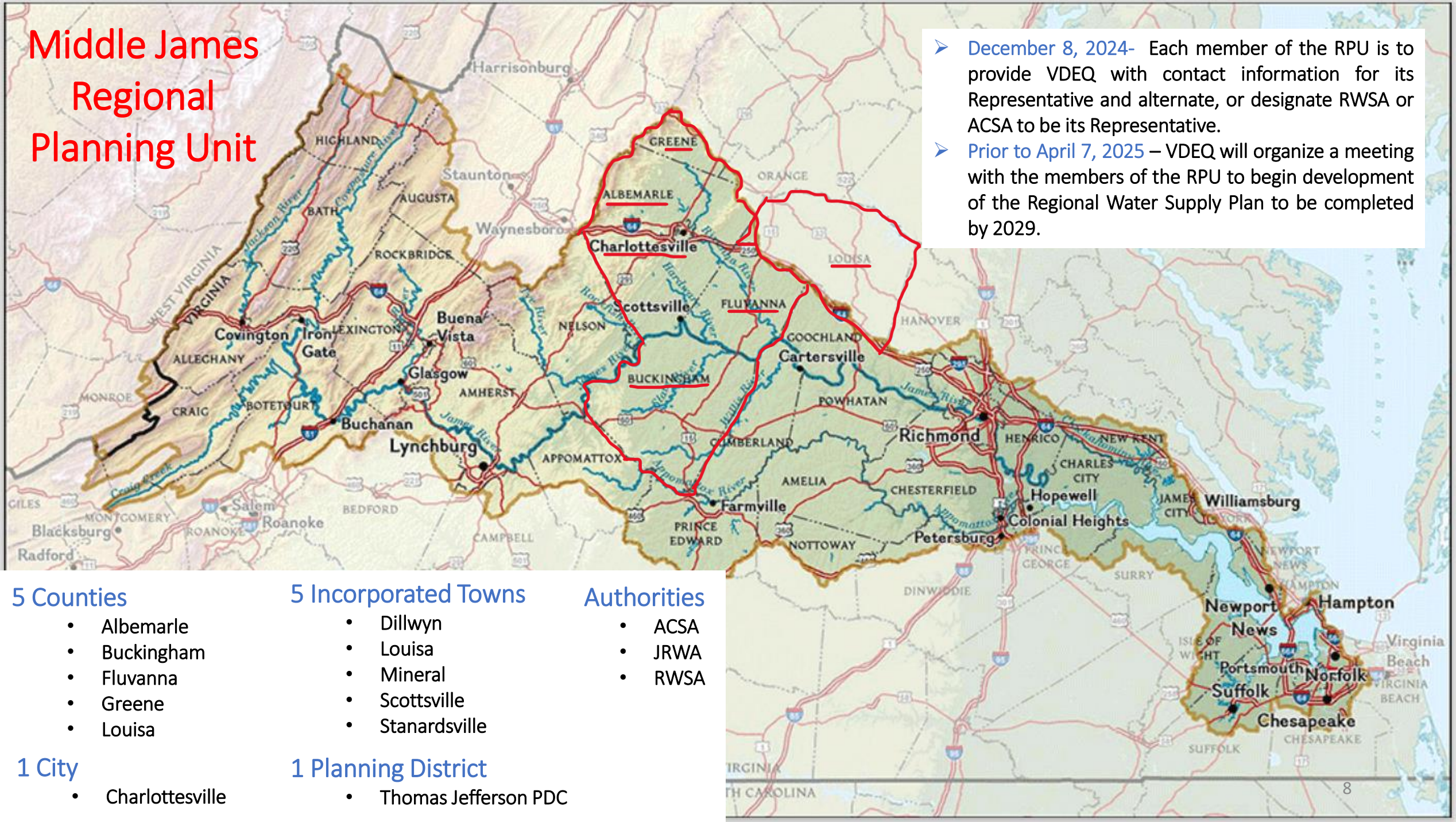
(October 18, 2024)

| | |
|---|---|
| **1. RMR to OBWTP Raw Water Pipe & Pump Station 2025-2029**<br>*Pipe: 80% ACSA / 20% City*<br>*PS: 72% ACSA / 28% City* | $62 M |
| **2. Central Water Line 2025-2029**<br>*52% ACSA / 48% City* | $47 M |
| **3. Raise RMR Water Level 2025-2026**<br>*80% ACSA / 20% City* | $5 M |
| **4. SRR to RMR Raw Water Pipe 2026-2031**<br>*80% ACSA / 20% City* | $80 M |
| ACSA $129 M<br>City $65 M | **$194 M** |

# Regulations: New Regional Planning Units



# Middle James Regional Planning Unit




- December 8, 2024- Each member of the RPU is to provide VDEQ with contact information for its Representative and alternate, or designate RWSA or ACSA to be its Representative.
- Prior to April 7, 2025 – VDEQ will organize a meeting with the members of the RPU to begin development of the Regional Water Supply Plan to be completed by 2029.

## 5 Counties

- Albemarle
- Buckingham
- Fluvanna
- Greene
- Louisa

## 5 Incorporated Towns

- Dillwyn
- Louisa
- Mineral
- Scottsville
- Stanardsville

## Authorities

- ACSA
- JRWA
- RWSA

## 1 City

- Charlottesville

## 1 Planning District

- Thomas Jefferson PDC

# New EPA PFAS Regulations for Drinking Water *

| PFAS Compound | MCLG | MCL (ppt or ng/L)# |
|---|---|---|
| PFOA | 0 | 4.0 |
| PFOS | 0 | 4.0 |
| PFHxS | 10 | 10 |
| HFPO-DA (Gen X chemicals) | 10 | 10 |
| PFNA | 10 | 10 |
| Mixture of two or more PFHxS, PFNA, HFPO-DA, and PFBS | Hazard Index 1 (unitless) | Hazard Index 1 (unitless) |

1part per trillion is the same as :

- 1 inch in 16 million miles
- 1 penny in $10 B
- 1 second in 32,000 years

* April 10, 2024

# *New PFAS Regulations ?*

- Wastewater
  - ➢ *Treatment Requirements ?*
- Biosolids
  - ➢ *Disposal?*

*Avg. person contributes 37 lbs / yr*


MCAWRRF Aeration Basin

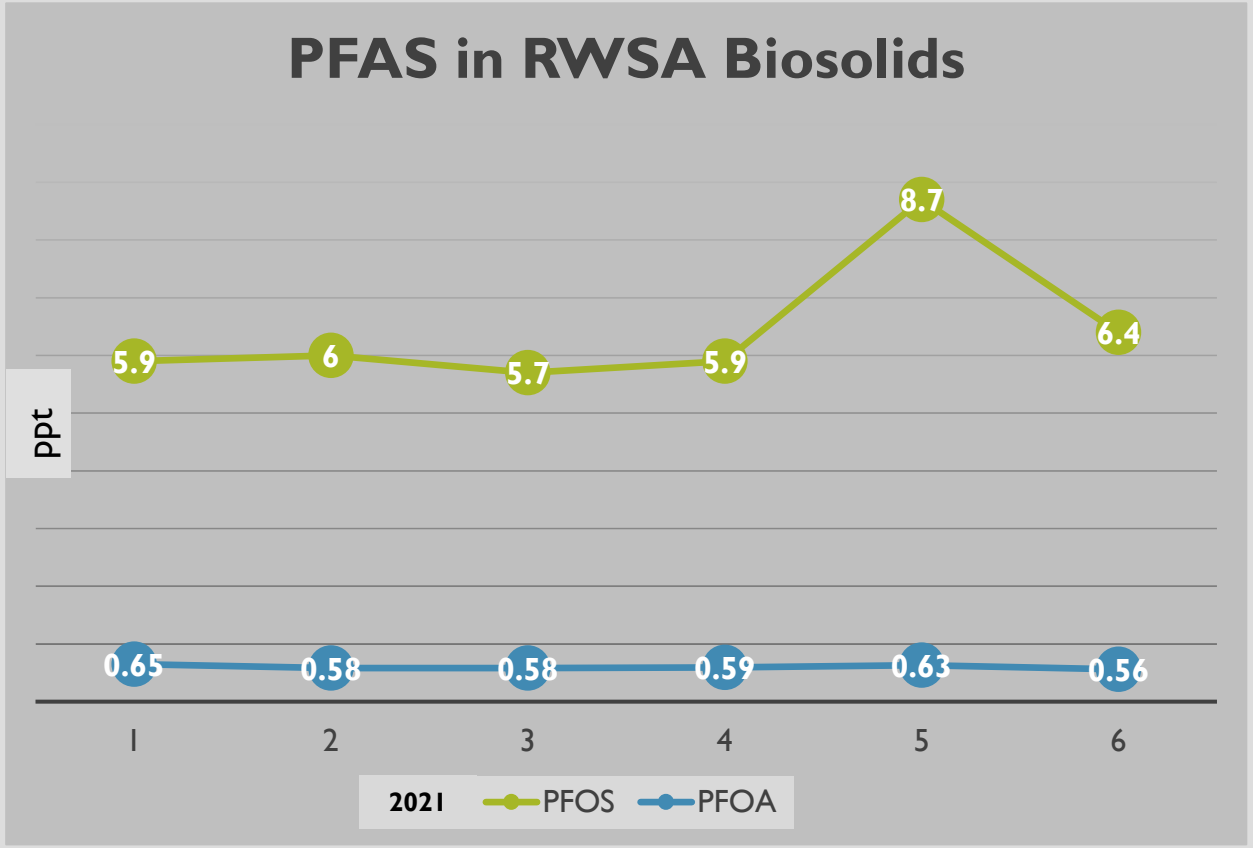

Dewatered Biosolids

# BIOSOLIDS DISPOSAL OPTIONS

## 13,500 tons per year of biosolids

- Composting
  545 trips to McGill Environmental, Waverly, VA in 2023
- Land Application
- Landfill
- Incinerate


McGill Environmental Composting Facility

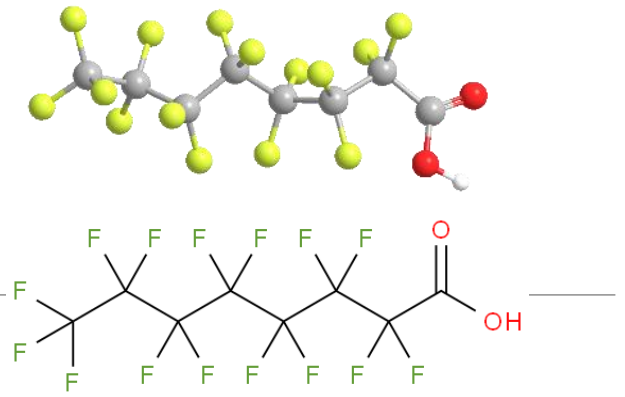


# *Emerging Contaminants*

- UMCR 5:  29 PFAS compounds and Lithium
  - EPA manages the Unregulated Contaminant Monitoring Rule to require collection of data on contaminants that are suspected to be in drinking water but don't have health-based standards. The Safe Drinking Water Act requires the EPA to monitor up to 30 unregulated contaminants every five years.
- Fluoride
  - Reduced level or elimination?
- Nanoparticles
  - Microplastics
- Endocrine Interrupters
  - Pharmaceuticals
  - Personal Care Products


RWSA Lab Manager

# *PFAS*




- PFAS: Per-and Polyfluoroalkyl substances
- Synthetic chemicals that include several different classes (e.g. PFOA, PFOS, GenX)
- Used for water repellency (clothing), stain resistance (Scotchgard™), grease-proofing, and friction reduction ("non-stick"; Teflon)
- Primary ingredients in many fire-fighting foams
- PFAS compounds have long half-lives in humans (3—5 years)

# *Microplastics*

- Used in many industries including agriculture, cosmetics, personal care, recreational and commercial fishing, and clothing
- Can enter water sources via runoff from land or degradation of larger plastic materials
- 2018 Penn State study revealed an average of 325 particles/liter in most brands of bottled drinking water.  Some brands contained as much as 10,000 particles/liter

# *Technology*

- Artificial Intelligence
- Real-time Process Applications
  - ➢ *Supervisory Control and Data Acquisition Systems (SCADA)*
- Cyber Security

# ARTIFICIAL INTELLIGENCE AND DATA CENTERS: WATER & POWER

- Data centers are among the top 10 water-consuming commercial industries in the United States, consuming millions of gallons of water each year to cool the computer equipment that generates immense amounts of heat.

- *Amazon and Google recently said they were investing in small nuclear reactors as new sources of carbon-free electricity to meet surging demand from data centers and artificial intelligence.*

| | Water consumption |
|---|---|
| **Average data center** | 300,000 gallons per day, or enough for 100,000 homes |
| **Large data center** | 1–5 million gallons per day, or enough for 10,000–50,000 people |

**Artificial Intelligence**

- **Better Monitoring**: helps to efficiently monitor and control processes, ensuring smooth operations and reducing costs.
- **Cybersecurity Risks**: connected systems mean higher chances of cyberattacks, which can disrupt services and increase costs.

# *Sustainability*


Methane Storage Sphere

- Energy management and reduction:
  - renewable energy from wastewater biogas and solar facilities
  - high efficiency vehicles and equipment to reduce energy demand

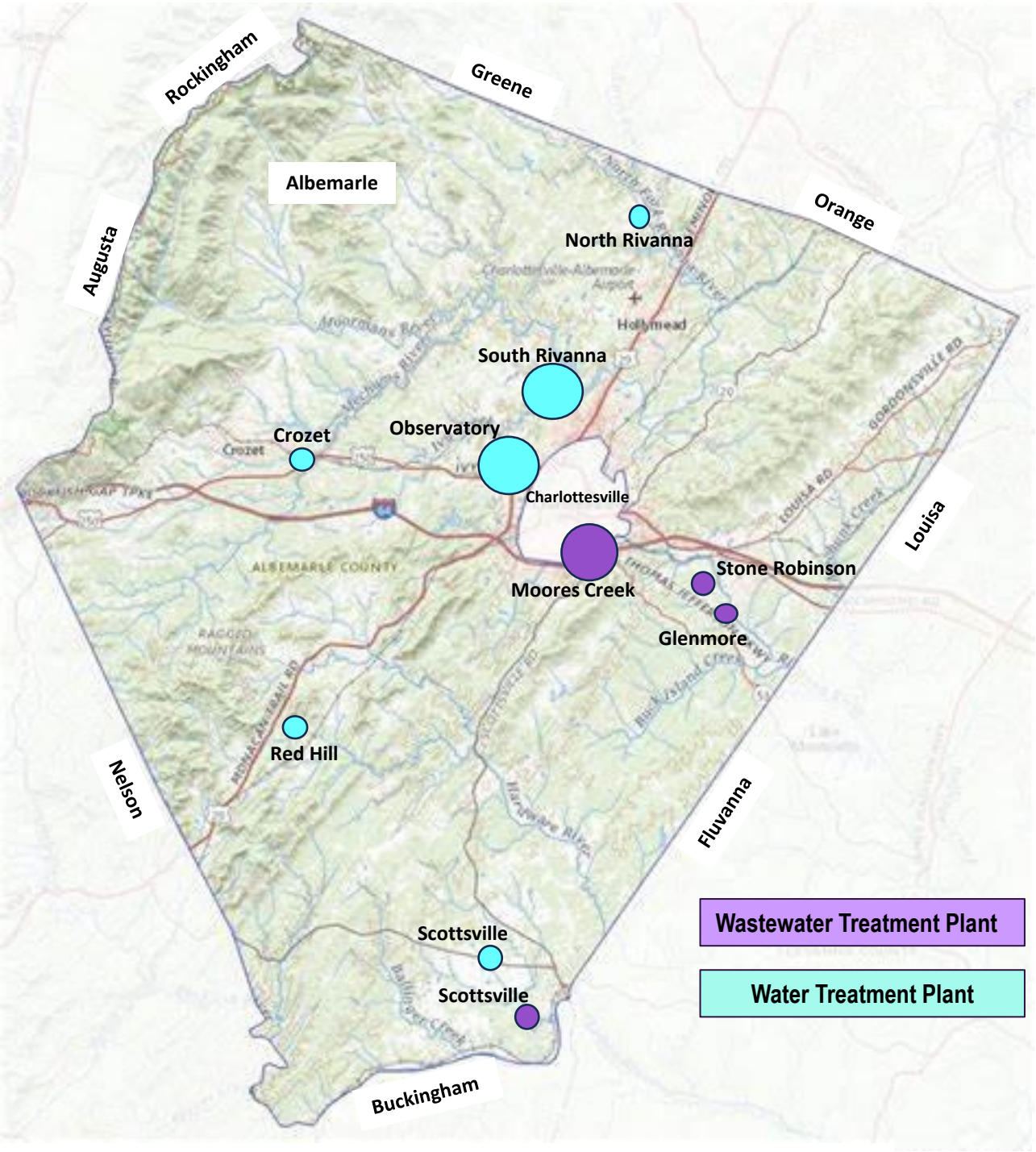

Solar Panels

- Water Reuse; potable and non-potable

eVehicles

- Dedicated staff
  - *Sustainability & Grants Coordinator*

    *Annie West*




# *Affordability*

# Unify Water & Wastewater Systems

*2025 – 2050*

- North Rivanna WTP decommissioning
- SRR to RMR Water Piping Connection
- Glenmore and Stone Robinson Wastewater Piping Connection to Moores Creek
  - *Systemic alternatives to centralize facilities to achieve efficiencies and improve affordability*

# *2050 and Beyond*

- Additional reservoir at Buck Mtn
  ~1300 acres are available
- Observatory WTP Lease expires in 2069, with 50-year renewal option until 2119
- Expansion of South Rivanna WTP by 2045 and Observatory WTP by 2070

# *Summary*

- Population growth driven by a stable local economy and climate changes may require our community to add reservoirs to increase its supply of drinking water.
- Regulatory requirements to address emerging contaminants will increase the cost of water and wastewater treatment.
- Local and regional unification of systems may provide options to optimize resources and minimize costs.
- A long-term Strategic Plan will be essential to guide the changes.

# Questions?