RIVANNA
WATER & SEWER AUTHORITY

Board of Directors Meeting

February 25, 2025

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: **FEBRUARY 25, 2025**

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 JANUARY 28, 2025***
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 Engineering Services — Glenmore WRRF Upgrades Project – Short Elliot Hendrickson Inc.*

9. CLOSED MEETING

(Motion, second and roll call vote to enter into a closed session to discuss or consider confidential information related to the terms of a purchase and sale agreement or the terms of a lease agreement pertaining to acquisition or lease of real property located in the City of Charlottesville, Virginia, where discussion 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).

Motion:* *I move 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.*

10. CERTIFY CLOSED MEETING

(Motion, second and roll call vote to certify the closed session)

Motion:* *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.*

** Closed meeting motion subject to change**

11. OTHER BUSINESS

a. *Presentation: Introduction of the FY 26 - 30 Capital Improvement Program*
   Jennifer Whitaker, P.E., Director of Engineering & Maintenance

b. *Presentation and Vote to Consider Approval of Construction Contract Award and Capital Improvement Plan Amendment– MCAWRRF Structural and Concrete Rehabilitation Project*
   W.M. Schlosser Company, Inc.; Michelle Simpson, P.E., Senior Civil Engineer

c. *Presentation and Vote to Consider Approval of Construction Contract Award and Capital Improvement Plan Amendment– MCAWRRF Building Upfits and Gravity Thickener Improvements Project- English Construction Company, Inc.; Michelle Simpson, P.E., Senior Civil Engineer*

d. *Presentation and Vote to Consider Approval of Construction Contract Award and Capital Improvement Plan Amendment–Administration Building Renovation and Addition Project – Martin Horn, Inc.; Scott Schiller, P.E., Engineering Manager*

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

13. 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
January 28, 2025

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, January 28, 2025 at 2:15 p.m. at the Rivanna Administration Building, (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

Board Members Present: Mike Gaffney (participating remotely), Jeff Richardson, Sam Sanders, Ann Mallek, Brian Pinkston, Quin Lunsford, Lauren Hildebrand.

Board Members Absent: none

Rivanna Staff Present: Bill Mawyer, David Tungate, Lonnie Wood, Jennifer Whitaker, Betsy Nemeth, Scott Schiller, Austin Marrs, Victoria Fort, Katie McIlwee, Annie West, Deborah Anama, Jacob Woodson.

Attorney(s) Present: Valerie Long

1. CALL TO ORDER

Vice Chair Jeff Richardson convened the January 28, 2025, regular meeting of the Board of Directors of the Rivanna Water and Sewer Authority at 2:22 p.m.

Chair Mike Gaffney requested to participate in the meeting remotely. He stated that he was currently on vacation in Cape Coral, Florida.

Mr. Sanders moved the Board to allow Mr. Gaffney to participate remotely in today's meeting. Mr. Pinkston seconded the motion, which carried unanimously (6-0). (Mr. Gaffney did not participate in the vote)

2. AGENDA APPROVAL

Mr. Sanders moved the Board to approve the agenda. Mr. Pinkston seconded the motion, which carried unanimously (7-0).

3. MINUTES OF PREVIOUS BOARD MEETING ON DECEMBER 17, 2024

Mr. Pinkston moved the Board to approve the minutes from the meeting held on December 17, 2024. Ms. Hildebrand seconded the motion, which carried unanimously (7-0).

4. RECOGNITION

There was none.

5. EXECUTIVE DIRECTOR'S REPORT

Bill Mawyer, Executive Director, welcomed the Water and Sewer Authority Board to the initial meeting in 2025. He stated that they were expecting a tremendous year in the water and sewer area, and you would hear more about it in the next two months when they discussed the Capital Improvement Plan budget in February and the operating budget in March.

Mr. Mawyer stated that he would like to introduce Daniel Campbell, who had recently been selected as the new Director of Operations and Environmental Services. He stated that Mr. Campbell was previously their Water Department Manager, and upon the promotion of David Tungate to Deputy Executive Director, an opportunity arose for Daniel. He stated that Mr. Campbell was selected through a competitive process, and he would like to give him his congratulations.

Daniel Campbell, Director of Operations and Environmental Services, stated that it was a pleasure to meet everyone. He stated that he wanted to express his gratitude for the opportunity to work with the senior management staff at Rivanna, and he was looking forward to the challenges that came with his new role.

Mr. Mawyer stated that Mr. Campbell would be managing their water treatment plants, wastewater treatment plants, reservoirs, and laboratory. He stated that he also wanted to recognize Schuyler Deal, a wastewater operator, who had successfully passed his Class 2 wastewater operator's licensing requirements. He stated that Mr. Deal had been with them for approximately two and a half years. He stated that Sally Rabun had passed her Class 2 water operator test and worked at the South Rivanna Water Treatment Plant, where she had been employed for about a year. He stated that they conducted safety training in December, which included confined space training for approximately 75 of their employees. He stated that their safety manager, George Cheape, had worked closely with a consultant to provide this training.

Mr. Mawyer stated that confined space training was a complex and hazardous process, requiring careful safety precautions to prevent accidents. He stated that they did not permit any of their solid waste employees to enter confined spaces at the Ivy landfill; however, their Operators, Maintenance, and Information Technology (IT) personnel may need to access manholes and other confined spaces in their water and sewer program, so they received proper training. He stated that they appreciated George's efforts in providing this training.

Mr. Mawyer stated that in January, the Director of Engineering, Jennifer Whitaker, presented at the Virginia Water and Power Resilience Workshop, along with Albemarle County Service Authority (ACSA) staff and the Albemarle County Office of Emergency Management. He stated that they appreciated Ms. Whitaker's leadership in this initiative. He stated that tomorrow night, they would host a community information meeting about the construction project between the Ragged Mountain Reservoir and the Observatory Water Treatment Plant at 6:00 p.m. He stated that this meeting would be live-streamed and available on Zoom for those who could not attend in person.

Mr. Mawyer stated that they had mailed letters to neighbors, issued a press release, and posted information on their website about the meeting. He stated that they were working with UVA to

ensure the community was informed about the upcoming construction of a 36-inch underground pipeline from the Ragged Mountain Reservoir to the Observatory Water Treatment Plant. He stated that they would remove two pump stations from the UVA Piedmont Apartments area, including the Stadium Road Pump Station which was located directly below Scott Stadium, and a smaller pump station in the housing area. He stated that they would be building a large raw water pump station on Reservoir Road across from the new Regents School.

Mr. Mawyer stated that they purchased approximately two acres for the pump station site and piping easements from the UVA Foundation. He stated that this is where the pipe will be routed back to the Rivanna Reservoir. He stated that they had already installed the pipe adjacent to Birdwood Golf Course, but there was a connecting section of piping that needed to be constructed as part of this project. He stated that Austin Marrs, Senior Civil Engineer, and his team had done an excellent job in the work required to get the Sugar Hollow Water Line pipe reinstalled this month. He stated that once that was completed, they would be able to resume transfers of water from Sugar Hollow Reservoir to Ragged Mountain Reservoir.

Mr. Mawyer stated that the Environmental Protection Agency (EPA) issued a draft sewage sludge risk assessment for two per- and polyfluoroalkyl substance (PFAS) components, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), with a particular focus on wastewater treatment plants. He stated that they were reviewing this draft, which was not a regulation but rather a recommendation. A public comment period was open for 60 days. The data showed that 55% of biosolids were land-applied across the nation, with 27% land-filled, 16% incinerated, and 2% sent elsewhere.

Mr. Mawyer stated that the biosolids they produced, approximately 14,000 tons per year, were trucked to McGill Environmental in Waverly, Virginia, where they were combined with other products, including food waste and old notes from the Federal Reserve, ultimately grinding these materials into compost. He stated that they had taken a tour a couple of years ago, and he was impressed by the McGill operation in Waverly. RWSA transports around 550 loads per year to the McGill facility.

Mr. Mawyer stated that the chart provided some information. He stated that the draft risk assessment set a threshold of 1,000 parts per trillion for PFOS and PFOA. He stated that their biosolids testing in December 2024 showed 11,000 parts per trillion of PFOS, exceeding the threshold. He stated that although their PFOA levels were below the threshold, they were higher in 2021. He stated that if they were to consider land application of their biosolids in the future, they would need to remove PFAS to comply with the draft risk assessment from EPA.

Mr. Mawyer stated that they also brought leachate from the Ivy landfill daily, which contained PFAS at lower levels. He stated that the wastewater coming into Moores Creek, which was 4.5 parts per trillion of PFOS and 4.1 ppt of PFOA, was slightly higher than the wastewater leaving the treatment plant. He stated that however, they did not specifically treat wastewater for PFAS. He stated that they may need to assess where the PFAS is coming from, and that was why the EPA's draft risk assessment was important. He stated that it highlighted the need to be aware of the PFAS levels in their biosolids and to investigate their sources, including potential industries, to determine if pre-treatment was necessary.

Mr. Mawyer stated that their landfill leachate contributed to the amount of PFAS in their wastewater. He stated that there was also a regulation from the EPA issued last year that applied to PFAS in drinking water. He stated that the standard for drinking water was four parts per trillion. He stated that the PFAS level in the wastewater leaving the treatment plant was lower than the drinking water standard, which was a positive indicator.

Mr. Mawyer stated that their biosolids exceeded EPA's recommended risk assessment for PFAS. He stated that they would be keeping an eye on this legislation and its potential impact in the coming years. He stated that additionally, at the General Assembly, there were several bills worth monitoring, including one that required reporting anomalies in water treatment. He stated that this bill was prompted by an incident in the Lake of the Woods neighborhood last summer where a boil water notice was issued due to a leaking water pump that contaminated the water with mineral oil.

Mr. Mawyer stated that this bill aimed to improve reporting on anomalies, but there was ongoing discussion about what constituted an anomaly. He stated that interestingly, a similar issue occurred in the City of Richmond, where a boil water notice was issued after a power outage and flooding damaged their water treatment plant. He stated that Richmond was working to ensure their backup equipment functioned properly. He stated that this bill would require utility owners like RWSA to report anomalies promptly, which could help prevent similar incidents. He stated that according to the Virginia Department of Health (VDH) consent order issued to the City of Richmond, one of the comments made was that they did not notify the state in a timely manner as required.

Mr. Pinkston asked if Rivanna was in contact with the City of Richmond during their water crisis.

Mr. Mawyer stated that the Department of Health called to inquire about staging trucks at Moores Creek to haul drinking water to Richmond. He stated that he reached out to his former colleagues in Henrico and offered assistance, as the City of Richmond had a 132 million gallons per day (MGD) water treatment plant. He stated that Richmond's water plant also provided drinking water to Henrico, Hanover, and Chesterfield Counties. He stated that as a regional provider, Richmond's challenges impacted the entire region. He stated that he did not speak with Richmond staff directly.

Mr. Mawyer stated that Richmond's utility director came from a customer service background, and a bill was proposed to require utility directors to have an engineering or technical background, but the bill was killed. He stated that the Department of Health faced significant challenges regulating water treatment plants across the state, and none of Utilities was immune to such difficulties. He stated that they also experienced problems with the Rivanna Pump Station last year. He stated that the common thread in these situations was the maintenance of equipment, particularly emergency equipment including power generators and switches that automatically switched to emergency power without requiring on-site assistance, which was a problem during the City of Richmond incident.

Mr. Pinkston asked if Rivanna had that kind of preventative maintenance testing in place.

Mr. Mawyer stated yes. He stated that they utilized their computerized maintenance management system, Cityworks, and met with their management team after the City of Richmond faced that challenge. He stated that they discussed how to address the issues Richmond encountered and asked if they were prepared to deal with similar problems. He stated that they also inquired about their maintenance programs and whether they could provide a copy of them to VDH. He stated that their Maintenance staff had done an excellent job of maintaining their emergency facilities.

Mr. Mawyer stated that while they strove to prevent issues, they acknowledged that problems could still arise. He stated that their staff was working diligently to ensure their emergency facilities were well-maintained and in good condition. He stated that the issue in Richmond was a significant discussion among professional organizations, including the Virginia American Water Works Association, the Municipal Drinking Water Association, and the Water and Wastewater Authorities Association. He stated that Aqua Law served as one of their primary legal consultants, working closely with the Department of Environmental Quality (DEQ) and VDH to address the requirements in these bills proposed at the General Assembly.

Mr. Mawyer stated that Senate Bill 1319 focused on PFAS monitoring, including leachate from the landfill. He stated that House Bill 2482 was a procurement bill requiring construction projects exceeding $250,000 to have 12.5% of the total labor force comprised of individuals enrolled in approved apprenticeship programs. He stated that this unique requirement presented challenges, and they were monitoring its implementation.

Ms. Mallek stated that she had a quick question regarding the division between DEQ and VDH. She stated that she recalled that there was a transfer of responsibility due to insufficient action, which was the public perception at least, regarding VDH's handling of water-related issues. She stated that she was wondering if there were any new developments regarding this matter.

Mr. Mawyer stated that he was aware of some challenges with the roles of the Department of Environmental Quality and the Department of Health. He stated that Ms. Mallek was correct that the DEQ regulated the amount of water that could be taken out of the rivers of the state, thereby controlling water supply. He stated that VDH oversaw the treatment of water at the water treatment plants, including the quality and chemicals, such as PFAS restrictions. DEQ was responsible for wastewater regulations including landfill leachate.

Mr. Mawyer stated that they had a good working relationship with both groups and had not encountered any challenges.

Mr. Gaffney had a question regarding the PFOA. He stated that according to his information, the PFOA level was 11,000 ppt. He stated that it appeared that the state was asking them to identify potential contributors to this issue. He stated that he was unclear about the specific agency or agencies that would be responsible for investigating this matter. He stated that it would be unclear whether it would be the responsibility of Rivanna, the City, the County, ACSA, or a combination of all these entities.

Mr. Mawyer stated that EPA's draft health risk threshold was a recommendation, not a regulation. He stated that this meant that they did not have to take immediate action, but it did serve as a warning. He stated that if they were at 11,000 ppt and the recommended threshold was 1,000 ppt, their first step would be to investigate the source of the issue. He stated that the Significant Industrial Users (SIU) permit issued by RWSA was a key factor in their community's permitting process. He stated that when a new business entered their community, they had to submit information to the ACSA, City, or RWSA through the development review process detailing what was in the proposed wastewater discharge. Investigation of potential contributors would primarily by a RWSA responsibility in coordination with the ACSA or City.

Mr. Mawyer stated that they monitored wastewater discharges for metals, fats, oils, and grease, and had established thresholds for acceptable levels. He stated that this helped them identify potential contaminants, such as PFAS, in their system. He stated that, however, this approach worked by tracing the source of the contamination back upstream. He stated that it was a best management practice at this point.

Mr. Gaffney stated that it seemed that they should start looking at this.

Mr. Mawyer stated that yes, it was clear that they would have a higher degree of concern about this issue because PFAS had already been regulated in drinking water, and efforts were underway to address it in wastewater, leachate, and biosolids. He stated that as a result, there was a strong pitch to address PFAS throughout. He stated that the "one water" concept emphasized that a drop of water could be drinking water, then wastewater, and then drinking water again. He stated that regardless of whether it was water or wastewater, they needed to treat it similarly. He stated that he was aware that Mr. Pinkston had sent information about Dr. Berger at UVA, and they were planning to do a more detailed presentation on PFAS in April, which would include their program and numbers. He stated that they may also invite Dr. Berger to join them at that time.

Mr. Lunsford asked that the relationship between the 4.5 parts per trillion and the 11,000 parts in the biosolids. He asked if the difference was in the chemical composition that affected the removal of the substance from the effluent.

Mr. Pinkston stated that it was more concentrated.

David Tungate, Deputy Executive Director, stated that they were grab samples, representing separate samples for the sludge entering the system and separate samples for the effluent leaving. He stated that what came in one day may go out in three, five, or seven days. He stated that regarding the biosolids, they treated the sludge with secondary clarifiers, then placed it in the anaerobic digester, where it remained for 10 to 20 days, depending on the process. He stated that as a result, the biosolids could be anywhere from 10 to 30 days old, depending on the treatment process.

Mr. Mawyer stated that Mr. Pinkston mentioned that the concentration of PFAS in the sludge was higher, which was because they were removing the water from the digester and testing the remaining sludge. He stated that this process resulted in a more concentrated sludge compared to

the wastewater flow. He stated that in the wastewater flow, the mixture of water and waste was diluted, but in the digester, they were concentrating the sludge and getting as much water out of it as possible.

Ms. Mallek stated that numerous users and contaminants entered the system due to the various substances humans were introducing after they obtained the clean water. She stated that she believed these substances must be contributing to issues in wastewater, rather than just concentration. She stated that it appeared that all the cosmetics and other substances Mr. Tungate had discussed with them repeatedly were indeed a concern. She stated that she wanted to ensure that they were making progress with the approach. She stated that there was a great deal to discuss regarding the ongoing efforts.

6. PUBLIC COMMENT

Dede Smith stated that she would like to bring up two points. She stated that first, she would like to extend her appreciation to Rivanna staff. She stated that she had a couple of questions earlier, seeking information, and Mr. Tungate was very responsive, providing her with the information she needed in a very timely manner.

Ms. Smith stated that Rivanna has consistently demonstrated a commitment to transparency and response to requests. She stated that her second point was a question regarding the pretreatment of water intended for the Ragged Mountain Reservoir. She stated that this was a component of the original plan. She stated that she believed Mr. Gaffney, who was part of the Board at the time, may be the only person who was aware of this aspect of the plan.

Ms. Smith stated that it was intended to ensure that the Rivanna water, which will eventually replace the Ragged Mountain water source, would not compromise its quality. She stated that the Ragged Mountain Reservoir is currently the only clean raw water source they had, and its quality will decrease significantly once the Rivanna water was introduced. She stated that therefore, pretreatment was necessary. She stated that she would appreciate clarification on this matter.

Mr. Mawyer stated that at this point, they did not plan to implement pretreatment when pumping water from Rivanna to Ragged Reservoirs. He stated that their extensive study of nutrients at the South Rivanna Reservoir had determined that pretreatment was not necessary. He stated that they did plan to adopt a strategic pumping approach, aiming to minimize the transfer of water from Rivanna to Ragged unless the water at Rivanna was of low turbidity and higher quality. He stated that this approach would help reduce the potential transfer of nutrients to Ragged. He stated that their recent studies had determined that the planned $15 million pretreatment facility was not necessary.

Mr. Pinkston asked if the water was being treated at the water treatment facilities.

Mr. Mawyer stated that when the water reached Observatory or Rivanna treatment plants, it would be treated. He stated that there was a concept that the Rivanna Reservoir water was not as clean as the water in Ragged, so they would be decreasing the quality of the water in Ragged if they transferred water from Rivanna. He stated that they had studied this and determined that a

pretreatment facility, like a treatment plant, would be necessary to restore the water quality before it could be returned to a reservoir. He stated that after working through this, they did not feel that this was necessary.

Ms. Mallek stated that they had addressed nitrogen and phosphorus, but she would like to know how they were addressing sediment in the water.

Jennifer Whitaker, Director of Engineering, stated that when they initially examined this issue, they were fairly convinced that a pretreatment facility might be necessary. She stated that as they delved deeper into the available technology and costs, it became clear that a more comprehensive solution was needed. She stated that they considered total suspended solids, nitrogen, and phosphorus levels in the South Fork Rivanna Reservoir. She stated that they had recently installed a phosphorus meter at the South Fork Rivanna Reservoir, which was being monitored.

Ms. Whitaker stated that they also conducted modeling of transfer protocols for total suspended solids, nitrogen, and phosphorus. She stated that when they compared these results to their expected withdrawal and transfer rates, they found a window of time when they could consistently meet the threshold for minimal transfer of solids and nutrients to Ragged Mountain. She stated that as they continued to refine this protocol, they were monitoring water quality over the next five years and working to develop a detailed plan for transferring water without degrading the quality at the receiving facility.

Peggy Gilges stated that she was a resident of the Jack Jouett District. She stated that she had been listening to the meeting this afternoon and she wanted to follow up on Ms. Smith's comment. She stated that currently, the website stated that once the water came from Rivanna to Ragged Mountain instead of directly from Sugar Hollow, more algae could be anticipated due to the change in nutrients. She stated that she was happy to hear that they would be monitoring this and taking steps to avoid it. She stated that she just wanted to bring this to their attention, as she believed it may have gone unnoticed.

Mr. Mawyer stated that they had Frank Biller here, who was the UVA rowing coach. He stated that on the consent agenda, they had an item to extend the waiver, and he would like to give Mr. Biller a minute to speak to the board if they wished to hear his comments

Frank Biller stated that he was the Director of Rowing at the University of Virginia. He stated that he was joined by Kevin Sauer, who had been a long-time presence and had recently retired from his position as head coach this past spring. He stated that although it was part of his job description to address some external issues, Mr. Sauer always sought approval from this Board for his proposals, including the potential use of gasoline-powered launches for boaters at South Fork Reservoir.

Kevin Sauer stated that he wanted to pass along a new acronym, NMR, which stood for "not my responsibility." He stated that he was passing the responsibility to Mr. Biller. He stated that he was here to support him and answer any questions from the Board.

Mr. Biller stated that because their goal was to have a fully electric motor solution on the

reservoir, it would be eliminating the need to request permission to use gasoline engines. He stated that over the years, since his involvement beginning in 2009, they had experimented with various solutions, investing significant time and resources, as there was no off-the-shelf solution that met the speed and velocity requirements for safely following a rolling shell.

Mr. Biller stated that in recent times, with advancements in developing technology, they were thrilled to start exploring new possibilities two years ago. He stated that they had begun this project seven years ago. He stated that there was a company called Pure Water, based in Seattle, Washington, which was a high-tech solution that met their needs. He stated that they received notice that the company had found alternative providers. He stated that as a result, they were uncertain about how this would proceed.

Mr. Biller stated that in an ideal scenario, someone would either continue to support the product or purchase it, ensuring its continuation and order was maintained. He stated that nevertheless, given the extensive electronics involved, he stated that it was similar to a Tesla, which relied heavily on software support to function. He stated that if the software was not maintained, the system would become obsolete. He stated that in this case, they must temporarily halt progress and wait to see what happens next, while also conducting research to explore alternative solutions that met their requirements.

Mr. Sauer stated that so far, they had successfully installed three electric motors on the women's launches, and they had been functioning exceptionally well. He stated that seven years ago, the debugging process that took place over the next four years was part of their efforts, and now they had a product that was largely debugged and working very well. He stated that the level of support, as Mr. Biller had mentioned, was minimal. He stated that currently, they had only two people working at the company, and they were hoping that someone would step up to purchase the company and take it over.

Mr. Sauer stated that the product was outstanding, and if they could maintain the current product versus exploring alternative options, it would be ideal. He stated that the Rivanna Rowing Club and the men's team were facing similar situations to the women's team, and they planned to purchase two more electric battery and motor operating units this year. He stated that as Mr. Biller had stated, they needed to break a little to figure out what would happen with this company. He stated that ideally, they did not want to venture into another company and try to figure it out. He stated that they preferred to stay with what was working rather than experiment again.

Mr. Biller stated that the investments were substantial. He stated that they could acquire an outboard rotor for approximately $5,000, which was set up for an electric configuration. He stated that it was highly advanced and nearly intuitive to use. He stated that this was a significant investment.

7. RESPONSES TO PUBLIC COMMENT

There were none.

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 to Amend Professional Engineering Services Contingency – Central Water Line Project – Michael Baker International

h. Approval of Engineering Services – Dam Concrete and Steel Repairs Design, Building, and Construction Phase Services – GA1 Consultants

i. Approval of Waiver Extension for University of Virginia Rowing Programs and Rivanna Rowing Club

Mr. Pinkston stated that he would like to ask about Items G and I. He stated that he would like to understand the situation with the Central Water Line project. He asked if they were increasing the design contingency to $223,000. He asked if that also included additional design services.

Mr. Mawyer explained that if they increased the contingency, it authorized increases in the work authorization to the design engineer. He stated that recently, during the review of the design, it became apparent that lowering the pipe would work better for City utilities. He stated that originally, it was designed at a certain depth, but they decided to lower the pipe further. He stated that they were going back to the consultant to make this adjustment, which would increase the design contingency and allow them to increase the design engineer's work authorization.

Mr. Pinkston stated that the $2.38 million was the total design budget for the entire design project.

Mr. Mawyer stated that yes, it was for the total design budget.

Mr. Pinkston asked if they had to lower the water line throughout the entire project or just in a specific section.

Mr. Mawyer stated that the pipe would be lowered within the entire project area, and even deeper in some specific locations. He stated that he was working with Ms. Hildebrand and her staff to review those locations.

Mr. Pinkston stated that he was seeking to determine if there were any implications for the overall project construction budget. He asked if Mr. Mawyer had a sense of what that may entail.

Mr. Mawyer stated that it was estimated to be $82 million. He stated that it was originally $41 million, and when they received the bid for the Ragged to Observatory pipe project, it exceeded their budget, prompting them to adjust the Central Water Line budget based on the unit prices received. He stated that as a result, their revised estimate was $67 million. He stated that lowering the pipe further resulted in an estimated cost increase of about $15 million, bringing the total budget to $82 million.

Mr. Pinkston asked why this was needed. He asked if the initial assumption of the depth was not accurate, and the design process revealed that a deeper excavation was required.

Ms. Hildebrand stated that they were concerned about serving customers with sewer services. She stated that the existing city sewer lines, which relied on gravity, would be at the same depth as the central water line, making it challenging. She stated that to ensure they could continue providing these services without conflict during construction, they took a closer look at this issue. She stated that as a result, the Central Water Line had to be constructed deeper, which was a complex construction process.

Mr. Pinkston asked if this was due to constructability limitations.

Ms. Hildebrand stated that the rationale for this was to ensure that they could serve their customers in the future without the Central Water Line interfering with them.

Mr. Mawyer stated that an objective had been discussed early in the design process to locate the Central Water Line in a way that would not conflict with City utilities. He stated that their consultant had attempted to achieve this objective without locating the pipe any deeper than necessary to minimize costs.

Mr. Mawyer stated that they were trying to find a compromise between how shallow they could construct the pipe without conflicting with the existing sewer piping and other utilities. He stated that recent design reviews suggested that there may be conflicts, so the pipe may need to be lower. He stated that instead of being seven feet to the bottom of the pipe trench, it would be closer to 10 feet. He stated that in a few specific locations, it may be deeper, but they had been working with Ms. Hildebrand to determine those locations.

Mr. Mawyer stated that they were hopeful that this was a very conservative estimate, and that the prices would be lower than what they were currently estimating.

Mr. Pinkston stated that they did not have a contractor yet.

Mr. Mawyer stated that was correct; the plans with the new design elevations were scheduled to be reissued, and the bid date was currently set for March 27. He stated that they expected to ask the Board to award the contract in April.

Mr. Pinkston stated that he also had questions about Item I. He asked if this was a waiver that they had been doing annually now, or had it been previously done every five years or so.

Mr. Mawyer stated that in 2023, the Board approved a one-year waiver. He stated that waiver was granted in September 2023, so it was a bit past the initially approved period.

Mr. Pinkston asked when the first waiver was granted. He asked if there were any other gas-powered boats permitted on the reservoir.

Mr. Mawyer stated that he was unsure. He stated that no other boats were allowed, other than Rivanna's own, but that was on rare occasions.

Mr. Pinkston asked how often the rowing team was on the reservoir.

Mr. Biller stated that it was every day for about nine or ten months of the year.

Mr. Pinkston asked if they had conducted a risk assessment and were confident that they had the capacity to clean the water.

Mr. Biller stated that they used six gallons of gas. He stated that the motors were all marine-grade, meaning they were constructed in a way that they would not actually leak if such a situation were to occur.

Mr. Mawyer stated that the reservoir contained approximately 900 million gallons of water.

Mr. Sauer stated that there was a gas study conducted 25 years ago. He stated that in this study, they actually conducted an experiment where they did not dump the pollutants, but instead measured the impact of dumping six gallons of gas at the dock, which was two miles from the dam, by the time the pollutants reached the intake of the dam, the impact would be negligible by the end of the day.

Mr. Pinkston stated that he would appreciate Ms. Mallek's thoughts on this matter. He stated that he did not feel like they had a choice because they could not kick the rowing team out. He stated that he had been on this Board for three years and were still dealing with the issue.

Ms. Mallek stated that this issue has been discussed since she joined the RWSA in 1993, so it was not a new topic. She stated that there are other places in the country where similar practices were not allowed, and even their own high school team in Beaver Creek does not use gas launches, except for a brief period when they experienced a major failure and received a temporary exemption. She stated that given that a group of high school students can successfully manage this, she finds it puzzling why the university continues to downplay its importance. She stated that for a $5 billion portfolio, it was unacceptable that they could not secure the right equipment.

Ms. Mallek stated that they had all seen how a single drop of gasoline can spread in the rain and contaminate an entire driveway. She stated that it did not take much to impact water quality. She

stated that while she was a strong supporter of the rowing team, she believed they needed to do a better job. She stated that her proposal would be to grant them a six-month extension and require them to report back in six months on their progress. She stated that she would like to see this issue resolved within a year, and she stated that this was the last chance.

Ms. Mallek stated that the university needs to prioritize this and take action. She stated that it was not a criticism of the individuals, who are likely juggling many responsibilities; someone needs to make this a priority. She stated that this was her proposal. She stated that there was no reason why a high school team could handle this and the university could not.

Mr. Richardson asked if there were any other comments or questions regarding Item I.

Mr. Pinkston moved the Board to pull Item 8(i) from the Consent Agenda and vote on it separately. Ms. Mallek seconded the motion, which carried unanimously (7-0).

Ms. Mallek stated that regarding Item F, she was reviewing the drought monitoring chart that had been provided, which showed a significant decline of over 20 inches in rainfall over the past two years. She stated that she wanted to know what the plan was for ongoing, everyday conservation of water resources for all customers on a daily basis. She stated that she had mentioned this before, and she saw it mentioned in the stewardship initiatives, but she would like to learn more about Rivanna's efforts and partnership with ACSA to emphasize the importance of this issue. She stated that as everyone knew, it could take 24 hours to make a change, and although they had current snow moisture, it was unlikely to last. She stated that she would appreciate knowing what steps Rivanna would take to address this in the future.

Mr. Mawyer stated that staff would follow up on that issue.

Ms. Mallek moved the Board to approve the Consent Agenda as amended. Mr. Pinkston seconded the motion, which carried unanimously (7-0).

Mr. Richardson stated that regarding Item 8(i), Ms. Mallek had suggested exploring alternatives to a one-year waiver extension.

Mr. Pinkston stated that he did not want to be unreasonable, but he had been on the Board for three years and every time, it seemed like they were told that they would get there next time. He stated that he was not hearing that they were not trying, and he did think that if they had six gallons of gas, the impact would be minimal; they would clean it out on the other end. He stated that on the other hand, it was a gas motor that they were using, or a reservoir, so he was more frustrated about why this could not be resolved.

Mr. Pinkston stated that he felt like they were making a special case, and while he loved UVA and the school’s sports, after a while, it started to feel arbitrary. He stated that he was just trying to process this and understand why they could not seem to resolve this issue.

Mr. Richardson stated that he believed Ms. Mallek would present a motion, which he thought he understood as suggesting they revisit this issue in six months, effectively sending a message to

the university that they expected them to make progress in transitioning away from gasoline engines within that timeframe.

Ms. Mallek moved the Board to approve Item 8i, the waiver extension for the Virginia Rowing Program and Rivanna Rowing Club for one year from today, with the expectation that a report on their progress would be submitted in six months.

Mr. Pinkston stated that to clarify, Ms. Mallek was proposing a six-month period during which the UVA would periodically check in with them, and six months after that, the waiver would expire.

Ms. Mallek stated that yes; otherwise, there was no real enforcement and it simply continued indefinitely, which was what they had been doing since 1993.

Mr. Pinkston stated that a year from now, they would still have the capacity either to support a waiver or not.

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

Mr. Biller stated that six months from today would be July 28.

Mr. Richardson stated that they would like them to work with the Rivanna staff to get back on the agenda and receive an update in half the time, specifically six months, to hear about their progress. He stated that there should be some progress reported between now and the six-month check-in point, and then the Board would review and react to that at the time.

Mr. Mawyer stated that it was a one-year extension with a six-month review period.

Mr. Richardson said what was different was that by the six-month point, they wanted to hear a progress report on a game plan to transition from gas to electric by the end of the year.

(Combined Session with RSWA)

9. OTHER BUSINESS

a. Presentation: Rivanna Authorities Strategic Plan Update

Betsy Nemeth, Director of Administration and Communications, stated that this was a six-month update on their strategic plan. She stated that she was approaching it in a different way this time. She stated that in the past, she had provided a comprehensive overview of each topic, but she thought this time she would focus on one key aspect per topic, allowing them to gain a deeper understanding.

Ms. Nemeth stated that their strategic framework was the foundation of their plan, and it was essential to their vision, mission, and values. She stated that their vision, mission, and values were outlined, including the definitions of integrity, teamwork, respect, and equality. She stated

that moving forward, she would like to highlight their communication and collaboration team. She stated that she was particularly excited about this initiative, as she would be leading it. She stated that their first project was already underway, and she was eager to share its progress with them.

She stated that Rivanna.org is the only website they have, but they are about to expand to three separate sites: rivanna.org, RivannaSolidWaste.org, and RivannaWater.org.

Ms. Nemeth stated that she was excited about this development, as one of the reasons they decided to do this was because they analyzed their website metrics. She stated that they found that about 90% or more of their website traffic was related to solid waste and basic services, such as collection and special collections. She stated that on their current Rivanna.org, they would notice a picture of a dam, which had no relation to solid waste. She stated that they thought it would be a good idea to reorganize and make it more user-friendly.

Ms. Nemeth stated that Rivanna.org would be a landing page, allowing users to easily access the specific site they were interested in. She stated that therefore, visiting the old Rivanna.org, they would see a link to either RivannaWater.org or RivannaSolidWaste.org. She stated that she was also excited about the new RivannaWater.org, which will feature a video of the Sugar Hollow Reservoir drone flyover, a stunning visual and she would like to give credit to Rob Woodside from their IT department for creating it.

Ms. Nemeth stated that additionally, the RivannaWater.org website will include a section on construction projects, which will be updated frequently as they have several projects underway in a short period of time. She stated that they will be able to access a list of their specific construction projects that are underway, including where they are and what they are doing. She stated that for example, if they were currently working on the Central Water Line in Charlottesville, they would be able to see that information. She stated that this was an ongoing project scheduled for this spring.

Ms. Nemeth stated that she had been sitting in on calls with the Environmental Stewardship Committee, during which they discussed ways to engage employees in environmental stewardship, and one idea that stood out was the Found Object Ornament Contest. She stated that on the screen was the flyer, which was created by Annie West. She stated that as part of the contest, employees were invited to create ornaments using items found around the house. She stated that the winner was a spigot, which was transformed into a unique ornament by Kenny Lawhorne, one of their maintenance mechanics. She stated that she found his spigot ornament to be quite interesting.

Ms. Nemeth stated that Mr. Mawyer's wife also participated, and everyone's work made it a pretty neat contest. She stated that the ornaments were featured in the office throughout the holiday season. She stated that the next slide was very busy, but she hoped it made a point. She stated that the workforce development had been an ongoing process with growing their people from within, and she wanted to share a few things that she thought were really important.

Ms. Nemeth stated that on the left, all the certificates, including those from their maintenance

team. She stated that there was at least one person from solid waste who had taken courses at Piedmont Virginia Community College (PVCC) for Commercial Drivers Licenses (CDL) and Valley Vo-Tech. She stated that she thought at least half of their maintenance team was taking courses there every semester. She stated that the second item in the middle showed their college tuition reimbursement program, which was currently being used by several employees. She stated that they had seen a few degrees come out of it, including an associate's degree for Brian Haney, a bachelor's degree for David Rhoades, and a certificate for Leah Beard. She stated that Duane Houchens was due to receive an associate's degree later this year.

Ms. Nemeth stated that Mr. Mawyer had previously mentioned that they had a diversity awareness training workshop for all management staff and the workforce development team. She stated that her point here was the last row, which highlighted their internal promotions in 2024. She stated that given that they were a relatively small authority, this was a significant number of people who had grown within the organization. She stated that they were very proud of this team's accomplishments.

Ms. Nemeth stated that regarding optimization and resiliency. She stated that the Moores Creek Advanced Water Resource Recovery Facility aeration basin operations was a notable example of their success. She stated that the cost savings from this project were evident, particularly in the electricity they were spending on running their blowers. She stated that the aeration basins required air to remove ammonia, and they had five blowers in the blower building, which were shown on the left. She stated that they had previously maintained a minimum airflow into the basins to remove ammonia, and they had added a sensor to track when air was needed. She stated that this had resulted in a savings of $17,000 on their annual electric bill.

Ms. Nemeth stated that the second component of this optimization involved caustic, a chemical that adjusted the pH and added alkalinity to the basins. She stated that in essence, it made the microorganisms in the basins happy and allowed them to function properly. She stated that by lowering the minimum alkalinity settings, the staff had reduced the required amount of caustic, resulting in a cost savings of over $180,000 last year. She stated that she believed Rob Haacke, the now retired Wastewater Manager, was the driving force behind this initiative.

Ms. Nemeth stated that regarding planning and infrastructure, more detail would be shared by Katie McIlwee about asset management and Cityworks in the next presentation, and one of the goals of their strategic plan was to continue adding assets to Cityworks. She stated that in 2024, they had added over 1,000 new assets to the system. She stated that horizontal assets were pipes and vertical assets were above ground. She stated that she also found it impressive that their work orders were being managed through Cityworks, with a total of over 4,000 completed work orders for the entire year.

Ms. Nemeth stated that their maintenance team was enthusiastic about showing her how the system worked, and she was particularly impressed by the ability to access and view specific asset information, such as manuals, inspection documents, and safety information like Arc Flash documents. She stated that the team was also working to upload lockout/tagout information, and they were able to see firsthand how they were using iPads to complete work orders and access these documents.

b. Presentation: Asset Management Update

Katie McIlwee, Asset Management Coordinator, stated that she wanted to provide an update on the Asset Management Program. She stated that their asset management program was guided by the asset management policy, which emphasized the commitment to implementing the program and providing established levels of service while minimizing lifecycle costs and managing risks. She stated that this program is linked to their strategic plan, strategic framework, and goals for asset-related investments, and maintenance.

Ms. McIlwee stated that asset management was a long-term program aimed at attaining and sustaining the chosen level of service for the life cycle of an asset at the most cost-effective manner. She stated that their program consisted of three major components: the computerized maintenance management software (CMMS), the asset register and Geographic Information System (GIS), and the decision support software (DSS).

Ms. McIlwee stated that the Government Accounting Office had identified six key characteristics to define an effective asset management framework which they are implementing. She stated that they had established formal policies and plans through their strategic and tactical asset management plans, and they were working to maximize asset portfolio's values through the use of decision support tools. She stated that they maintained leadership support by obtaining authority-wide buy-in for the program. She stated that they utilized quality data through tools such as the new asset workflow procedure, promoted a collaborative organizational culture by coordinating with maintenance, water, wastewater lab, and engineering staff, and continually evaluated and improved their processes through the health check report and user feedback.

Ms. McIlwee stated that, as Ms. Nemeth had mentioned, they made significant progress in 2024 utilizing their CMMS, Cityworks. They completed over 4,000 work orders, with 3,700 being preventative maintenance work orders and 375 being corrective maintenance work orders. She stated that they had also added approximately 1,000 assets to their vertical asset inventory.

Ms. McIlwee stated that within the Cityworks program, they had several key data integrations, EKOS, their fuel management system, and DocLink, their document management system. When fleet vehicles refilled at the fuel pumps, the vehicle mileage was registered by the EKOS system, which was then integrated with Cityworks. She stated that as a result, the fuel mileage was used to automatically generate certain types of preventative maintenance work orders based on mileage within the system. She stated that this meant they did not have to manually track every 7,500 mile service.

Ms. McIlwee stated that DocLink housed their lock-out/tag-out procedures, operational manuals, warranty information, and other records. Through this integration they could access these records by following a link provided directly on the work order in Cityworks.

She stated that Cityworks was also directly integrated with ESRI GIS, their spatial management system. She stated that the two systems work hand-in-hand, and it was impossible for Cityworks to function without using data from GIS. She stated that the next slide would demonstrate this

integration. This slide provided a video demonstration of how to navigate to a building within the GIS map using Cityworks. She stated that to do this, she would select the building, and on the left-hand side, the building would appear, along with its asset details. She stated that she could also view open or completed work orders.

Ms. McIlwee stated that she would pull up a work order, which appeared to be for a pump. She stated that if a mechanic or operator needed to know something about the asset from a safety or operational manual standpoint, she could click on the DocLink link, which would bring up the relevant information, which could include lock-out/tag-out procedures, as mentioned earlier, and this example also included an Arc Flash report. She stated that warranty information, operational manuals, and other relevant documents could also be accessed in the field.

Ms. McIlwee stated that to ensure accurate data quality, they had multiple ways to obtain assets information for their inventory. She stated that one method was through the Capital Improvement Plan (CIP) process, which at the end of a project the contractor would compile a list of assets and work with her to ensure the correct hierarchy and information. She stated that they would conduct a QA/QC process to verify the accuracy of the data, and the contractors would submit it to her when finalized. From the contractor provided information, they would then create preventative maintenance work orders within Cityworks and integrate the asset into their formal asset register.

Ms. McIlwee stated that additionally, they had an internal asset process for on-site repairs, such as pump replacements, or when a mechanic or operator discovered a piece of equipment not previously accounted for. She stated that they could fill out a form, which would submit to her, providing required information, including preventative maintenance details, installation date, hour meter readings, manufacturer, model, serial number, cost, and condition. She stated that this process ensured accurate asset information, as it came directly from the operator or mechanic involved in the process.

Ms. McIlwee stated that everyone was familiar with the Rivanna Pump Station. She stated that in 2024, one of the action items that came out of the malfunctioning of the pump station was ensuring that all of their assets were accurately listed in their asset inventory and receiving the proper preventative maintenance. She stated that as a result, they launched the on-valve inventory program in March 2024, which was completed by December 2024. She stated that she visited every facility, along with water, wastewater, and maintenance staff, to verify and add any valves that were not currently in their register. Ms. McIlwee stated that they added approximately 428 valves through this process. She stated that next, they created preventative maintenance work orders based on manufacturer recommendations or best practices from those who owned and operated valves, specifically operations and maintenance staff.

She stated that they used condition assessments as one tool to assess their assets for replacement or repair. First, they conducted a Level 1 desktop assessment, where maintenance, water, wastewater, and engineering staff gave each asset a standard one to five condition score, with one being very good and five being very poor. Ms. McIlwee stated that this was done by reviewing an Excel spreadsheet and providing a one through five score based on their best knowledge. She stated that the next step was the Level 2 Field Condition Assessment, which

involved a hands-on evaluation of the asset to obtain a real-time, accurate assessment of its condition. She stated that initially, this would be conducted on the top 10% of their vertical assets, which were determined by their business risk exposure or criticality. She stated that these assets included not only the most expensive assets, but also those with the highest impact to service, for their customers and the community.

Ms. McIlwee stated that Level 2 Field Condition Assessments were more in-depth when they were assessed, this condition assessment would provide a specific one to five rating scale, rather than the general one used for the desktop assessment. She stated the rating scale uses asset-specific questions to determine the condition, using the same 1 (very good) to 5 (very bad) scale, but set to asset specific criteria. She stated that the example on the slide illustrated the rating scale for assessing the condition of a building roof.

Ms. McIlwee stated that lifecycle was another key performance indicator that helped determine when assets needed to be replaced. She stated that the two columns in the chart demonstrated that sometimes the percent life consumed based on install date and percent life consumed based on condition did not align. She stated that lifecycle consumed based on condition was based on the level one condition assessment, which is a best estimate of the asset's condition, and that the lifecycle consumed based on install date was based on the management strategy group that the asset belonged to which is an estimate of an asset's lifespan.

Ms. McIlwee stated, for example a pump that is perfect condition with no real-life variables factored in, could result in a maximum potential lifespan of 30 years. She stated that the actual lifespan can vary due to operating conditions, so it was essential not to rely on a single key performance indicator for replacement decisions, it is important to take all factors: lifecycle, level 1 condition, and level 2 condition into account when deciding on an asset’s replacement needs. She stated that once level two condition assessments are completed, they can use a combination of install date, level one condition, level two condition, business risk exposure, and criticality to determine the best replacement cycle for their assets.

Ms. McIlwee stated that their next steps include completing the level two condition assessment and implementing a decision support tool to perform funding projections for assets and repair/replacement costs in different scenarios. She stated that they will continue to refine their usage and tools within Cityworks. She stated that they are also working to bring the Solid Waste Authority into Cityworks, so they can utilize more formalized tools for their asset management needs.

Mr. Lunsford asked if they had selected a decision tool for this matter.

Ms. McIlwee stated not yet. She stated that the screen shot on the slide was taken from a tool called Predictor, which would be able to tie directly into GIS utilizing the same information as Cityworks to produce accurate asset assessments.

Ms. Mallek stated that knowledge can be a dangerous thing. She stated that to her, it would be helpful if there was a clear indication of potential hazards, such as a flag or alert, to warn the person that they were about to engage in a high-risk activity. She stated that it would be great to

have access to the information. She stated that she was also impressed with the work she was doing here, as it was not just the big-ticket items, but also the smaller components, like $3.00 gaskets, that could sometimes cause issues with the $10 million machine. She stated that she appreciated the effort she was putting into pulling everything together.

Mr. Pinkston stated that he would appreciate it if staff could elaborate on the decision support system (DSS).

Ms. McIlwee stated that the DSS will allow staff to consider all key performance indicators; the criticality of the asset, the lifecycle, the installation date of the asset, and the condition they have placed on it to determine replacement. Ms. McIlwee stated that the DSS will allow them to model different scenarios to assess what the future will look using at various funding levels. This will help to determine the optimal funding level for maintaining or replacing assets, to ensure the best use of funds in the long term. For example, deciding whether an asset should be allowed to deteriorate over the course of 10 years, to the point where significant funding is requested for replacement, versus is it more fiscally responsible to maintain that same asset over the cost of the same timeframe.

c. Presentation: Grant Applications Update

Annie West, Sustainability and Grants Coordinator, stated that she would like to provide an update on the grant funding, awards, and processes. She stated that this presentation would cover the current capital project and operational project grants, as well as those that were pending and those the organization was currently applying for. She stated that she would also provide a brief overview of how they had been seeking out these funding opportunities.

Ms. West stated that she would begin with the capital grants funding projects. She stated that from Albemarle County, they received $750,000 in 2022 for the Red Hill Water Treatment Plant upgrade and Scottsville Lagoon Liners. She stated there was a photograph of the lagoon liners shown on the slide. She stated that in 2024, they received the Building Resilient Infrastructure and Communities grant from Federal Emergency Management Agency (FEMA), which had been beneficial for them as it allowed them to conduct flood protection and resiliency studies and designs on their critical infrastructure. She stated that this program helped them identify ways to make their infrastructure more resilient in response to their 100-year flood elevation studies.

Ms. West stated they had been receiving funding from the Bipartisan Infrastructure Law and the Virginia Department of Health's emerging contaminants program since 2022, and they had received over $6 million for the Crozet Water Treatment Plant granular activated carbon (GAC) treatment. In 2023, they received $1 million in funding from the Natural Resource Conservation Service (NRCS) through the Dam Safety and Rehabilitation Program, which allowed them to conduct an environmental assessment of the Beaver Creek Dam and a preliminary design.

Ms. West stated that the other image on the slide shows a proposed spillway, which was similar to what they had proposed for the Beaver Creek Dam. She stated that she would next discuss more recent capital project funding. In December 2024, they were awarded an additional $1 million for fiscal year 2025 for the Emerging Contaminants Funding, which would be allocated

towards the Crozet Water Treatment Plant GAC expansion. She stated that this would bring the total funding for that project to $7.2 million.

Ms. West stated that in December 2024, they received funding from the federally declared disaster 4644, which was related to the severe winter storm weather in 2022, and they also received money to help replace the Scottsville Wastewater Facility Generator. She stated that this brought the total funding for capital improvement projects to just over $10.5 million. She stated that moving forward, she would like to discuss operational maintenance grants and projects. She stated that in 2020, they applied through the Virginia Department of Health's set-asides program for water signage at some of their reservoirs and received approximately $14,000 for that project.

Ms. West stated that they had also had success with annual grants, such as the Virginia Risk Sharing Association, which they received funding for this year. She stated that in addition, they had applied to the Virginia Department of Environmental Quality for both competitive and non-competitive grants. She stated that the competitive funding this year allowed them to purchase reusable cooler bags and donate them to the Blue Ridge Food Bank. She stated that Mr. McKalips and she visited the Blue Ridge Food Bank just before Thanksgiving to make this donation.

Ms. West stated that the non-competitive funding went towards the cost of the recycling center, which was split between the City and the County. She stated that this brought their total grant funding for operational projects to just over $87 thousand. She stated that next, she would share some of the projects they had been able to accomplish with Virginia Risk Sharing Association funding. She stated that on the solid waste side, they built the cantilever gate at the Ivy Transfer Station, which helped keep customers in line outside while equipment was running through the transfer station. She stated that on the Water Authority side, they obtained new gas monitors and safety vests.

Ms. West stated that to summarize, since 2018, they had applied for 21 total grants and received 15 of them, with a total of nearly $10.6 million in funding. She stated that they were still waiting on two funding opportunities this year, which she would discuss in a separate section. She would also like to discuss the grants they had not received since 2018. She stated that the majority of these were the Building Resilient Infrastructure and Communities (BRIC) grants that she had previously mentioned. She stated that they had applied for the new baling facility on the solid waste side in previous years.

Ms. West stated they also applied for the Central Water Line project, as well as the South Rivanna Reservoir to Ragged Mountain Reservoir pipeline project. She stated that additionally, in 2021, they submitted an application for a Homeland Security program to install a control system at the Moores Creek facility, which was not awarded. She stated that she would like to discuss the pending grants for this year. This year, they applied to the state senators for Congressionally Directed Spending Fiscal Year 2024 for the South Rivanna powder-activated carbon replacement at the water treatment plant, requesting $880,000 for that project. Ms. West stated that this request was still pending.

Ms. West stated that they were able to qualify for assistance for storm damage as a result of

Hurricane Helene in September of last year. She stated that the disaster was declared by FEMA, and they were able to apply for reimbursement through the public assistance program. She stated that their estimated cost of damages from the hurricane was $560,000 and were working closely with Virginia Department of Emergency Management (VDEM) and FEMA to address that. She stated that displayed on the slide was just one example of the damage incurred from Hurricane Helene.

Ms. West stated what Mr. Mawyer had mentioned earlier, that the Sugar Hollow raw water line pipe, had been in place since the 1920s and carried raw water from Sugar Hollow to Ragged Mountain Reservoir. She stated that during the flooding event, a piece of the pipe broke off and traveled downstream, requiring their organization to repair the pipe and create a new pier support. She stated that the repair had been completed, and the new pier support had been installed.

Ms. West stated that she had another image of the damage caused by Hurricane Helene. She stated that at Ivy Creek, the bank had eroded significantly, posing a risk to the Stillhouse water line, which was located between these two markers. She stated that the erosion was concerning because the pipe could become damaged or fall into the creek. She stated that to stabilize the area temporarily, they had sandbagged the site, which would remain in place until they worked with the U.S. Army Corps of Engineers to develop a more permanent solution. She stated that they had been working with FEMA since September to gather the necessary documents and had both projects categorized as urgent or high priority.

Ms. West stated that as a result, Rivanna was working to submit applications to establish a reimbursement fund. She stated that she would like to provide an overview of her grant application process. She stated that Grants.gov was the website where federal funding opportunities were located, and she consistently checked for updates. She stated that Rivanna was part of a network of state and federal agencies, including FEMA, the Department of Health, and the Department of Environmental Quality, which sent out notifications about upcoming grant opportunities and deadlines. She stated that they also had a third-party grant consultant who helped organize their applications, which could be lengthy.

Ms. West stated that additionally, they monitor for federally declared disasters like Hurricane Helene to apply for public assistance. She stated that she would like to discuss the upcoming grants and what they would be looking for in the next couple of years. She stated that they would be focusing on grants that funded solar power installation, electric vehicles, and electric vehicle charging stations. She stated that they had been working with local organizations, such as Tiger Solar and ChargePoint, to explore these opportunities.

Ms. West stated that in June or July, they would be applying for funding for the Beaver Creek Dam construction through the NRCS program. She stated that later in the summer, they would be reapplying for the annual grants they had had success with, including the Virginia Risk Sharing Association and Department of Environmental Quality programs. She stated that they would also be applying for the Virginia Department of Health and Bipartisan Infrastructure Law Emerging Contaminants Application for the Fiscal Year of 2026. Currently, she was focused on FEMA's flood mitigation assistance and BRIC applications, which had recently been announced.

Ms. West stated that for the flood mitigation assistance program, they would be applying for their flood resiliency project at the Moores Creek Pump Station, as they had received results from the flood elevation studies and were hoping to secure funding. She stated that for the BRIC program this year, they were reapplying with the South Rivanna Reservoir to the Ragged Mountain Reservoir Pipeline.

Ms. West stated that this was one of the projects they had not received funding for before, but they were hopeful that this year they would secure some funding. Regarding dam safety, she stated that they would be applying for the Department of Conservation Resources Dam Safety Program. She stated that the installation of blanket drains at the Ragged Mountain Dam, as part of the Dam Rising the Water project, would help prevent seepage and ensure adequate drainage. She stated that they were continuing to work with the U.S. Fish and Wildlife Service regarding the decommissioning of the North Rivanna Dam which had been funded by them.

Mr. Mawyer stated that the $50 M BRIC grant they were currently applying for would support the South Rivanna to Ragged Pipeline and Pump Station Project.

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

Mr. Pinkston stated that he would like to ask a question. He stated that this topic related back to their earlier discussion about boating. He stated that it was not just UVA Rowing; it was also the Rivanna Rowing Club, a boating organization.

Bethany Houchens, Water Resources Coordinator, stated that they did allow other organizations, such as emergency services, to use gas-powered motors on the reservoir for training exercises, as well as the Department of Wildlife. She stated that, however, when it came to the rowing point, it was simply a club affiliated with the University of Virginia, rather than an organized group.

Mr. Pinkston stated that he was curious about the purpose of these boats. He stated that it was likely that the rowers were rowing without a motor, but there appeared to be another boat behind them, possibly tracking their progress.

Ms. Houchens stated that that was correct, the coaches would have a megaphone to instruct the participants on the rowing technique, and they would be training them to keep pace with the rowing boats in time.

Mr. Pinkston asked if the Rivanna Rowing Club used a boat that tracked along with them, accompanied by a megaphone, as well.

Ms. Houchens stated yes; they also used the boat launches for that purpose. She stated that it was the coaches who used the term "launches." She stated that that was the technical term they used for these boats that tracked alongside the rowers.

11. ADJOURNMENT

At 3:56 p.m., Ms. Mallek 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
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MEMORANDUM

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

FROM: **BILL MAWYER, EXECUTIVE DIRECTOR**

SUBJECT: **EXECUTIVE DIRECTOR'S REPORT**

DATE: **FEBRUARY 25, 2025**

STRATEGIC PLAN PRIORITY: EMPLOYEE DEVELOPMENT

Promotions and New Credentials for Team Members

After a competitive recruitment process, **Brad Puffenbarger** was selected as our new Water Department Manager. Brad was formerly our Assistant Water Department Manager and has been in our Water Department for 13 years. He has a Class I Water Operator's license and has a Bachelor of Science degree in Environmental Science from Lynchburg College.

We also want to welcome **Westley Kern** who started with us on February 3rd as our Communications and Outreach Coordinator. Prior to joining us, Westley was the Marketing Coordinator for Charlottesville Area Transit. Most recently, Westley went back to school and completed an apprenticeship program in HVAC. Westley has a Bachelor of Business Administration degree from James Madison University.

Debra Hoyt will be acting as our Interim Lab Manager, while Patricia Defibaugh will be out for an extended period. Debra will manage the team during our transition to the new Harris Street lab location. Debra has worked for RWSA in our Lab since 2005. Debra has a Bachelor of Science degree in Biology from James Madison University.

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

- **Cynthia Dunham** – Water Operator, Class 2 – With Rivanna for a year, and has a Bachelor of Science degree in Microbiology from Virginia Tech.
- **Conrad Wilson** – Wastewater Operator, Class 3 – With Rivanna for over a year and has a Bachelor degree in History from the University of Colorado Boulder.

“Souper Bowl” Team Building Event

Soup and Chili Cook-off
February 5, 2025

Rivanna Authorities held its quarterly Team Building event on February 5th with a *Souper Bowl Chili & Soup Cook-off* and potluck contest. Staff enjoyed and appreciated the delicious entries, homemade side dishes and desserts. We had eleven chili and soup entries competing for top honors. Congratulations to Katie McIlwee on her winning recipe of *New Year’s Day Soup* and Leah Beard on her winning *Chili Con Carne*!

National Engineers Week

National Engineers Week

We acknowledge and celebrate our hard-working engineers. National Engineers Week, February 16th – 22nd, recognizes engineering professionals and the vital role they play daily in our lives.

STRATEGIC PLAN PRIORITY: COMMUNICATION AND COLLABORATION

Utility Management Seminar

On February 5th, Dave Tungate and I attended a Utility Management Seminar in Short Pump. The theme was - *Shaping the Future of Utility Management* - hosted by the Virginia Water Environment Association and Virginia American Water Works Association. Collaborating with experts and peers provides insights into the latest trends, best practices, and innovative solutions for effective utility management, asset management, and workforce development.

STRATEGIC PLAN PRIORITY: PLANNING AND INFRASTRUCTURE

Sugar Hollow Water Line Repair

Repairs to the Sugar Hollow water line, which was damaged during Hurricane Helene, have been completed. Water transfer from Sugar Hollow to Ragged Mountain Reservoirs has resumed.

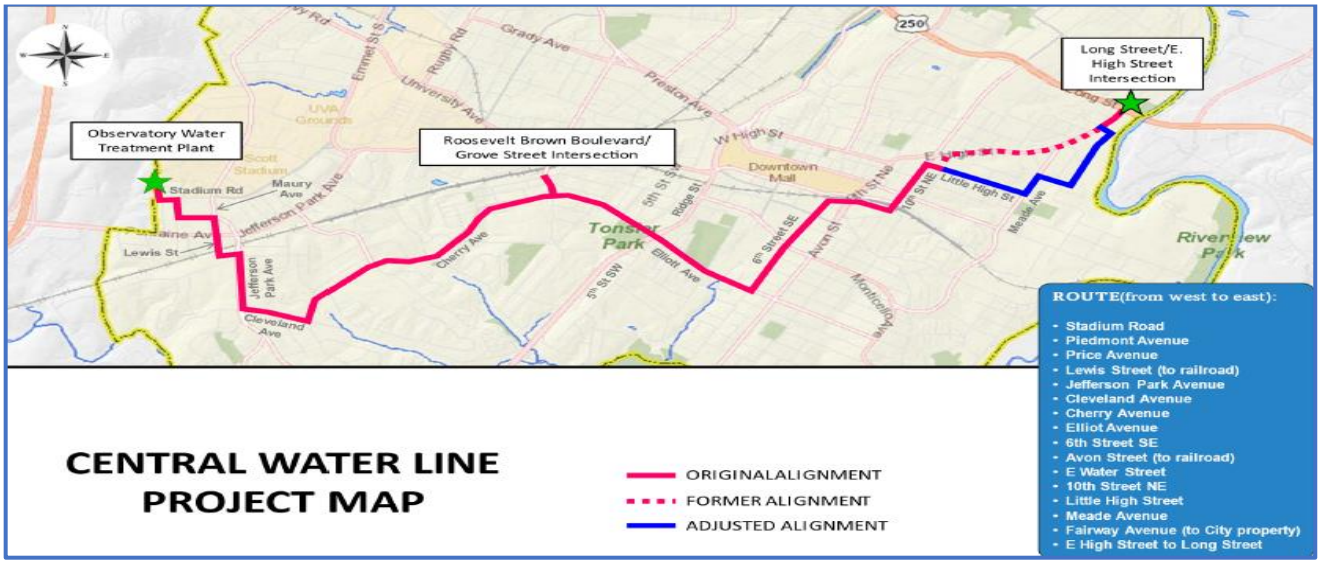
Repaired Sugar Hollow Water Line at the Mechums River Crossing.

Steel beam will support and protect the pipe. Red fence is temporary.

Preliminary Proposed FY 2026 Budget

On February 20th, we met with the City/ACSA budget subcommittee to review our proposed FY 2026 Budget. The proposed budget will be presented to the Board in March.

Central Water Line Project Update



- Project Scope: 5 miles of 24" & 30" ductile iron pipe; 2 crossings under railroad

- Alignment Selection in June 2022:

  After review of 5 alignments, City Council and the RWSA Board of Directors approved the Southern/Cherry Ave. alignment with a budget of $41 M. This budget was based on very preliminary information without any detailed subsurface investigation or engineering.

- Budget and E. High St Adjustments in 2024:

  Construction bids on the similar "Ragged Mtn to OBWTP Pipeline Project" indicated construction costs had increased significantly since 2022. Using the new market costs, the CWL budget was increased by about 60% to $67 M. The new budget included additional pipe length (1200 LF) for an alternate alignment in the E. High St. area due to extensive conflicts with existing underground utilities.

- Design Modifications in January 2025:

  The RWSA/City Design Review Team decided to lower the pipe about 2 feet (from 5 to 7 feet to top of pipe) to accommodate existing sewer pipes. The additional trench excavation costs increased the budget by about $15 M to $82 M.

- Construction Bids are scheduled to be received and opened in April. Costs will be shared 52% ACSA/48% City.

OVERALL RESULTS FOR CORRIDORS EVALUATED THROUGH ADDITIONAL MODELING EFFORTS

ALIGNMENT DESIGNATION	Emmet/Rt. 250 Bypass	Northern (Preston)	Middle (W. Main)	Southern (Cherry)	Southern (Harris/5th)	Remarks
Streets Included in Alignment	Stadium, Piedmont, Price, Maury, JPA, Emmet, Morton, Rivanna Trail (City Garden) & Route 250 Bypass	Stadium, Piedmont, Price, Maury, JPA, Emmet, Lambeth Field, Rugby, Grady, Preston, W. High & E. High	Stadium, Piedmont, Price, Maury, JPA, W. Main, Ridge McIntire, Preston, W. High & E. High	Stadium, Piedmont, Price, Lewis, JPA, Cleveland, Cherry, Elliott, 6th SE, Avon, 10th NE, E. Jefferson, 11th NE, E. High & Roosevelt Brown Connector	Stadium, Piedmont, Price, Lewis, JPA, Harris, 5th SW, Elliott, 6th SE, Avon, 10th NE, E. Jefferson, 11th NE, E. High & Roosevelt Brown Connector	
Overall Length of Pipe (feet)	17,900 CWL 13,000 EWL 30,900 Total [1]	17,700 CWL 7,600 EWL 25,300 Total [1]	21,400	26,500	30,200	Includes total length of all projects along route
Average Daily Traffic Counts	85% > 10,000 Max. 39,000	86% > 10,000 Max. 29,000	87% > 10,000 Max. 29,000	32% > 10,000 Max. 17,000	45% > 10,000 Max. 18,000	10,000 vehicles per day is minimium threshold for arterial street.
Estimated Overall Construction Duration (Years)	8 [2]	4	6 [2]	4	4.5	[2] Assumes installation with one work crew, otherwise multiple crews will be required to complete the project within 4 years.
Estimated Project Cost for Central Waterline (CWL)	$ 45 Million	$ 28 Million	$ 39 Million	$ 41 Million	$ 49 Million	Includes: design, bidding, permitting, easements, construction, upsizing costs, CM, and contingencies
Estimated Project Cost for Advancing Emmet Street Waterline (EWL)	$ 15 Million	$ 11 Million	$ 0 Million	$ 0 Million	$ 0 Million	Excludes funded EWL CIP coincident with the CWL (Ivy Road to Arlington Boulevard and Barracks Road)
Estimated Overall Project Cost	$ 60 Million [3]	$ 39 Million	$ 39 Million	$ 41 Million	$ 49 Million	[3] Includes premium for night work
Water System Benefits	Lower	Lower	Higher	Higher	Higher	Adequate tank operability, fire flow, consistent pressures, operational reliability and redundancy
Ease of Future Operations and Maintenance Efforts	Low	Medium	Low	High	Medium	Traffic/neighborhood/business/hospital impacts, operations and maintenace with adjacent utilities

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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: **DECEMBER MONTHLY FINANCIAL SUMMARY – FY 2025**

DATE: **FEBRUARY 25, 2025**

Financial Snapshot

The Authority's operating revenues for the first six months of this fiscal year are $704,300 more than the prorated annual budget estimates, and operating expenses are over the prorated budget by $807,400, resulting in an operating deficit of $103,100. Urban Water flows and operating rate revenue through December are 5.1% over budget estimates. Urban Wastewater flows and operating rate revenue are 4.6% over budget.

Operating and debt service revenues are $753,000 over budget estimates, but total expenses are $811,200 over budget, resulting in a slight overall deficit of $57,700 through December. Revenues and expenses are summarized in the table below:

	Urban Water	Urban Wastewater	Total Other Rate Centers	Total Authority
Operations				
Revenues	$ 6,119,674	$ 6,225,211	$ 1,583,198	$ 13,928,083
Expenses	(6,638,074)	(5,771,946)	(1,621,170)	(14,031,190)
Surplus (deficit)	$ (518,400)	$ 453,265	$ (37,972)	$ (103,107)
Debt Service				
Revenues	$ 6,762,790	$ 5,656,096	$ 1,501,442	$ 13,920,328
Expenses	(6,768,511)	(5,604,406)	(1,502,029)	(13,874,946)
Surplus (deficit)	$ (5,721)	$ 51,690	$ (587)	$ 45,382
Total				
Revenues	$ 12,882,464	$ 11,881,307	$ 3,084,640	$ 27,848,411
Expenses	(13,406,585)	(11,376,352)	(3,123,199)	(27,906,136)
Surplus (deficit)	$ (524,121)	$ 504,955	$ (38,559)	$ (57,725)

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 $175,000 payment to UVA for the Observatory lease is made in August. Insurance premiums are paid at the beginning of each quarter.
B. Personnel Costs (Urban Water, Urban Wastewater – pages 2, 5) – Urban Water and Urban Wastewater salaries are higher than budgeted due to various changes in operations. Urban Wastewater salaries are also higher due to "leave" payout upon wastewater manager's retirement.
C. Professional Services (Urban Water, Crozet Water, Scottsville Wastewater, Administration & Communication – pages 2, 3, 7, 8) – Urban Water has incurred $23,900 in unbudgeted legal fees and is $154,700 over the prorated budget for engineering and technical services for sedimentation issues at Glenmore, UVA water quality and the Sugar Hollow raw water line break. Crozet Water and Administration are over the prorated budget for professional services by $18,000 and $10,000, respectively. Scottsville Wastewater has exceeded the annual budget for engineering and technical services by $16,900 for a needs assessment.
D. Other Services & Charges (Urban Water– page 2) – Urban Water is currently $18,000 over the prorated budget in this category for watershed management costs.
E. Operations & Maintenance (Urban Water, Crozet Water, Glenmore Wastewater – pages 2, 3, 6) – Crozet Water is $25,200 over the prorated budget in this category due to a GAC exchange. Urban Water is currently $673,000 over the prorated budget due to GAC exchanges and pipeline and appurtenances costs. Glenmore Wastewater is $40,700 over budget for equipment repair and replacement costs.
F. Communication - data & voice (Urban Water – page 2) – Telephone and data services were inadvertently underbudgeted.

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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	$ 12,766,983	$ 13,314,703	$ 547,720	4.29%
Lease Revenue		120,000	60,000	71,845	11,845	19.74%
Admin., Finance/IT, Maint. & Engineering Revenue		905,200	452,600	472,410	19,810	4.38%
Other Revenues		667,768	333,884	411,253	77,369	23.17%
Use of Reserves (Water Resources Fund)		-	-	-	-	
Interest Allocation		165,400	82,700	130,281	47,581	57.53%
Total Operating Revenues		**$ 27,392,333**	**$ 13,696,167**	**$ 14,400,492**	**$ 704,326**	**5.14%**
Expenses						
Personnel Cost	**A, B**	$ 12,816,065	$ 6,408,033	$ 6,487,035	$ (79,002)	-1.23%
Professional Services	**C**	492,650	246,325	467,994	(221,669)	-89.99%
Other Services & Charges	**D**	4,371,588	2,185,794	2,192,787	(6,993)	-0.32%
Communication	**F**	244,950	122,475	159,545	(37,070)	-30.27%
Information Technology		1,470,050	735,025	598,600	136,425	18.56%
Supplies		51,200	25,600	25,255	345	1.35%
Operations & Maintenance	**A, E**	6,698,884	3,349,442	3,963,614	(614,172)	-18.34%
Equipment Purchases		316,950	158,475	143,771	14,704	9.28%
Depreciation		930,000	465,000	465,000	-	0.00%
Total Operating Expenses		**$ 27,392,337**	**$ 13,696,169**	**$ 14,503,600**	**$ (807,431)**	**-5.90%**
Operating Surplus/(Deficit)		**$ (4)**	**$ (2)**	**$ (103,107)**		

Debt Service Budget vs. Actual

Revenues						
Debt Service Rate Revenue		$ 25,612,554	$ 12,806,277	$ 12,806,280	$ 3	0.00%
Septage Receiving Support - County		109,440	54,720	109,440	54,720	100.00%
Buck Mountain Lease Revenue		10,000	5,000	1,999	(3,001)	-60.03%
Trust Fund Interest		430,300	215,150	208,397	(6,753)	-3.14%
Reserve Fund Interest		1,580,800	790,400	794,212	3,812	0.48%
Total Debt Service Revenues		**$ 27,743,094**	**$ 13,871,547**	**$ 13,920,327**	**$ 48,780**	**0.35%**
Debt Service Costs						
Total Principal & Interest		$ 16,164,506	$ 8,082,253	$ 9,574,133	$ (1,491,880)	-18.46%
Reserve Additions-Interest		1,580,800	790,400	794,212	(3,812)	-0.48%
Debt Service Ratio Charge		725,000	362,500	362,500	-	0.00%
Reserve Additions-CIP Growth		9,271,960	4,635,980	3,144,101	1,491,880	32.18%
Total Debt Service Costs		**$ 27,742,266**	**$ 13,871,133**	**$ 13,874,945**	**$ (3,812)**	**-0.03%**
Debt Service Surplus/(Deficit)		**$ 828**	**$ 414**	**$ 45,382**		

Summary

Total Revenues	$ 55,135,427	$ 27,567,714	$ 28,320,820	$ 753,106	2.73%
Total Expenses	55,134,603	27,567,302	28,378,545	(811,243)	-2.94%
Surplus/(Deficit)	**$ 824**	**$ 412**	**$ (57,725)**		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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	$ 5,712,671	$ 6,005,666	$ 292,995	5.13%
Lease Revenue		90,000	45,000	54,992	9,992	22.20%
Miscellaneous		-	-	2,735	2,735	
Use of Reserves (Water Resources Fund)		-	-		-	
Interest Allocation		71,500	35,750	56,281	20,531	57.43%
Total Operating Revenues		**$ 11,586,841**	**$ 5,793,421**	**$ 6,119,674**	**$ 326,253**	**5.63%**
Expenses						
Personnel Cost	**B**	$ 2,570,828	$ 1,285,414	$ 1,376,866	$ (91,452)	-7.11%
Professional Services	**C**	177,000	88,500	272,860	(184,360)	-208.32%
Other Services & Charges	**D**	1,076,746	538,373	553,423	(15,050)	-2.80%
Communications	**F**	89,700	44,850	57,020	(12,170)	-27.13%
Information Technology		109,400	54,700	23,537	31,163	56.97%
Supplies		7,900	3,950	4,358	(408)	-10.32%
Operations & Maintenance	**A, E**	3,334,814	1,667,407	2,340,371	(672,964)	-40.36%
Equipment Purchases		23,300	11,650	13,952	(2,302)	-19.76%
Depreciation		300,000	150,000	150,000	-	0.00%
Subtotal Before Allocations		$ 7,689,688	$ 3,844,844	$ 4,792,387	$ (947,543)	-24.64%
Allocation of Support Departments		3,897,153	1,960,072	1,845,687	114,384	5.84%
Total Operating Expenses		**$ 11,586,841**	**$ 5,804,916**	**$ 6,638,074**	**$ (833,159)**	**-14.35%**
Operating Surplus/(Deficit)		**$ 0**	**$ (11,495)**	**$ (518,401)**		
Debt Service Budget vs. Actual						
Revenues						
Debt Service Rate Revenue		$ 12,593,874	$ 6,296,937	$ 6,296,940	$ 3	0.00%
Trust Fund Interest		185,000	92,500	89,777	(2,723)	-2.94%
Reserve Fund Interest		744,800	372,400	374,074	1,674	0.45%
Lease Revenue		10,000	5,000	1,999	(3,001)	-60.03%
Total Debt Service Revenues		**$ 13,533,674**	**$ 6,766,837**	**$ 6,762,790**	**$ (4,047)**	**-0.06%**
Debt Service Costs						
Total Principal & Interest		$ 7,078,274	$ 3,539,137	$ 4,097,100	$ (557,963)	-15.77%
Reserve Additions-Interest		744,800	372,400	374,074	(1,674)	-0.45%
Debt Service Ratio Charge		400,000	200,000	200,000	-	0.00%
Est. New Debt Service - CIP Growth		5,310,600	2,655,300	2,097,337	557,963	21.01%
Total Debt Service Costs		**$ 13,533,674**	**$ 6,766,837**	**$ 6,768,511**	**$ (1,674)**	**-0.02%**
Debt Service Surplus/(Deficit)		**$ -**	**$ -**	**$ (5,721)**		
Rate Center Summary						
Total Revenues		$ 25,120,515	$ 12,560,258	$ 12,882,463	$ 322,206	2.57%
Total Expenses		25,120,515	12,571,753	13,406,585	(834,832)	-6.64%
Surplus/(Deficit)		**$ 0**	**$ (11,495)**	**$ (524,122)**		
Costs per 1000 Gallons		$ 3.41		$ 3.72		
Operating and DS		$ 7.39		$ 7.51		
Thousand Gallons Treated		3,397,700	1,698,850	1,785,507	86,657	5.10%
or						
Flow (MGD)		9.309		9.704		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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	$ 710,322	$ 710,322	$ -	0.00%
Lease Revenues		30,000	15,000	16,854	1,854	12.36%
Interest Allocation		8,900	4,450	7,035	2,585	58.09%
Total Operating Revenues		**$ 1,459,544**	**$ 729,772**	**$ 734,211**	**$ 4,439**	**0.61%**
Expenses						
Personnel Cost		$ 365,428	$ 182,714	$ 191,832	$ (9,118)	-4.99%
Professional Services	C	22,900	11,450	29,689	(18,239)	-159.30%
Other Services & Charges		163,107	81,554	70,331	11,223	13.76%
Communications		19,000	9,500	9,233	267	2.81%
Information Technology		35,000	17,500	2,429	15,071	86.12%
Supplies		1,600	800	1,583	(783)	-97.92%
Operations & Maintenance	E	426,600	213,300	241,822	(28,522)	-13.37%
Equipment Purchases		3,300	1,650	1,976	(326)	-19.73%
Depreciation		60,000	30,000	30,000	-	0.00%
Subtotal Before Allocations		$ 1,096,935	$ 548,467	$ 578,895	$ (30,427)	-5.55%
Allocation of Support Departments		362,608	182,349	172,121	10,227	5.61%
Total Operating Expenses		**$ 1,459,543**	**$ 730,816**	**$ 751,016**	**$ (20,200)**	**-2.76%**
Operating Surplus/(Deficit)		**$ 1**	**$ (1,044)**	**$ (16,805)**		

Debt Service Budget vs. Actual

Revenues						
Debt Service Rate Revenue		$ 2,590,368	$ 1,295,184	$ 1,295,184	$ -	0.00%
Trust Fund Interest		32,400	16,200	15,692	(508)	-3.13%
Reserve Fund Interest		93,800	46,900	46,859	(41)	-0.09%
Total Debt Service Revenues		**$ 2,716,568**	**$ 1,358,284**	**$ 1,357,735**	**$ (549)**	**-0.04%**
Debt Service Costs						
Total Principal & Interest		$ 1,131,172	$ 565,586	$ 565,586	$ -	0.00%
Reserve Additions-Interest		93,800	46,900	46,859	41	0.09%
Estimated New Principal & Interest		1,491,600	745,800	745,800	-	0.00%
Total Debt Service Costs		**$ 2,716,572**	**$ 1,358,286**	**$ 1,358,245**	**$ 41**	**0.00%**
Debt Service Surplus/(Deficit)		**$ (4)**	**$ (2)**	**$ (510)**		

Rate Center Summary

Total Revenues	$ 4,176,112	$ 2,088,056	$ 2,091,946	$ 3,890	0.19%
Total Expenses	4,176,115	2,089,102	2,109,261	(20,158)	-0.96%
Surplus/(Deficit)	**$ (3)**	**$ (1,046)**	**$ (17,315)**		
Costs per 1000 Gallons	$ 7.20		$ 6.00		
Operating and DS	$ 20.60		$ 16.84		
Thousand Gallons Treated	202,697	101,349	125,233	23,885	23.57%
Flow (MGD)	0.555		0.681		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 2024

Scottsville 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		$ 741,984	$ 370,992	$ 370,992	$ -	0.00%
Interest Allocation		4,600	2,300	3,648	1,348	58.60%
Total Operating Revenues		**$ 746,584**	**$ 373,292**	**$ 374,640**	**$ 1,348**	**0.36%**
Expenses						
Personnel Cost		$ 239,452	$ 119,726	$ 119,465	$ 261	0.22%
Professional Services		5,000	2,500	2,939	(439)	-17.56%
Other Services & Charges		68,490	34,245	25,286	8,959	26.16%
Communications		7,000	3,500	12,707	(9,207)	-263.05%
Information Technology		13,400	6,700	11,933	(5,233)	-78.10%
Supplies		200	100	1,615	(1,515)	-1515.05%
Operations & Maintenance		154,600	77,300	44,808	32,492	42.03%
Equipment Purchases		2,200	1,100	1,615	(515)	-46.80%
Depreciation		40,000	20,000	20,000	0	0.00%
Subtotal Before Allocations		$ 530,342	$ 265,171	$ 240,367	$ 24,804	9.35%
Allocation of Support Departments		216,247	108,646	102,917	5,729	5.27%
Total Operating Expenses		**$ 746,589**	**$ 373,817**	**$ 343,284**	**$ 30,533**	**8.17%**
Operating Surplus/(Deficit)		**$ (5)**	**$ (525)**	**$ 31,356**		

Debt Service Budget vs. Actual

Revenues						
Debt Service Rate Revenue		$ 190,416	$ 95,208	$ 95,208	$ -	0.00%
Trust Fund Interest		4,000	2,000	1,917	(83)	-4.14%
Reserve Fund Interest		7,000	3,500	3,971	471	13.46%
Total Debt Service Revenues		**$ 201,416**	**$ 100,708**	**$ 101,096**	**$ 388**	**0.39%**
Debt Service Costs						
Total Principal & Interest		$ 148,815	$ 74,408	$ 74,408	$ -	0.00%
Reserve Additions-Interest		7,000	3,500	3,971	(471)	-13.46%
Estimated New Principal & Interest		45,600	22,800	22,800	-	0.00%
Total Debt Service Costs		**$ 201,415**	**$ 100,708**	**$ 101,179**	**$ (471)**	**-0.47%**
Debt Service Surplus/(Deficit)		**$ 1**	**$ 1**	**$ (82)**		

Rate Center Summary

Total Revenues	$ 948,000	$ 474,000	$ 475,736	$ 1,736	0.37%
Total Expenses	948,004	474,525	444,462	30,062	6.34%
Surplus/(Deficit)	**$ (4)**	**$ (525)**	**$ 31,274**		
Costs per 1000 Gallons	$ 43.33		$ 34.23		
Operating and DS	$ 55.02		$ 44.32		
Thousand Gallons Treated	17,230	8,615	10,029	1,414	16.41%
or					
Flow (MGD)	0.047		0.055		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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	$ 5,503,732	$ 5,758,457	$ 254,725	4.63%
Stone Robinson WWTP		17,768	8,884	6,071	(2,813)	-31.66%
Septage Acceptance		600,000	300,000	293,642	(6,358)	-2.12%
Nutrient Credits		50,000	25,000	108,805	83,805	335.22%
Miscellaneous Revenue		-	-	-	-	
Interest Allocation		74,000	37,000	58,236	21,236	57.39%
Total Operating Revenues		**$ 11,749,232**	**$ 5,874,616**	**$ 6,225,211**	**$ 350,595**	**5.97%**
Expenses						
Personnel Cost	**A, B**	$ 1,615,345	$ 807,673	$ 866,933	$ (59,261)	-7.34%
Professional Services		35,000	17,500	22,615	(5,115)	-29.23%
Other Services & Charges		2,721,750	1,360,875	1,370,218	(9,343)	-0.69%
Communications		14,800	7,400	8,192	(792)	-10.70%
Information Technology		95,500	47,750	43,623	4,127	8.64%
Supplies		2,600	1,300	763	537	41.28%
Operations & Maintenance		2,190,500	1,095,250	1,031,244	64,006	5.84%
Equipment Purchases		73,500	36,750	36,750	-	0.00%
Depreciation		470,000	235,000	235,000	(0)	0.00%
Subtotal Before Allocations		$ 7,218,995	$ 3,609,498	$ 3,615,339	$ (5,841)	-0.16%
Allocation of Support Departments		4,530,238	2,277,659	2,156,608	121,051	5.31%
Total Operating Expenses		**$ 11,749,233**	**$ 5,887,157**	**$ 5,771,946**	**$ 115,210**	**1.96%**
Operating Surplus/(Deficit)		**$ (1)**	**$ (12,541)**	**$ 453,264**		
Debt Service Budget vs. Actual						
Revenues						
Debt Service Rate Revenue		$ 10,156,560	$ 5,078,280	$ 5,078,280	$ -	0.00%
Septage Receiving Support - County		109,440	54,720	109,440	54,720	100.00%
Trust Fund Interest		208,200	104,100	100,656	(3,444)	-3.31%
Reserve Fund Interest		731,800	365,900	367,720	1,820	0.50%
Total Debt Service Revenues		**$ 11,206,000**	**$ 5,603,000**	**$ 5,656,096**	**$ 53,096**	**0.95%**
Debt Service Costs						
Total Principal & Interest		$ 7,780,072	$ 3,890,036	$ 4,823,953	$ (933,917)	-24.01%
Reserve Additions-Interest		731,800	365,900	367,720	(1,820)	-0.50%
Debt Service Ratio Charge		325,000	162,500	162,500	-	0.00%
Est. New Debt Service - CIP Growth		2,368,300	1,184,150	250,234	933,917	78.87%
Total Debt Service Costs		**$ 11,205,172**	**$ 5,602,586**	**$ 5,604,406**	**$ (1,820)**	**-0.03%**
Debt Service Surplus/(Deficit)		**$ 828**	**$ 414**	**$ 51,690**		
Rate Center Summary						
Total Revenues		$ 22,955,232	$ 11,477,616	$ 11,881,307	$ 403,691	3.52%
Total Expenses		22,954,405	11,489,743	11,376,353	113,390	0.99%
Surplus/(Deficit)		**$ 827**	**$ (12,127)**	**$ 504,954**		
Costs per 1000 Gallons		$ 3.47		$ 3.25		
Operating and DS		$ 6.77		$ 6.41		
Thousand Gallons Treated		3,390,400	1,695,200	1,773,470	78,270	4.62%
or						
Flow (MGD)		9.289		9.638		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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	$ 266,556	$ 266,556	$ -	0.00%
Interest Allocation		3,700	1,850	2,866	1,016	54.93%
Total Operating Revenues		**$ 536,812**	**$ 268,406**	**$ 269,422**	**$ 1,016**	**0.38%**
Expenses						
Personnel Cost		$ 133,566	$ 66,783	$ 71,536	$ (4,753)	-7.12%
Professional Services		10,000	5,000	584	4,416	88.31%
Other Services & Charges		41,840	20,920	19,056	1,864	8.91%
Communications		3,700	1,850	10,984	(9,134)	-493.75%
Information Technology		14,350	7,175	429	6,746	94.03%
Supplies		-	-	-	-	
Operations & Maintenance	**E**	130,600	65,300	105,974	(40,674)	-62.29%
Equipment Purchases		3,500	1,750	1,750	(0)	0.00%
Depreciation		40,000	20,000	20,000	0	0.00%
Subtotal Before Allocations		$ 377,556	$ 188,778	$ 230,314	$ (41,536)	-22.00%
Allocation of Support Departments		159,262	79,892	75,458	4,434	5.55%
Total Operating Expenses		**$ 536,818**	**$ 268,670**	**$ 305,772**	**$ (37,102)**	**-13.81%**
Operating Surplus/(Deficit)		**$ (6)**	**$ (264)**	**$ (36,350)**		
Debt Service Budget vs. Actual						
Revenues						
Debt Service Rate Revenue		$ 48,780	$ 24,390	$ 24,390	$ -	0.00%
Trust Fund Interest		500	250	250	0	0.03%
Reserve Fund Interest		-	-	-	-	
Total Debt Service Revenues		**$ 49,280**	**$ 24,640**	**$ 24,640**	**$ 0**	**0.00%**
Debt Service Costs						
Total Principal & Interest		$ 18,720	$ 9,360	$ 9,360	$ -	0.00%
Estimated New Principal & Interest		30,560	15,280	15,280	-	0.00%
Reserve Additions-Interest		-	-	-	-	
Total Debt Service Costs		**$ 49,280**	**$ 24,640**	**$ 24,640**	**$ -**	**0.00%**
Debt Service Surplus/(Deficit)		**$ -**	**$ -**	**$ 0**		
Rate Center Summary						
Total Revenues		$ 586,092	$ 293,046	$ 294,062	$ 1,016	0.35%
Total Expenses		586,098	293,310	330,412	(37,102)	-12.65%
Surplus/(Deficit)		**$ (6)**	**$ (264)**	**$ (36,350)**		
Costs per 1000 Gallons		$ 12.97		$ 14.02		
Operating and DS		$ 14.16		$ 15.16		
Thousand Gallons Treated		41,401	20,701	21,802	1,102	**5.32%**
or						
Flow (MGD)		0.113		0.118		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 2024

Scottsville Wastewater 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		$ 405,420	$ 202,710	$ 202,710	$ -	0.00%
Interest Allocation		2,700	1,350	2,215	865	64.06%
Total Operating Revenues		**$ 408,120**	**$ 204,060**	**$ 204,925**	**$ 865**	**0.42%**
Expenses						
Personnel Cost		$ 133,636	$ 66,818	$ 71,536	$ (4,719)	-7.06%
Professional Services	C	5,000	2,500	25,768	(23,268)	-930.74%
Other Services & Charges		33,400	16,700	16,340	360	2.15%
Communications		3,650	1,825	368	1,457	79.84%
Information Technology		15,150	7,575	429	7,146	94.34%
Supplies		-	-	-	-	
Operations & Maintenance		44,500	22,250	24,263	(2,013)	-9.05%
Equipment Purchases		3,500	1,750	1,750	(0)	0.00%
Depreciation		20,000	10,000	10,000	(0)	0.00%
Subtotal Before Allocations		$ 258,836	$ 129,418	$ 150,455	$ (21,037)	-16.26%
Allocation of Support Departments		149,278	74,900	70,642	4,258	5.68%
Total Operating Expenses		**$ 408,114**	**$ 204,318**	**$ 221,098**	**$ (16,779)**	**-8.21%**
Operating Surplus/(Deficit)		**$ 6**	**$ (258)**	**$ (16,173)**		

Debt Service Budget vs. Actual

Revenues						
Debt Service Rate Revenue		$ 32,556	$ 16,278	$ 16,278	$ -	0.00%
Trust Fund Interest		200	100	104	4	4.20%
Reserve Fund Interest		3,400	1,700	1,588	(112)	-6.56%
Total Debt Service Revenues		**$ 36,156**	**$ 18,078**	**$ 17,971**	**$ (107)**	**-0.59%**
Debt Service Costs						
Total Principal & Interest		$ 7,453	$ 3,727	$ 3,727	$ -	0.00%
Reserve Additions-Interest		3,400	1,700	1,588	112	6.56%
Estimated New Principal & Interest		25,300	12,650	12,650	-	0.00%
Total Debt Service Costs		**$ 36,153**	**$ 18,077**	**$ 17,965**	**$ 112**	**0.62%**
Debt Service Surplus/(Deficit)		**$ 3**	**$ 2**	**$ 6**		

Rate Center Summary

Total Revenues	$ 444,276	$ 222,138	$ 222,895	$ 757	0.34%
Total Expenses	444,267	222,395	239,062	(16,668)	-7.49%
Surplus/(Deficit)	**$ 9**	**$ (257)**	**$ (16,167)**		
Costs per 1000 Gallons	$ 17.26		$ 23.38		
Operating and DS	$ 18.79		$ 25.28		
Thousand Gallons Treated	23,643	11,822	9,458	(2,364)	**-19.99%**
or					
Flow (MGD)	0.065		0.051		

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 2024

Administration and Communication

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	$ 182,100	$ 182,100	$ -	0.00%
Miscellaneous Revenue		-	-	5,753	5,753	
Total Operating Revenues		**$ 364,200**	**$ 182,100**	**$ 187,853**	**$ 5,753**	**3.16%**
Expenses						
Personnel Cost		$ 1,348,563	$ 674,282	$ 670,366	$ 3,916	0.58%
Professional Services	C	153,250	76,625	87,057	(10,432)	-13.61%
Other Services & Charges		161,100	80,550	85,839	(5,289)	-6.57%
Communications		9,700	4,850	4,796	54	1.11%
Information Technology		5,000	2,500	3,412	(912)	-36.48%
Supplies		14,000	7,000	8,382	(1,382)	-19.74%
Operations & Maintenance		57,250	28,625	25,432	3,193	11.16%
Equipment Purchases		9,000	4,500	4,500	-	0.00%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 1,757,863**	**$ 878,932**	**$ 889,784**	**$ (10,852)**	**-1.23%**

Department Summary

Net Costs Allocable to Rate Centers	**$ (1,393,663)**	**$ (696,832)**	**$ (701,931)**	**$ 5,099**	**-0.73%**
Allocations to the Rate Centers					
Urban Water	44.00% **$ 613,212**	**$ 306,606**	**$ 308,850**	**$ (2,244)**	
Crozet Water	4.00% **$ 55,747**	**27,873**	**28,077**	**(204)**	
Scottsville Water	2.00% **$ 27,873**	**13,937**	**14,039**	**(102)**	
Urban Wastewater	48.00% **$ 668,958**	**334,479**	**336,927**	**(2,448)**	
Glenmore Wastewater	1.00% **$ 13,937**	**6,968**	**7,019**	**(51)**	
Scottsville Wastewater	1.00% **$ 13,937**	**6,968**	**7,019**	**(51)**	
	100.00% **$ 1,393,663**	**$ 696,832**	**$ 701,931**	**$ (5,099)**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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	$ 270,500	$ 270,500	$ 0	0.00%
Miscellaneous Revenue		-	-		-	
Total Operating Revenues		**$ 541,000**	**$ 270,500**	**$ 270,500**	**$ 0**	**0.00%**
Expenses						
Personnel Cost	**A**	$ 2,083,478	$ 1,041,739	$ 1,063,885	$ (22,146)	-2.13%
Professional Services		42,000	21,000	22,595	(1,595)	-7.59%
Other Services & Charges		46,000	23,000	27,902	(4,902)	-21.31%
Communication		65,000	32,500	36,404	(3,904)	-12.01%
Information Technology		962,850	481,425	435,703	45,722	9.50%
Supplies		14,500	7,250	4,834	2,416	33.33%
Operations & Maintenance		5,000	28,625	4,879	23,746	82.96%
Equipment Purchases		7,500	3,750	3,750	-	0.00%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 3,226,328**	**$ 1,639,289**	**$ 1,599,952**	**$ 39,337**	**2.40%**

Department Summary

Net Costs Allocable to Rate Centers	**$ (2,685,328)**	**$ (1,368,789)**	**$ (1,329,452)**	**$ (39,337)**	**2.87%**
Allocations to the Rate Centers					
Urban Water	44.00% **$ 1,181,544**	**$ 602,267**	**$ 584,959**	**$ 17,308**	
Crozet Water	4.00% **$ 107,413**	**54,752**	**53,178**	**1,573**	
Scottsville Water	2.00% **$ 53,707**	**27,376**	**26,589**	**787**	
Urban Wastewater	48.00% **$ 1,288,957**	**657,019**	**638,137**	**18,882**	
Glenmore Wastewater	1.00% **$ 26,853**	**13,688**	**13,295**	**393**	
Scottsville Wastewater	1.00% **$ 26,853**	**13,688**	**13,295**	**393**	
	100.00% **$ 2,685,328**	**$ 1,368,789**	**$ 1,329,452**	**$ 39,337**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 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		-	-	6,858	6,858	
Total Operating Revenues		**$ -**	**$ -**	**$ 6,858**	**$ 6,858**	
Expenses						
Personnel Cost		$ 1,645,860	$ 822,930	$ 810,412	$ 12,518	1.52%
Professional Services		10,000	5,000	-	5,000	100.00%
Other Services & Charges		29,140	14,570	18,753	(4,183)	-28.71%
Communications		16,200	8,100	11,209	(3,109)	-38.38%
Information Technology		7,500	3,750	554	3,196	85.22%
Supplies		3,500	1,750	-	1,750	100.00%
Operations & Maintenance		138,800	69,400	64,119	5,281	7.61%
Equipment Purchases		145,750	72,875	65,000	7,875	10.81%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 1,996,750**	**$ 998,375**	**$ 970,047**	**$ 28,328**	**2.84%**

Department Summary

Net Costs Allocable to Rate Centers		**$ (1,996,750)**	**$ (998,375)**	**$ (963,189)**	**$ (21,470)**	**2.15%**
Allocations to the Rate Centers						
Urban Water	30.00%	**$ 599,025**	**$ 299,513**	**$ 288,957**	**$ 10,556**	
Crozet Water	3.50%	**69,886**	**34,943**	**33,712**	**1,232**	
Scottsville Water	3.50%	**69,886**	**34,943**	**33,712**	**1,232**	
Urban Wastewater	56.50%	**1,128,164**	**564,082**	**544,202**	**19,880**	
Glenmore Wastewater	3.50%	**69,886**	**34,943**	**33,712**	**1,232**	
Scottsville Wastewater	3.00%	**59,903**	**29,951**	**28,896**	**1,056**	
	100.00%	**$ 1,996,750**	**$ 998,375**	**$ 963,189**	**$ 35,186**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 2024

Laboratory

Operating Budget vs. Actual

	Notes	*Budget FY 2025*	*Budget Year-to-Date*	*Actual Year-to-Date*	*Budget vs. Actual*	*Variance Percentage*
Revenues						
N/A						
Expenses						
Personnel Cost		$ 463,225	$ 231,613	$ 231,339	$ 274	0.12%
Professional Services		-	-	-	-	
Other Services & Charges		9,550	4,775	466	4,309	90.25%
Communications		1,050	525	351	174	33.07%
Information Technology		-	-	743	(743)	
Supplies		1,300	650	189	461	70.86%
Operations & Maintenance		133,600	66,800	53,033	13,767	20.61%
Equipment Purchases		23,900	11,950	1,978	9,972	83.45%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 632,625**	**$ 316,313**	**$ 288,100**	**$ 28,213**	**8.92%**

Department Summary

Net Costs Allocable to Rate Centers	**$ (632,625)**	**$ (316,313)**	**$ (288,100)**	**$ (28,213)**	**8.92%**
Allocations to the Rate Centers					
Urban Water 44.00%	**$ 278,355**	**$ 139,178**	**$ 126,764**	**$ 12,414**	
Crozet Water 4.00%	**25,305**	**12,653**	**11,524**	**1,129**	
Scottsville Water 2.00%	**12,653**	**6,326**	**5,762**	**564**	
Urban Wastewater 47.00%	**297,334**	**148,667**	**135,407**	**13,260**	
Glenmore Wastewater 1.50%	**9,489**	**4,745**	**4,321**	**423**	
Scottsville Wastewater 1.50%	**9,489**	**4,745**	**4,321**	**423**	
100.00%	**$ 632,625**	**$ 316,313**	**$ 288,100**	**$ 28,213**	

Rivanna Water & Sewer Authority
Monthly Financial Statements - December 2024

Engineering

Operating Budget vs. Actual

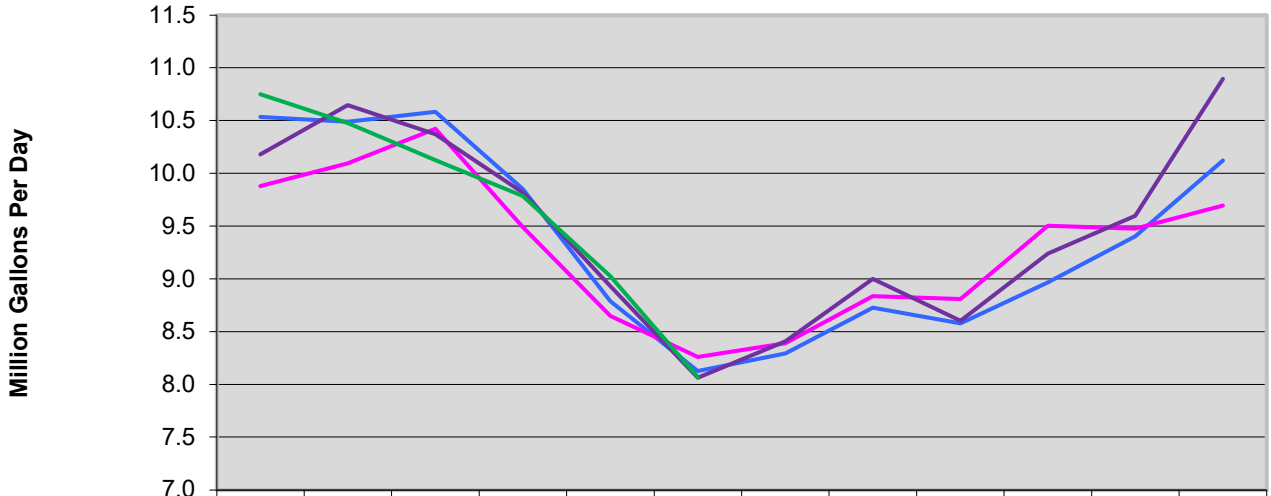
	Notes	*Budget FY 2025*	*Budget Year-to-Date*	*Actual Year-to-Date*	*Budget vs. Actual*	*Variance Percentage*
Revenues						
Payment for Services SWA		$ -	$ -	$ 7,199	$ 7,199	
Total Operating Revenues		**$ -**	**$ -**	**$ 7,199**	**$ 7,199**	
Expenses						
Personnel Cost		$ 2,216,684	$ 1,108,342	$ 1,012,863	$ 95,479	8.61%
Professional Services		32,500	16,250	3,885	12,365	76.09%
Other Services & Charges		20,465	10,233	5,173	5,059	49.44%
Communications		15,150	7,575	8,281	(706)	-9.32%
Information Technology		211,900	105,950	75,810	30,140	28.45%
Supplies		5,600	2,800	3,530	(730)	-26.08%
Operations & Maintenance		82,620	41,310	27,669	13,641	33.02%
Equipment Purchases		21,500	10,750	10,750	0	0.00%
Depreciation		-	-	-	-	
Total Operating Expenses		**$ 2,606,419**	**$ 1,303,210**	**$ 1,147,962**	**$ 155,248**	**11.91%**

Department Summary

Net Costs Allocable to Rate Centers		**$ (2,606,419)**	**$ (1,303,210)**	**$ (1,140,763)**	**$ (148,049)**	**11.36%**
Allocations to the Rate Centers						
Urban Water	47.00%	**$ 1,225,017**	**$ 612,508**	**$ 536,158**	**$ 76,350**	
Crozet Water	4.00%	**104,257**	**52,128**	**45,631**	**6,498**	
Scottsville Water	2.00%	**52,128**	**26,064**	**22,815**	**3,249**	
Urban Wastewater	44.00%	**1,146,824**	**573,412**	**501,936**	**71,477**	
Glenmore Wastewater	1.50%	**39,096**	**19,548**	**17,111**	**2,437**	
Scottsville Wastewater	1.50%	**39,096**	**19,548**	**17,111**	**2,437**	
	100.00%	**$ 2,606,419**	**$ 1,303,210**	**$ 1,140,763**	**$ 162,447**	

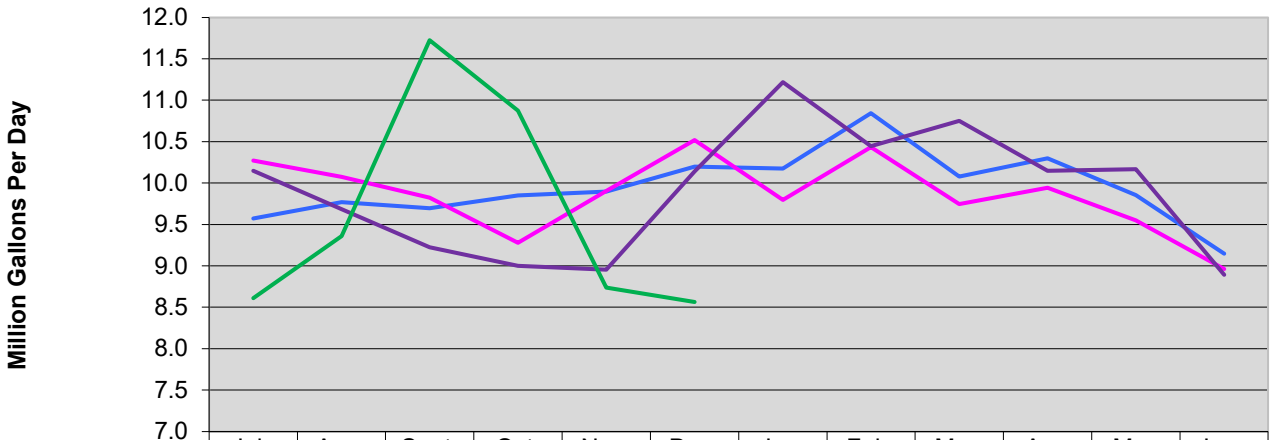
Rivanna Water and Sewer Authority
Flow Graphs

Urban Water Flows



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
5 YR AVG.	10.53	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	9.78	9.02	8.07						

Urban Wastewater Flows



	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	10.88	8.74	8.56						

RIVANNA WATER & SEWER AUTHORITY
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MEMORANDUM

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

FROM: **DANIEL G. CAMPBELL, DIRECTOR OF OPERATIONS & ENVIRONMENTAL SERVICES**

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

SUBJECT: **OPERATIONS REPORT FOR JANUARY 2025**

DATE: **FEBRUARY 25, 2025**

WATER OPERATIONS:

The average and maximum daily water volumes produced in January 2025 were as follows:

Water Treatment Plant	***Average Daily Production (MGD)***	***Maximum Daily Production in the Month (MGD)***
South Rivanna	7.74	8.74 (1/8/2025)
Observatory	0.89	2.98 (1/27/2025)
North Rivanna	0.18	0.44 (1/15/2025)
Urban Total	8.81	9.87 (1/27/2025)
Crozet	0.57	0.80 (1/5/2025)
Scottsville	0.04	0.071 (1/18/2025)
Red Hill	0.0015	0.005 (1/9/2025)
RWSA Total	9.42	-

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

Status of Reservoirs (as of February 18, 2025):

- Urban Reservoirs are 98% of Total Useable Capacity
  - South Rivanna Reservoir is 100% full
  - Ragged Mountain Reservoir is 100% full
  - Sugar Hollow Reservoir is 80% full (water level lowered to complete bladder piping improvements)
- 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 January 2025. Performance of the WRRFs in January 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	8.97	<QL	9	<QL	22	0.42	6.4
Glenmore	0.131	3	15	7.1	30	NR	NL
Scottsville	0.054	<QL	25	8.9	30	NR	NL
Stone Robinson	0.002	NR	30	NR	30	NR	NL

NR = Not Required

NL = No Limit

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

Nutrient discharges at the Moores Creek AWRRF were as follows for January 2025.

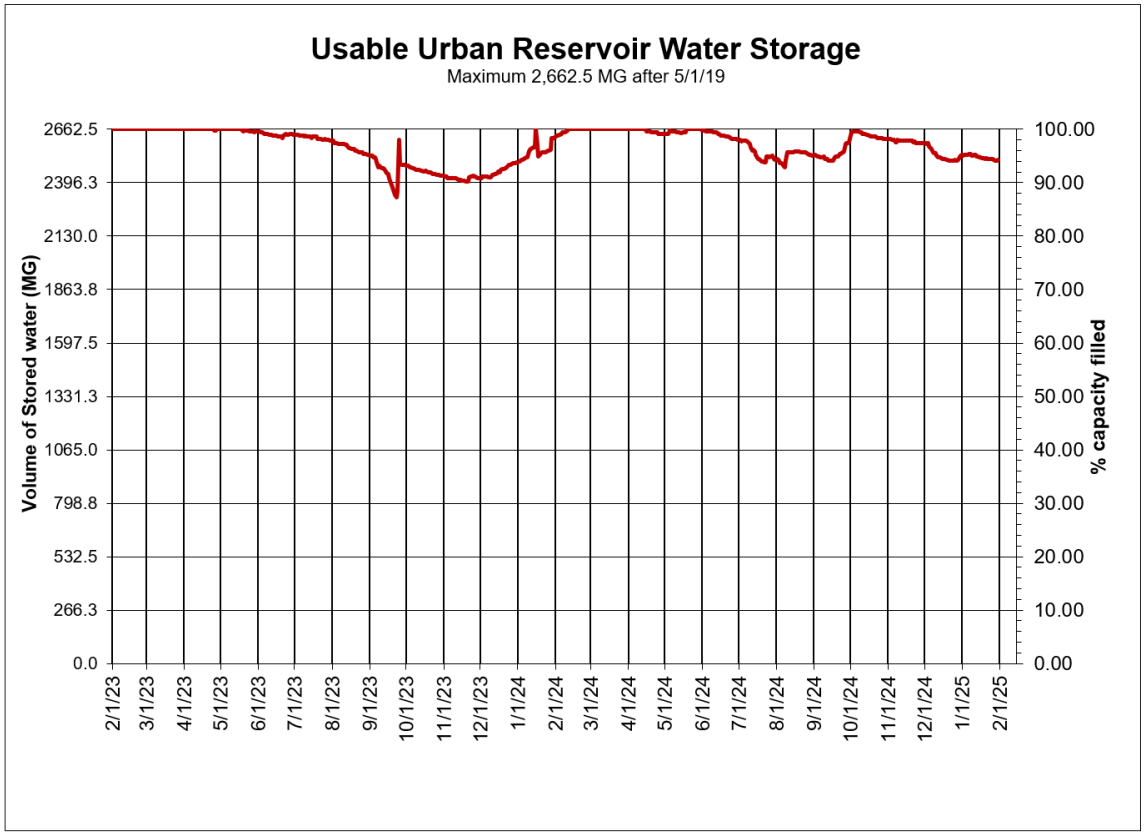
State Annual Allocation (lb./yr.) Permit		*Average Monthly Allocation (lb./mo.) **	*Moores Creek Discharge January (lb./mo.)*	*Performance as % of monthly average Allocation**	*Year to Date Performance as % of annual allocation*
Nitrogen	282,994	23,583	17,993	76%	6%
Phosphorous	18,525	1,636	532	33%	3%

*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
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
4/1/24
5/1/24
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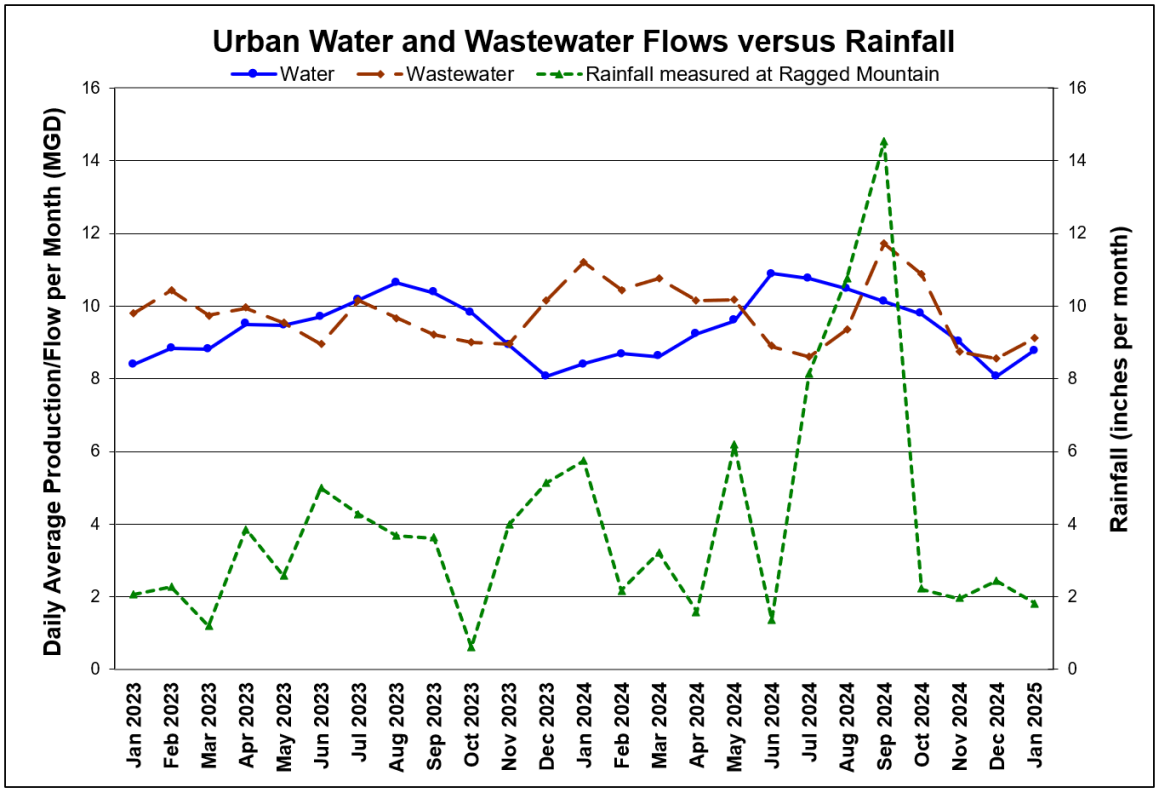
1/1/25
2/1/25


Urban Water and Wastewater Flows versus Rainfall
Water
Wastewater
Rainfall measured at Ragged Mountain
Daily Average Production/Flow per Month (MGD)
Rainfall (inches per month)
16
14
12
10
8
6
4
2
0
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
Nov 2024
Dec 2024
Jan 2025

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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: **FEBRUARY 25, 2025**

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	October 2022	June 2025
2	Rivanna Pump Station Restoration	July 2024	October 2025
3	Red Hill Water Treatment Plant Upgrades	January 2025	June 2026
4	South Fork Rivanna River Crossing	December 2024	January 2027
5	RMR to OBWTP Raw Water Line and Pump Station	February 2025	June 2029
6	MC Building Upfits and Gravity Thickener Improvements	May 2025	May 2027
7	MC Structural and Concrete Rehabilitation	May 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	June 2025	March 2029
11	Crozet WTP GAC Expansion – Phase I	August 2025	March 2027
12	MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades	August 2025	September 2026
13	SRWTP – PAC Upgrades	October 2025	February 2027
14	RMR Pool Raise	September 2025	September 2026
15	SRR to RMR Pipeline, Intake, and Facilities	February 2026	December 2030
16	Beaver Creek Dam, Pump Station, and Piping	May 2026	January 2030
17	Upper Schenks Branch Interceptor, Phase II	2026	2027

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
7. MC Building Upfits and Gravity Thickener Improvements
8. MC Structural and Concrete Rehabilitation
9. MC Administration Building Renovation and Addition

Design and Bidding

10. Central Water Line
11. Crozet WTP GAC Expansion – Phase I
12. MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades
13. SRWTP – PAC Upgrades
14. RMR Pool Raise
15. SFRR to RMR Pipeline, Intake, and Facilities
16. Beaver Creek Dam, Pump Station, and Piping
17. Upper Schenks Branch Interceptor, Phase II

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:	92%
Base Construction Contract + Change Order to Date = Current Value:	$5,180,000 - $529,543 = $4,650,457
Completion:	June 2025
Budget:	$6,200,000

Current Status: 5kV cable and transformer replacement at both the Sludge Pumping and Grit Buildings is complete. The new motor control center in the Grit Building was also successfully started up this month. Once the motor control center work at the Grit Building is fully completed, the Contractor will demolish the 1970s vintage knife gear in the Blower Building. This is the last remaining work item to be completed on the project.

2. Rivanna Pump Station Restoration

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

Current Status: Contractor continues installation of rebuilt pumps and new motors and all of the associated electrical wiring and improvements. Control upgrades have begun along with the first stages of the startup and commissioning program. Bypass pumping system should be completely removed by April 2025 with full pump station restoration completed by October 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:	5%
Base Construction Contract + Change Order to Date = Current Value:	$1,742,375
Completion:	June 2026
Budget:	$2,050,000

Current Status: A temporary pressure tank has been placed in service while the existing pressure tank is being inspected and painted. 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:	December 2024
Percent Complete:	7%
Base Construction Contract + Change Order to Date = Current Value:	$4,916,940
Completion:	January 2027
Budget:	$5,900,000

Current Status: The contractor began a survey of the easement limits, and will begin E&S installation and tree clearing this month.

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

Design Engineer:	Kimley-Horn
Construction Contractor:	Thalle Construction (North Carolina)
Construction Start:	February 2025
Percent Complete:	5%
Base Construction Contract + Change Order to Date = Current Value:	$53,908,400
Completion:	June 2029
Budget:	$61,490,000

Current Status: The Contractor will mobilize as soon as the WPO and Site Plan are approved. Initial activities will include tree clearing, as well as the establishment of a construction entrance at the pump station site.

6. Crozet Pump Stations Rehabilitation

Design Engineer:	Wiley | Wilson
Construction Contractor:	Waco, Inc. (Sandston, VA)
Construction Start:	April 2025
Percent Complete:	0%
Base Construction Contract+ Change Order to Date = Current Value:	$9,583,350
Completion:	September 2027
Budget:	$12,350,000

Current Status: Contract documents are being executed this month. A Pre-Construction Meeting was held on February 14th and the NTP will follow.

7. MCAWRRF Building Upfits and Gravity Thickener Improvements

Design Engineer:	Short Elliot Hendrickson (SEH)
Construction Contractor:	English (Lynchburg, VA)
Project Start:	March 2023
Project Status:	Award
Construction Start:	May 2025
Base Construction Contract+ Change Order to Date = Current Value:	$9,631,500
Completion:	May 2027
Budget:	$11,800,000

Current Status: Bids were opened on December 19, 2024. Two bids were received which were over budget. RWSA has been in discussions with the apparent low, responsive, and responsible bidder to identify opportunities for cost savings and an award is included in a separate Board report this month.

8. MCAWRRF Structural and Concrete Rehabilitation

Design Engineer:	Hazen and Sawyer (Hazen)
Construction Contractor:	WM Schlosser (Hyattsville, MD)
Project Start:	April 2023
Project Status:	Award
Construction Start:	May 2025
Base Construction Contract+ Change Order to Date = Current Value:	$12,967,500
Completion:	May 2027
Budget:	$15,500,000

Current Status: Bids were opened on December 18, 2024. Two bids were received which were over budget. RWSA has been in discussions with the apparent low, responsive, and responsible bidder to identify opportunities for cost savings and an award is included in a separate Board report this month.

9. Moores Creek Administration Building Renovation and Addition

Design Engineer:	SEH
Construction Contractor	Martin Horn (Charlottesville)
Project Start:	October 2022
Project Status:	Award
Construction Start:	June 2025
Completion:	December 2027
Budget:	$27,600,000

Current Status: Project was advertised on December 20, 2024, and three bids were opened on February 13, 2025. A recommendation for award to Martin Horn is included in this month's Board packet.

Design and Bidding

10. Central Water Line

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	Bidding (Phase 1)
Construction Start:	June 2025
Completion:	March 2029
Budget:	$67,000,000

Current Status: **Phase 1 Contract (west end):** All private easements have been acquired and the easements with UVA along Hereford Drive have been recorded. The bid opening date has been postponed until late March 2025 to address City comments. **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 the summer 2025.

11. Crozet GAC Expansion – Phase I

Design Engineer:	SEH
Project Start:	July 2023
Project Status:	100% Design
Construction Start:	August 2025
Completion:	March 2027
Budget:	$10,000,000

Current Status: 100% documents have been completed and will be advertised for bidding in March 2025. $7.24 M in grant funds from VDH have been awarded for this project.

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

Design Engineer:	Hazen and Sawyer (Hazen)
Project Start:	June 2023
Project Status:	80% Design
Construction Start:	August 2025
Completion:	September 2026
Budget:	$3,600,000

Current Status: Staff is making decisions on current septage receiving equipment and billing software, and Hazen is completing a flood resiliency evaluation, as well as working on the 90% design submittal.

13. SRWTP – PAC Upgrades

Design Engineer:	SEH
Project Start:	November 2023
Project Status:	100% Design
Construction Start:	October 2025
Completion:	February 2027
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.

14. RMR Pool Raise

Design Engineer:	Schnabel Engineering
Project Start:	April 2024
Project Status:	55% Design
Construction Start:	September 2025

Completion:	September 2026
Budget:	$6,000,000

Current Status: The Design Engineer is continuing to advance clearing plans around the reservoir and is working to permit the project with multiple agencies.

15. SFRR to RMR Pipeline, Intake, and Facilities

Design Engineer:	Kimley Horn/SEH
Project Start:	July 2023
Project Status:	65% Design
Construction Start:	February 2026
Completion:	December 2030
Budget:	$117,000,000

Current Status: 90% plans for the pipeline are due in this month. A kickoff meeting for final design of the new intake and pump station was also held earlier in the month.

16. 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:	70% Design
Construction Start:	May 2026
Completion:	January 2030
Budget:	$62,000,000

Current Status: Hazen is proceeding with 60% design of the pump station. Final design by Schnabel Engineering for the dam spillway upgrades, temporary detour, and spillway bridge is ongoing. 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.

17. Upper Schenks Branch Interceptor, Phase II

Design Engineer:	CHA Consulting
Project Start:	July 2021
Project Status:	Design
Construction Start:	2026
Completion:	2027
Budget:	$11 – 15 M

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

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 for various facilities to increase their resiliency from a 1% to a 0.2% flooding event and will focus on facilities located at the Moores Creek AWRRF within those flood event boundaries. 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
2024-09	Stillhouse Waterline Erosion @ Ivy Creek	$200,000

- 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. The remaining replacements will likely be scheduled starting in Spring 2025.

- 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. Repairs were substantially completed on January 31st, and the transfer line was put into service on February 3rd. Funding opportunities are being pursued through FEMA/VDEM.
- Stillhouse Waterline Erosion at Ivy Creek: In November 2024, it was discovered that the banks of Ivy Creek had experienced significant erosion during some of the heavy rainstorms earlier in the Fall, and that the erosion was now intruding on RWSA's 12" Stillhouse Waterline. The area was temporarily armored with sandbags in December, to protect the waterline from further erosion in the interim. Staff are working with the USACOE to permit a permanent bank stabilization project, which will include placement of large rip-rap along the streambank. Given continued region-wide disaster relief efforts associated with Hurricane Helene, it is anticipated that permits may not be received until Spring 2025. RWSA intends to utilize its On-Call Maintenance Contractor, Faulconer Construction Company, for completion of this work and is seeking funding/reimbursement opportunities through FEMA.

21. Security Enhancements

Design Engineer:	Hazen & Sawyer
Construction Contractor:	Security 101 (Richmond, VA)
Construction Start:	March 2020
Percent Complete:	90% (WA9)
Based Construction Contract + Change Orders to Date = Current Value:	$718,428 (WA1) + $834,742 (WA2-10)
Completion:	June 2024 (WA9), August 2024 (WA10)
Budget:	$2,980,000

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. 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: **FEBRUARY 25, 2025**

Human Resources

Fiscal year-to-date turnover from July 1, 2024 through February 7, 2025, is 7.9%, which includes one retirement.

We are pleased to welcome Westley Kern as our new Outreach & Communications Coordinator and Sebastian Topp as our newest Wastewater Operator Trainee. We are excited to announce the promotion of Daniel Campbell to the Director of Operations & Environmental Services.

Safety

Our Safety Manager has been reviewing the safety plans for several of our construction projects, including the Ragged Mountain Reservoir to Observatory Water Treatment Plant pipeline and pump station and the South Rivanna River Waterline Crossing. He is also attending project update meetings and pre-construction meetings to ensure the safety of our employees and the employees of our contractors.

Community Outreach

We have updated our website water conservation information to include water saving tips and ideas from the Environmental Protection Agency's Start Saving water conservation page. This is in addition to the informational links to the conservation pages for the City of Charlottesville and the Albemarle County Service Authority. All of our water conservation information can be found on our website at Environmental Stewardship - Rivanna Authorities. We are also currently working with the City of Charlottesville Water Efficiency Program Coordinator and the Albemarle County Service Authority on the Fix A Leak Week program, which will be held from March 17, 2025, through March 23, 2025.

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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 JANUARY 2025**

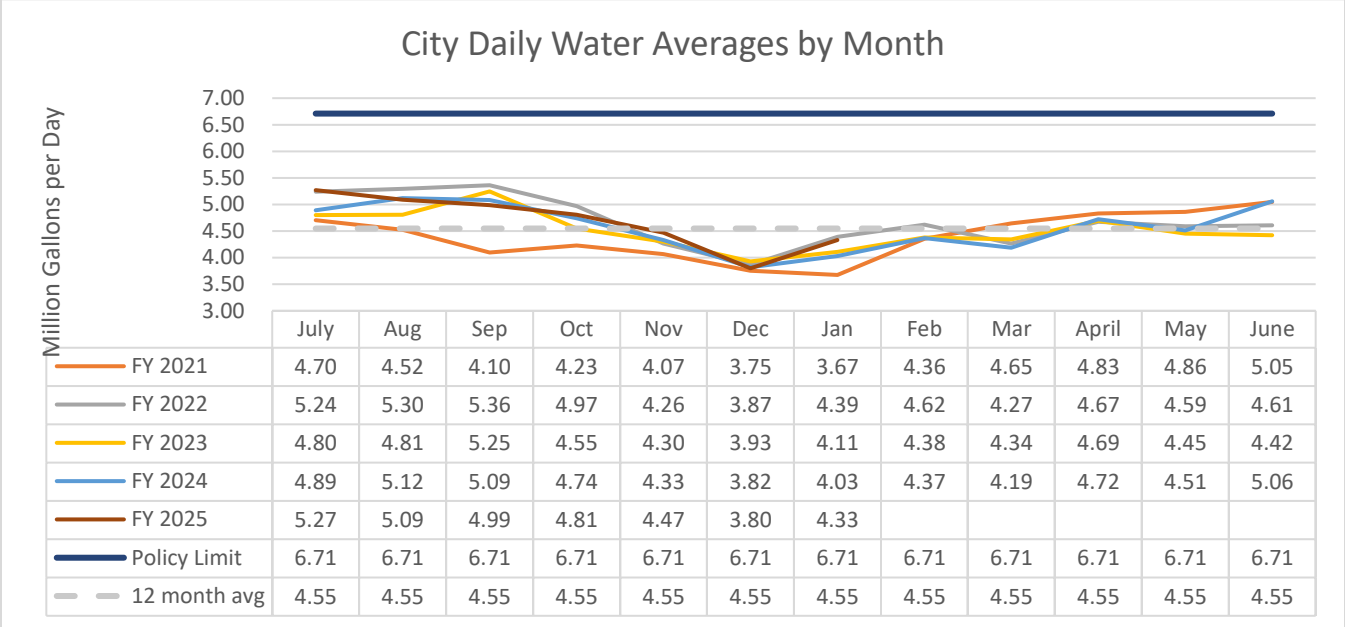
DATE: **FEBRUARY 25, 2025**

The monthly and average daily Urban water system usages by the City and the ACSA for January 2025 were as follows:

		Month	***Daily Average***	
City Usage (gal)		134,227,738	4,329,927	**49.3%**
ACSA Usage (gal)		138,177,762	4,457,347	**50.7%**
Total (gal)		**272,405,500**	**8,787,274**	

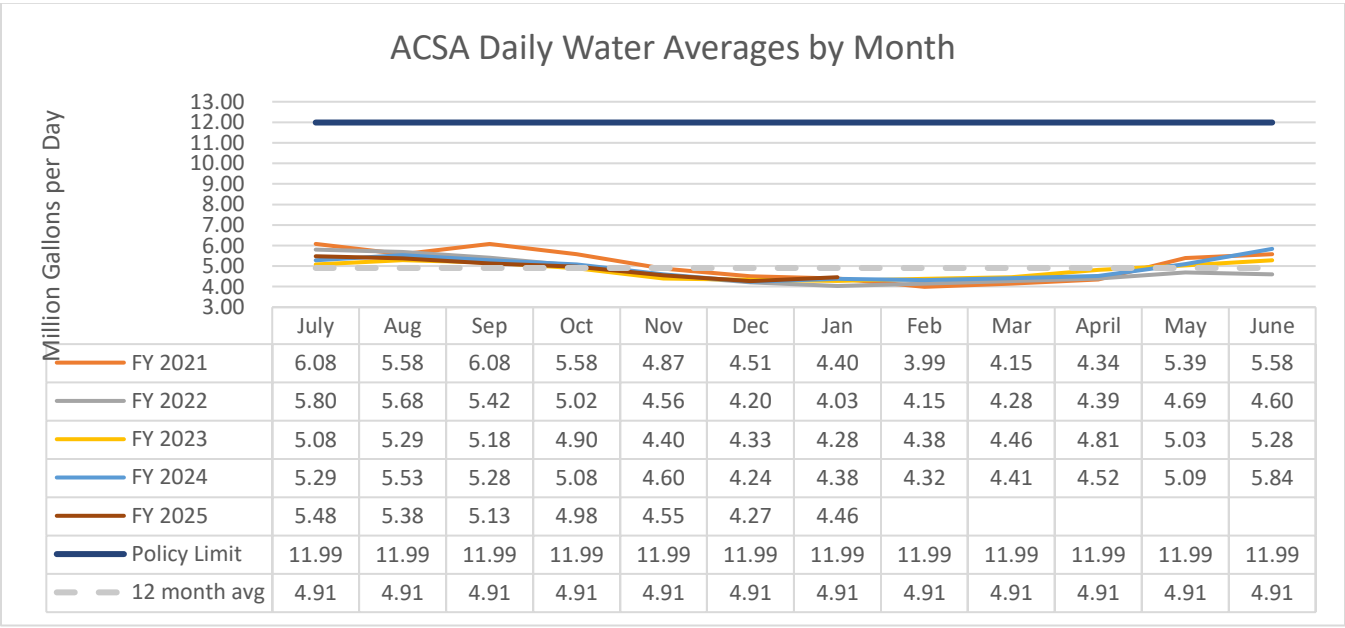
The *RWSA Wholesale Metering Administrative and Implementation Policy* requires that water use be measured based upon the annual average daily water demand of the City and ACSA over the trailing twelve (12) consecutive month period. The *Water Cost Allocation Agreement (2012)* established a maximum water 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 FY 21, the trailing twelve-month average (extended back to February 2024), 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.

Figure 1: City of Charlottesville Monthly Water Usage and Allocation



	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June
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	4.03	4.37	4.19	4.72	4.51	5.06
FY 2025	5.27	5.09	4.99	4.81	4.47	3.80	4.33					
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



	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June
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	4.81	5.03	5.28
FY 2024	5.29	5.53	5.28	5.08	4.60	4.24	4.38	4.32	4.41	4.52	5.09	5.84
FY 2025	5.48	5.38	5.13	4.98	4.55	4.27	4.46					
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	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91	4.91

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

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

FROM: **BETHANY HOUCHENS, WATER RESOURCES COORDINATOR**

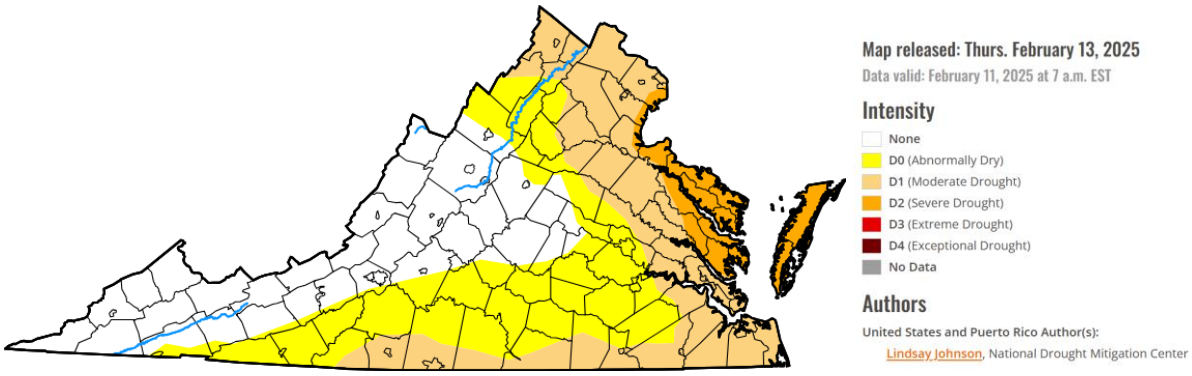
REVIEWED: **BILL MAWYER, EXECUTIVE DIRECTOR**

SUBJECT: **DROUGHT MONITORING REPORT**

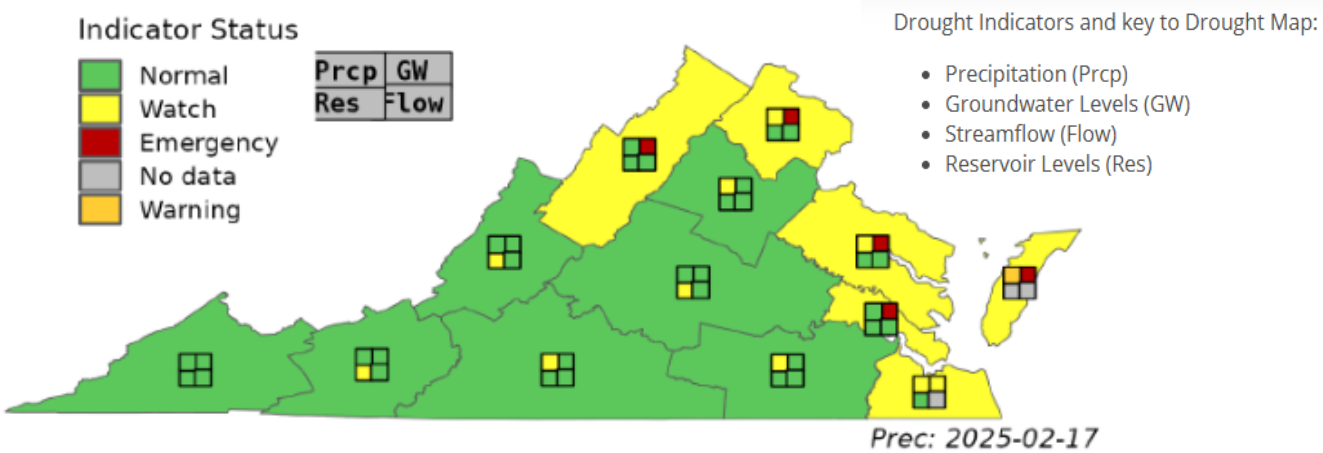
DATE: **FEBRUARY 25, 2025**

State and Federal Drought Monitoring as of February 17, 2025:

- U.S. Drought Monitoring Report: Indicates the City of Charlottesville and most of Albemarle County are in normal Drought conditions. A small portion of Northeast Albemarle County is in Abnormally Dry conditions.



- VDEQ Drought Status Report: Our region is listed as being in a "Normal" level for groundwater, precipitation, 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 - Dec	39.56	41.61	-2.05	-5
2025	Jan	1.47	2.96	-1.49	-50

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

USGS Stream Gaging Station Near the Urban Area (Feb 11-Feb 17)				
Gage Name	Rolling 7-day Avg. Stream Flow		Median Daily Streamflow	
	cfs	mgd	cfs	mgd
Mechums River	497.3	321.4	81	52.4
Moormans River	470.1	303.8	59	38.1
NF Rivanna River	531	343.2	89	57.5
SF Rivanna River	1,236	799.1	210	135.7

Median daily flow: February 17th for the period of record (approx. 30 - 80 years)

Status of Reservoirs as of February 17, 2025

- Urban Reservoirs are 97.55% 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

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

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

SUBJECT: **APPROVAL OF ENGINEERING SERVICES — GLENMORE WRRF UPGRADES – SHORT ELLIOT HENDRICKSON INC.**

DATE: **FEBRUARY 25, 2025**

This request is to authorize a Work Authorization for design, bidding, and construction phase services for the first phase of upgrades for the Glenmore wastewater treatment plant for an amount not to exceed $249,647.

Background

The Rivanna Water & Sewer Authority owns and operates the Glenmore Wastewater Resource Recovery Facility (GWRRF), which provides wastewater treatment for the Glenmore community. The plant was originally constructed in 1993 and much of the original facility remains in service. The facility consists of an influent pump station, mechanical influent screening, an activated sludge process, secondary clarification, ultraviolet disinfection (UV), and cascade aeration. Solids stream treatment consists of an aerobic sludge storage tank. The facility is rated for an annual average flow of 0.38 million gallons per day but currently operates at a flow tier of 0.19 MGD.

In 2023, RWSA completed a Needs Assessment report for the Glenmore WRRF (by Wiley-Wilson) and recommendations included improvements to the influent pump station coarse screen, influent pump station dry well ventilation, aeration blowers, aeration basin, sludge pump station, chemical feed system, flocculator paddle, UV disinfection channel, non-potable water system, emergency generator, and capital equipment replacement or rehabilitation. Subsequently, SEH completed a noise reduction evaluation on the aeration blowers and recommended replacing the blowers to address the excess noise.

This first phase of improvement is intended to replace the existing blowers with high-speed turbo blowers for enhanced treatment and reduced noise, the UV disinfection system, and to install a transfer switch to the emergency power generator. Other improvements identified in the Needs Assessment are planned to be addressed in future projects.

RWSA entered into a term agreement with Short Elliot Hendrickson Inc. (SEH) on March 12, 2024 for Professional Wastewater Treatment Plant Engineering Services. Under this Work

Authorization, SEH will perform design, bidding, and construction phase services for the above listed upgrades.

Board Action Requested:

Authorize the Executive Director to execute a Work Authorization with SEH for Professional Engineering services to provide design, bidding, and construction phase services for the Glenmore Upgrades Project, for an amount not to exceed $249,647, and any amendments needed to complete the tasks identified above, not to exceed 25% of the original contract amount, provided the resulting total cost is within the approved CIP project budget.

Proposed Capital Improvement Program

FY 2026-2030


Ragged Mountain Reservoir

For the Board Of Directors

February 25, 2025

By Jennifer Whitaker, P.E.
Director of Engineering and Maintenance

Strategic Plan Goal
2023 – 2028

"Planning and Infrastructure"

- "To address evolving needs by planning, delivering, and maintaining dependable infrastructure and facilities in a financially responsible manner."

FY 26 – 30
Capital Improvement Program

76 Projects, $561 M

68 Construction, 4 Studies, 4 I.T. / Asset Management / Radio

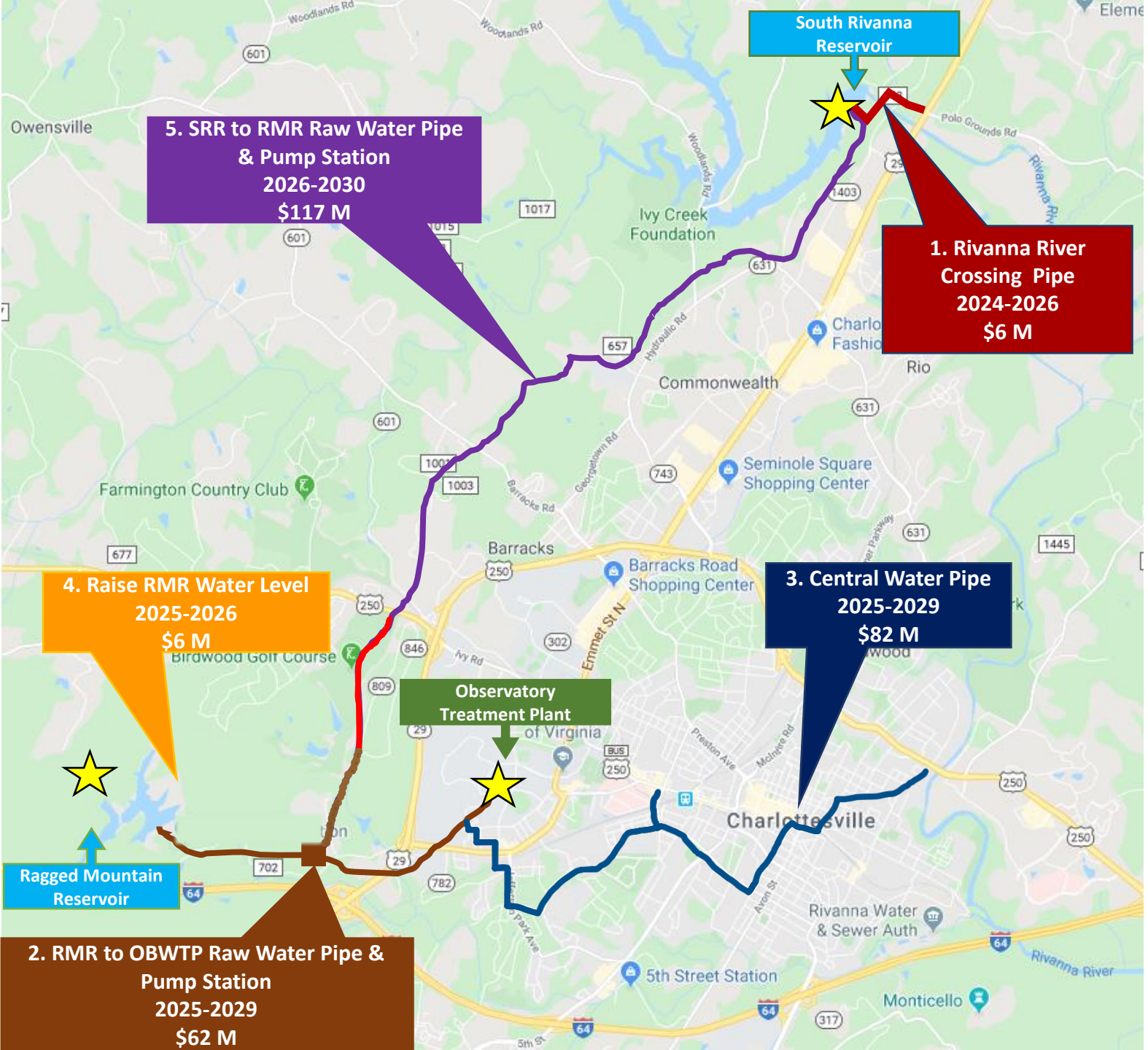
Urban Water	Urban Wastewater	Non-Urban Projects & Shared	Total
$322 M	$130 M	$109 M	$561 M

Funding

Already Paid For	Ex. Debt Proceeds	Cash Reserves	Grants	New Debt	Total
$21 M	$93 M	$13 M	$41 M	$393 M	$561 M

Priorities of the FY 26 – 30 CIP

- ***Complete our growing community's Water Supply Plan to increase capacity and reliability by 2030.***
- ***Advance water treatment and storage facilities to meet and exceed regulatory requirements.***
- ***Maintain best management practices for wastewater treatment and conveyance infrastructure.***
- ***Implement the CIP in an environmentally protective and financially responsible manner.***

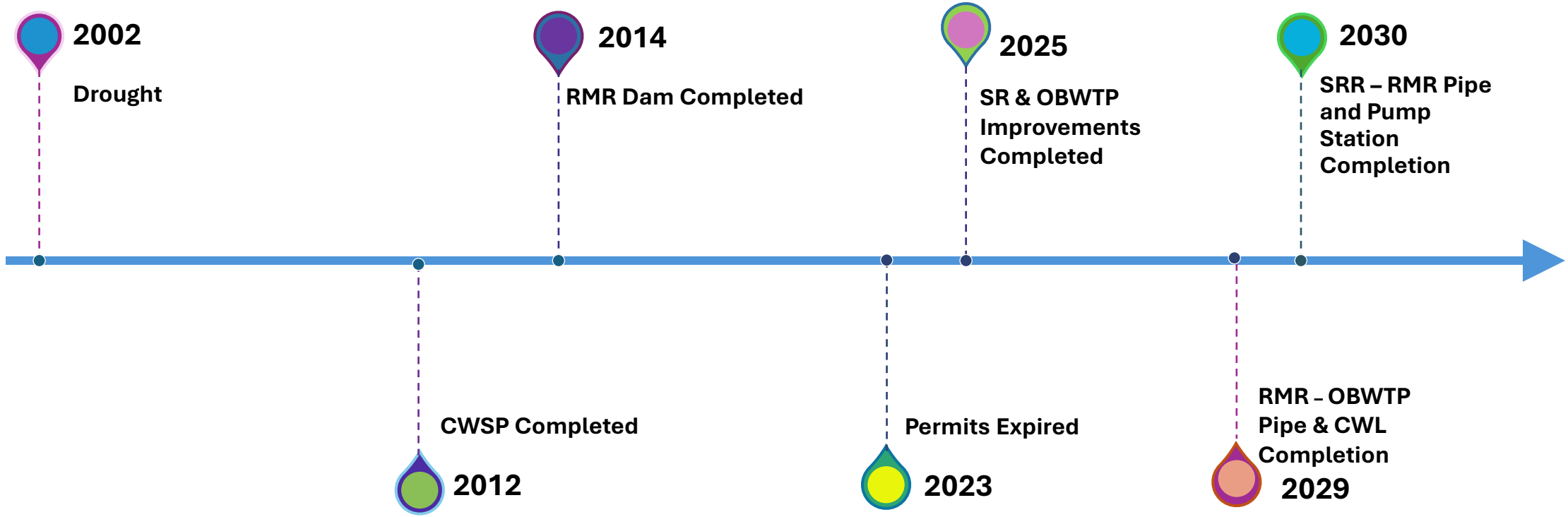


Water Supply, Quality & Resilience Projects

(February 7, 2025)

	Total Project Cost
1. Rivanna River Crossing Pipe 2024-2026: *Awarded June 2024* *100% ACSA*	$6 M
2. RMR to OBWTP Raw Water Pipe & Pump Station 2025-2029: *Awarded Oct 2024* *Pipe: 80% ACSA / 20% City* *PS: 72% ACSA / 28% City*	$62 M
3. Central Water Pipe, Ph 1 & 2 2025-2029: *Award May 2025* *52% ACSA / 48% City*	$82 M
4. Raise RMR Water Level 2025-2026: *Award June 2025* *80% ACSA / 20% City*	$6 M
5. SRR to RMR Raw Water Pipe 2026-2030: *Award Jan 2026* *80% ACSA / 20% City*	$117 M
6. SRR Aeration & RMR HLOS 2028-2030: *Award Jan 2028* *52% ACSA / 48% City*	$9 M
ACSA $191 M City Utilities $91 M	$282 M

Timeline for Completion of Water Supply Projects for our Community



Capital Assets $435 M

5 Water Supply Reservoirs

- South Fork Rivanna
- Ragged Mountain
- Sugar Hollow
- Beaver Creek
- Totier Creek

9 Dams

- South Fork Rivanna
- Ragged Mountain
- Sugar Hollow
- Beaver Creek
- Totier Creek
- Lickinghole Creek
- Buck Mountain Property
- North Rivanna River Low Head
- Mechums River Low Head

6 Water Treatment Plants

- South Rivanna WTP
- Observatory WTP
- North Rivanna WTP
- Crozet WTP
- Scottsville WTP
- Red Hill WTP

11 Finished Water Storage Tanks

- Woodburn Road Tank
- Avon Street Tank
- Observatory Tank
- Piney Mountain Tank
- Bucks Elbow Tank
- Crozet Waterball
- Scottsville Tank
- 795 Tank
- Lewis Mountain Tank
- Pantops Tank
- Stillhouse Tank

8 Raw Water Pump Stations

- South Rivanna RWPS
- Stadium Road RWPS
- Royal RWPS
- Beaver Creek RWPS
- Totier Creek RWPS
- Totier Creek Reservoir RWPS
- North Rivanna River RWPS
- Mechums River RWPS

5 Finished Water Pump Stations

- Alderman Road FWPS
- Stillhouse FWPS
- Airport Road FWPS
- Scottsville FWPS
- Crozet FWPS

68 miles Water Pipe

956 Water Valves

9 Wastewater Pump Stations

- Rivanna WWPS
- Moores Creek WWPS
- Albemarle Berkley WWPS
- Crozet WW PS #1
- Crozet WW PS #2
- Crozet WW PS #3
- Crozet WW PS #4
- Scottsville Influent WWPS
- Glenmore Influent WWPS

4 Wastewater Treatment Plants

- Moores Creek AWRRF
- Glenmore WRRF
- Scottsville WRRF
- Stone Robinson WRRF

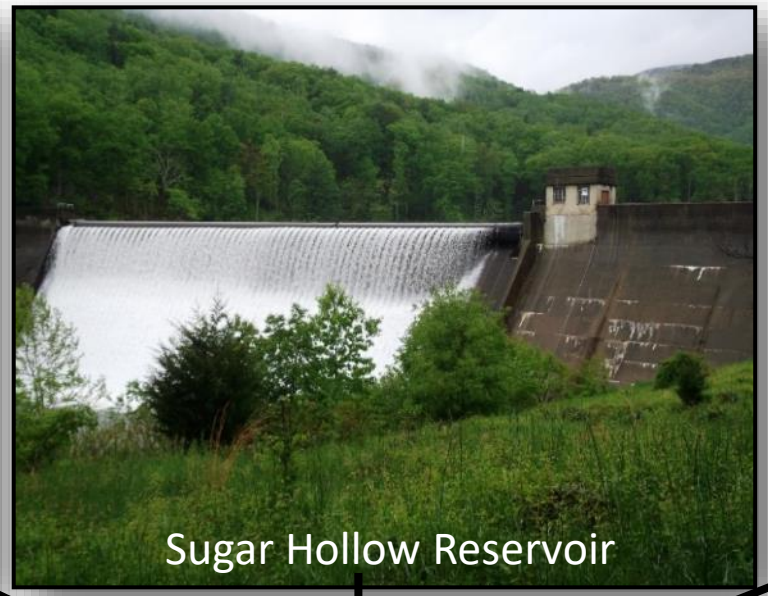
44 miles Wastewater Pipe

685 Manholes

Stormwater Impoundment

- Lickinghole Creek Basin


South Fork Rivanna Reservoir


Sugar Hollow Reservoir


Ragged Mountain Reservoir

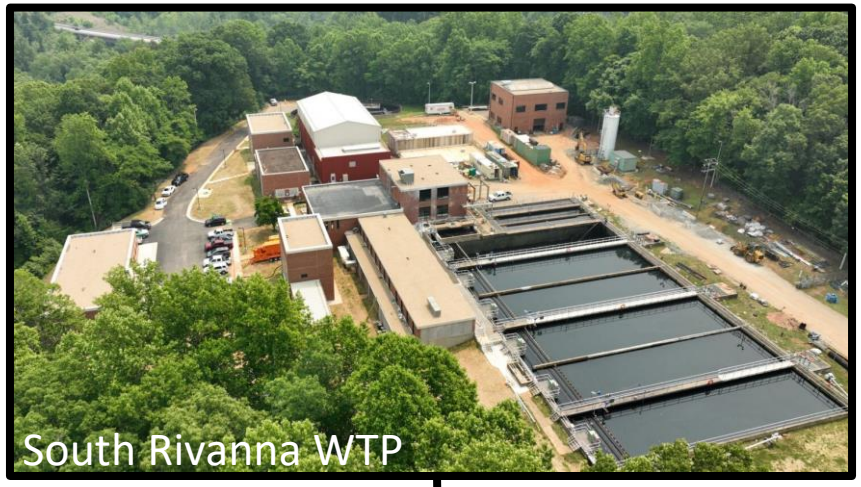
Urban Area

3.3 Billion Gallons


Beaver Creek Reservoir - Crozet


Totier Creek Reservoir - Scottsville

5 Water Supply Reservoirs



Urban Area

6 Water Treatment Plants

4 Wastewater Treatment Plants

FY 26 – 30
Capital Improvement Program

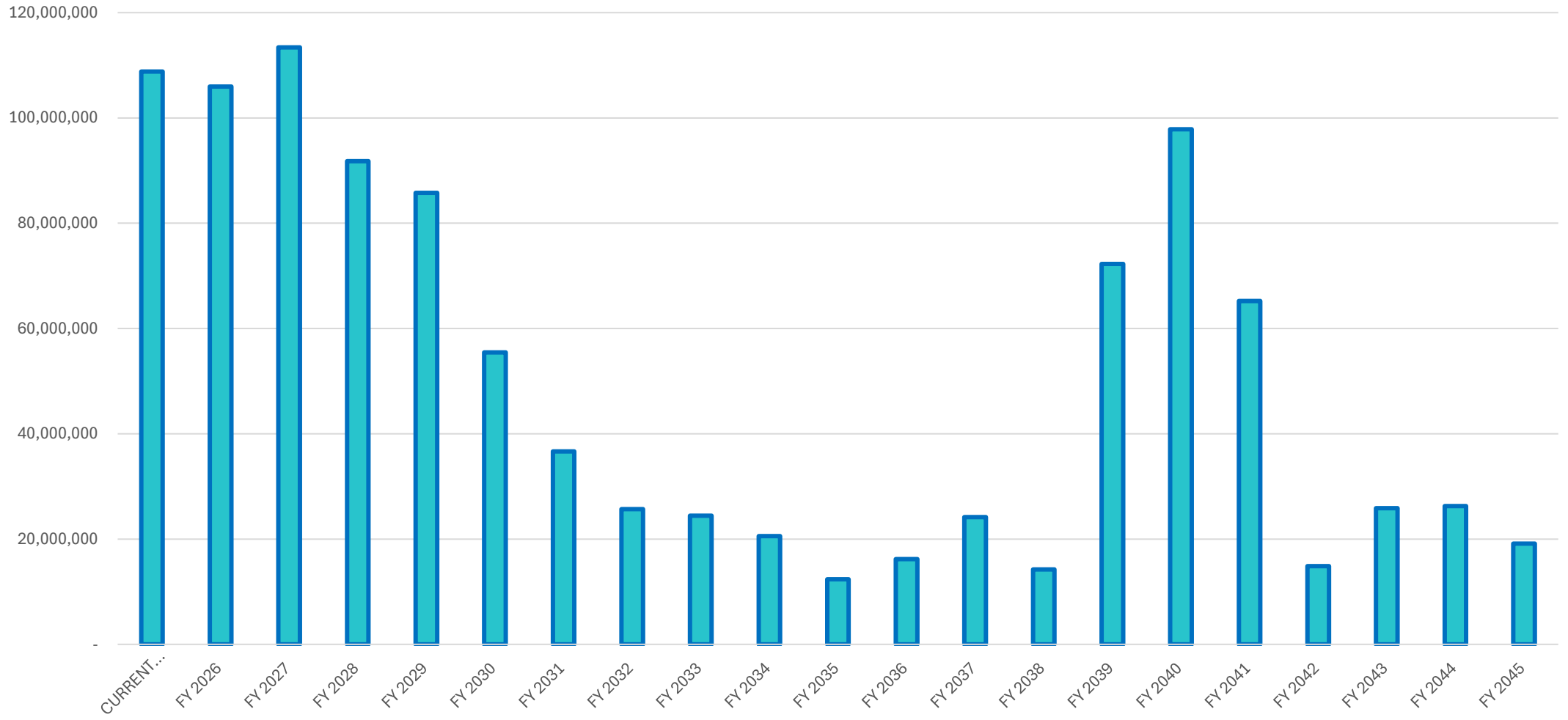
Line Item	Cost
FY 25-29 CIP	$371,000,436
FY 25-29 Amendments *RHWTP; RPS; RMR-OBWTP; SRWTP; CZWWPS*	$40,730,000
Completed Projects	($14,489,909)
FY 30 Project Funding	$31,853,000
New Projects (12)	$14,589,000
Inflation and & Scope Additions	$117,586,754
Total	**$561,269,281**

FY 26 – 30		FY 25 - 29
Projects: 76	In comparison with	Projects: 64
$561 M		$371 M

Major Changes to the 5-Yr CIP: *$190 M increase*

1. Scope and inflation increases for major projects: $103 M
   a. RMR to OB WTP WL and Pumping $15 M *(awarded)*
   b. Central Water Line $35 M
   c. SRR to RMR WL and Pumping $39 M
   d. Beaver Creek Dam & Pump Station Modifications $14 M
2. 20% increase to 54 Construction Projects $22 M
3. Rivanna Pump Station (added in FY 24) $22 M
4. Net FY 30 costs transitioned into the FY 26-30 CIP $28 M
5. New projects (12) $15 M

20 Year Capital Budget Projections
FY 2026 – FY 2045



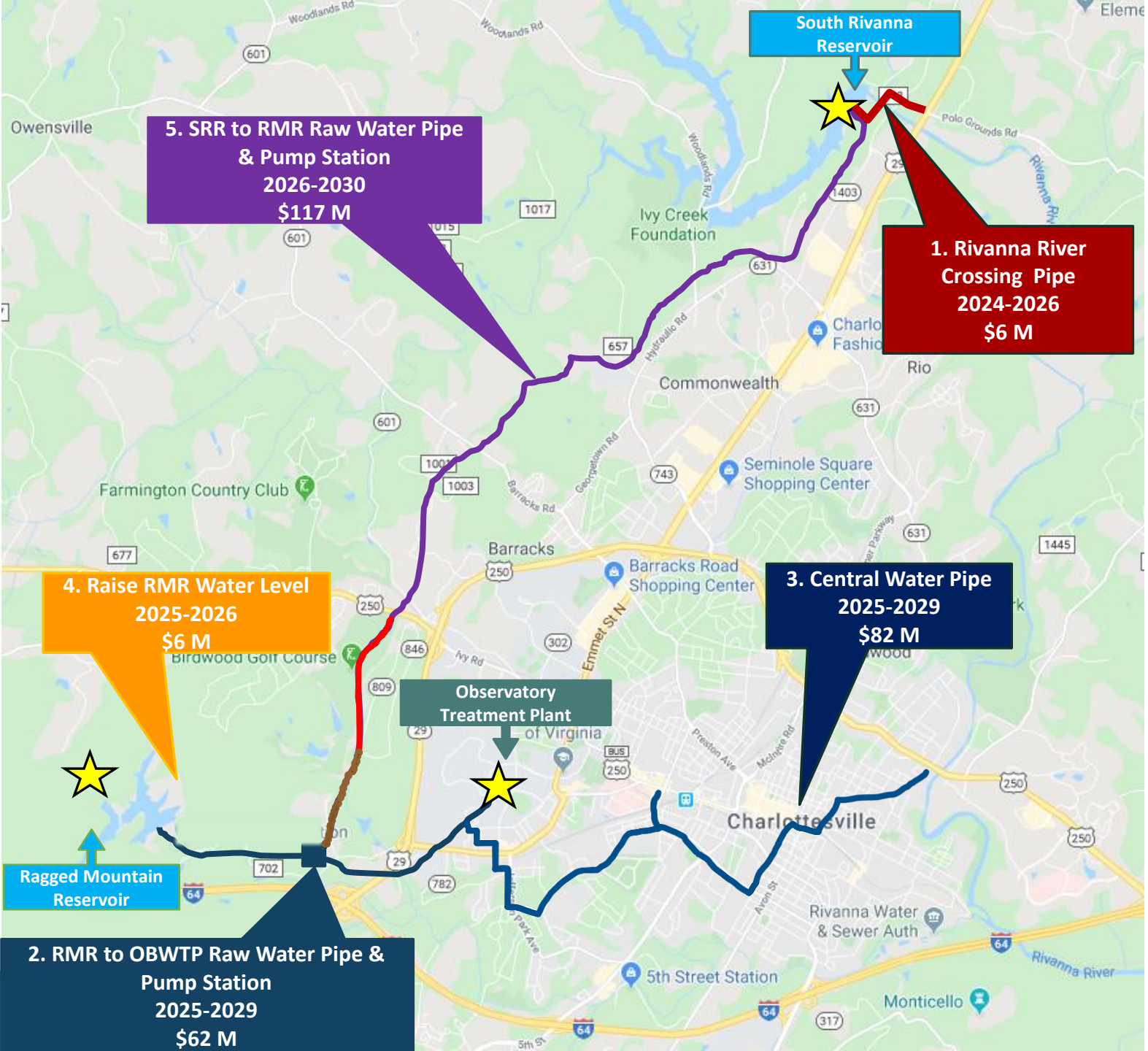
20 Year CIP Planning

• FY 26-30	$561 M
• FY 31-35	$120 M
• FY 36-40	$225 M
• FY 41-45	$151 M
	$1,057 M

Major Programs and Projects

- Water Treatment Plants:
  - Crozet GAC Filters
  - Scottsville & Red Hill Upgrade & GAC Addition
  - GAC Facility Dehumidification
  - South Rivanna PAC Upgrades
  - Observatory Hypo Tank Replacements
  - Observatory Backwash Basin Sludge Removal
  - South Rivanna Main Plant Generator Replacement
  - Crozet Disinfection Upgrade
- Capacity:
  - SRR to RMR Raw Water Piping
  - Emmet St. Water Piping
  - Berkmar Ext. Waterline Phs. 2
  - Maury Hill Sewer Replacement
  - Glenmore WRRF Upgrade
  - Admin Building Renovation & Addition
  - Airport Road Tank No. 1
- Operations and Maintenance / Safety:
  - Crozet WW Pump Station Rehabilitations
  - Dam Concrete and Steel Repairs
  - Tank Painting and Rehabilitation
  - WW Piping and MH Repairs
  - MC Maintenance, Blower, Pumping Building Repairs
  - MC Concrete and Steel Repairs
  - MCPS and Septage Receiving Upgrades
  - MC Biogas Upgrades
  - SRR and RMR HLOS and Aeration
  - Crozet Greyrock Pump Station Repairs
  - Security Enhancements

- Regulatory:
  - Beaver Creek Dam, Pump Station & Piping
  - North Rivanna WTP Decommissioning
- Reliability / Redundancy:
  - RMR to OBWTP Piping and Pumping
  - Central Water Line
  - South Fork Rivanna River Crossing
  - Scottsville WWTP Emergency Generator
  - Upper Schenks Branch Interceptor
  - North Fork Rivanna River Crossing
  - Flood Resilience Enhancements



Water Supply, Quality & Resilience Projects

(February 7, 2025)

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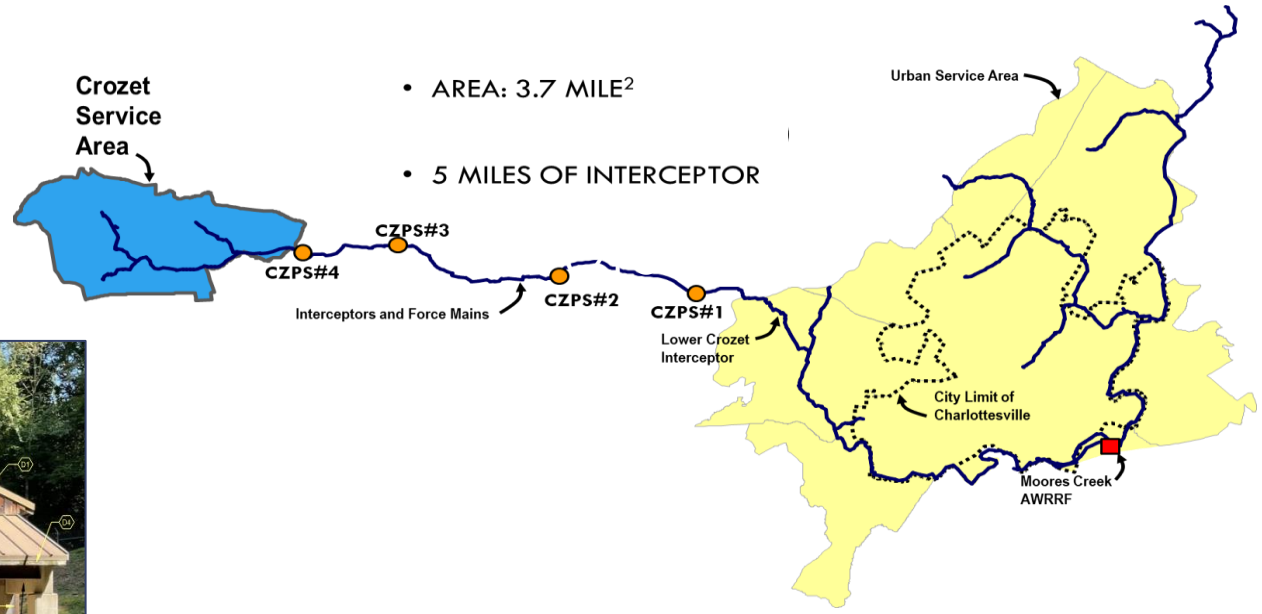
6. SRR Aeration & RMR HLOS 2028-2030: *Award Jan 2028* *52% ACSA / 48% City*	$9 M
ACSA $191 M City Utilities $91 M	$282 M

Red Hill WTP Upgrade

- Add space for chemical and lab equipment
- *Operator visits site everyday in accordance with VDH requirements to verify chemical applications and equipment calibrations*
- Completion: 2025 - 2026
- Budget: $2 M

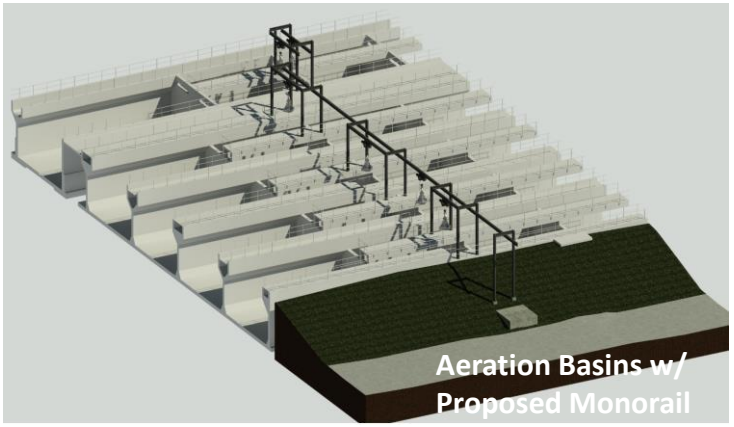
Crozet Pump Stations Rehabilitation



- Repair of 4 wastewater pump stations constructed in 1980's
- Replacement of pumps and valves, roofs, motor control centers, generators, automatic transfer switches, PLCs and other architectural improvements
- Construction: April 2025 – September 2027
- Budget $12.35 M

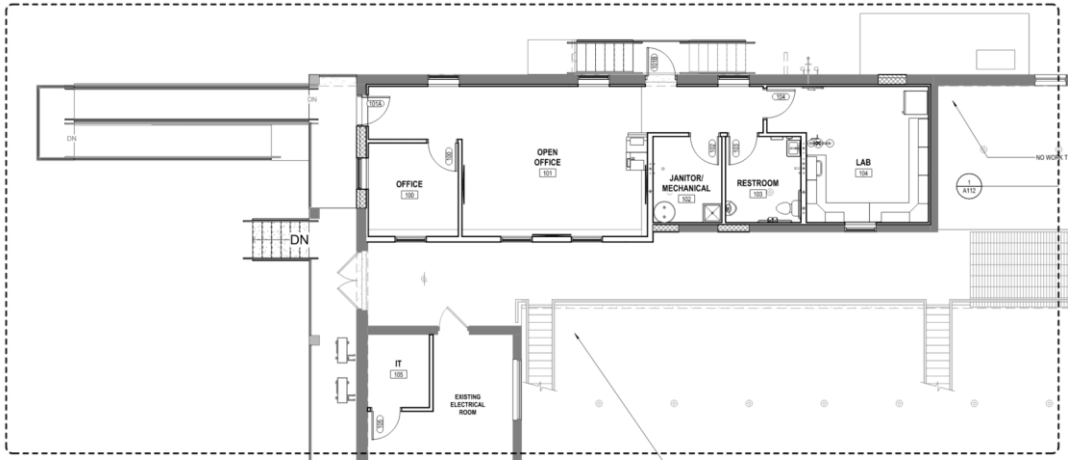
MC Structural and Concrete Rehabilitation

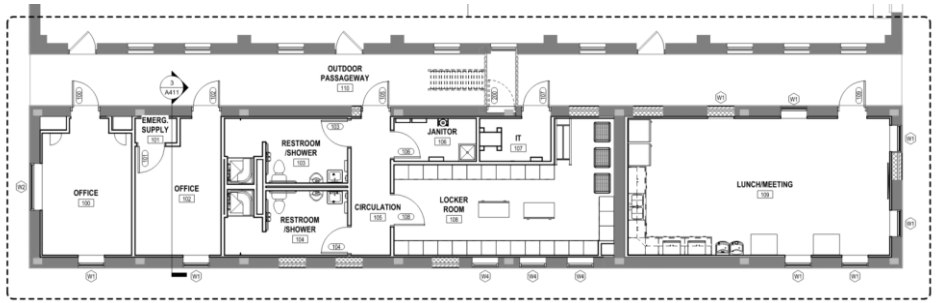
- Repairs throughout plant including holding ponds, EQ basins, primary clarifiers, digesters, and equipment shed roof and drainage
- Improves pump removal from Aeration Basins
- Construction: May 2025 – May 2027
- Budget $16.4 M



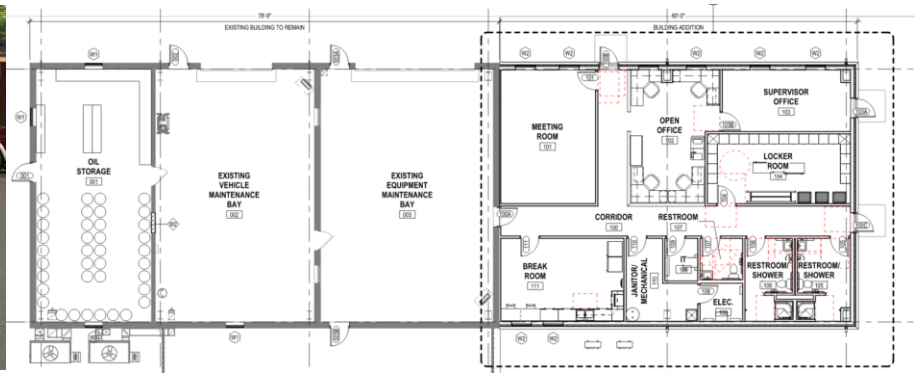
MC Building Upfits and Gravity Thickener Improvements

- Renovation of Wastewater Operations and Maintenance buildings
- Original structures are 40 years old and no longer meet current staffing and operational needs
- Includes gravity thickener improvements – chemical feed and sludge line clean-outs
- Construction: May 2025 – December 2026
- Budget $11.8 M






Maintenance Building Rendering

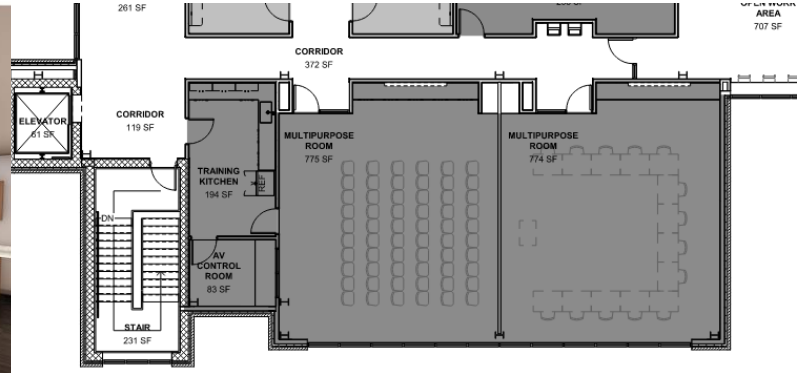


MC Administration Building Renovation & Addition

EAST ELEVATION - MAIN ENTRY

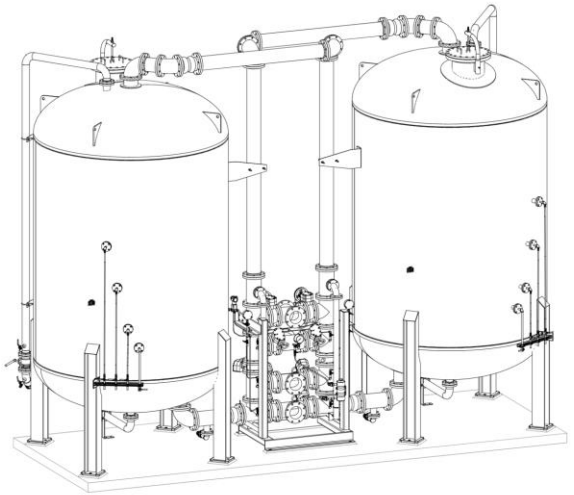

NORTH ELEVATION

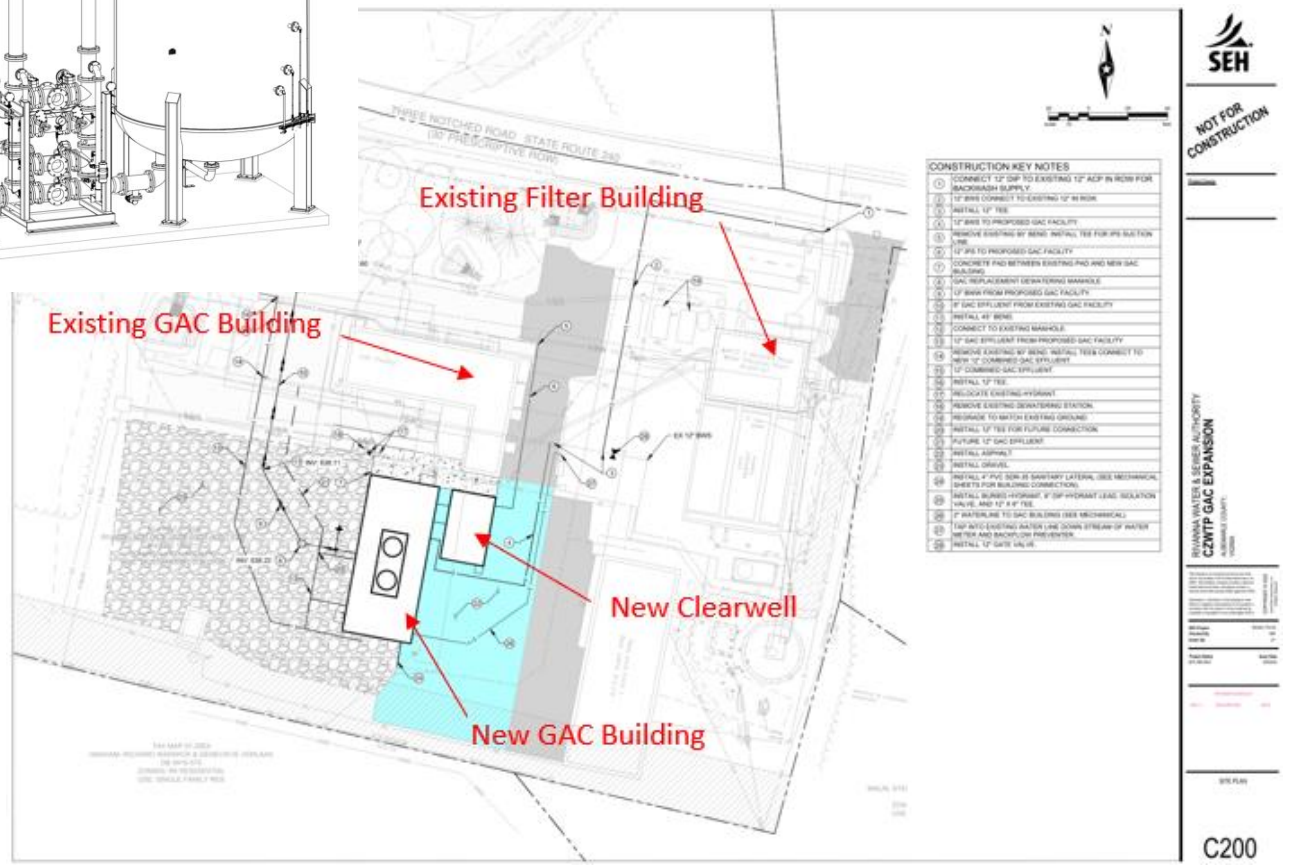
- Original building constructed in 1980's
- Renovate interior and expand to includes new Board room, education center, & offices
- Construction: June 2025 - December 2027
- Budget $27.6 M



Granular Activated Carbon Expansion - Crozet WTP

GAC Vessels at Crozet WTP

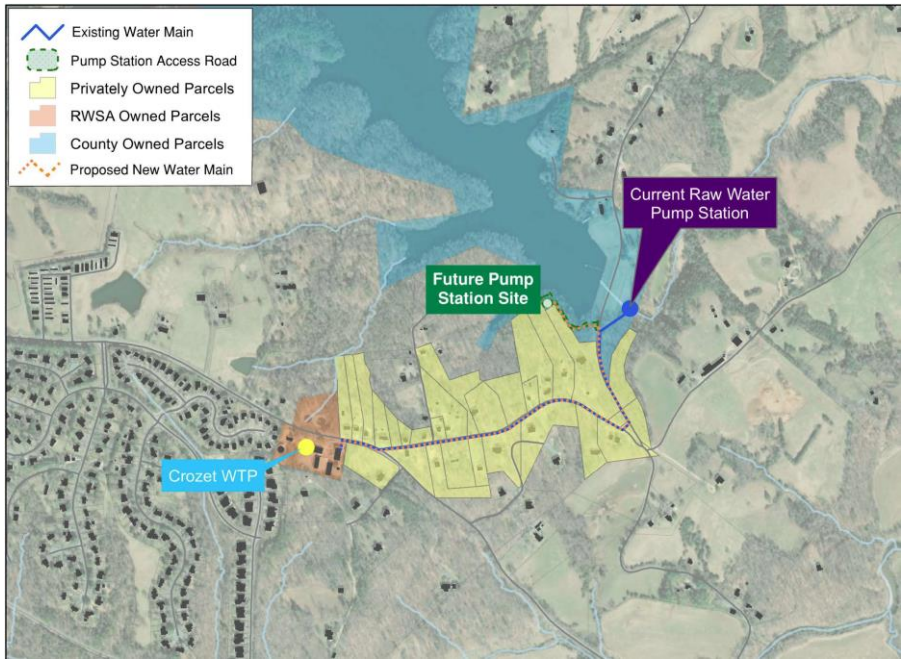




- Additional building and 2 GAC vessels to increase treatment capacity from 1 to 2 MGD
- Bidding: May 2025
- Construction: August 2025 – March 2027
- Received $6.24 M grant funds from VDH
- Budget $10.1 M

Beaver Creek Dam, Pump Station & Piping Modifications

- Upgrade the spillway to meet DCR dam safety standards
- Replace the raw water pump station, intake, and pipe to the Crozet WTP
- Construction: May 2026 – February 2030
- Current federal NRCS grant funding $1.74 M
- Anticipating additional federal NRCS grant of $21 M
- Budget $62 M



Glenmore WRRF Upgrade

- Wastewater Plant Original Constructed in 1993
- Serves the Glenmore and Surrounding Community
- 2023 Needs Assessment completed
- Identified asset renewal and replacement needs
- Project to be completed in two Phases

Phase 1

- Replace Blowers to improve efficiency and implement noise reduction
- Replace obsolete UV disinfection system
- Upgrade Electric Generator Transfer Switch configuration
- Construction: April 2026– Jan 2028
- Budget $2M

Phase 2

- Remaining plant upgrades to existing mechanical equipment at the influent pump station, aeration blowers and basins, sludge pumping, chemical feed, flocculator paddle, non-potable water system, etc.
- Construction: Oct 2029 – June 2031
- Budget $6.8M

- Total Project Budget $8.8M


Glenmore Blowers


Glenmore WRRF

Scottsville WTP & Raw Water PS Upgrades

- Renovate WTP and 2 raw water pump stations constructed in 1964
- Schedule: 2028 – 2032
- Budget: $13.8 M

Summary

FY 26 – 30
Capital Improvement Program

76 Projects, $561 M

Urban Water	Urban Wastewater	Non-Urban Projects & Shared	Total
$322 M	$130 M	$109 M	$561 M

Charges

	FY 26	FY 27	FY 28	FY 29	FY 30
City Utilities	13.2	13.4	12.0	11.8	10.4
ACSA	20.8	16.1	14.0	13.1	11.5
RWSA Overall	17.8	15.1	13.3	12.6	11.1

FY 26 – 30 Charge Increases (%)

	FY 26	FY 27	FY 28	FY 29	FY 30
City Utilities	13.2	13.4	12.0	11.8	10.4
ACSA	20.8	16.1	14.0	13.1	11.5
RWSA Overall	17.8	15.1	13.3	12.6	11.1

Charges include:

1. VRSA Reimbursement, RPS Restoration $10 M
2. CDS for South Rivanna PAC $0.88 M
3. Albemarle County grants: $0.75 M
4. City Utilities and ACSA Reimbursement on Central Water Line: $2.01 M
5. VDH BIL grant for Crozet GAC Filters: $6.24 M
6. NRCS grant for BCR Planning & Design: $1.7 M
7. NRCS grant for BCR Construction: $21 M
8. FEMA grant for Flood Protection Study: $0.19 M
9. VDH BIL grant for GAC: $1 M
10. Annual estimated increases in Operating expenses : FY26= 12.8%; FY27= 12%; >FY28= 10%

Summary

The proposed FY 26 – 30 CIP addresses the mission and goals of the RWSA and will:

- ***Complete our growing community's Water Supply program to increase capacity and reliability by 2030.***
- ***Advance water treatment and storage facilities to meet and exceed regulatory requirements.***
- ***Maintain best management practices for wastewater treatment and conveyance infrastructure.***
- ***Implement the CIP in an environmentally protective and financially responsible manner.***

Questions ?

Capital Improvement Plan

Fiscal Years 2026-2030

Draft February 2025


Moores Creek Administration Building


Moores Creek AWRRF

OUR MISSION

Our knowledgeable and professional team serves the Charlottesville, Albemarle, and UVA community by providing high-quality water and wastewater treatment, refuse, and recycling services in a financially responsible and sustainable manner.


South Fork Rivanna Reservoir


Rivanna Pump Station


Ragged Mountain Reservoir

Rivanna Water & Sewer Authority
695 Moores Creek Lane
Charlottesville, Virginia 22902

RIVANNA
WATER & SEWER AUTHORITY

Introduction

The Capital Improvement Plan (CIP) for Fiscal Years 2026-2030 has been prepared as a strategic and financially responsible plan for the Rivanna Water and Sewer Authority (RWSA) to complete major infrastructure construction projects. The projects included in the CIP are necessary to achieve the RWSA's core mission of providing safe, high-quality drinking water and environmentally responsible wastewater treatment services for the City of Charlottesville and the Albemarle County Service Authority (ACSA). The CIP is a 5-year planning document which provides an estimated budget and schedule for projects as they advance through the design and construction process.

The infrastructure requirements of the Capital Improvement Plan are developed through our Asset Management and Master Planning programs to address water and wastewater capacity demands, regulatory mandates and rehabilitation needs. Each year, these projects are reviewed and prioritized by the RWSA management team and brought forth for review by the Board of Directors.

During the past year, several capital projects were completed or are nearing the end of multi-year construction and as such are being removed from the 2026-2030 CIP. These projects account for approximately $14.5 million or 3.9% of the FY 2025-2029 CIP. These projects include:

- 5 Observatory Water Treatment Plant Improvements
- 8 South Rivanna Water Treatment Plant Improvements
- 18 Airport Rd Pump Station and North Rivanna Transmission Main
- 46 Moores Creek AWRRF Meter and Valve Replacements
- 59 IT Infrastructure (partial)

The total 5-year 2026-2030 CIP is approximately $561million, with the previous expenditures on active projects totaling $20.8 million, leaving a net proposed 5-year projected expenditure of $540.2 million.

There are twelve (12) new projects added to the CIP this year. The total estimated expenditures for the projects equal $14.6 million and include:

- 15 South Rivanna Water Treatment Plant – Floc Basin Improvements
- 16 South Rivanna Water Treatment Plant – Permanganate Improvements
- 27 Airport Road Tank No. 1
- 28 Finished Water Master Plan Update 2030
- 29 Urban Area Water Demand and Safe Yield Analysis 2030
- 30 Valve Repair – Replacement (Phase 2b)
- 39 Crozet Water Treatment Plant – Disinfection Upgrades
- 40 Crozet Drinking Water Infrastructure Plan Update 2025
- 52 Comprehensive Sewer Model and Study Updated 2030
- 64 Scottsville WRRF – Permit Modification Upgrade
- 67 Stone Robinson Elementary School Plant Upgrade
- 76 Vertical Asset Replacement

There were six (6) projects with mid-year cost additions. The total budget for these is $40.7 million.

- 1 Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line
- 2 Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station
- 16 South Rivanna Water Treatment Plant - Permanganate Improvements
- 42 Red Hill Water Treatment Plant – Upgrades & GAC Addition
- 47 Crozet Pump Station 1, 2, 3 Rehabilitation
- 51 Rivanna Pump Station Rehabilitation

Inflationary pressures within the construction market have significantly impacted bid pricing over the past 36 months. As such, virtually all projects have seen an increase in projected costs. This is especially impactful on the FY 26-30 CIP as a significant number of long planned projects are reaching bidding and construction phases.

In summary, the FY 26-30 CIP is largely driven by an increase in project costs. The impact of all cost factors can be seen in Table 1 below:

Table 1

FY Line Item	Cost
25-29 Capital Improvement Plan	$371,000,436
Mid-Year Additions	$ 40,730,000
FY 30 Projects	$ 31,853,000
Inflation and Scope Additions	$ 117,586,754
New Projects	$ 14,589,000
Completed Projects	$ (14,489,909)
Total	**$561,269,281**

FINANCIAL SUMMARY

MAJOR SYSTEM CATEGORIES

FINANCIAL SUMMARY
Major System Categories – Water

	Five-Year Capital Program			Projected Future Expenses by Year						
System Description	**Current CIP**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress**
Urban Water (UW)										
Community Water Supply Plan	$127,775,000	$54,455,000	$21,810,000	$21,080,000	$35,880,000	$36,976,000	$39,041,000	$27,443,000	$182,230,000	$3,695,512
Urban Water Treatment Plants & Reservoirs	$9,120,000	$6,291,400	$1,575,000	$1,882,000	$4,500,000	$2,448,000	$3,434,400	$1,572,000	$15,411,400	$126,665
Finished Water Storage/Distribution	$72,596,000	$51,527,400	$22,185,000	$14,362,000	$28,812,800	$27,011,600	$22,907,000	$8,845,000	$124,123,400	$3,095,450
Subtotal (UW)	$209,491,000	$112,273,800	$45,570,000	$37,324,000	$69,192,800	$66,435,600	$65,382,400	$37,860,000	$321,764,800	$6,917,627
Non-Urban Water (NUW)										
Crozet Water System	$58,800,000	$23,601,000	$9,660,000	$9,750,000	$24,925,000	$20,821,000	$11,465,400	$5,779,600	$82,401,000	$2,030,138
Scottsville Water System	$3,100,000	$6,162,000	$2,050,000	$0	$0	$888,000	$2,016,000	$4,308,000	$9,262,000	$66,151
Subtotal (NUW)	$61,900,000	$29,763,000	$11,710,000	$9,750,000	$24,925,000	$21,709,000	$13,481,400	$10,087,600	$91,663,000	$2,096,289
WATER TOTAL	$271,391,000	$142,036,800	$57,280,000	$47,074,000	$94,117,800	$88,144,600	$78,863,800	$47,947,600	$413,427,800	$9,013,916

FINANCIAL SUMMARY
Major System Categories – Wastewater

	Five-Year Capital Program			Projected Future Expenses by Year						
System Description	**Current CIP**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress**
Urban Wastewater (UWW)										
Wastewater Interceptors and Pumping Stations	$22,810,000	$28,797,000	$13,520,000	$24,475,000	$3,262,000	$2,292,000	$4,470,000	$3,588,000	$51,607,000	$4,484,134
Moores Creek AWRRF	$53,300,000	$25,472,000	$32,910,000	$30,480,000	$14,734,000	$648,000	$0	$0	$78,772,000	$5,132,399
Subtotal (UWW)	$76,110,000	$54,269,000	$46,430,000	$54,955,000	$17,996,000	$2,940,000	$4,470,000	$3,588,000	$130,379,000	$9,616,533
Non-Urban Wastewater (NUWW)										
Scottsville WRRF	$1,090,000	$720,000	$520,000	$582,000	$6,000	$78,000	$624,000	$0	$1,810,000	$75,765
Glenmore WRRF	$1,645,000	$5,072,000	$75,000	$2,190,000	$180,000	$48,000	$864,000	$3,360,000	$6,717,000	$0
Subtotal (NUWW)	$2,735,000	$5,792,000	$595,000	$2,772,000	$186,000	$126,000	$1,488,000	$3,360,000	$8,527,000	$75,765
WASTEWATER TOTAL	$78,845,000	$60,061,000	$47,025,000	$57,727,000	$18,182,000	$3,066,000	$5,958,000	$6,948,000	$138,906,000	$9,692,298
All Systems Security & Technology	$6,274,527	$2,660,953	$4,588,527	$1,166,953	$1,080,000	$569,600	$950,000	$580,400	$8,935,480	$2,044,378
TOTAL	$356,510,527	$204,758,753	$108,893,527	$105,967,953	$113,379,800	$91,780,200	$85,771,800	$55,476,000	$561,269,280	$20,750,592

PROJECT DETAILS

Completed Projects

During fiscal year 2025, several capital improvement projects were completed, were advanced to the final phases of close-out, or were largely completed. Presented in the table below are the five (5) completed projects, pertinent information on the adopted budgets, as well as the projected final costs and any anticipated savings. There was a total completed project cost savings of $0.5 million.

5. Observatory Water Treatment Plant Improvements: The Observatory Water Treatment Plant was originally constructed in the mid-1950s, and prior to this project, much of the original equipment remained. As a result, that equipment was inefficient, prone to unexpected failure, and did not have readily accessible replacement parts. Based on a Needs Assessment Study, the plant underwent a wholesale upgrade including improvements to the flocculators, sedimentation basins, filters, and chemical feed facilities to enhance future reliability. In addition, the existing reinforced concrete flume, which conveys treated water from the sedimentation basins to the filters, was replaced, filter control valves and piping were replaced, and electrical and SCADA control systems were upgraded. A portion of this project was also completed during the Granular Activated Carbon (GAC) project, where the flocculator systems were upgraded with new mechanical and electrical equipment, including variable speed drives for optimal efficiency. In addition to providing needed equipment upgrades, these improvements have increased the plant's capacity from 7.7 million gallons per day to 10 million gallons per day to provide needed reliability and redundancy in the Urban System. As part of this capacity increase, the plant's GAC treatment capacity was increased as well, with the addition of four GAC contactors.

8. South Rivanna Water Treatment Plant Improvements: The South Rivanna Water Treatment Plant previously completed limited upgrades as part of the Urban Granular Activated Carbon project. Over the course of that project, several other significant needs were identified and assembled into this single improvement project. Under this project the following improvements were made: a new alum and fluoride storage facility; installation of two additional filters to meet firm capacity needs and new filter control panels; building around the lime storage facilities; the addition of a second variable frequency drive at the Raw Water Pump Station as well as other general pump station improvements; the relocation for the electrical gear from a subterranean location at the Sludge Pumping Station to a new aboveground enclosure; a new administration building on site for additional office, meeting, and storage space; high service pump improvements and the addition of variable frequency drives to three of the pumps; sedimentation basin improvements; replacement of filter inlet valves and actuators; remodeling of the existing filter building for better lab and control space and painting throughout; new clarifier drives; and incoming electrical system improvements for the facility. These upgrades have improved the reliability and resiliency of the plant, particularly at higher flow rates.

18. Airport Rd. Pump Station and North Rivanna Transmission Main: Rt. 29 Pipeline and Pump Station master plan was developed in 2007 and originally envisioned a multi-faceted project that reliably connected the North and South Rivanna pressure bands, reduced excessive operating pressures, and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan was updated in 2018 to reflect the changes in the system and demands since 2007. This project, along with the South Rivanna River Crossing project, will provide a reliable and redundant finished water supply to the North Rivanna area. Once the North Rivanna Water Treatment Plant is abandoned, the Airport Road Pump

Station will be the primary means to supply water to the North Zone. The proposed pump station will be able to serve system demands at both the current high pressure and a future low-pressure condition. These facilities will also lead to a future phase implementation which will include a storage tank and the creation of the Airport pressure zone. Construction is complete for two "gap" sections of 24-inch water main between the already completed sections in the vicinity of Kohl's, and the pump station is in operation.

46. MCAWRRF Meter and Valve Replacements: As part of the 2018 Odor Control Phase II Project, the post digestion clarifiers were eliminated from use and the gravity thickener overflow was diverted through existing piping directly to the Moores Creek Pump Station at the head of the treatment facility. This resulted in less odor generation, however, the gravity thickener overflow lost its metering location at the post digestion clarifiers. A new metering manhole location was installed near the Moores Creek Pump Station where several plant recycle flows come together. Unfortunately, this meter location has been problematic and is subject to backwater flows from the pump station and meter fouling from grease and solids. Following an evaluation of each recycle flow stream, an alternative way to calculate recycle flows via summation of individual meters on each recycle flow line was determined which will provide less operation and maintenance problems.

    The circulation of Waste Activated Sludge (WAS) and Return Activated Sludge (RAS) is important in the wastewater process to maintain a healthy balance of microorganisms. The existing WAS and RAS flow meters are original to the 1980's construction of the facility and are nearly 40 years old. These meters can no longer be calibrated, and replacement parts are not available. Replacement of these existing meters, in addition to installation of new meters for the primary and thickened sludge is necessary for process and operational efficiency and construction is complete.

59. IT Infrastructure: Systematic Network upgrades and standardization for aging switches and other infrastructure. SCADA asset inventory assessment and management policy to help establish plans for PLC and other IO asset maintenance. New business process implementations are ongoing – the general ledge/accounting systems currently in use will most likely need replacing as the current system will have an end of life in the late 2020's.

Completed Projects

			Five-Year Capital Program			
Line No.	**Proj. No.**	**Project Description**	**Adopted Budget 5/2024**	**Previous Expenditures (6/30/2024)**	**Final Projected Costs/Close Out**	**Savings**
5	20.06	Observatory Water Treatment Plant Improvements	$2,000,000	$650,440.55	$2,000,000.00	$0
8	20.16	South Rivanna Water Treatment Plant Improvements	$1,900,000	$270,632.45	$1,900,000.00	$0
18	20.13	Airport Rd Pump Station and North Rivanna Trans. Main	$10,000,000	$8,831,088.60	$9,350,000.00	$650,000
46	21.11	Moores Creek AWWRF Meter and Valve Replacements	$475,000	$294,519.09	$363,421.00	$111,579
59	20.47	IT Infrastructure	$114,909	$114,909.00	$114,909.00	$0
		TOTAL	$14,489,909	$10,161,589.69	$13,728,330.00	$761,579

CIP 25-29 Total	**CIP 25-29 Completed or Removed**	**CIP 25-29 Remaining**	**CIP 26-30 New Funding**	**CIP 26-30 New Total**
$371,000,436	$14,489,909	$356,510,527.00	$204,758,754.00	$561,269,281

Community Water Supply Plan

The Community Water Supply Plan represents the program developed with substantial community input to fulfill RWSA's contractual obligation to the City of Charlottesville (City) and the Albemarle County Service Authority (ACSA) to provide adequate drinking water for their future needs. This initiative started in 2003 to find a long-term solution that could achieve both local support and meet federal and state requirements. After multiple community meetings, updates with local officials, and frequent consultations with federal and state agencies, local support was obtained to apply for federal and state permits to expand the Ragged Mountain Reservoir and build a future pipeline between the South Rivanna and Ragged Mountain Reservoirs, with stream and wetlands mitigation to be provided through property in the Buck Mountain Creek area and property adjacent to a lower reach of Moores Creek near its confluence with the Rivanna River. Federal and state permits were granted in 2008 and amended in 2011.

The first phase of this long-term program centered around the expansion of the Ragged Mountain Reservoir, a project that would simultaneously address a legal obligation to correct safety deficiencies on the existing site. Through a combination of technical investigations, engineering evaluations, and continued public discussion, a decision was reached in February 2011 through the City Council and Board of Supervisors to build the new dam as an earthen dam, with the initial phase raising the reservoir pool height by 30 feet. The decision also outlined an objective of the further pursuit of water conservation through the City and ACSA, and the pursuit of opportunities for dredging of the South Rivanna Reservoir, with the second phase of reservoir expansion in the future. The Ragged Mountain Dam Agreement was amended in late 2023 and authorized the implementation and modifications for the additional 12 feet of storage at the Ragged Mountain Reservoir.

Project Descriptions:

1. Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line: Raw water is transferred from the Ragged Mountain Reservoir (RMR) to the Observatory Water Treatment Plant (OBWTP) by way of two 18-inch cast iron water lines which have been in service for more than 110 and 70 years, respectively. In addition to the need to increase transfer capacity between the RMR and OBWTP, increased frequency of emergency repairs and expanded maintenance requirements necessitates replacement of these water lines with a single, new raw water main. This new raw water main is expected to be constructed of 36-inch ductile iron pipe and will span a distance of approximately 21,400 linear feet, including the connection of the proposed RMR raw water pump station with the Southern terminus of the Birdwood raw water line completed in 2019, which will allow the pump station to integrate with the SFRR-RMR transfer system as well.

2. Ragged Mountain Reservoir to Observatory Water Treatment Plan Raw Water Pump Station: The Ragged Mountain Reservoir (RMR) to Observatory Water Treatment Plant (OBWTP) raw water pump station is planned to replace the existing Stadium Road and Royal Pump Stations, which have exceeded their design lives and would require significant upgrades to reliably meet the upgraded capacity of the Observatory WTP. The pump station will be designed to pump up to 10 million gallons per day (MGD) to the expanded Observatory WTP and will also be

integrated with the planned South Fork Rivanna Reservoir (SFRR) to RMR pipeline for improved operational flexibility and cost efficiencies. This integrated pump station will include the capacity to transfer up to 16 MGD of raw water from RMR back to the South Rivanna WTP, as well as boost up to 25 MGD of raw water from SFRR up to RMR and/or OBWTP. The pump station property was purchased as part of the SFRR to RMR raw water main preliminary design and right of way acquisition project.

3. South Fork Rivanna Reservoir to Ragged Mountain Pipeline, Intake and Facilities: The South Fork Rivanna Reservoir (SFRR) to Ragged Mountain Reservoir (RMR) Pipeline is a part of the approved and permitted Community Water Supply Plan. The pipeline and associated facilities will give RWSA the ability to move water between the two reservoirs, further enhancing the management capabilities of the Urban System water supply. The SFRR to RMR Pipeline, Intake, and Facilities Project will include construction of a 36" raw water pipeline, connecting SFRR and RMR, a new raw water intake and pump station at SFRR to bring total withdrawal capacity from SFRR to 41 MGD, and raising of the pool level at RMR 12' to allow for an additional 700 million gallons of storage at that reservoir. Design and construction of approximately 380 LF of piping along the alignment, as a betterment opportunity through the Victorian Heights development, located on Woodburn Road, has already been completed as part of the work. Construction of the new intake and pump station will permanently close the existing boat ramp on RWSA property at SFRR to the public.

4. South Fork Rivanna Reservoir Aeration & Ragged Mountain Reservoir Hypolimnetic Oxygenation Systems: Through RWSA's ongoing Reservoir Water Quality Monitoring Program and the South Fork Rivanna Reservoir (SFRR) to Ragged Mountain Reservoir (RMR) Pretreatment Evaluation Study, water quality benefits for an Aeration System at SFRR and a Hypolimnetic Oxygenation System at RMR have been identified. While these systems would be configured differently for each reservoir, the purpose of each system is to inject Oxygen into the depths of each reservoir. Iron and manganese concentrations are reduced, thus improving water quality within the reservoir and for downstream treatment processes.

Community Water Supply Plan

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
1	20.03	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line	$33,500,000	$7,260,000	$10,190,000	$2,660,000	$7,975,000	$7,975,000	$7,975,000	$3,985,000	$40,760,000	$817,711
2	20.04	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station	$12,350,000	$8,380,000	$4,240,000	$4,390,000	$4,835,000	$4,835,000	$2,430,000		$20,730,000	$749,495
3	20.48 20.49	South Fork Rivanna Reservoir to Ragged Mountain Pipeline, Intake & Facilities	$75,325,000	$36,145,000	$7,380,000	$14,030,000	$23,070,000	$22,330,000	$22,330,000	$22,330,000	$111,470,000	$2,128,306
4	23.02	South Fork Rivanna Reservoir Aeration and Ragged Mountain Reservoir HLOS Systems	$6,600,000	$2,670,000				$1,836,000	$6,306,000	$1,128,000	$9,270,000	
		TOTAL	$127,775,000	$54,455,000	$21,810,000	$21,080,000	$35,880,000	$36,976,000	$39,041,000	$27,443,000	$182,230,000	$3,695,512

Urban Water Treatment Plants and Reservoirs

The Urban Water Treatment Plants and Reservoirs consist of the Observatory Water Treatment Plant (OBWTP) and Ragged Mountain/Sugar Hollow Reservoir System which is comprised of the water treatment facility on Observatory Mountain and the associated raw water infrastructure that stores and conveys source water to the plant. The raw water storage system includes the new Ragged Mountain Dam (constructed in 2014, with a useable raw water storage capacity of 1.44 billion gallons) and the Sugar Hollow Dam (originally constructed in 1947, upgraded in 1999 and downstream discharge improvements completed in September 2014, with a useable raw water storage capacity of 339 million gallons as updated by a 2015 bathymetric survey). The system also includes 17.6 miles of 18-inch raw water cast-iron mains, originally installed in 1908, 1922, and 1946. The Sugar Hollow Raw Water Main historically conveyed water from the Sugar Hollow Dam to the Observatory Water Treatment Plant, however, as a result of the New Ragged Mountain Dam project, the main now discharges directly into Ragged Mountain Reservoir. The remaining downstream section of the Sugar Hollow main now conveys raw water from the Ragged Mountain Reservoir to the treatment plant. The line crosses the Mechums River (where an abandoned pumping station is sited) on its way to Ragged Mountain Reservoir, and eventually passes through the Royal Pumping Station and terminates at the OBWTP. The Ragged Mountain Raw Water Main conveys water from the Ragged Mountain Reservoir through the Stadium Road Pumping Station and terminates at the OBWTP.

It also includes the South Rivanna Water System which is comprised of the source water, storage, conveyance and treatment infrastructure currently serving the urban area from the South Fork Rivanna River. The system includes the South Fork Rivanna Reservoir and Dam (built in 1966) with a raw water storage capacity of 1,248 MG of which 885MG is useable. The Dam is co-located with the raw water intake and pump station, as well as a small hydroelectric generation facility. The source water from the South Rivanna Reservoir is treated at the South Rivanna treatment plant (12-mgd rated capacity).

The North Rivanna Water System is also a part of this area and is comprised of a river intake and raw water pumping station on the North Fork of the Rivanna River, as well as the North Fork Water Treatment Plant (2-mgd rated capacity built in 1973). The North Rivanna System provides water to the ACSA service area located along US Route 29, between Forest Lakes subdivision and Piney Mountain Road.

Project Descriptions:

5. Observatory Water Treatment Plant – Hypo Tank Replacements: The Hypochlorite Building at the Observatory Water Treatment Plant (OBWTP) was constructed in 1999. The facility is designed to house all necessary sodium hypochlorite feed equipment as well as two (2) 12,000-gallon fiberglass reinforced plastic (FRP) storage tanks. With the tanks being more than 20 years old, the RWSA has elected to replace the tanks with new, similar size and volume tanks.

6. Observatory Water Treatment Plant – Backwash Basin Sludge Removal and Inspection: The concrete backwash basins were built in the 1920's and 1950's as part of the original water treatment plant to be used as open storage for the filtered water. They are currently used to settle solids out of the backwash water before it is decanted to the sanitary sewer system. This project

involves removal of the settled sludge and a complete inspection of the basins to determine the extent of concrete repairs needed to extend their useful life.

7. South Rivanna Water Treatment Plant – Sanitary Sewer Connection: Residual liquids and solids produced during the water treatment process at the South Rivanna Water Treatment Plant are routed through an equalization basin to two residuals clarifiers. Sludge is pumped to a belt filter press in the Solids Handling Facility, and clarified water is discharged to the South Fork Rivanna River under a VPDES permit issued by the Virginia DEQ. In the future, anticipated increases in solids processing will necessitate an alternative means of disposing of sludge from the treatment process. This project includes preliminary and final design of a new sewer connection to convey sludge to the sanitary sewer system, as well as right of way acquisition, permitting, and construction costs.

8. Urban Water Treatment Plants – GAC Building Dehumidification: Granular Activated Carbon (GAC) treatment was installed at the Urban water treatment plants (South Rivanna and Observatory) in 2018. The buildings constructed around the GAC vessels were not conditioned and only included unit heaters and portable dehumidifiers. As a result of the large GAC vessels in these buildings, the humidity levels in the area tend to promote condensation which can then lead to corrosion of the equipment and general degradation. While the portable dehumidifiers were beneficial, they tended to be unreliable and insufficient to maintain lower humidity levels in the buildings. As a result, the purpose of this project is to install permanent industrial dehumidification systems in the GAC buildings associated with the Urban water treatment plants. This project would include the dehumidification units as well as the necessary ductwork, electrical improvements, and architectural modifications required for a complete installation.

9. South Rivanna Water Treatment Plant – Main Plant Generator Replacement: During recent treatment plant upgrades, the condition of the existing main plant generator was evaluated, and it was determined that while the generator was capable of meeting our current needs at the plant, we should plan for a future replacement. This replacement would help ensure the appropriate level of electrical service resiliency for the plant and would include a new prime rated generator, automatic transfer switch, associated electrical switchgear, feeder cables and other appurtenances necessary to allow this replacement to take place while still providing the plant with backup power during the construction process.

10. North Rivanna Water Treatment Plant Decommissioning: The North Rivanna Water Treatment Plant (NRWTP) has been in use since the 1970's with minimal upgrades aside from the addition of Granular Activated Carbon in 2018. A Needs Assessment was performed that identified additional improvements that would be required for the plant to continue to reliably provide drinking water to the North Rivanna Pressure Zone. Due to the anticipated expense of these proposed improvements, a feasibility study was performed to determine if the NRWTP should be upgraded or decommissioned. The study concluded that the plant should be decommissioned, and expenses saved could be better applied to other improvements throughout the Urban Water System. As a result, this project includes demolition of the plant facilities, removal of the low head dam on the North Fork Rivanna River and returning the property to its pre-existing conditions.

11. Dam Concrete and Steel Repairs: RWSA operates several dams for water supply and sediment storage. These include concrete gravity dams and earthen embankment dams, ranging in age from 10 to over 80 years. Over time, normal wear and tear from water passage and weather can cause degradation of concrete and steel structures. To ensure continued safe operation of these dams into the future, it is imperative to complete periodic maintenance and repairs. This project includes funding for the evaluation, design, and construction of concrete and steel repairs at the Lickinghole Creek Dam, Totier Creek Dam, South Rivanna Dam, and Sugar Hollow Dam. Repairs are expected to include injection grouting of voids in concrete structures, concrete surface repairs, recoating steel hoist beams, and installation of new hoist trolleys, among others.

12. South Rivanna Water Treatment Plant – PAC Upgrades: The SRWTP currently utilizes a repurposed lime silo reconfigured to feed powdered activated carbon (PAC). PAC is fed in the mixing basin where it is mixed with the raw water prior to entering the rapid mix basins. The PAC storage silo and feed system has reached the end of its useful life and requires frequent maintenance attention to maintain operations. The purpose of this project is to replace the existing PAC system with a new modern PAC storage and slurry feed system similar to the one installed at the Crozet WTP and the one under construction at the Observatory WTP. This project would include demolition of the existing PAC silo and feed pumps, site work and grading required for the new PAC silo location and installation of a new PAC storage and slurry feed system complete with all necessary dry feed equipment, metering pumps, HVAC equipment and electrical and control equipment.

13. Buck Mountain Property Dam Remediation: The RWSA Buck Mountain Property in Free Union includes a small pond dam acquired as part of the property acquisition in the early 1980's. Based on the height of the dam and volume of water impounded in the pond, the dam is considered a low-hazard impounding structure subject to Virginia Dam Safety Regulations. Recent evaluations by Schnabel Engineering revealed defects in the dam consistent with age and wear that should be addressed in order to comply with state regulations. This CIP project includes funds to dewater the pond and temporarily modify the dam for safety purposes, if required, until funding is allocated for the repair, modification, or removal of the dam, currently planned for 2030 or later.

14. South Rivanna Water Treatment Plant Improvements: In an effort to continue to improve and enhance treatment capabilities at the plant and perform necessary equipment replacements, this project will include the installation of plate settlers in the sedimentation basins, replacement of the two rapid mixers, replacement of the existing freight elevator and other minor miscellaneous improvements.

15. South Rivanna Water Treatment Plant – Floc Basin Improvements: This work was originally intended to be included in the SRWTP Treatment Improvements project, but based on feedback from Water Department staff, it was determined that replacement of the flocculation basin paddles and associated accessories was critical and needed to be advanced in the schedule. This project will replace the existing components in the three existing flocculation basins.

16. South Rivanna Water Treatment Plant – Permanganate Improvements: The SRWTP is a conventional surface water treatment plant that treats water from the South Branch of the

Rivanna River. As part of the treatment process the raw water is dosed with sodium permanganate. The existing sodium permanganate feed system is in a pre-engineered metal building generally located near the raw water pump station. When originally constructed, the Permanganate Feed Building housed powdered activated carbon feed equipment and had no secondary containment. To provide full concrete containment it is recommended that the existing 4" tall. Additionally, there will be an eyewash system with tempered water installed in this building. The tempered water will require additional power brought to the Permanganate building from the Rivanna Pump station.

Urban Water Treatment Plants and Reservoirs

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
5	25.05	Observatory Water Treatment Plants - Hypo Tank Replacements	$300,000	$71,000	$35,000	$132,000	$204,000				$371,000	
6	23.05	Observatory Water Treatment Plant - Backwash Basin Sludge Removal and Inspection	$565,000	$133,400				$96,000	$602,400		$698,400	
7	23.11	South Rivanna Water Treatment Plant - Sanitary Sewer Connection	$750,000	$174,000			$204,000	$348,000	$372,000		$924,000	
8	23.04 23.09	Urban Water Treatment Plants - GAC Building Dehumidification	$2,175,000	$1,125,000				$300,000	$2,400,000	$600,000	$3,300,000	
9	22.08	South Rivanna Water Treatment Plant - Main Plant Generator Replacement	$50,000	$430,000					$60,000	$420,000	$480,000	
10	20.18	North Rivanna Water Treatment Plant - Decommissioning	$2,940,000	$572,000	$680,000		$2,088,000	$744,000			$3,512,000	$109,624
11	25.01	Dam Concrete and Steel Repairs	$1,190,000	$263,000	$415,000	$528,000	$510,000				$1,453,000	
12	24.01	South Rivanna Water Treatment Plant - PAC Upgrades	$1,100,000	$158,000	$310,000	$948,000					$1,258,000	$17,041
13	25.04	Buck Mountain Property Dam Remediation	$50,000	($50,000)	$50,000	($50,000)					$0	
14	22.05	South Rivanna Water Treatment Plant Improvements		$552,000						$552,000	$552,000	
15	22.05	South Rivanna Water Treatment Plant - Floc Basin Improvements		$2,400,000		$180,000	$1,260,000	$960,000			$2,400,000	
16	26.20	South Rivanna Water Treatment Plant - Permanganate Improvements		$463,000	$85,000	$144,000	$234,000				$463,000	
		TOTAL	$9,120,000	$6,291,400	$1,575,000	$1,882,000	$4,500,000	$2,448,000	$3,434,400	$1,572,000	$15,411,400	$126,665

Finished Water Storage/Transmission – Urban System

The urban finished water storage and transmission system serves to provide transmission of treated water from the three RWSA water plants (Observatory, South Rivanna, and North Rivanna) to the distribution networks of the Albemarle County Service Authority, the City of Charlottesville, and the University of Virginia. The system includes approximately 40 miles of pipeline, six water storage tanks: Avon Street (2 MG), Pantops (5 MG), Piney Mountain (0.7 MG), Stillhouse (0.7 MG), Observatory (3 MG), and Lewis Mountain (0.5 MG), and the Alderman Road and Stillhouse pumping stations.

Project Descriptions:

17. Central Water Line: The southern half of the Urban Area water system is currently served by the Avon Street and Pantops storage tanks. The Avon Street tank is hydraulically well connected to the Observatory Water Treatment Plant while the Pantops tank is well connected to the South Rivanna Water Treatment Plant. The hydraulic connectivity between the two tanks, however, is less than desired, creating operational challenges and reducing system flexibility. In 1987, the City and ACSA developed the Southern Loop Agreement, outlining project phasing and cost allocations, as envisioned at the time. The first two phases of the project were constructed shortly thereafter. The third phase, known as the "Eastern Branch" is the subject of the current project. The initial funding for this project was used for route alignment determination, hydraulic modeling, and preliminary design. Due to the complicated nature of our finished water systems, it was decided at the August 2018 Board meeting that a more comprehensive approach was warranted and we should complete the Finished Water Master Plan prior to moving forward with final design and construction of the Avon to Pantops Water Main. The Finished Water Master plan was completed in 2021 and the Central Water Line project was prioritized for design and construction in coordination with the City and ACSA. The project will consist of approximately 5 miles of new 24-inch and 30-inch through the City to connect the Observatory Water Treatment Plant to an existing RWSA transmission main at East High and Long St. to ensure the increased hydraulic capacity of 10 MGD from the water treatment plant upgrades can be utilized. As part of this project, several City water mains will be replaced where co-located with the Central Water Line and the City will reimburse RWSA for that work. The project has been split into 2 construction contracts and Phase 1 includes 4-miles of the water line work and will be under construction in summer 2025, and bidding of Phase 2 will occur in summer 2025.

18. South Fork Rivanna River Crossing: RWSA has previously identified through master planning that a 24-inch water main will be needed from the South Rivanna Water Treatment Plant (SRWTP) to Hollymead Town Center to meet future water demands. Two segments of this water main were constructed as part of the VDOT Rt. 29 Solutions projects, including approximately 10,000 linear feet (lf) of 24-inch water main along Rt. 29 and 600 lf of 24-inch water main along the new Berkmar Drive Extension, behind the Kohl's department store. To complete the connection between the SRWTP and the new 24-inch water main in Rt. 29, there is a need to construct a new river crossing at the South Fork Rivanna River. The selected alternative will include a 1,200 lf trenchless river crossing to minimize environmental impacts. Acquisition of right-of-way is required for the river crossing and along Rio Mills Road. The project is under construction.

19. Avon, Pantops, and Observatory Tank Painting: The Avon, Pantops and Observatory Ground Storage Tanks have volumes of 2-million, 3-million, and 5-million gallons respectively, and each of the tanks are located within the Urban Pressure Band of RWSA's Finished water Distribution System. The Urban Pressure Band services most of the City and ACSA critical customers (UVA, UVA/MJ Hospital, Senior Living Facilities, Defense Contractors, etc.). Each of the tanks play a pivotal role in maintaining system pressures and providing increased flows during fires and other system emergencies.

    RWSA inspects its tanks on a regular basis and following recent inspections of the interior and exterior of each of the three tanks it was determined that these tanks are due for rehabilitation and necessary repairs. Each tank is slated to have its interior and exterior coatings rehabilitated, taken out of service, in turn, in order to complete repairs. While each tank is offline, roofing/structural repairs and safety enhancements will be made as appropriate to further protect the integrity of the tank.

20. Second N. Rivanna River Crossing & Select Pipe Replacement: The North Rivanna water distribution system has a 12-inch water line crossing of the North Rivanna River which is difficult to access and vulnerable to erosion and washout. The Finished Water Master Plan recommended we install a second redundant river crossing to ensure water can be conveyed north of the river to the Piney Mountain Tank from the new Airport Road Pump Station once the North Rivanna Water Treatment Plant is decommissioned. Approximately 1.2 miles of cast iron water line which has the highest system pressures and has experienced numerous emergency line breaks will be replaced as part of this project to improve system resiliency.

21. Emmet Street Betterment: The Urban Finished Water Master Plan identified several necessary upgrades to the urban water distribution system to improve system performance and reliability. One of the identified improvements is an upgrade and extension of the existing RWSA water main along the Emmet Street corridor from the UVA Dell Pond to Hydraulic Road. This project will utilize planned roads, streetscape, utility, and development projects along the Emmet Street corridor to complete portions of the Emmet Street water main improvements as betterment, with the goal of completing the approximately 2-mile-long water main by 2030. The project scope includes planning and coordination between RWSA, UVA, the City of Charlottesville, and VDOT, design services for the betterment and "gap" sections of water line, construction funding, and construction management services. Current identified projects with betterment opportunities include: the UVA Ivy Corridor Redevelopment, UVA Contemplative Commons, and the City of Charlottesville Emmet Streetscape Projects (multiple phases).

22. Berkmar Drive Ext. Waterline Phase 2: This water line project will be completed as betterment with the construction of the last section of the VDOT Berkmar Drive Extended project. VDOT has begun preliminary design, however, the construction is not anticipated for several years. This betterment will include approximately 1,000 feet of 16-inch waterline which will connect the new Airport Road Pump Station to an RWSA main in Airport Road. This second feed out of the new pump station will provide more redundancy to supply the North Zone once the North Rivanna Water Treatment Plant is decommissioned.

23. Urban Storage Evaluation and Tank(s) Addition: The Finished Water Master Plan outlined the need to evaluate our water storage system for fire suppression, to address frequent tank cycling, and to evaluate alternatives for realizing more useable volume in each tank. Once an evaluation is completed, this project will determine the best pressure bands to add storage to ease operational constraints. This project envisions the addition of two more water storage tanks which may be at existing tank locations or new ones.

24. SCADA Panel Relocations: At many remote water storage tank sites, control panels and PLCs associated with operation and monitoring of the tanks are located in valve vaults. These locations are a concern based on limited access to the electrical and instrumentation components as well as the condition of the space and the associated impact to the longevity of the devices. This project includes installation of new control panels and PLCs aboveground in weatherproof enclosures under a self-supporting canopy that would protect staff from direct weather impacts during operation or maintenance activities at seven water storage tank sites throughout the RWSA water distribution system. The components located in the valve vaults would be demolished after the new components were installed to minimize monitoring downtime.

25. Stillhouse, Lewis Mountain and Woodburn Road Tank Painting: The Stillhouse, Lewis Mountain, and Woodburn Tanks have volumes of 0.7-million, 0.5-million, and 1.0-million gallons respectively, Lewis Mountain and Stillhouse operate at their own pressure band. The Woodburn Road Tank is used primarily for backwash of the South Rivanna water treatment plant. Each of the tanks play a pivotal role in maintaining system pressures and providing increased flows during fires and other system emergencies. Stillhouse and Lewis Mountain tank combined serve mostly the northwestern section of charlottesville city and the Albemarle County directly adjacent to it.

    RWSA inspects its tanks on a regular basis and following recent inspections of the interior and exterior of each of the three tanks it was determined that these tanks are due for rehabilitation and necessary repairs. Each tank is slated to have its interior and exterior coatings rehabilitated, taken out of service, in turn, in order to complete repairs. While each tank is offline, roofing/structural repairs and safety enhancements will be made as appropriate to further protect the integrity of the tank.

26. Airport Road Pump Station – Pump and VFD Upgrade: Following construction of the new Airport Road Pump Station, development has been increasing in the North Pressure Zone. In the next 5-10 years, it is anticipated that the firm capacity of the new pump station will be exceeded. This project will add a third pump, motor, piping, and VFD to the existing pump station (which already includes the room for expansion) to ensure capacity is available for new growth.

27. Airport Road Tank No. 1: The newly completed Airport Road Finished Water Pump Station (APFWPS) serves to provide finished water from the Urban pressure band to the North Rivanna pressure band and following decommissioning of the North Rivanna Water Treatment Plant (NRWTP), will be the primary means of supplying finished water to the North Rivanna pressure band. Extensive modeling work performed in previous studies and the recently completed

Northern Area Utilities Master Plan indicates that suction side pressures for the APFWPS may trend lower than recommended, mainly during heavy pumping scenarios or during time periods where the South Rivanna Water Treatment Plant (SRWTP) is offline or operating at a reduced output. To ensure that APFWPS can operate reliably with increasing demands in the North Rivanna pressure demand, a new 1-million-gallon ground storage tank at the pump station is recommended for construction. This project will include design and construction of the new tank. The tank will be installed at the APFWPS site, as the site was sized for two tanks of this size, with the second tank to be installed in the decades to come as demands dictate.

28. Finished Water Master Plan Update 2030: The Authority has a goal to plan, deliver, and maintain dependable infrastructure in a financially responsible manner and asset master planning is a priority strategy to accomplish this and improve overall system development. This project will account for this process as it relates to the urban finished water system and will use demand forecasting from the Urban Area Water Demand and Safe Yield Analysis to evaluate the system and identify needed improvements for capital planning purposes.

29. Urban Area Water Demand and Safe Yield Analysis 2030: In January 2012, the City of Charlottesville, Albemarle County Service Authority, and RWSA entered into the Ragged Mountain Dam Project Agreement. Within the agreement are provisions to monitor the bathymetric capacity of the Urban water reservoirs as well as a requirement to conduct reoccurring demand analysis, demand forecasting and safe yield evaluations. The purpose of this project is to perform the next recurring analysis and use the resulting information as part of the next Finished Water Master Plan update. The population projection efforts will be used in conjunction with the Finished Water Master Plan update, the Comprehensive Sewer Model and Study Update and the Crozet Drinking Water Infrastructure Plan update.

30. Valve Repair – Replacement (Phase 2b): Isolation valves are critical for normal operation of the water distribution system and timely emergency response to water main breaks. Staff continuously reviews results from an ongoing valve exercising and condition assessment program performed by the RWSA Maintenance Department. This phase of the Valve Repair-Replacement Project has valves that have unrepairable defects, and the highest priority 1960s/1970s vintage valves from across the finished water distribution system.

Finished Water Storage/Transmission – Urban System

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
17	20.10	Central Water Line	$47,000,000	$35,000,000	$11,550,000	$13,940,000	$25,400,000	$16,800,000	$13,500,000	$810,000	$82,000,000	$1,527,160
18	20.12	South Fork Rivanna River Crossing	$7,300,000	($1,050,000)	$5,900,000	$350,000					$6,250,000	$340,227
19	20.50 20.51 20.64	Avon, Pantops and Observatory Tank Painting	$3,945,000	$2,175,000			$468,000	$2,418,000	$1,812,000	$1,422,000	$6,120,000	
20	20.58	Second North Rivanna River Crossing and Select Pipe Replacement	$650,000	$2,870,800				$42,000	$760,800	$2,718,000	$3,520,800	
21	23.06	Emmet Street Betterment	$9,235,000	$2,186,000	$4,515,000		$1,326,000	$2,400,000	$1,590,000	$1,590,000	$11,421,000	$1,228,063
22	24.09	Berkmar Drive Ext. Waterline - Phase 2	$1,440,000	$316,000	$220,000		$792,000	$744,000			$1,756,000	
23	24.12	Urban Storage Evaluation and Tank(s) Addition	$2,980,000	$1,700,000		$72,000	$366,000	$648,000	$2,520,000	$1,074,000	$4,680,000	
24	24.13	SCADA Panel Relocations	$46,000	$201,200					$55,200	$192,000	$247,200	
25	20.52	Stillhouse, Lewis Mtn and Woodburn Rd Tank Painting		$264,000						$264,000	$264,000	
26	24.05	Airport Road PS - Pump and VFD Upgrade		$566,400			$58,800	$507,600			$566,400	
27	26.06	Airport Road Tank No. 1		$5,268,000			$402,000	$2,952,000	$1,914,000		$5,268,000	
28	26.11	Finished Water Master Plan Update 2030		$290,000					$15,000	$275,000	$290,000	
29	26.17	Urban Area Water Demand and Safe Yield Analysis 2030		$240,000					$240,000		$240,000	
30	26.22	Valve Repair - Replacement (Phase 2b)		$1,500,000				$500,000	$500,000	$500,000	$1,500,000	
		TOTAL	$72,596,000	$51,527,400	$22,185,000	$14,362,000	$28,812,800	$27,011,600	$22,907,000	$8,845,000	$124,123,400	$3,095,450

Crozet Water System

The Crozet Water System includes the source water, raw water conveyance, finished water treatment, transmission and storage infrastructure for the Crozet community in western Albemarle County. The source water for this system is the Beaver Creek Reservoir and Beaver Creek (Garnett) Dam which were built in 1964 with a current useable storage capacity of 521 million gallons. Raw water is treated at the Crozet Water Treatment Plant (2.0 mgd rated capacity) and provides finished water to the Albemarle County Service Authority. The system includes the Crozet Elevated (Waterball) Tank (0.05 MG) for water treatment plant backwash; the Crozet Ground Storage Tank (0.5 MG) and pump station, and the Buck's Elbow Storage Tank (2.0 MG).

Project Descriptions:

31. Beaver Creek Dam Alteration: RWSA operates the Beaver Creek Dam and reservoir as the sole raw water supply for the Crozet Area. In 2011, an analysis of the Dam Breach inundation areas and changes to the Virginia Department of Conservation and Recreation (DCR) Impounding Structures Regulations prompted a change in hazard classification of the dam from Significant to High Hazard. This change in hazard classification requires that the capacity of the spillway be increased. Following the completion of a planning study in 2023, staff is proceeding with final design and construction of a labyrinth spillway and chute with a bridge to allow Browns Gap Turnpike to cross over the new spillway. Work for this project will be coordinated with the new relocated raw water pump station and intake. Federal funding through the Natural Resources Conservation Service is being pursued to cover the design and a portion of construction costs.

32. Beaver Creek New Raw Water Pump Station & Intake: The existing Raw Water Pump Station and Intake at the Beaver Creek Reservoir was constructed in 1964 and is located at the foot of the Beaver Creek Dam. Obligatory dam safety upgrades to the Beaver Creek Dam spillway necessitate moving the pump station away from its current location downstream of the dam. Additionally, the Drinking Water Infrastructure Plan for the Crozet water service area recommends installation of a new Raw Water Pump Station and Intake to meet new minimum instream flow requirements while increasing raw water pumping capacity to serve the growing needs of the Crozet community. The new pump station will be constructed adjacent to the dam on the Beaver Creek Reservoir. The new intake structure will include enhanced controls as well as an oxygenation or aeration system to enhance water quality within the reservoir.

33. Buck's Elbow Tank and Waterball Painting: The 2,000,000-gallon Buck's Elbow Ground Storage Tank provides finished water storage for the Crozet Area while the 50,000-gallon Crozet Waterball Tank serves as filter backwash storage at the Crozet Water Treatment Plant (CZWTP). Routine inspections of these tanks in 2012 indicated that the tanks would require recoating by 2020. The current coating system has lasted beyond this initial prediction and as such was moved to 2028. The project includes recoating the interior and top-coating the exterior of both tanks to prevent corrosion. Minor repairs and improvements to both tanks will also be included in this work, such as foundation repairs and safety enhancements. The repairs will precede the painting work due to necessity of repairs.

34. Crozet Water Treatment Plant – GAC Building Dehumidification: Granular Activated Carbon (GAC) treatment was installed at the Crozet Water Treatment Plant in 2018. The building constructed around the GAC vessels was not conditioned and only included unit heaters and portable dehumidifiers. As a result of the large GAC vessels in this building, the humidity levels in the area tend to promote condensation which can then lead to corrosion of the equipment and general degradation. While the portable dehumidifiers were beneficial, they tended to be unreliable and insufficient to maintain lower humidity levels in the building. As a result, the purpose of this project is to install a permanent industrial dehumidification system in the GAC building. This project would include the dehumidification units as well as the necessary ductwork, electrical improvements, and architectural modifications required for a complete installation.

35. Crozet AC Pipe Replacement: This project includes the installation of approximately 5,000 linear feet of new 18-inch ductile iron water line along Three Notched Road in Crozet. It will replace the final remaining section of 12-inch RWSA transite (asbestos cement) pipe built in the 1970's which is difficult to repair due to health and safety hazards. The new water line will connect the new Crozet Finished Water Pump Station at the Water Treatment Plant to the end of the previous transite replacement project at the entrance to Western Ridge and will provide more reliable service to carry the capacity of the recent water treatment plant upgrades.

36. Crozet Water Treatment Plant – Full GAC Treatment: In order to enhance RWSA's resiliency and commitment to long term finished water quality, the Authority has committed to expanding the Granular Activated Carbon (GAC) capacity at the Crozet WTP to match the current plant capacity. GAC has been identified as a leading best management practice to remove disinfection by product pre-cursers and similar potential contaminants from source water and can be used to manage removal of other emerging contaminants and compounds that are under consideration for regulation in the future. As a result, GAC treatment capacity will provide the Crozet WTP with the flexibility to provide high quality drinking water under various future conditions. This project includes an expansion of the existing GAC building, additional GAC vessels and the necessary pumps, piping, and electrical components to connect the expanded facility to the existing treatment plant.

37. Crozet Finished Water Greyrock Pump Station: RWSA's Bucks Elbow Ground Storage Tank (BET) currently can only be cycled as low as 26-feet (11-feet below overflow), due to the high elevation of several homes in the Greyrock area of Crozet. This results in about 0.6 million gallons (MG) of the total 2 MG being available for use. As a part of the proposed improvements, a small booster station will be installed near the tank site with a series of pressure reducing valves in order to allow the tank to cycle as low as 18-feet, making an additional 0.4 MG of water inside BET available for use. This will allow RWSA staff to cycle the tank lower, reducing water age and improving overall water quality in this area of the distribution system.

38. Crozet Ground Tank Painting: The 500,000-gallon Crozet Ground Storage Tank provides Chlorine Contact Time at the Crozet Water Treatment Plant (CZWTP) and serves as a clearwell for the Crozet Finished Water Pump Station. Inspections of this tank in 2018 and 2022 indicated that the tank's exterior will require top-coating by 2028 to prevent corrosion. The

project includes design, construction, and bid-phase services for top-coating of the tank exterior plus minor repairs and safety improvements as needed.

39. Crozet Water Treatment Plant – Disinfection Upgrades: During design of the Crozet Water Treatment Plant (WTP) GAC Expansion project, chlorine contact time (CCT) requirements for finished water were reviewed to confirm compliance with Virginia Department of Health guidelines for disinfection. Currently, the ground storage tank at the WTP provides sufficient CCT, but this does not allow for shutdowns of the tank for maintenance work or future higher flows from the treatment plant. Various disinfection alternatives are under consideration to address these conditions, including increased free chlorine residuals, installation of baffles in the existing ground storage tank to promote passive mixing, construction of additional storage for added CCT, or installation of a UV disinfection system. This project includes design and construction of the selected alternative.

40. Crozet Drinking Water Infrastructure Plan Update 2025: In 2019, staff completed a Drinking Water Infrastructure Plan for the Crozet Service Area to determine the water system improvements needed to meet area demands for a 50-year design period (to 2070). Since this plan was completed, rapid growth trends and Virginia Water Protection (VWP) Permit requirements issued in late 2024 by the Virginia Department of Environmental Quality (DEQ) have prompted a need to update and revise this plan. Work will include a review of the assumptions from the previous report and updates to the analysis with newly available population and water usage data and VWP Permit requirements. Various options for water system improvements will be assessed and detailed in the updated report to meet the long-term water needs of the Crozet community.

Crozet Water System

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
31	20.19	Beaver Creek Dam Alteration	$23,700,000	$4,460,000	$3,975,000	$2,020,000	$8,625,000	$6,765,000	$4,515,000	$2,260,000	$28,160,000	$1,126,133
32	20.20 21.15	Beaver Creek New Raw Water Pump Station & Intake	$23,400,000	$9,620,000	$4,150,000	$2,000,000	$11,920,000	$11,920,000	$3,030,000		$33,020,000	$803,862
33	21.01	Buck's Elbow Tank and Waterball Painting	$1,700,000	$293,000	$85,000		$150,000	$1,260,000	$498,000		$1,993,000	
34	23.10	Crozet Water Treatment Plant - GAC Building Dehumidification	$665,000	$157,000				$72,000	$750,000		$822,000	
35	23.13	Crozet AC Pipe Replacement	$1,175,000	$2,581,000				$576,000	$900,000	$2,280,000	$3,756,000	
36	23.14	Crozet Water Treatment Plant - Full GAC Treatment	$6,550,000	$3,570,000	$1,450,000	$4,895,000	$3,775,000				$10,120,000	$100,143
37	23.30	Crozet Finished Water Greyrock Pump Station	$1,585,000	$1,073,000				$228,000	$1,728,000	$702,000	$2,658,000	
38	20.55	Crozet Ground Tank Painting	$25,000	$557,000					$44,400	$537,600	$582,000	
39	26.01	Crozet Water Treatment Plant - Disinfection Upgrades		$840,000		$600,000	$240,000				$840,000	
40	26.09	Crozet Drinking Water Infrastructure Plan Update 2025		$450,000		$235,000	$215,000				$450,000	
		TOTAL	$58,800,000	$23,601,000	$9,660,000	$9,750,000	$24,925,000	$20,821,000	$11,465,400	$5,779,600	$82,401,000	$2,030,138

Scottsville Water System

The Scottsville Water System is comprised of the raw water conveyance, finished water treatment, transmission and storage infrastructure for the Town of Scottsville in southern Albemarle County. The source water for this system is the Totier Creek Intake, and the backup supply is the Totier Creek Reservoir, which was built in 1971 with a current useable capacity of 182 million gallons. Raw water is treated at the Scottsville Water Treatment Plant (0.25 mgd rated capacity) and provides finished water to the Albemarle County Service Authority. The system includes the Scottsville Storage Tank (0.25 MG). In 2023 ACSA conveyed to RWSA the Scottsville Finished Water Pump Station on James River Road, the Rt. 795 Tank (0.7 MG) and the piping in between.

Project Description:

41. Scottsville Water Treatment Plant – Upgrade: The Scottsville Water Treatment Plant was originally constructed in 1967, and other then the addition of Granular Activated Carbon (GAC) treatment and interior finished water piping improvements, much of the original plant, including process and electrical equipment, remains in service. As a result, a needs assessment for the plant was completed that identified a number of additional improvements required to maintain a high level of treatment and water quality for the Scottsville community. Improvements include upgrades to the raw water pump stations, general electrical system upgrades, construction of a building addition to allow for more effective chemical storage and other general space needs, rehabilitation of the existing lab space, and other treatment process-based upgrades.

42. Red Hill Water Treatment Plant – Upgrades & GAC Addition: The Red Hill Water Treatment Plant was constructed in a joint effort of ACSA and RWSA in 2009 and consists of a well, pneumatic tank and pump house that provides treated water to the Red Hill Elementary School and adjoining neighborhood. Originally the facility was operated primarily as a well head and pump house. More recently the facility has operated as a water treatment facility with a well as source water. As such, there have been several chemical process additions, automation, online monitoring and an increase in operator wet chemistry testing. The current building is well beyond its physical capacity and this project will serve to expand the building and improve the configuration of the process and laboratory needs of the WTP.

    Furthermore, to enhance RWSA's resiliency and commitment to long term finished water quality, the Authority has committed to adding Granular Activated Carbon (GAC) treatment at the Red Hill WTP, sized to match the current plant capacity. GAC has been identified as a leading best management practice to remove disinfection by product pre-cursers and similar potential contaminants from source water and can be used to manage removal of other emerging contaminants and compounds that are under consideration for regulation in the future. As a result, full GAC treatment capacity will provide the Red Hill WTP with the flexibility to provide high quality drinking water under various future conditions. This project includes a building expansion to independently house sodium hypochlorite, fluoride and GAC treatment as well as piping, valves and pumping improvements necessary to incorporate these components into the existing treatment plant.

43. Scottsville Asbestos-Cement Pipeline Replacement: This project is intended to replace all remaining RWSA waterline in Scottsville that is currently constructed of asbestos-cement not included under ACSA's Phase 4 Waterline Replacement Project. The scope of the project generally includes approximately 500 linear feet of raw waterline replacement between the filter building and Totier Creek intake behind Scottsville WTP. The proposed budget includes design for the new water main, as well as bid/quote package assistance.

44. Scottsville Water Treatment Plant – GAC Building Dehumidification: Granular Activated Carbon (GAC) treatment was installed at the Scottsville Water Treatment Plant in 2018. The building constructed around the GAC vessels was not conditioned and only included unit heaters and portable dehumidifiers. As a result of the large GAC vessels in this building, the humidity levels in the area tend to promote condensation which can then lead to corrosion of the equipment and general degradation. While the portable dehumidifiers were beneficial, they tended to be unreliable and insufficient to maintain lower humidity levels in the building. As a result, the purpose of this project is to install a permanent industrial dehumidification system in the GAC building. This project would include the dehumidification units as well as the necessary ductwork, electrical improvements, and architectural modifications required for a complete installation.

Scottsville Water System

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
41	22.06	Scottsville Water Treatment Plant - Upgrade	$1,350,000	$4,650,000				$696,000	$996,000	$4,308,000	$6,000,000	
42	22.07 23.17	Red Hill Water Treatment Plant - Upgrades & GAC Addition	$810,000	$1,240,000	$2,050,000						$2,050,000	$66,151
43	23.16	Scottsville AC Pipe Replacement	$275,000	$115,000				$120,000	$270,000		$390,000	
44	23.18	Scottsville Water Treatment Plant - GAC Building Dehumidification	$665,000	$157,000				$72,000	$750,000		$822,000	
		TOTAL	$3,100,000	$6,162,000	$2,050,000	$0	$0	$888,000	$2,016,000	$4,308,000	$9,262,000	$66,151

Wastewater Interceptors/Pumping Stations

The RWSA wastewater interceptors and pumping stations convey wastewater from the collection systems of the City of Charlottesville and Albemarle County Service Authority to the Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF). This grouping includes: the Crozet Interceptor and four associated pumping stations; the Moores Creek Interceptor and Relief Sewer; the Morey Creek, Maury Hills, Powell Creek, Meadow Creek, Schenks Branch, Woodbrook and Rivanna Interceptors; as well as the Albemarle-Berkley Interceptor and associated Albemarle Pumping Station. Also included in this system are the two primary pump stations into the MCAWRRF, the Rivanna and Moores Creek Pump Stations.

Project Descriptions:

45. Upper Schenks Branch Interceptor: The Schenks Branch Interceptor is located in the eastern part of the City of Charlottesville and ties into the Meadowcreek Interceptor. The interceptor was constructed in the mid-1950s of 21-inch clay and concrete pipe. The existing interceptor is undersized to serve present and future wet weather flows as determined by the City, and is to be upgraded to 30-inch pipe. The Upper Schenks Branch Interceptor consists of two sections along McIntire Road. Both of these sections have been designed with the first phase of this project located in the City's Schenks Branch Greenway, completed in early 2016. The second phase of the Upper Schenks Interceptor will be replaced by RWSA in coordination with the City of Charlottesville's sewer upgrades as easement negotiations with Albemarle County are completed.

46. Maury Hill Branch Sewer Replacement: The Maury Hill Branch Sewer is an 8-inch diameter clay sewer constructed in the 1970's. It ties into the Morey Creek Interceptor and primarily collects wastewater from the UVA Fontaine Research Park and a small portion of the adjacent City of Charlottesville neighborhoods. As a result of growth at the research park and increasing wastewater flows, the sewer line will need to be upsized to 12-inch diameter ductile iron pipe to properly convey flows for current and future needs. Since the existing pipe is also a clay sewer, the system has experienced a significant amount of inflow and infiltration (I&I). Installing a new ductile iron pipe and concrete manholes will reduce the I&I in the system and have a positive impact on the capacity of downstream sewers as well. Staff continues to coordinate with UVA staff on the upcoming expansion of the Fontaine Research Park, so flows in the existing sewer can be monitored accordingly.

47. Crozet Pump Station 1, 2, and 3 Rehabilitation: The Crozet Interceptor Pump Stations were constructed in the 1980's and many of the components are original. This project initially included the replacement of pumps and valves at Pump Station 2 in order to improve pumping capabilities at this location and provide spare parts for the pumps at Pump Station 1. It also included roof replacements at all four pump stations, siding replacement for the wet well enclosure at Pump Station 3, and installation of new wells at Pump Stations 3 and 4. The pump station improvements now also include new electrical motor control centers as they are obsolete and past their useful life, generators, power transfer switches, pumps and valves at all pump stations.

48. Albemarle Berkley Pump Station Upgrade: The Albemarle-Berkeley Pump Station was constructed in 1975 and conveys flows from several Albemarle County Public Schools (ACPS) and other ACSA customers into RWSA's gravity Albemarle-Berkeley Interceptor. Recently, the pump station's run times have increased, with the pumps running nearly continuously for some periods. It is anticipated that much of the pumping infrastructure has reached or exceeded its expected lifespan, and that the equipment may be in need of replacement.

    A Capacity Analysis of the existing pump station has been completed, utilizing present flow rates, area-specific population projections, and known development projects on and adjacent to the ACPS campus in order to provide pump station buildout sizing to serve the area for the next 50 years. With the Capacity Analysis complete, this Pump Station Upgrade Project will utilize consultant assistance in order to formulate a set of bidding documents that will include the construction of a new pumping station that is sized to meet the current and future flows as determined by the Capacity Analysis, along with all equipment necessary for staff to safely remove individual pumps from service for maintenance purposes or temporarily bypass the station entirely as needed. Once the new pump station has been constructed and is in service, the existing pump station will be demolished, with that portion of the site returned to pre-existing conditions. This project is also being coordinated with the ongoing ACPS Master Planning Process.

49. Interceptor Sewer and Manhole Repair - Phase 2: This project is used to conduct assessments of various interceptors as well as rehabilitation of interceptors that do not have a separate CIP project. Phase 1 of the Interceptor Sewer and Manhole Repair Project included completion of the baseline evaluation of all RWSA interceptors (except the 42/48" Upper Rivanna Interceptor & those replaced with new pipe), as well as completion of rehabilitation on the Upper Morey Creek Interceptor and high-priority rehabilitation on the Powell Creek and Woodbrook Interceptors. Planned projects for Phase 2 include completion of the baseline evaluation by performing closed-circuit television inspections of the Upper Rivanna Interceptor. In addition, the force mains on the Crozet and Albemarle-Berkely Interceptors will be inspected, as well as inverted siphons on the Powell Creek and Moores Creek Interceptors. These inspections will require specialty equipment to complete due to the vastly different flow conditions in these portions of the interceptors. Additional high-priority rehabilitation, possibly on the Maury Hills Branch Interceptor and other sewers, will be completed under this phase as funds allow, with additional rehabilitation efforts to take place under Phase 3. Sanitary sewer evaluation includes identification of inflow & infiltration (I & I), as well as structural defects and other maintenance issues to enable overall program planning and future rehabilitation scoping. Rehabilitation of existing sanitary sewer pipe and manholes reduces Inflow & Infiltration (I & I) in the system, thus reducing the chance for sanitary sewer overflows (SSOs) during high flow events and protecting downstream treatment processes.

50. Interceptor Sewer and Manhole Repair - Phase 3: This project is used to conduct assessments of various interceptors as well as rehabilitation of interceptors that do not have a separate CIP project. Phase 2 of the Interceptor Sewer and Manhole Repair Project, which is currently underway, includes completion of the baseline evaluation of all RWSA interceptors, including the 42-48" Upper Rivanna Interceptor, gravity portions of the Crozet Interceptor (downstream of Crozet Pump Station No. 4), force mains on the Crozet and Albemarle-Berkeley

Interceptors, as well as inverted siphons on the Powell Creek and Moores Creek Interceptors. Phase 3 of this project will take data from the previous two phases and utilize that to perform rehabilitation on RWSA's largest interceptors, including the Moores Creek Interceptor, Upper Rivanna Interceptor, Crozet Interceptor, and others. Rehabilitation is anticipated to include continued usage of cured in place piping (CIPP) and point replacements of pipe as necessary, as well as cementitious manhole coatings and frame and cover replacements.

51. Rivanna Pump Station Rehabilitation: On January 9, 2024, the area served by the MCAWRRF experienced heavy rain and over the course of the day, both influent pump stations to the facility saw increasing flows and water levels. The Moores Creek WWPS was able to pass the flow, while the Rivanna WWPS unfortunately experienced a series of control malfunctions that resulted in an a completely inundated wet well, dry well and stairwells. As a result, the equipment within the dry well of the pump station was damaged and needed to be replaced. This project includes refurbishment of the existing six wastewater pumps, replacement of the corresponding motors, replacement of impacted electrical system components, HVAC system modifications and improvements to the station control system to avoid similar issues from occurring again in the future.

52. Comprehensive Sewer Model and Study Updated 2030: Due to wet weather inflow and infiltration (I/I), projected growth, and infill; the RWSA interceptor system requires periodic evaluations of current and future flows. A consultant conducted flow metering and developed a system-wide computer modeling evaluation in 2006 which allowed RWSA, the City and ACSA to collectively identify system deficiencies, develop inflow and infiltration reduction goals, and project and prioritize future capital needs. The study was finalized in 2010. Subsequently, RWSA installed 12 permanent sanitary sewer flow meters to better understand the system operations. In April 2014 the City, ACSA, and RWSA entered into a Wastewater Projects Cost Allocation Agreement (Agreement) with the purpose of allocating costs for capacity-related projects. As part of that agreement, RWSA must routinely update future flow projections, and measured dry and wet weather flows, for each the City and ACSA. These projections are made through a calibrated wastewater model from flows measured in sewer pipes. To assist in this process. additional temporary flow meters will be installed to collect discrete flow data from the City and ACSA entering the RWSA system in order to update the model and evaluate I/I reduction goals and future capital project needs in accordance with the requirements of the Agreement. Data from both the temporary flow meters and the permanent flow meters will be used to determine the impacts of wet weather on the collection system as necessary for modeling and flow projection analyses. The project will also include updated population projections for the region, capacity evaluations, and the completion of flow tables for the Wastewater Projects Cost Allocation Agreement.

Urban Wastewater Interceptors/Pumping Stations

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
45	20.25	Upper Schenks Branch Interceptor	$5,900,000	$475,000	$4,725,000		$690,000	$960,000			$6,375,000	$50,787
46	20.29	Maury Hill Branch Sewer Replacement	$2,000,000	$2,290,000				$432,000	$1,998,000	$1,860,000	$4,290,000	
47	20.30	Crozet Pump Station 1, 2, 3 Rehabilitation	$10,900,000	$1,450,000	$3,205,000	$6,975,000	$2,170,000				$12,350,000	$512,267
48	20.31	Albemarle Berkley Pump Station Upgrade	$840,000	$246,000				$162,000	$876,000	$48,000	$1,086,000	
49	21.07	Interceptor Sewer and Manhole Repair (Phase 2)	$1,425,000	$67,000	$1,090,000		$402,000				$1,492,000	$268,932
50	24.02	Interceptor Sewer and Manhole Repair (Phase 3)	$1,745,000	$1,705,000				$738,000	$1,356,000	$1,356,000	$3,450,000	
51	25.10a	Rivanna Pump Station Rehabilitation		$22,000,000	$4,500,000	$17,500,000					$22,000,000	$3,652,148
52	26.07	Comprehensive Sewer Model and Study Update 2030		$564,000					$240,000	$324,000	$564,000	
		TOTAL	$22,810,000	$28,797,000	$13,520,000	$24,475,000	$3,262,000	$2,292,000	$4,470,000	$3,588,000	$51,607,000	$4,484,134

Moores Creek Advanced Water Resource Recovery Facility

The Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF) is the largest wastewater treatment facility within the RWSA system. The plant was originally constructed in 1958 and upgraded and expanded in 1981 and 1982, and currently has a rated capacity of 15 mgd. From 2009 thru 2012 the facility was again upgraded to provide enhanced nutrient removal, and increased wet weather pumping and treatment capacity. This site includes the infrastructure for the wastewater treatment process as well as the RWSA administration facilities.

Project Descriptions:

53. Moores Creek AWRRF Engineering and Administration Building: RWSA currently has its administrative headquarters in two buildings on the grounds of the Moores Creek Advanced Water Resource Recovery Facility. The two-story Administration Building was constructed in the late 1970's and houses offices, IT server space, meeting space and a full-service laboratory. The second building is a series of trailers installed between 2003-2010 that house the Engineering department. There is currently a need to house additional staff; increase office and meeting space; plan for the replacement of the trailers; increase available parking; bring the IT server workrooms to modern standards; and provide exhibit and classroom space for educational outreach. This project will provide an approximate 18,500 square feet addition to the existing administration building and refurbish the existing 12,500 square foot administration building in order to meet current and future growth needs of the Authority. This project was coordinated with the recent MCAWRRF Master Plan and expansion of the building will take place primarily in the lower parking lot adjacent to the existing building.

54. Moores Creek AWRRF Biogas Upgrades: The MCAWRRF has an existing cogeneration facility that was constructed in 2011. The purpose of the facility was to provide a beneficial purpose for using the gas produced by the digester process at the plant, and in doing so provide both process heating fluid to the digester tanks and electrical energy to the plant's electrical distribution system. Unfortunately, the existing cogeneration facility requires expensive recurring maintenance services, has proprietary equipment which further complicates servicing needs, and has had a number of operational issues that have impeded the benefit this facility was intended to provide. As a result, a Cogeneration System Analysis was performed to determine a recommended approach for proceeding with improvements to the existing facility, installation of a new cogeneration facility without the issues of the previous facility or removing the cogeneration facility altogether and providing a backup boiler. Following this analysis and the initial decision to proceed with replacement of the cogeneration facility, a State of the Industry study was performed, which found that many of the aforementioned issues are common across almost all cogeneration installations. This prompted staff to perform a wider study of the industry as a whole in which it was found that many facilities are transitioning to treating the digester gas produced and transferring the gas into local natural gas pipelines so it can be reused by residential and commercial consumers. While this is still being examined by RWSA and the City of Charlottesville, whom operates the gas utility in this area, the current project budget assumes implementation of this type of system. In addition to the gas conditioning system, this project also includes rehabilitation of the existing Methane

Sphere at MCAWRRF, in order to extend its service life in accordance with the MCAWRRF Master Plan.

As the preliminary biogas evaluation is completed and a method to beneficially reuse the gas is finalized, staff will utilize consultant assistance to design and bid a project that not only allows the chosen technology to be implemented, but also performs critical spot and coating repairs to the existing gas sphere that was constructed in the 1980s. The work will also include adjustments as appropriate to the biogas processing system.

55. Moores Creek AWRRF Building Upfits and Gravity Thickener Improvements: This project will address the renovation needs of the current Maintenance and Operations building space requirements, improvements to the existing gravity thickener system, and installation of actuators on the secondary clarifier influent gate valves. The Moores Creek Maintenance and Operations Department facilities are over 40 years old, no longer meeting current staffing and operational needs. In accordance with the Moores Creek Master Plan, this project will increase and update personnel spaces such as offices, lunchrooms, labs, and locker rooms in the Maintenance, Blower, and Sludge Pumping Buildings to meet needs over an interim timeframe of approximately 15 years. Additionally, the project will construct increased oil and grease storage that will meet all current best practices for safety and address the need for additional parts storage. As part of the existing gravity thickener system, RWSA added temporary provisions to dose polymer to improve settling and thickening performance, which has proved to be effective and increased operational performance. The current polymer feed system consists of a bulk polymer tote stored on grade adjacent to the gravity thickener rapid mix and splitter structure. The current system is uncovered and manually operated with totes being moved as needed for chemical feed. This project will allow for a permanent polymer feed system with proper provisions for chemical deliveries and weather protection, including additional space for sodium hypochlorite chemical storage and feed as part of the gravity thickener odor control system. The relocation of the sodium hypochlorite storage and feed will also allocate spacing needs as part of the previously discussed operational building renovations in the existing Sludge Pumping Building. Furthermore, access points will be installed on the thickener effluent line feeding the existing sludge pumps to allow for flushing, cleaning and inspection efforts to occur. Finally, the current secondary clarifier influent gate valves are manually operated, which can be time consuming, and during a wet weather event, the clarifiers need to be placed in service as quickly and safely as possible. The use of SCADA controlled actuators would streamline the process immensely. This work includes the installation of six (6) new actuators on the influent gates of the secondary clarifiers.

56. Moores Creek AWRRF 5kV Electrical System Upgrade: After discussions through the Moores Creek Facilities Master Plan, it was identified that several areas of the MCAWRRF, including the Blower Building, Sludge Pumping Building, Grit Removal Building, Moores Creek Pumping Station, and the Administration Building were all still connected to the original 5kV switchgear in the Blower Building. This equipment, including the associated cabling, switchgear, transformers, and motor control centers (MCCs), has a useful life expectancy of 20-30 years. Most of this equipment was installed around 1980. With the equipment having well exceeded its useful life expectancy at this point, safety is a concern given the large electric loads that the cabling and other equipment are handling on a day-to-day basis. Failure of the

existing 5kV infrastructure could also result in temporary outages of certain treatment processes, and repairs could take weeks to months given the lead times associated with equipment of this age. This project ultimately includes replacement of all remaining original 1980s-vintage 5kV cables, switchgear, transformers, and selected motor control centers (MCCs). All work has been coordinated with the Moores Creek Facilities Master Plan.

57. Moores Creek AWRRF Yard Piping Upgrades: The original 36-inch Rivanna Pump Station force main was constructed around 1980 and carried flow from the original 25 MGD pump station in Riverview Park. Now that the pump station has been relocated to MCAWRRF and upsized to 53 MGD, it is desirable to install a second force main based on the age of the pipe and for redundancy. This work will include construction of a second parallel 36-inch force main from the Rivanna Pump Station, across Moores Creek, and up to the headworks. A routing study will be completed prior to completion of the new Administration Building to minimize potential conflicts with future force main construction.

58. Moores Creek AWRRF Structural and Concrete Rehabilitation: This project comprises rehabilitation, repair and installation of multiple structural components throughout the MCAWRRF facility, to include concrete repairs in both the equalization basins and holding ponds, rehabilitation to the existing primary clarifiers and associated influent splitter box, installation of a bridge crane over the aeration basins for NRCY pump removal, and rehabilitation to both the digester complex and compost shed roof and drainage system.

    The existing holding ponds and equalization basins were constructed in 1977 and are showing signs of degradation. With now completed condition assessment inspections and subsequent recommendations, this project includes crack repair, spalling repair, joint repair, and coating of miscellaneous metals and valves associated with these critical structures.

    Inspections performed on the two existing primary clarifiers and associated influent splitter box noted several deficiencies including structural and mechanical components, concrete degradation and corrosion around pipe penetrations in need of repair or replacement, and due to advanced corrosion of metal components within the clarifiers, coatings were recommended to avoid additional deterioration. This project will provide for the rehabilitation, replacement and/ or coatings of these previously identified components within the primary clarifiers and influent splitter box.

    The aeration basins located at Moores Creek are a series of chambers that each have uniquely controlled oxygen and nutrient loading conditions. Mid-way thru the basins is ten nutrient recycle (NRCY) pumps. When maintenance or replacement of these pumps are required, staff must currently hire a long boom crane, which can be costly and disruptive to operations, especially in emergency conditions. This project will provide for the permanent means to remove and reinstall existing NRCY pumps.

    Moores Creek AWRRF has five digester vessels. The two smaller digesters were part of the original 1958 plant construction. The three larger digesters were part of the 1979 plant upgrades following construction of the bridge over Moores Creek and the south side of the plant. Although numerous upgrades have been constructed at the digester complex over the

last 11 years (including heating, mixing, gas compression, and roof repairs), the overall condition of the concrete and complex is reaching its useful life. This project includes addressing remaining repairs to the existing digester complex, including safety repairs, to extend the useful life approximately 10-15 years while RWSA plans, designs, and constructs a new digester complex at another location on the Moores Creek site.

Finally, in the early 1980's a large metal-framed roof was constructed to house the biosolids composting operations, which has subsequently ceased operation. The area was repurposed as a covered equipment maintenance yard, solids handling facility and material storage lock-up. The roof system is exhibiting signs of rafter deterioration and ongoing drainage and leakage issues. This project will evaluate and perform remediation needs at this facility.

59. Moores Creek AWRRF MCPS Slide Gates, Valves and Bypass & Septage Receiving Upgrades: Through separate procurements, previous inspections of the large aluminum slide gates at the influent side of the Moores Creek Pump Station have been conducted to determine the extent of repairs needed to stop them from leaking. Results of these investigations will be used to design the repair of the existing slide gates and add new gates and actuators so staff can have the flexibility to stop or divert flow to perform maintenance activities. In addition, this project will include the repair of 3 control valves within the pump station and provide permanent bypass connections so the entire pump station can be bypassed more efficiently in the future when needed. To reduce odors and address maintenance concerns at the existing north septage receiving station, the project will enclose the leachate discharge pit, provide for better containment of discharged materials, provide a new septage receiving software, and install rock traps and grinders with all associated process piping to prevent downstream blockages at the Moores Creek Pump Station.

60. Moores Creek AWRRF Blower Building Ventilation Improvements: The existing blower building at the MCAWWRF currently experiences issues related to high temperatures occurring within the building. The original building was designed for aeration blowers and a plant generator and was retrofitted to remove all this equipment and now houses upgraded blowers for the plant aeration treatment system. However, the heat generation from the newer equipment has been creating intermittent issues with high ambient temperatures causing blower equipment to fault out in warmer months due to current ventilation not being adequate. This project will look to evaluate and upgrade the ventilation system to ensure reliability for critical process operation and eliminate the excessive heat generation issues.

Moores Creek Advanced Water Resource Recovery Facility

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
53	20.34	Moores Creek AWRRF Engineering and Administration Building	$20,000,000	$7,600,000	$9,500,000	$9,000,000	$9,100,000				$27,600,000	$577,315
54	20.40 20.67	Moores Creek AWRRF Biogas Upgrades	$5,650,000	$637,000	$3,365,000		$2,274,000	$648,000			$6,287,000	$66,509
55	20.68	Moores Creek AWRRF Building Upfits and Gravity Thickener Improvements	$5,150,000	$6,770,000	$4,255,000	$7,665,000					$11,920,000	$314,539
56	21.18	Moores Creek AWRRF 5kV Electrical System Upgrade	$6,200,000		$6,200,000						$6,200,000	$3,744,459
57	22.10	Moores Creek AWRRF Yard Piping Upgrades	$800,000	($800,000)	$30,000	($30,000)					$0	
58	20.39 20.67 22.11 22.12 24.07	Moores Creek AWRRF Structural and Concrete Rehabilitation	$11,300,000	$5,050,000	$7,095,000	$9,255,000					$16,350,000	$368,893
59	24.08 21.19	Moores Creek AWRRF MCPS Slide Gates, Valves, Bypass and Septage Receiving Upgrades	$3,600,000	$6,111,000	$2,385,000	$3,966,000	$3,360,000				$9,711,000	$60,684
60	25.07	Moores Creek AWRRF Blower Building Ventilation Improvements	$600,000	$104,000	$80,000	$624,000					$704,000	
		TOTAL	$53,300,000	$25,472,000	$32,910,000	$30,480,000	$14,734,000	$648,000	$0	$0	$78,772,000	$5,132,399

Scottsville Wastewater System

The Scottsville Wastewater System includes the influent pumping station, the Water Resource Recovery Facility (WRRF) constructed in 1983, and the historical treatment lagoon (now incorporated into the plant operation). The water resource recovery facility has a rated capacity of 0.2 mgd.

Project Descriptions:

61. Scottsville WRRF Whole Plant Generator and ATS: The current back-up power generator at the Scottsville Water Resource Recovery Facility does not power the entire plant. It serves only the facilities needed to send flow to the lagoon for storage and UV disinfection. This project will provide back-up power for the entire plant and influent pump station and will offer greater treatment flexibility and monitoring capability for the operations staff, particularly when the plant is unmanned and monitored remotely.

62. Scottsville Lagoon Outfall Rehabilitation: The Scottsville Wastewater Lagoon outfall is original to the wastewater plant from its construction. The overflow tower was recently inspected in 2021 by Bander Smith and recommended a few repairs. The concrete tower has 4 intakes, and the 4th intake is currently buried under debris. The tower is in fair condition and could use some general concrete repairs, the 4th intake is buried under material. All valves are recommended for replacement and removal of 2-3 feet of material is recommended from around the outflow tower.

63. Scottsville WRRF Polymer Feed Addition: The Scottsville WRRF Polymer Feed system has reached the end of its useful life and needs replacement. This project will focus on constructing a new polymer feed system and an enclosure to house the chemicals for the plant.

64. Scottsville WRRF Permit Modification Upgrade: Due to new VPDES permit limits, a needs assessment was performed for the Scottsville WRRF. The needs assessment confirmed what short-term improvements were required to meet these new limits as well as future improvements to account for plant age, reliability, efficiency and function. The purpose of this project is to account for the short-term improvements which include influent pump station and headworks upgrades, aeration piping rehabilitation, a new storage and chemical feed building, and flood resiliency improvements.

Scottsville Water Resource Recovery Facility

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
61	21.12	Scottsville WRRF Whole Plant Generator and ATS	$520,000		$520,000						$520,000	$75,765
62	23.24	Scottsville WRRF Lagoon Outfall Rehabilitation	$300,000	$66,000				$36,000	$330,000		$366,000	
63	23.25	Scottsville WRRF Polymer Feed Addition	$270,000	$66,000				$42,000	$294,000		$336,000	
64	26.03	Scottsville WRRF Permit Modification Upgrade		$588,000		$582,000	$6,000				$588,000	
		TOTAL	$1,090,000	$720,000	$520,000	$582,000	$6,000	$78,000	$624,000	$0	$1,810,000	$75,765

Glenmore Wastewater System

The 0.381-mgd water resource recovery facility, located within the Glenmore subdivision, is owned by ACSA and operated by RWSA. The facility includes an influent pumping station located immediately adjacent to the treatment facility.

Project Descriptions:

65. Glenmore WRRF - Polymer Feed Addition: The Glenmore WRRF currently has two existing automated chemical feed systems, one of which includes polymer. The polymer system is primarily used to feed polymer to the WAS as a settling aid for the sludge holding tank. The current systems are near the end of their useful life and are in need of replacement. The new polymer feed system will consist of drums or totes and chemical feed pumps to dose polymer to the WAS to improve sludge settling in the digester.

66. Glenmore WRRF - Upgrade: The Glenmore WRRF was originally constructed in 1993 and much of the original facility remains in service. As a result of the age several needs assessment for the facility were completed that identified a number of additional improvements required to maintain quality service for the Glenmore community. The most recent needs assessment included improvements to the influent pump station coarse screen, influent pump station dry well ventilation, aeration blower, aeration basin, RAS/WAS pump station, chemical feed system, flocculator paddle, UV disinfection channel, non-potable water system, emergency generator, and capital equipment replacement or rehabilitation.

67. Stone Robinson Elementary School Plant Upgrade: The Stone Robinson WRRF currently uses steel process tanks that are in need of repair. During a recent inspection there were several holes found in the tank where leakage is occurring. These holes need to be repaired for proper functionality of the tank. Other items that may be addressed are site drainage issues, the control building needs replacement, and access road repairs.

Glenmore Water Resource Recovery Facility

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
65	23.26	Glenmore WRRF Polymer Feed Addition	$310,000	$74,000				$48,000	$336,000		$384,000	
66	24.14	Glenmore WRRF Upgrade	$1,335,000	$4,512,000	$75,000	$1,704,000	$180,000		$528,000	$3,360,000	$5,847,000	
67	26.19	Stone Robinson ES Plant Upgrade		$486,000		$486,000					$486,000	
		TOTAL	$1,645,000	$5,072,000	$75,000	$2,190,000	$180,000	$48,000	$864,000	$3,360,000	$6,717,000	$0

All Systems

Project Descriptions:

68. Asset Management: Asset management is the practice of managing infrastructure to minimize the total cost of owning and operating assets while providing desired levels of service. By doing so, asset management ensures planned maintenance activities occur and that capital assets are replaced, repaired, or upgraded at the right time, while guaranteeing the necessary resources are available to perform these activities. When the project began, RWSA had some components of an asset management program in place (i.e. GIS and a work order system), but through the Strategic Planning process identified the need to further develop the program. To fully realize the program, a consultant was procured to assist with a four-phase implementation process. Phase one included facilitation and development of an asset management strategic plan; phase two included development and management of a pilot study where the results of the strategic plan were applied to a specific facility; phase three included procurement and implementation of software (Cityworks) to facilitate the overall program; and phase 4 includes assistance through full implementation of the complete asset management program. Once Phase 4 is complete, the final step will be to procure decision support software (DSS) in order to analyze and strategically plan the best and most fiscally responsible way to approach asset management. With phases one through three complete, RWSA is focusing its efforts on completing phase four, full asset management implementation and acquiring a DSS.

69. Security Enhancements: Water utilities are required by federal law to conduct vulnerability assessments (VA) and have emergency response plans. RWSA completed an update of its VA for the water system in collaboration with other regional partners and identified a number of security improvements that could be applied to both its water and wastewater systems. The purpose of this project will be to install security improvements at RWSA facilities, with the initial focus on an enhanced access control program. Other improvements may include: industrial strength door and window components, security gate and fencing modifications, an improved lock and key program, facility signage, additional security cameras, intrusion detection systems (IDS), additional security lighting, mass emergency notification systems, and emergency call stations/panic buttons. In addition, upgrades will be made to the entrance of MCAWRRF, to better secure the facility and vet individuals as they enter. In order to implement an access control system at Authority-owned facilities, staff has procured an Implementer that will finalize system design/requirements, procure all necessary equipment, and install the chosen system. Implementation of the access control system has been completed at the Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF), Crozet Water Treatment Plant (CZWTP), Scottsville Water Treatment Plant (SVWTP), South Rivanna Water Treatment Plant (SRWTP), Red Hill Water Treatment Plant (RHWTP), Glenmore Water Resource Recovery Facility (GWRRF), Scottsville Water Resource Recovery Facility (SVWRRF) and all RWSA pump stations and dams. Implementation work only remains at Observatory Water Treatment Plant (OBWTP).

70. IT Infrastructure: There are several ongoing projects that will fall into this project category. The Authority has implemented the initial stages of creating a Disaster Recovery (DR) site. This will include over the next year everything from the hardware, software, data line redundancy configurations and the appropriate 3rd party providers of cloud storage and back-

up/retention services. It also includes the installation of proper uninterruptible power supplies (UPS). The DR site will ultimately be able to take on all Administrative and SCADA services should something happen to the Moores Creek AWRRF Date Center. There are several PLC's in the various plants that have reached end of life and will fall under this project for replacement with dual-redundant which will involve significant coordination for the major high-priority primary PLC's.

71. ACM Remediation: Based on the age of many RWSA facilities, the potential for the presence of Asbestos-Containing Materials (ACM) in various buildings has been assumed. A 2005 Workplace Assessment that evaluated the presence of ACM at the Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF) was performed and then many facilities had individual assessments prior to construction projects where the ACM needed to be disposed of properly before refurbishment of the existing building or as a part of a larger demolition process. In order to confirm the presence of any ACM at all remaining RWSA facilities, an asbestos survey was completed in 2022. Based on this report, additional abatement procedures were identified for seven buildings at the MCAWRRF that had not been remediated previously and the filter building at the Scottsville Water Treatment Plant. This project includes proper removal and disposal of these ACM and refurbishment of the associated building components required as a result.

72. Climate Change Flood Resilience Enhancements: RWSA owns and operates a number of water and wastewater facilities that may be at risk of future flooding. One of the ways climate change is expected to manifest in Central Virginia is via more frequent and intense rainfall and flooding events. While RWSA facilities were generally designed to perform during 100-year flood level conditions, future flooding could result in higher water levels, requiring RWSA to implement facility improvements to ensure continued operation during such events. This project includes installation of flood mitigation measures at vulnerable assets/facilities throughout the RWSA system that are likely to be impacted by higher flood levels. Necessary improvements have been identified at six RWSA facilities. Improvements include raising electrical and control equipment to higher elevations, replacement of existing pumps with submersible style/rated pumps, raising HVAC intakes and exhausts to higher elevations, and dry floodproofing structures when feasible to minimize floodwater intrusion.

73. Radio Upgrades: The regional 800 MHz Public Safety Communication System, in which the Rivanna Water and Sewer Authority participates in to provide internal and emergency radio communication, was nearing the end of its service life. Because of technology changes (software and hardware) the Charlottesville-UVA-Albemarle County Emergency Communications Center (ECC) needed to upgrade or replace the system to keep it useable. This project planned for the upgrade or replacement of major technology components and equipment of the existing system include electronic components at all tower sites and the prime site at the ECC facility; new console equipment at the regional ECC; equipment such as tower site generators and UPS systems; an additional tower site (to improve service in southern Albemarle County); microwave backbone; and replacement of the system recording facilities. RWSA was apportioned a part of the project cost proportionately based on the number of radios. In addition to this assessment from the ECC, the Authority replaced its fleet of portable radios.

74. IT Equipment Secure Cabinets: As part of our overall Cyber Security initiatives, specifically physical security, we are in the process of making sure all of our facilities have a locked network cabinet/rack or a locked closet for all IT networking equipment. This also includes all of our remote Tanks, and Pump Stations. Currently we are over 30% complete. Any new or current capital improvement projects at all locations, we are securing the network cabinets and when appropriate, separating the network equipment in an environmentally controlled closet.

75. eV Charging Infrastructure: This project will investigate and implement eV charging infrastructure for staff and visitor vehicles as well as RWSA feet vehicles and rolling stock. Initially charging facilities will be predominantly at Moores Creek AWRRF, where staff and visitor density is the highest. This will allow for greater utilization of the charging facilities. As the eV fleet expands, additional charging locations will be added. This project will be performed in concert with building renovations and fleet conversion to hybrid and electric vehicles.

76. Vertical Asset Replacement: RWSA is implementing a vertical asset replacement program to strategically plan and budget for the replacement of critical infrastructure assets, ensuring continued functionality and minimizing disruptions caused by unexpected failures while optimizing costs over the asset's lifespan. The implementation of a proactive vertical asset replacement program aims to: Control costs by budgeting for replacements over time, spreading out the financial impact instead of facing large, unexpected expense when an asset fails. Improves reliability by replacing aging assets with newer, more efficient technology to enhance operational reliability and performance. Mitigates risk by identifying potential failure points in critical infrastructure ahead of unforeseen failures. And optimizing asset lifecycles by planning replacements to maximize useful life and minimize waste. The replacement of vertical assets will be achieved through: Regularly inspecting and evaluating asset condition to determine remaining useful life. Utilizing data on asset performance, maintenance history, and cost to prioritize replacement needs. Creating a timeline for replacing assets based on their condition and projected future needs. And allocating funds for future replacements to ensure financial readiness when the time comes

All Systems

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
68	20.45	Asset Management	$752,448	$75,062	$752,448	$75,062					$827,510	$493,505
69	20.46	Security Enhancements	$2,980,000		$2,980,000						$2,980,000	$1,550,873
70	20.47	IT Infrastructure	$485,091	$137,891	$485,091	$137,891					$622,982	
71	23.27	ACM Remediation	$711,000	($111,000)				$69,600	$450,000	$80,400	$600,000	
72	24.06	Climate Change Flood Resiliance	$800,000	$1,154,000	$130,000	$840,000	$984,000				$1,954,000	
73	25.10	Radio Upgrades	$210,988		$210,988						$210,988	
74	25.08	IT Equipment Secure Cabinets	$200,000	$40,000		$144,000	$96,000				$240,000	
75	25.09	eV Charging Infrastructure	$135,000	($135,000)	$30,000	($30,000)					$0	
76	26.21	Vertical Asset Replacement		$1,500,000				$500,000	$500,000	$500,000	$1,500,000	
		TOTAL	$6,274,527	$2,660,953	$4,588,527	$1,166,953	$1,080,000	$569,600	$950,000	$580,400	$8,935,480	$2,044,378

APPENDICES

CIP Financial Summary

Water System Summary

Wastewater System Summary

All Systems Summary

CIP Financial Summary

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
1	20.03	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line	$33,500,000	$7,260,000	$10,190,000	$2,660,000	$7,975,000	$7,975,000	$7,975,000	$3,985,000	$40,760,000	$817,711
2	20.04	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station	$12,350,000	$8,380,000	$4,240,000	$4,390,000	$4,835,000	$4,835,000	$2,430,000		$20,730,000	$749,495
3	20.48	South Fork Rivanna Reservoir to Ragged Mountain Pipeline, Intake & Facilities	$75,325,000	$36,145,000	$7,380,000	$14,030,000	$23,070,000	$22,330,000	$22,330,000	$22,330,000	$111,470,000	$2,128,306
4	23.02	South Fork Rivanna Reservoir Aeration and Ragged Mountain Reservoir HLOS Sytems	$6,600,000	$2,670,000				$1,836,000	$6,306,000	$1,128,000	$9,270,000	
5	23.05	Observatory Water Treatment Plant - Backwash Basin Sludge Removal and Inspection	$300,000	$71,000	$35,000	$132,000	$204,000				$371,000	
6	23.05	Observatory Water Treatment Plant - Backwash Basin Sludge Removal and Inspection	$565,000	$133,400				$96,000	$602,400		$698,400	
7	23.11	South Rivanna Water Treatment Plant - Sanitary Sewer Connection	$750,000	$174,000			$204,000	$348,000	$372,000		$924,000	
8	23.04 23.09	Urban Water Treatment Plants - GAC Building Dehumidification	$2,175,000	$1,125,000				$300,000	$2,400,000	$600,000	$3,300,000	
9	22.08	South Rivanna Water Treatment Plant - Main Plant Generator Replacement	$50,000	$430,000					$60,000	$420,000	$480,000	
10	20.18	North Rivanna Water Treatment Plant - Decommissioning	$2,940,000	$572,000	$680,000		$2,088,000	$744,000			$3,512,000	$109,624

CIP Financial Summary
(Continued)

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
11	25.01	Dam Concrete and Steel Repairs	$1,190,000	$263,000	$415,000	$528,000	$510,000				$1,453,000	
12	24.01	South Rivanna Water Treatment Plant - PAC Upgrades	$1,100,000	$158,000	$310,000	$948,000					$1,258,000	$17,041
13	25.04	Buck Mountain Property Dam Remediation	$50,000	($50,000)	$50,000	($50,000)					$0	
14	22.05	South Rivanna Water Treatment Plant Improvements		$552,000						$552,000	$552,000	
15	22.05	South Rivanna Water Treatment Plant - Floc Basin Improvements		$2,400,000		$180,000	$1,260,000	$960,000			$2,400,000	
16	26.20	South Rivanna Water Treatment Plant - Permanganate Improvements		$463,000	$85,000	$144,000	$234,000				$463,000	
17	20.10	Central Water Line	$47,000,000	$35,000,000	$11,550,000	$13,940,000	$25,400,000	$16,800,000	$13,500,000	$810,000	$82,000,000	$1,527,160
18	20.12	South Fork Rivanna River Crossing	$7,300,000	($1,050,000)	$5,900,000	$350,000					$6,250,000	$340,227
19	20.50	Avon, Pantops and Observatory Tank Painting	$3,945,000	$2,175,000			$468,000	$2,418,000	$1,812,000	$1,422,000	$6,120,000	
20	20.58	Second North Rivanna River Crossing and Select Pipe Replacement	$650,000	$2,870,800				$42,000	$760,800	$2,718,000	$3,520,800	

CIP Financial Summary

(Continued)

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
21	23.06	Emmet Street Betterment	$9,235,000	$2,186,000	$4,515,000		$1,326,000	$2,400,000	$1,590,000	$1,590,000	$11,421,000	$1,228,063
22	24.09	Berkmar Drive Ext. Waterline - Phase 2	$1,440,000	$316,000	$220,000		$792,000	$744,000			$1,756,000	
23	24.12	Urban Storage Evaluation and Tank(s) Addition	$2,980,000	$1,700,000		$72,000	$366,000	$648,000	$2,520,000	$1,074,000	$4,680,000	
24	24.13	SCADA Panel Relocations	$46,000	$201,200					$55,200	$192,000	$247,200	
25	20.52	Stillhouse, Lewis Mtn and Woodburn Rd Tank Painting	$0	$264,000						$264,000	$264,000	
26	24.05	Airport Road PS - Pump and VFD Upgrade	$0	$566,400			$58,800	$507,600			$566,400	
27	26.06	Airport Road Tank No. 1	$0	$5,268,000			$402,000	$2,952,000	$1,914,000		$5,268,000	
28	26.11	Finished Water Master Plan Update 2030	$0	$290,000					$15,000	$275,000	$290,000	
29	26.17	Urban Area Water Demand and Safe Yield Analysis 2030	$0	$240,000					$240,000		$240,000	
30	26.22	Valve Repair - Replacement (Phase 2b)	$0	$1,500,000				$500,000	$500,000	$500,000	$1,500,000	

CIP Financial Summary

(Continued)

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
31	20.19	Beaver Creek Dam Alteration	$23,700,000	$4,460,000	$3,975,000	$2,020,000	$8,625,000	$6,765,000	$4,515,000	$2,260,000	$28,160,000	$1,126,133
32	20.20 21.15	Beaver Creek New Raw Water Pump Station & Intake	$23,400,000	$9,620,000	$4,150,000	$2,000,000	$11,920,000	$11,920,000	$3,030,000		$33,020,000	$803,862
33	21.01	Buck's Elbow Tank and Waterball Painting	$1,700,000	$293,000	$85,000		$150,000	$1,260,000	$498,000		$1,993,000	
34	23.10	Crozet Water Treatment Plant - GAC Building Dehumidification	$665,000	$157,000				$72,000	$750,000		$822,000	
35	23.13	Crozet AC Pipe Replacement	$1,175,000	$2,581,000				$576,000	$900,000	$2,280,000	$3,756,000	
36	23.14	Crozet Water Treatment Plant - Full GAC Treatment	$6,550,000	$3,570,000	$1,450,000	$4,895,000	$3,775,000				$10,120,000	$100,143
37	23.30	Crozet Finished Water Greyrock Pump Station	$1,585,000	$1,073,000				$228,000	$1,728,000	$702,000	$2,658,000	
38	20.55	Crozet Ground Tank Painting	$25,000	$557,000					$44,400	$537,600	$582,000	
39	26.01	Crozet Water Treatment Plant - Disinfection Upgrades		$840,000		$600,000	$240,000				$840,000	
40	26.09	Crozet Drinking Water Infrastructure Plan Update 2025		$450,000		$235,000	$215,000				$450,000	

CIP Financial Summary
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			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
41	22.06	Scottsville Water Treatment Plant - Upgrade	$1,350,000	$4,650,000				$696,000	$996,000	$4,308,000	$6,000,000	
42	22.07 23.17	Red Hill Water Treatment Plant - Upgrades & GAC Addition	$810,000	$1,240,000	$2,050,000						$2,050,000	$66,151
43	23.16	Scottsville AC Pipe Replacement	$275,000	$115,000				$120,000	$270,000		$390,000	
44	23.18	Scottsville Water Treatment Plant - GAC Building Dehumidification	$665,000	$157,000				$72,000	$750,000		$822,000	
45	20.25	Upper Schenks Branch Interceptor	$5,900,000	$475,000	$4,725,000		$690,000	$960,000			$6,375,000	$50,787
46	20.29	Maury Hill Branch Sewer Replacement	$2,000,000	$2,290,000				$432,000	$1,998,000	$1,860,000	$4,290,000	
47	20.30	Crozet Pump Station 1, 2, 3 Rehabilitation	$10,900,000	$1,450,000	$3,205,000	$6,975,000	$2,170,000				$12,350,000	$512,267
48	20.31	Albemarle Berkley Pump Station Upgrade	$840,000	$246,000				$162,000	$876,000	$48,000	$1,086,000	
49	21.07	Interceptor Sewer and Manhole Repair (Phase 2)	$1,425,000	$67,000	$1,090,000		$402,000				$1,492,000	$268,932
50	24.02	Interceptor Sewer and Manhole Repair (Phase 3)	$1,745,000	$1,705,000				$738,000	$1,356,000	$1,356,000	$3,450,000	

CIP Financial Summary
(Continued)

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
51	25.10a	Rivanna Pump Station Rehabilitation		$22,000,000	$4,500,000	$17,500,000					$22,000,000	$3,652,148
52	26.07	Comprehensive Sewer Model and Study Update 2030		$564,000					$240,000	$324,000	$564,000	
53	20.34	Moores Creek AWRRF Engineering and Administration Building	$20,000,000	$7,600,000	$9,500,000	$9,000,000	$9,100,000				$27,600,000	$577,315
54	20.67	Moores Creek AWRRF Biogas Upgrades	$5,650,000	$637,000	$3,365,000		$2,274,000	$648,000			$6,287,000	$66,509
55	20.68	Moores Creek AWRRF Building Upfits and Gravity Thickener Improvements	$5,150,000	$6,770,000	$4,255,000	$7,665,000					$11,920,000	$314,539
56	21.18	Moores Creek AWWRF 5kV Electrical System Upgrade	$6,200,000		$6,200,000						$6,200,000	$3,744,459
57	22.10	Moores Creek AWRRF Yard Piping Upgrades	$800,000	($800,000)	$30,000	($30,000)						
58	22.12	Moores Creek AWRRF Structural and Concrete Rehabilitation	$11,300,000	$5,050,000	$7,095,000	$9,255,000					$16,350,000	$368,893
59	24.08	Moores Creek AWRRF MCPS Slide Gates, Valves, Bypass and Septage Receiving Upgrades	$3,600,000	$6,111,000	$2,385,000	$3,966,000	$3,360,000				$9,711,000	$60,684
60	25.07	Moores Creek AWRRF Blower Building Ventilation Improvements	$600,000	$104,000	$80,000	$624,000					$704,000	

CIP Financial Summary

(Continued)

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
61	21.12	Scottsville WRRF Whole Plant Generator and ATS	$520,000		$520,000						$520,000	$75,765
62	23.24	Scottsville WRRF Lagoon Outfall Rehabilitation	$300,000	$66,000				$36,000	$330,000		$366,000	
63	23.25	Scottsville WRRF Polymer Feed Addition	$270,000	$66,000				$42,000	$294,000		$336,000	
64	26.03	Scottsville WRRF Permit Modification Upgrade		$588,000		$582,000	$6,000				$588,000	
65	20.42	Glenmore WRRF Polymer Feed Addition	$310,000	$74,000				$48,000	$336,000		$384,000	
66	24.14	Glenmore WRRF Upgrade	$1,335,000	$4,512,000	$75,000	$1,704,000	$180,000		$528,000	$3,360,000	$5,847,000	
67	26.19	Stone Robinson ES Plant Upgrade		$486,000		$486,000					$486,000	
68	20.45	Asset Management	$752,448	$75,062	$752,448	$75,062					$827,510	$493,505
69	20.46	Security Enhancements	$2,980,000		$2,980,000						$2,980,000	$1,550,873
70	20.47	IT Infrastructure	$485,091	$137,891	$485,091	$137,891					$622,982	

CIP Financial Summary
(Continued)

			Five-Year Capital Program			Projected Future Expenses by Year						
Line No.	**Proj. No.**	**Project Description**	**Current CIP Adopted 5/2024**	**Proposed Changes**	**Current Capital Budget**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**FY 2030**	**Recommended CIP**	**Work-in-Progress (Prev. Expenses 6/30/2024)**
71	23.27	ACM Remediation	$711,000	($111,000)				$69,600	$450,000	$80,400	$600,000	
72	24.06	Climate Change Flood Resiliance	$800,000	$1,154,000	$130,000	$840,000	$984,000				$1,954,000	
73	25.10	Radio Upgrades	$210,988		$210,988						$210,988	
74	25.08	IT Equipment Secure Cabinets	$200,000	$40,000		$144,000	$96,000				$240,000	
75	25.09	eV Charging Infrastructure	$135,000	($135,000)	$30,000	($30,000)						
76	26.21	Vertical Asset Replacement		$1,500,000		$0		$500,000	$500,000	$500,000	$1,500,000	
		Total	$356,510,527	$204,758,753	$108,893,527	$105,967,953	$113,379,800	$91,780,200	$85,771,800	$55,476,000	$561,269,280	$20,750,592

Water System Summary

	Summary			Projected Future Expenses by Year						
Urban Water System	**Current CIP**	**Changes**	**Current Capital Budget**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**Recommended CIP**	**Work-in -Progress**
PROJECT COSTS										
Community Water Supply Plan	$ 85,365,000	$ 42,410,000	$ 10,855,000	$ 10,955,000	$ 28,215,000	$ 28,250,000	$ 24,860,000	$ 24,640,000	$ 127,775,000	$ 1,079,491
Urban Water Treatement and Reservoir	4,025,000	5,095,000	4,445,000	945,000	3,930,000	325,000	600,000	2,775,000	13,020,000	76,110
Finished Water Storage/Distribution - Urban System	73,050,000	9,546,000	22,515,000	9,670,000	14,130,000	12,800,000	14,715,000	8,766,000	82,596,000	8,252,084
Total Projects Urban Water Systems	**$ 162,440,000**	**$ 57,051,000**	**$ 37,815,000**	**$ 21,570,000**	**$ 46,275,000**	**$ 41,375,000**	**$ 40,175,000**	**$ 36,181,000**	**$ 223,391,000**	**$ 9,407,685**
FUNDING SOURCES URBAN SYSTEM - TO DATE										
Work-in-Progress			$ 9,407,700	$ -	$ -	$ -	$ -	$ -	$ 9,407,700	
Debt Proceeds - 2018 & 2021Bond			4,216,100	-	-	-	-	-	4,216,100	
Capital Funds Available			-	-	-	-	-	-	-	
SUBTOTAL			13,623,800	-	-	-	-	-	13,623,800	
FUNDING SOURCES URBAN SYSTEM - NEEDS										
Future Cash reserve transfer to Capital Fund				$ 1,000,000	$ 1,000,000	$ 1,000,000	$ 500,000	$ 500,000	$ 4,000,000	
Grants				$ 500,000	$ 1,000,000	$ 1,500,000	$ 1,000,000		4,000,000	
New Debt Needed			20,291,200	20,070,000	44,275,000	38,875,000	38,675,000	35,681,000	197,867,200	
SUBTOTAL			20,291,200	21,570,000	46,275,000	41,375,000	40,175,000	36,181,000	205,867,200	
TOTAL URBAN WATER FUNDING			**$ 33,915,000**	**$ 21,570,000**	**$ 46,275,000**	**$ 41,375,000**	**$ 40,175,000**	**$ 36,181,000**	**$ 219,491,000**	
									$219,491,000	
Estimated Bond Issues					**$84,636,200**		**$113,231,000**		**$197,867,200**	

	Summary			Projected Future Expenses by Year						
Non-Urban Water System	**Current CIP**	**Proposed Changes**	**Current Capital Budget**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**Recommended CIP**	**Work-in -Progress**
PROJECT COSTS										
Crozet Water System	$ 51,310,000	$ 7,490,000	$ 9,575,000	$ 85,000	$ 14,865,000	$ 14,185,000	$ 16,895,000	$ 3,195,000	$ 58,800,000	$ 1,578,890
Scottsville Water System	1,420,000	1,680,000	511,000	299,000	-	-	695,000	1,595,000	3,100,000	42,486
Total Rural Water Systems	**$ 52,730,000**	**$ 9,170,000**	**$ 10,086,000**	**$ 384,000**	**$ 14,865,000**	**$ 14,185,000**	**$ 17,590,000**	**$ 4,790,000**	**$ 61,900,000**	**$ 1,621,376**
Non-URBAN FUNDING SOURCES										
Work in Progress			$ 1,621,400	$ -	$ -	$ -	$ -	$ -	$ 1,621,400	
Grants				46,890	6,451,410	7,086,770	7,332,430		20,917,500	
Capital Funds Available			-						-	
Debt Proceeds - 2018 & 2021Bond			-	-	-	-	-	-	-	
Future Cash reserve transfer to Capital Fund			-	450,000	250,000	100,000	-	-	800,000	
New Debt Needed			8,464,600	(112,890)	8,163,590	6,998,230	10,257,570	4,790,000	38,561,100	
TOTAL NON-URBAN WATER FUNDING			**$ 10,086,000**	**$ 384,000**	**$ 14,865,000**	**$ 14,185,000**	**$ 17,590,000**	**$ 4,790,000**	**$ 61,900,000**	
Estimated Bond Issues				**$16,515,300**			**22,045,800**		**$38,561,100**	

Wastewater System Summary

	Summary			Projected Future Expenses by Year						
Urban Wastewater System	**Current CIP**	**Changes**	**Current Capital Budget**	**`**	**FY26**	**FY27**	**FY28**	**FY29**	**Recommended CIP**	**Work-in - Progress**
PROJECT COSTS										
Wastewater Interceptor/Pumping Stations	$ 17,945,000	$ 4,865,000	$ 6,840,000	$ 2,180,000	$ 6,530,000	$ 2,675,000	$ 1,095,000	$ 3,490,000	$ 22,810,000	$ 286,477
Moores Creek WWTP	40,275,000	13,500,000	19,860,000	13,525,000	19,105,000	515,000	390,000	380,000	53,775,000	1,751,403
Total Urban Wastewater Systems	**$ 58,220,000**	**$ 18,365,000**	**$26,700,000**	**$15,705,000**	**$25,635,000**	**$3,190,000**	**$1,485,000**	**$3,870,000**	**$76,585,000**	**$2,037,880**
FUNDING SOURCES URBAN SYSTEM - IN PLACEA										
Work-in-Progress			$ 2,037,800	$ -	$ -	$ -	$ -	$ -	$ 2,037,800	
Debt Proceeds - 2018 & 2021Bond			1,237,800	-	-	-	-		1,237,800	
Capital Funds Available			1,300,000	-	-	-	-	-	1,300,000	
SUBTOTAL			4,575,600	-	-	-	-	-	4,575,600	
FUNDING SOURCES URBAN SYSTEM - NEEDS										
Future Cash Reserves			$ -	$ 1,500,000	$ 1,500,000	$ 1,500,000	$ -	$ 1,500,000	$ 6,000,000	
New Debt Needed			22,124,400	14,205,000	24,135,000	1,690,000	1,485,000	2,370,000	66,009,400	
SUBTOTAL			22,124,400	$15,705,000	25,635,000	3,190,000	1,485,000	3,870,000	72,009,400	
TOTAL URBAN WASTEWATER FUNDING			**$ 26,700,000**	**$ 15,705,000**	**$ 25,635,000**	**$ 3,190,000**	**$ 1,485,000**	**$ 3,870,000**	**$ 76,585,000**	
Estimated Bond Issues					**$ 60,464,400**		**$ 5,545,000**		**$ 66,009,400**	

	Summary			Projected Future Expenses by Year						
Non-Urban Wastewater System	**Current CIP**	**Proposed Changes**	**Current Capital Budget**	**`**	**FY26**	**FY27**	**FY28**	**FY29**	**Recommended CIP**	**Work-in - Progress**
PROJECT COSTS										
Glenmore WWTP	$ 30,000	$ 1,615,000	$ -	$ 75,000	$ 750,000	$ 60,000	$ 40,000	$ 720,000	$ 1,645,000	$ -
Scottsville WWTP	571,000	519,000	495,000	25,000	-	-	60,000	510,000	1,090,000	65,940
Total Rural Wastewater Systems	**$601,000**	**$2,134,000**	**$ 495,000**	**$ 100,000**	**$ 750,000**	**$ 60,000**	**$ 100,000**	**$ 1,230,000**	**$ 2,735,000**	**$ 65,940**
FUNDING SOURCES RURAL SYSTEM - NEEDS										
Work in Progress			$ 65,940	$ -	$ -	$ -	$ -	$ -	$ 65,940	
Debt Proceeds - 2018 & 2021Bond			$ -	$ -					-	
Future Cash Reserve			-	-	-	-			-	
New Debt Needed			429,060	100,000	750,000	60,000	100,000	1,230,000	2,669,060	
TOTAL RURAL WASTEWATER FUNDING			**$ 495,000**	**$ 100,000**	**$ 750,000**	**$ 60,000**	**$ 100,000**	**$ 1,230,000**	**$ 2,735,000**	
Estimated Bond Issues					**$ 1,339,060**					

All Systems Summary

	Summary			Projected Future Expenses by Year						
Shared Projects - All Rate Centers	**Current CIP**	**Changes**	**Current Capital Budget**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**Recommended CIP**	**Work-in - Progress**
PROJECT COSTS										
Authority Wide Projects	$ 4,329,698	$ 2,059,738	$ 3,915,698	$ 787,738	$ 155,000	$ 80,000	$ 131,000	$ 1,320,000	$ 6,389,436	$ 1,229,368
Total Projects Urban Water Systems	**$ 4,329,698**	**$ 2,059,738**	**$ 3,915,698**	**$ 787,738**	**$ 155,000**	**$ 80,000**	**$ 131,000**	**$ 1,320,000**	**$ 6,389,436**	**$ 1,229,368**
FUNDING SOURCES										
Work in Progress			$ 1,229,400						$ 1,229,400	
Possible Future Reserves			$ 1,000,000	$ 500,000	$0			$500,000	$ 2,000,000	
New Debt Needed			$ 1,686,298	$ 287,738	$ 155,000	$ 80,000	$ 131,000	$ 820,000	$ 3,160,036	
									-	
TOTAL URBAN WATER FUNDING			**$ 3,915,698**	**$ 787,738**	**$ 155,000**	**$ 80,000**	**$ 131,000**	**$ 1,320,000**	**$ 6,389,436**	
Estimated Bond Issues					**$3,160,036**					

Summary Information

	2026 - 2030 Draft CIP	2024 - 2028 Adopted CIP	Change $
Project Cost			
Urban Water Projects	$ 321,764,800	$ 223,391,000	$ 98,373,800
Urban Wastewater Projects	130,379,000	76,585,000	53,794,000
Non-Urban Projects & Shared	109,125,480	71,024,400	38,101,080
Total Project Cost Estimates	**$ 561,269,280**	**$ 371,000,400**	**$ 190,268,880**
Funding in place			
Work-in-Progress (paid for)	$ 20,750,592	$ 14,362,040	6,388,552
Debt Proceeds Available	93,239,000	9,353,800	83,885,200
Cash-Capital Available	1,000,000	1,300,000	(300,000)
	$ 114,989,592	$ 25,015,840	$ 89,973,752
Financing Needs			
Possible Future Reserves	$ 12,850,000	$ 12,800,000	50,000
Grants/Insurance Recovery	40,675,000	24,917,500	15,757,500
New Debt	392,754,688	308,267,060	84,487,628
	$ 446,279,688	$ 345,984,560	$ 100,295,128
Total Funding	**$ 561,269,280**	**$ 371,000,400**	**$ 190,268,880**
Percentage of funding in place	20.5%	6.7%	
Ratio of debt to expense	90.3%	89.5%	
Ratio of grant to expense	7.2%	6.7%	
Ratio of cash to expense	2.5%	3.8%	

Rivanna Water and Sewer Authority
CIP 2026-2030

2/18/2025

Summary Information

Detail by Major Systems	Total CIP	Urban Water Projects	Urban Wastewater Projects	Shared Projects	Water Non-Urban Projects	Wastewater Non-Urban Projects
Project Cost						
Urban Water Projects	$ 321,764,800	$ 321,764,800	$ -	$ -	$ -	$ -
Urban Wastewater Projects	130,379,000	-	130,379,000	-	-	-
Non-Urban Projects & Shared	109,125,480	-	-	8,935,480	91,663,000	8,527,000
Total Project Cost Estimates	**$ 561,269,280**	**$ 321,764,800**	**$ 130,379,000**	**$ 8,935,480**	**$ 91,663,000**	**$ 8,527,000**
Funding in place						
Work-in-Progress (paid for)	$ 20,750,592	$ 6,917,627	$ 9,616,533	$ 2,044,378	$ 2,096,289	$ 75,765
Debt Proceeds available	93,239,000	34,579,000	58,660,000	-	-	-
Cash-Capital Available	1,000,000	-	1,000,000	-	-	-
Subtotal	$ 114,989,592	$ 41,496,627	$ 69,276,533	$ 2,044,378	$ 2,096,289	$ 75,765
Financing Needs						
Possible Future Reserves	$ 12,850,000	4,000,000	5,000,000	2,000,000	1,850,000	-
Grants	40,675,000	2,910,000	10,000,000	-	27,765,000	
New Debt	392,754,688	273,358,173	46,102,467	4,891,102	59,951,711	8,451,235
Subtotal	$ 446,279,688	$ 280,268,173	$ 61,102,467	$ 6,891,102	$ 89,566,711	$ 8,451,235
Total Funding	**$ 561,269,280**	**$ 321,764,800**	**$ 130,379,000**	**$ 8,935,480**	**$ 91,663,000**	**$ 8,527,000**
	$ -	$ -	$ -	$ -	$ -	$ -
Percentage of funding in place	20.5%	12.9%	53.1%	22.9%	2.3%	0.9%
Ratio of debt to expense	90.3%	95.7%	80.4%	54.7%	65.4%	99.1%
Ratio of cash to expense	2.5%	1.2%	4.6%	22.4%	2.0%	0.0%

Summary Information

	Urban Water	Urban Wastewater	Non-Urban	Shared	Total	Current Adopted
Adopted CIP 2025 - 2029	$ 223,391,000	$ 76,585,000	$ 64,635,000	$ 6,389,400	$ 371,000,400	
Completed or closed projects	13,900,000	475,000	-	114,909	14,489,909	
Adopted - Adusted	209,491,000	76,110,000	64,635,000	6,274,491	356,510,491	
Changes:						
Rollover for FY 2030 (roughly)	16,104,000	5,065,000	9,745,000	939,000	31,853,000	
Adjustments on existing projects or new projects	96,169,800	49,204,000	25,810,000	1,721,989	172,905,789	
Total Changes	**112,273,800**	**54,269,000**	**35,555,000**	**2,660,989**	**204,758,789**	
Total Proposed CIP 2026 - 2030	$ 321,764,800	$ 130,379,000	$ 100,190,000	$ 8,935,480	$ 561,269,280	371,000,400
Years 6 - 10 (FY 2031-35)					$ 119,708,200	104,093,000
Years 11 - 15 (FY 2036-40)					$ 224,674,000	107,318,000
			TOTAL 15 YEAR CIP		**$ 905,651,480**	**$ 582,411,400**

Summary Information

Draft 2

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
City of Charlottesville Charges													
Urban Water													
Operating Rate	Per 1000 gal.	$ 2.949	$ 3.363	$ 3.668	$ 4.108	$ 4.519	$ 4.971	$ 5.468	$ 5.796	$ 6.144	$ 6.512	$ 6.903	$ 7.317
	% Change	11.2%	11.2%	9.07%	12.0%	10.0%	10.0%	10.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Debt Service Charge	Per month	307,200	376,226	468,760	570,193	671,118	771,822	854,769					
		23.1%	23.1%	24.6%	21.6%	17.7%	15.0%	10.7%					
Revenue Requirements:				6.86%									
Operating Rate Revenue	Annual	$ 4,810,300	$ 5,598,400	$ 5,982,200	$ 6,700,064	$ 7,370,070	$ 8,107,077	$ 8,917,785	$ 9,452,852	$ 10,020,023	$ 10,621,225	$ 11,258,498	$ 11,934,008
Debt Service Revenues	Annual	3,686,400	4,514,700	5,625,120	6,842,318	8,053,416	9,261,865	10,257,232	-	-	-	-	-
Total		**$ 8,496,700**	**$ 10,113,100**	**$ 11,607,320**	**$ 13,542,382**	**$ 15,423,486**	**$ 17,368,942**	**$ 19,175,017**	**$ 9,452,852**	**$ 10,020,023**	**$ 10,621,225**	**$ 11,258,498**	**$ 11,934,008**
	$ Change		**$ 1,616,400**	**$ 1,494,220**	**$ 1,935,062**	**$ 1,881,104**	**$ 1,945,456**	**$ 1,806,075**	**$ 535,067**	**$ 567,171**	**$ 601,201**	**$ 637,273**	**$ 675,510**
	% Change		**19.0%**	**14.8%**	**16.7%**	**13.9%**	**12.6%**	**10.4%**					
Urban Wastewater													
Operating Rate	Per 1000 gal.	2.922	3.247	3.753	4.203	4.624	5.086	5.595	5.930	6.286	6.663	7.063	7.487
	% Change	9.7%	9.7%	15.58%	12.0%	10.0%	10.0%	10.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Debt Service Charge	Per month	394,890	$ 424,222	467,425	496,052	524,472	555,672	577,912					
		2.7%	2.7%	10.2%	6.1%	5.7%	5.9%	4.0%					
Revenue Requirements:				13.15%									
Operating Rate Revenue	Annual	$ 4,557,800	$ 5,173,500	$ 5,853,800	$ 6,556,256	$ 7,211,882	$ 7,933,070	$ 8,726,377	$ 9,249,959	$ 9,804,957	$ 10,393,254	$ 11,016,850	$ 11,677,861
Debt Service Revenues	Annual	4,738,800	5,090,800	5,609,100	5,952,629	6,293,669	6,668,069	6,934,949	-	-	-	-	-
Total		**$ 9,296,600**	**$ 10,264,300**	**$ 11,462,900**	**$ 12,508,885**	**$ 13,505,551**	**$ 14,601,139**	**$ 15,661,326**	**$ 9,249,959**	**$ 9,804,957**	**$ 10,393,254**	**$ 11,016,850**	**$ 11,677,861**
	$ Change		**$ 967,700**	**$ 1,198,600**	**$ 1,045,985**	**$ 996,666**	**$ 1,095,588**	**$ 1,060,187**	**$ 523,583**	**$ 554,998**	**$ 588,297**	**$ 623,595**	**$ 661,011**
	% Change		**10.4%**	**11.7%**	**9.1%**	**8.0%**	**8.1%**	**7.3%**					
Total all Rate Centers													
Operating Rate Revenue		**$ 9,368,100**	**$ 10,771,900**	**$ 11,836,000**	**$ 13,256,320**	**$ 14,581,952**	**$ 16,040,147**	**$ 17,644,162**	**$ 18,702,812**	**$ 19,824,980**	**$ 21,014,479**	**$ 22,275,348**	**$ 23,611,869**
Debt Service Revenues		**8,425,200**	**9,605,500**	**11,234,220**	**12,794,947**	**14,347,085**	**15,929,934**	**17,192,181**	**17,192,181**	**17,192,181**	**17,192,181**	**17,192,181**	**17,192,181**
Total City All Revenues		**$ 17,793,300**	**$ 20,377,400**	**$ 23,070,220**	**$ 26,051,267**	**$ 28,929,037**	**$ 31,970,081**	**$ 34,836,343**	**$ 35,894,993**	**$ 37,017,161**	**$ 38,206,660**	**$ 39,467,529**	**$ 40,804,050**
	$ Change		**$ 2,584,100**	**$ 2,692,820**	**$ 2,981,047**	**$ 2,877,770**	**$ 3,041,044**	**$ 2,866,262**	**$ 1,058,650**	**$ 1,122,169**	**$ 1,189,499**	**$ 1,260,869**	**$ 1,336,521**
	% Change		**14.5%**	**13.2%**	**12.9%**	**11.0%**	**10.5%**	**9.0%**					
									(218,874)	**(260,993)**	**270,737**	**511,349**	**852,812**
10-Year CIP Debt Service					**101,540**	**351,776**	**751,920**	**1,282,422**	**1,063,548**	**802,555**	**1,073,292**	**1,584,641**	**2,437,452**
Total Estimated Charge		**$ 17,793,300**	**$ 20,377,400**	**$ 23,070,220**	**$ 26,152,807**	**$ 29,280,813**	**$ 32,722,001**	**$ 36,118,765**	**$ 36,958,540**	**$ 37,819,716**	**$ 39,279,952**	**$ 41,052,170**	**$ 43,241,502**
% Change			**14.5%**	**13.2%**	**13.4%**	**12.0%**	**11.8%**	**10.4%**	**2.3%**	**2.3%**	**3.9%**	**4.5%**	**5.3%**
	Additional Annual Revenues			***$ 2,692,820***	***$ 3,082,587***	***$ 3,128,006***	***$ 3,441,188***	***$ 3,396,764***	***$ 839,775***	***$ 861,176***	***$ 1,460,236***	***$ 1,772,218***	***$ 2,189,333***
				13.2%	***13.4%***	***12.0%***	***11.8%***	***10.4%***	***2.3%***	***2.3%***	***3.9%***	***4.5%***	***5.3%***

Summary Information

		FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
ACSA Charges													
Urban Water													
Operating Rate	Per 1000 gal.	2.949	3.363	3.668	4.108	4.519	4.971	5.468	5.796	6.144	6.512	6.903	7.317
	% Change	11.2%	11.2%	9.07%	12.0%	10.0%	10.0%	10.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Debt Service Charge	Per month	$ 542,282	$ 673,264	853,004	1,040,815	1,228,861	1,416,274	1,572,290					
		22.6%	22.6%	26.7%	22.0%	18.1%	15.3%	11.0%					
Revenue Requirements:				11.22%	12.00%	10.00%	10.00%	10.00%					
Operating Rate Revenue	Annual	$ 5,211,100	$ 5,826,900	$ 6,480,700	$ 7,258,384	$ 7,984,222	$ 8,782,645	$ 9,660,909	$ 10,240,564	$ 10,854,997	$ 11,506,297	$ 12,196,675	$ 12,928,476
Debt Service Revenues	Annual	6,507,400	8,079,200	10,236,048	12,489,782	14,746,336	16,995,289	18,867,484	-	-	-	-	-
Total		**$ 11,718,500**	**$ 13,906,100**	**$ 16,716,748**	**$ 19,748,166**	**$ 22,730,558**	**$ 25,777,934**	**$ 28,528,393**	**$ 10,240,564**	**$ 10,854,997**	**$ 11,506,297**	**$ 12,196,675**	**$ 12,928,476**
	$ Change		**$ 2,187,600**	**$ 2,810,648**	**$ 3,031,418**	**$ 2,982,392**	**$ 3,047,375**	**$ 2,750,459**	**$ 579,655**	**$ 614,434**	**$ 651,300**	**$ 690,378**	**$ 731,801**
	% Change		**19%**	**20.2%**	**18.1%**	**15.1%**	**13.4%**	**10.7%**					
Urban Wastewater													
Operating Rate	Per 1000 gal.	2.922	3.247	3.753	4.203	4.624	5.086	5.595	5.930	6.286	6.663	7.063	7.487
	% Change	9.7%	9.7%	15.58%	12.0%	10.0%	10.0%	10.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Debt Service Charge	Per month	$ 383,403	$ 422,158	531,329	576,016	620,126	664,236	708,346					
		0.0%	0.0%	25.9%	8.4%	7.7%	7.1%	6.6%					
Revenue Requirements:				17.79%	12.00%	10.00%	10.00%	10.00%					
Operating Rate Revenue	Annual	$ 5,350,500	$ 5,834,000	$ 6,871,900	$ 7,696,528	$ 8,466,181	$ 9,312,799	$ 10,244,079	$ 10,858,723	$ 11,510,247	$ 12,200,862	$ 12,932,913	$ 13,708,888
Debt Service Revenues	Annual	4,600,800	5,065,900	6,375,948	6,912,187	7,441,507	7,970,827	8,500,147	-	-	-	-	-
Total		$ 9,951,300	$ 10,899,900	$ 13,247,848	$ 14,608,715	$ 15,907,688	$ 17,283,626	$ 18,744,226	$ 10,858,723	$ 11,510,247	$ 12,200,862	$ 12,932,913	$ 13,708,888
	$ Change		**$ 948,600**	**$ 2,347,948**	**$ 1,360,867**	**$ 1,298,973**	**$ 1,375,938**	**$ 1,460,600**	**$ 614,645**	**$ 651,523**	**$ 690,615**	**$ 732,052**	**$ 775,975**
	% Change		**9.5%**	**21.5%**	**10.3%**	**8.9%**	**8.6%**	**8.5%**					
Non-Urban Rate Centers				16.21%	12.00%	10.00%	10.00%	10.00%					
Operating Rate Revenue	Annual	$ 2,797,300	$ 3,101,200	3,603,900	4,036,368	4,440,005	4,884,005	5,372,406	5,694,750	6,036,435	6,398,621	6,782,539	7,189,491
Debt Service Revenues	Annual	2,585,800	2,862,100	3,608,500	4,361,040	5,113,580	5,866,120	6,618,660	-				
Total		**$ 5,383,100**	**$ 5,963,300**	**$ 7,212,400**	**$ 8,397,408**	**$ 9,553,585**	**$ 10,750,125**	**$ 11,991,066**	**$ 5,694,750**	**$ 6,036,435**	**$ 6,398,621**	**$ 6,782,539**	**$ 7,189,491**
			$ 580,200	**$ 1,249,100**	**$ 1,185,008**	**$ 1,156,177**	**$ 1,196,540**	**$ 1,240,941**	**$ 322,344**	**$ 341,685**	**$ 362,186**	**$ 383,917**	**$ 406,952**
			10.8%	**20.9%**	**16.4%**	**13.8%**	**12.5%**	**11.5%**					
Total all Rate Centers													
Operating Rate Revenue		**$ 13,358,900**	**$ 14,762,100**	**$ 16,956,500**	**$ 18,991,280**	**$ 20,890,408**	**$ 22,979,449**	**$ 25,277,394**	**$ 26,794,037**	**$ 28,401,680**	**$ 30,105,780**	**$ 31,912,127**	**$ 33,826,855**
Debt Service Revenues		**13,694,000**	**16,007,200**	**20,220,496**	**23,763,009**	**27,301,423**	**30,832,236**	**33,986,291**	**33,986,291**	**33,986,291**	**33,986,291**	**33,986,291**	**33,986,291**
Total ACSA All Revenues		**$ 27,052,900**	**$ 30,769,300**	**$ 37,176,996**	**$ 42,754,289**	**$ 48,191,831**	**$ 53,811,685**	**$ 59,263,685**	**$ 60,780,328**	**$ 62,387,971**	**$ 64,092,071**	**$ 65,898,418**	**$ 67,813,146**
	$ Change		**$ 3,716,400**	**$ 6,407,696**	**$ 5,577,293**	**$ 5,437,542**	**$ 5,619,854**	**$ 5,452,000**	**$ 1,516,644**	**$ 1,607,642**	**$ 1,704,101**	**$ 1,806,347**	**$ 1,914,728**
	% Change		**13.7%**	**20.8%**	**15.0%**	**12.7%**	**11.7%**	**10.1%**					
10-Year CIP Debt Service					**419,346**	**1,040,329**	**1,843,623**	**2,791,466**	**3,028,971**	**2,989,829**	**3,451,844**	**4,104,884**	**5,195,856**
Total Estimated Charge		**$ 27,052,900**	**$ 30,769,300**	**$ 37,176,996**	**$ 43,173,635**	**$ 49,232,160**	**$ 55,655,308**	**$ 62,055,151**	**$ 63,809,299**	**$ 65,377,799**	**$ 67,543,915**	**$ 70,003,302**	**$ 73,009,002**
% Change			**$ 0**	**20.8%**	**16.1%**	**14.0%**	**13.0%**	**11.5%**	**2.8%**	**2.5%**	**3.3%**	**3.6%**	**4.3%**
	Additional Annual Revenues			***$ 6,407,696***	***$ 5,996,639***	***$ 6,058,525***	***$ 6,423,148***	***$ 6,399,843***	***$ 1,754,148***	***$ 1,568,500***	***$ 2,166,116***	***$ 2,459,387***	***$ 3,005,700***
				20.8%	***16.1%***	***14.0%***	***13.0%***	***11.5%***	***2.8%***	***2.5%***	***3.3%***	***3.6%***	***4.3%***

Summary Information

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	FY 2034	FY 2035
RWSA												
Operations Revenues												
Urban Water	$ 10,021,400	$ 11,425,300	$ 12,462,900	$ 13,958,448	$ 15,354,293	$ 16,889,722	$ 18,578,694	$ 19,693,416	$ 20,875,021	$ 22,127,522	$ 23,455,173	$ 24,862,484
Urban Wastewater	9,908,300	11,007,500	12,725,700	14,252,784	15,678,062	17,245,869	18,970,456	20,108,683	21,315,204	22,594,116	23,949,763	25,386,749
Other Rate Centers	2,797,300	3,101,200	3,603,900	4,036,368	4,440,005	4,884,005	5,372,406	5,694,750	6,036,435	6,398,621	6,782,539	7,189,491
Total	$ 22,727,000	$ 25,534,000	$ 28,792,500	$ 32,247,600	$ 35,472,360	$ 39,019,596	$ 42,921,556	$ 45,496,849	$ 48,226,660	$ 51,120,259	$ 54,187,475	$ 57,438,724
Change $		2,807,000	3,258,500	3,455,100	3,224,760	3,547,236	3,901,960	2,575,293	2,729,811	2,893,600	3,067,216	3,251,249
Change %		12.4%	12.8%	12.0%	10.0%	10.0%	10.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Debt Service Charge Revenues												
Urban Water	10,193,800	12,593,900	15,861,168	19,332,100	22,799,752	26,257,154	29,124,716					
Urban Wastewater	9,339,600	10,156,700	11,985,048	12,864,816	13,735,176	14,638,896	15,435,096					
Other Rate Centers	2,585,800	2,862,100	3,608,500	4,361,040	5,113,580	5,866,120	6,618,660					
	$ 22,119,200	$ 25,612,700	$ 31,454,716	$ 36,557,956	$ 41,648,508	$ 46,762,170	$ 51,178,472	$ 51,178,472	$ 51,178,472	$ 51,178,472	$ 51,178,472	$ 51,178,472
Change $		3,493,500	5,842,016	5,103,240	5,090,552	5,113,662	4,416,302					
Change %		15.8%	22.8%	16.2%	13.9%	12.3%	9.4%					
Total RWSA Customer Revenues	**$ 44,846,200**	**$ 51,146,700**	**$ 60,247,216**	**$ 68,805,556**	**$ 77,120,868**	**$ 85,781,766**	**$ 94,100,028**	**$ 96,675,321**	**$ 99,405,132**	**$ 102,298,731**	**$ 105,365,947**	**$ 108,617,196**
Change $		**$ 6,300,500**	**$ 9,100,516**	**$ 8,558,340**	**$ 8,315,312**	**$ 8,660,898**	**$ 8,318,262**	**$ 2,575,293**	**$ 2,729,811**	**$ 2,893,600**	**$ 3,067,216**	**$ 3,251,249**
Change %		**14.0%**	**17.8%**	**14.2%**	**12.1%**	**11.2%**	**9.7%**	**2.7%**	**2.8%**	**2.9%**	**3.0%**	**3.1%**
Additional for 10-Year CIP				**520,886**	**1,392,105**	**2,595,543**	**4,073,888**	**4,092,518**	**3,792,384**	**4,525,136**	**5,689,525**	**7,633,309**
Total Estimated Charge	**$ 44,846,200**	**$ 51,146,700**	**$ 60,247,216**	**$ 69,326,442**	**$ 78,512,973**	**$ 88,377,309**	**$ 98,173,916**	**$ 100,767,839**	**$ 103,197,516**	**$ 106,823,867**	**$ 111,055,472**	**$ 116,250,504**
% Change		**14.0%**	**17.8%**	**15.1%**	**13.3%**	**12.6%**	**11.1%**	**2.6%**	**2.4%**	**3.5%**	**4.0%**	**4.7%**
			$ 60,247,216	***$ 69,326,442***	***$ 78,512,973***	***$ 88,377,309***	***$ 98,173,916***	***$ 100,767,839***	***$ 103,197,516***	***$ 106,823,867***	***$ 111,055,472***	***$ 116,250,504***
	Additional Annual Revenues		***$ 9,100,516***	***$ 9,079,226***	***$ 9,186,531***	***$ 9,864,336***	***$ 9,796,607***	***$ 2,593,924***	***$ 2,429,676***	***$ 3,626,352***	***$ 4,231,604***	***$ 5,195,032***
			17.8%	***15.1%***	***13.3%***	***12.6%***	***11.1%***	***2.6%***	***2.4%***	***3.5%***	***4.0%***	***4.7%***

Summary Information

Rivanna Water and Sewer Authority
FY 2026 CIP Summary Analysis
5-Year Summary

New rate revenue needed

Five Year Summary of Revenue needed

	FY 2025	5-Year Revenue Growth	FY 2030	Change %	Annual 5-year Average
City - Charges From RWSA					
Urban Water					
Operating Rate Charges	$ 5,598,400	$ 3,319,385	$ 8,917,785	59.3%	
Debt Service Charges	4,514,700	5,742,532	10,257,232	127.2%	
	$ 10,113,100	$ 9,061,917	$ 19,175,017	89.6%	
Urban Wastewater					
Operating Rate Charges	$ 5,173,500	$ 3,552,877	$ 8,726,377	68.7%	
Debt Service Charges	5,090,800	1,844,149	6,934,949	36.2%	
	$ 10,264,300	$ 5,397,026	$ 15,661,326	52.6%	
Year 5-10 CIP					
Debt Service Charges	$ -	$ 1,282,422	$ 1,282,422		
Total City Charges	**$ 20,377,400**	**$ 15,741,365**	**$ 36,118,765**	**77.2%**	15.4% $ 3,148,273
ACSA - Charges From RWSA					
Urban Water					
Operating Rate Charges	$ 5,826,900	$ 3,834,009	$ 9,660,909	65.8%	
Debt Service Charges	8,079,200	10,788,284	18,867,484	133.5%	
	$ 13,906,100	$ 14,622,293	$ 28,528,393	105.2%	
Urban Wastewater					
Operating Rate Charges	$ 5,834,000	$ 4,410,079	$ 10,244,079	75.6%	
Debt Service Charges	5,065,900	3,434,247	8,500,147	67.8%	
	$ 10,899,900	$ 7,844,326	$ 18,744,226	72.0%	
Other Rate Centers					
Operating Rate Charges	$ 3,101,200	$ 2,271,206	$ 5,372,406	73.2%	
Debt Service Charges	2,862,100	3,756,560	6,618,660	131.3%	
	$ 5,963,300	$ 6,027,766	$ 11,991,066	101.1%	
Year 5-10 CIP					
Debt Service Charges	$ -	$ 2,791,466	$ 2,791,466		
Total ACSA Charges	**$ 30,769,300**	**$ 31,285,851**	**$ 62,055,151**	**101.7%**	20.3% $ 6,257,170
	$ 51,146,700	$ 47,027,216	$ 98,173,916		
RWSA Customer Revenue Charges					
Operating Rate Revenues					
Urban Water	$ 11,425,300	$ 7,153,394	$ 18,578,694	62.6%	
Urban Wastewater	11,007,500	7,962,956	18,970,456	72.3%	
Other Rate Centers	3,101,200	2,271,206	5,372,406	73.2%	
	$ 25,534,000	$ 17,387,556	$ 42,921,556	68.1%	
Debt Service Rate Revenues					
Urban Water	$ 12,593,900	$ 16,530,816	$ 29,124,716	131.3%	
Urban Wastewater	10,156,700	5,278,396	15,435,096	52.0%	
Other Rate Centers	2,862,100	3,756,560	6,618,660	131.3%	
	$ 25,612,700	$ 25,565,772	$ 51,178,472	99.8%	
Year 5-10 CIP					
Debt Service Charges	$ -	$ 4,073,888	$ 4,073,888		
Total RWSA Customer Revenues	**$ 51,146,700**	**$ 47,027,216**	**$ 98,173,916**	**91.9%**	18.4% $ 9,405,443

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

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

SUBJECT: **APPROVAL OF CONSTRUCTION CONTRACT AWARD AND CAPITAL IMPROVEMENT PLAN AMENDMENT; MCAWWRF STRUCTURAL AND CONCRETE REHABILITATION PROJECT; W.M. SCHLOSSER COMPANY, INC.**

DATE: **FEBRUARY 25, 2025**

This request is to authorize award of a contract for $12,967,500 to W.M. Schlosser Company, Inc. to construct the MC Structural and Concrete Rehabilitation project. An amendment to increase the FY 25-29 CIP funding for this project by $4,200,000 is also recommended. The total CIP budget for this project will be $15,500,000.

Background

This project comprises rehabilitation, repair and installation of multiple structural components throughout the MC facility, to include concrete repairs in both the equalization basins and holding ponds, rehabilitation to the existing primary clarifiers and associated influent splitter box, installation of a monorail and hoist over the aeration basins for NRCY pump removal, and rehabilitation to both the digester complex and compost shed roof and drainage system.

The existing holding ponds and equalization basins were constructed in 1977 and are showing signs of degradation. With complete condition assessment inspections and subsequent recommendations, this project includes crack repair, spalling repair, joint repair, and coating of miscellaneous metals and valves associated with these critical structures.

Inspections performed on the two existing primary clarifiers and associated influent splitter box noted several deficiencies including structural and mechanical components, concrete degradation and corrosion around pipe penetrations in need of repair or replacement, and due to advanced corrosion of metal components within the clarifiers, coatings were recommended to avoid additional deterioration. This project will provide for the rehabilitation, replacement and/or coatings of these previously identified components within the primary clarifiers and influent splitter box.

The aeration basins located at Moores Creek are a series of chambers that each have uniquely controlled oxygen and nutrient loading conditions. Mid-way through the basins is ten nutrient recycle (NRCY) pumps. When maintenance or replacement of these pumps is required, staff must currently hire a long boom crane, which can be costly and disruptive to operations, especially in

emergency conditions. This project will provide for the permanent means to remove and reinstall existing NRCY pumps with a monorail and hoist system.

Moores Creek AWRRF has five digester vessels. The two smaller digesters were part of the original 1958 plant construction. The three larger digesters were part of the 1979 plant upgrades following construction of the bridge over Moores Creek and the south side of the plant. Although numerous upgrades have been constructed at the digester complex over the last 11 years (including heating, mixing, gas compression, and roof repairs), the overall condition of the concrete and complex is reaching its useful life. This project includes addressing remaining repairs to the existing digester complex, including safety repairs, to extend the useful life approximately 10-15 years while RWSA plans, designs, and constructs a new digester complex at another location on the Moores Creek site.

Finally, in the early 1980's a large metal-framed roof was constructed to house the biosolids composting operations, which has subsequently ceased operation. The area was repurposed as a covered equipment maintenance yard, solids storage facility and material storage lock-up. The roof system is exhibiting signs of rafter deterioration and ongoing drainage and leakage issues. This project will evaluate and perform remediation needs at this facility.

An Invitation for Bids (IFB #421) was issued on November 7, 2024. A pre-bid conference was held on November 20, 2024. Construction bids were opened for the project on December 18, 2024. Two competitive bids were received for the project with total base bids of $13,866,000 and $15,216,000. The apparent low bidder was W.M. Schlosser Company, Inc. (W.M. Schlosser) from Hyattsville, Maryland with a total base bid of $13,866,000.

Our design engineer, Hazen and Sawyer (Hazen) has reviewed the bid documents submitted by W.M. Schlosser and verified that the bid and attached documents are both responsive and responsible. W.M. Schlosser's base bid was 31.5% higher than the Engineer's estimate of $10,542,856. RWSA and Hazen staff worked with W.M. Schlosser to identify areas for potential cost savings. As a result of these cost-saving opportunities, W.M. Schlosser reduced its bid by $898,500 to $12,967,500. Cost savings were achieved by the contractor obtaining another bid for the disposal of solids from the project, and reducing the length of the trench drain required at the compost shed.

Based on W.M. Schlosser's overall experience and references, their willingness to work with RWSA and Hazen to find cost-saving opportunities, and the overall status of market conditions, Hazen and Sawyer and staff recommend an award to W.M. Schlosser in the amount of $12,967,500. A Post-Bid Modification Form will accompany the Contract Documents, formally accepting the cost savings opportunities mentioned above as a deduction from the total base bid value.

The current CIP budget for the MCAWRRF Structural and Concrete Rehabilitation project is $11,300,000. Incorporating W.M. Schlosser's reduced bid amount would represent an additional increase to the CIP budget of $4,200,000. Based on the range of bid prices received, Hazen and Sawyer and staff believe that the modified bid is reasonable based on current market value for the work.

Board Action Requested:

Staff requests the Board of Directors to approve the following:

1. Authorization for the Executive Director to award a construction contract to W.M. Schlosser Company, Inc. for a total amount of $12,967,500 (= $13,866,000 bid amount less $898,500 in reductions) and any change orders to the construction contract necessary for completion of the work not exceed 10% of the original construction contract award.

2. An amendment to the FY 25 – 29 CIP for the MCAWRRF Structural and Concrete Rehabilitation project to increase the budget by $4,200,000. This amendment would bring the total budget for this project to $15.5 M.



MCAWRRF Structural and Concrete Rehabilitation Project Construction Award and CIP Amendment

Presented to the Board of Directors by:

Michelle Simpson, Senior Civil Engineer

February 25, 2025

RIVANNA WATER & SEWER AUTHORITY

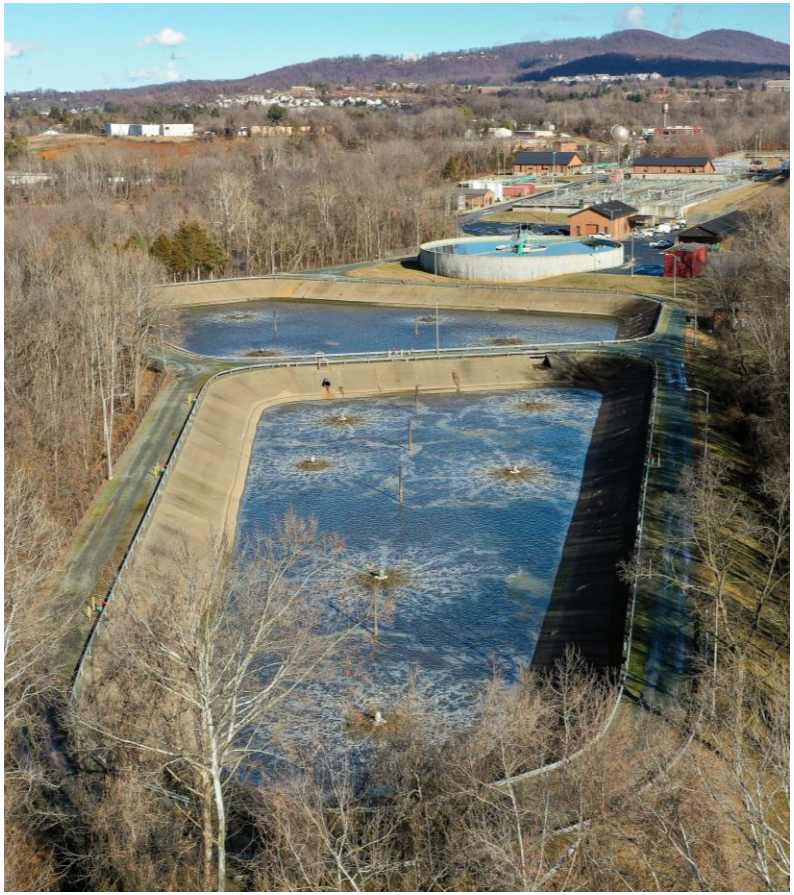
MCAWRRF Structural and Concrete Rehabilitation Project

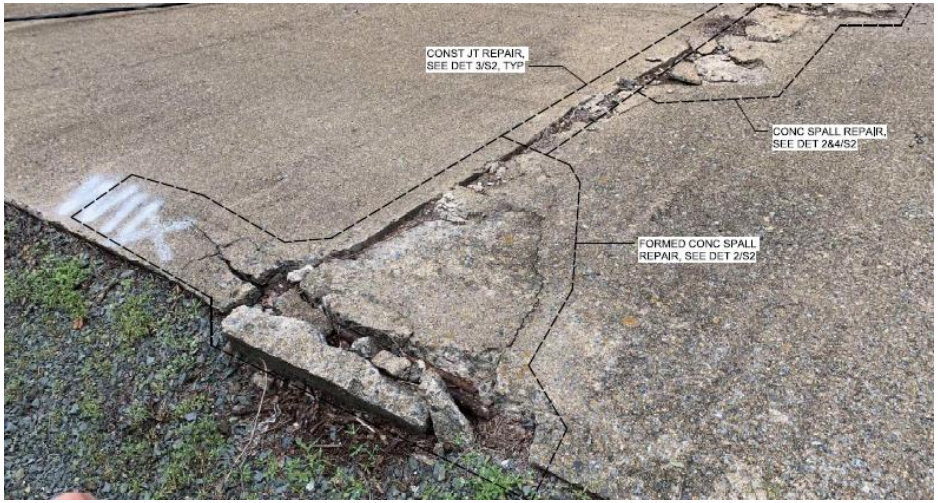
- Repairs throughout MC plant including holding ponds, equalization basins, primary clarifiers, digesters, and compost shed roof and drainage
- Improves pump removal from aeration basins
- Received 2 competitive bids in December 2024
- Construction Award recommended to W.M. Schlosser Company, Inc. of Hyattsville, MD
- Contract Amt: $12,967,500
- Total Budget: $15.5 M; Requires $4.2 M CIP Amdmt
- Construction Schedule: May 2025 – May 2027


Holding Ponds

Holding Pond Repairs:

- Holding Ponds constructed in 1977
- Significant concrete crack, joint, and spall repairs





Equalization Basin Repairs:

- EQ Basins constructed in 1977
- Significant concrete crack, joint, and spall repairs

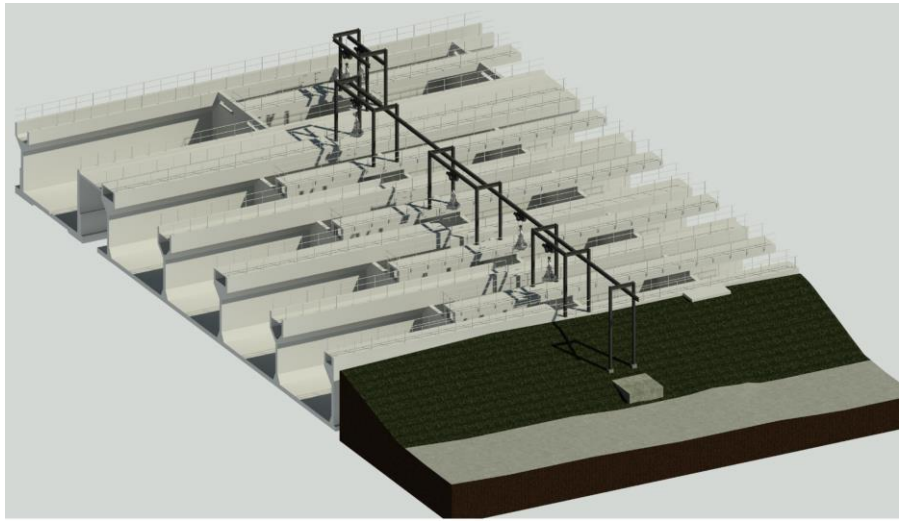
Primary Clarifier Repairs:

- Steel Repair and Replacement

STRUCTURAL REPAIR

Aeration Basin Improvements:

- New Pump Lifting System (Monorail and Hoist)



Compost Yard Maintenance Shed Repairs:

- 1980's Construction
- New Metal Roof and Steel Repair and Replacement

Digester Complex Repairs:

- 2 digesters built in 1958; Remaining digesters in 1979
- Concrete repair, safety improvements, roof repair, storage tank coating

BUDGET AND MODIFICATIONS

- Solids Removal Savings by using another subcontractor: ($807,000)
- Trench Drain reduction at Compost Yard Maintenance Shed: ($91,500)

BID EVALUATION:

W.M. Schlosser Bid:	$13,866,000	Engineer's Estimate:
Negotiated Reductions:	$898,500	$10,542,856
Revised Bid Amount:	$12,967,500	

FY 25-29 CIP Budget:

Current:	Amendment:	New Total:
$11.3M	+$4.2M	=$15.5M

QUESTIONS?

Board Action Requested:

1. Amend the FY 25 – 29 CIP for the MCAWRRF Structural and Concrete Rehabilitation project to increase the budget by $4,200,000. This amendment would bring the total CIP budget for this project to $15,500,000.

2. Authorize the Executive Director to award a construction contract for IFB#421 to W.M. Schlosser Company, Inc. for a total amount of $12,967,500 ($13,866,000 bid amount less $898,500 in reductions) and to approve any change orders to the construction contract necessary for completion of the work not to exceed 10% of the original construction contract award.

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

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

SUBJECT: **APPROVAL OF CONSTRUCTION CONTRACT AWARD AND CAPITAL IMPROVEMENT PLAN AMENDMENT; MCAWWRF BUILDING UPFITS AND GRAVITY THICKENER IMPROVEMENTS PROJECT; ENGLISH CONSTRUCTION COMPANY, INC.**

DATE: **FEBRUARY 25, 2025**

This request is to authorize award of a contract for $9,631,500 to English Construction Company, Inc. to construct the MC Building Upfits and Gravity Thickener Improvements project. An amendment to increase the FY 25-29 CIP funding for this project by $6,650,000 is also recommended. The total CIP budget for this project will be $11,800,000.

Background

This project will address the renovation needs of the current Maintenance and Operations building space requirements, improvements to the existing gravity thickener system, and installation of actuators on the secondary clarifier influent gate valves. The Moores Creek Maintenance and Operations Department facilities are over 40 years old, no longer meeting current staffing and operational needs. In accordance with the Moores Creek Master Plan, this project will increase and update personnel spaces such as offices, lunchrooms, labs, and locker rooms in the Maintenance, Blower, and Sludge Pumping Buildings to meet needs over an interim timeframe of approximately 15 years. Additionally, the project will construct increased oil and grease storage that will meet all current best practices for safety and address the need for additional parts storage. As part of the existing gravity thickener system, RWSA added temporary provisions to dose polymer to improve settling and thickening performance, which has proved to be effective and increased operational performance. The current polymer feed system consists of a bulk polymer tote stored on grade adjacent to the gravity thickener rapid mix and splitter structure. The current system is uncovered and manually operated with totes being moved as needed for chemical feed. This project will allow for a permanent polymer feed system with proper provisions for chemical deliveries and weather protection, including additional space for sodium hypochlorite chemical storage and feed as part of the gravity thickener odor control system. The relocation of the sodium hypochlorite storage and feed will also allocate spacing needs as part of the previously discussed operational building renovations in the existing Sludge Pumping Building. Furthermore, access points will be installed on the thickener effluent line feeding the existing sludge pumps to allow for flushing, cleaning and inspection efforts to occur. Finally, the current secondary clarifier influent gate valves are manually operated, which can be time

consuming, and during a wet weather event, the clarifiers need to be placed in service as quickly and safely as possible. The use of SCADA controlled actuators would streamline the process immensely. This work includes the installation of six (6) new actuators on the influent gates of the secondary clarifiers.

An Invitation for Bids (IFB #422) was issued on November 7, 2024. A pre-bid conference was held on November 14, 2024. Construction bids were opened for the project on December 19, 2024. Two competitive bids were received for the project with total base bids of $9,821,000 and $11,966,000. The apparent low bidder was English Construction Company, Inc. (English Construction) from Lynchburg, Virginia with a total base bid of $9,821,000.

Our design engineer, SEH, has reviewed the bid documents submitted by English Construction and verified that the bid and attached documents are both responsive and responsible. English Construction's base bid was 39% higher than the Engineer's estimate of $7,025,372. RWSA and SEH staff worked with English Construction to identify areas for potential cost savings. As a result of these cost-saving opportunities, English Construction reduced its bid by $189,500 to $9,631,500. Savings include eliminating a window relocation, removing an attic access ladder and platform, simplifying the RAS chlorination system, revising the gravity sewer piping from ductile iron to PVC, and reducing the portion of an existing concrete slab to be replaced.

English Construction's overall experience with RWSA is extensive as they are currently completing the South Rivanna WTP and Observatory WTP Improvements, and they completed the MCAWRRF Headworks Upgrades in the past. With English Construction's willingness to work with RWSA and SEH to find cost-savings opportunities, and the overall status of market conditions, SEH and staff recommend an award to English Construction in the amount of $9,631,500. A Post-Bid Modification Form will accompany the Contract Documents, formally accepting the cost savings opportunities mentioned above as a deduction from the total base bid value.

The current CIP budget for the MCAWRRF Building Upfits and Gravity Thickener Improvements project is $5,150,000. Incorporating English Construction's reduced bid amount would represent an additional increase to the CIP budget of $6,650,000. Based on the range of bid prices received, SEH and staff believe that the modified bid is reasonable based on the current market value for the work.

Board Action Requested:

Staff requests the Board of Directors to approve the following:

1. An amendment to the FY 25 – 29 CIP for the MCAWRRF Building Upfits and Gravity Thickener Improvements project to increase the budget by $6,650,000. This amendment would bring the total CIP budget for this project to $11.8 M.

2. Authorization for the Executive Director to award a construction contract to English Construction Company, Inc. for a total amount of $9,631,500 (= $9,821,000 bid amount less $189,500 in reductions) and any change orders to the construction contract necessary for completion of the work not exceed 10% of the original construction contract award.

MCAWRRF Building Upfits and Gravity Thickener Improvements Project
Construction Award and CIP Amendment

Presented to the Board of Directors by:

Michelle Simpson, Senior Civil Engineer

February 25, 2025

RIVANNA
WATER & SEWER AUTHORITY

MCAWRRF Building Upfits and Gravity Thickener Improvements Project

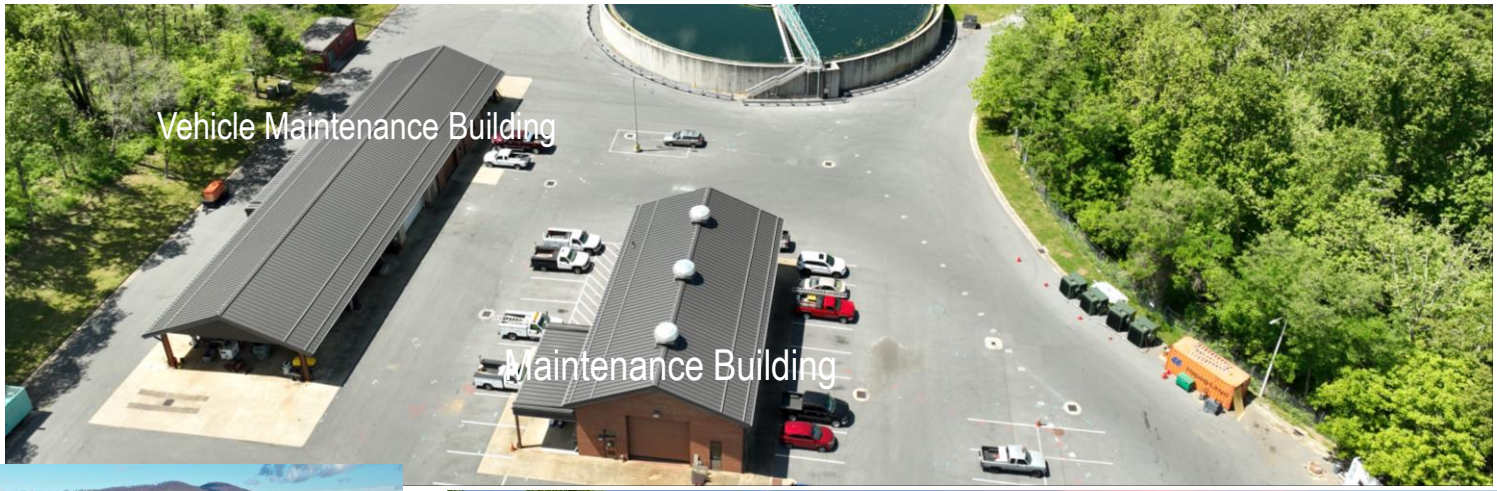
- Renovation of Maintenance and Operations office and personnel spaces to address staffing needs throughout MC plant in addition to Gravity Thickener Improvements
- Received 2 Competitive Bids in December 2024
- Construction Award Recommended to English Construction Company, Inc. of Lynchburg, VA
- Contract Amount: $9,631,500
- CIP Amdmt of $6.65 M to Total Budget of $11.8 M
- Construction Schedule: May 2025 – May 2027

Building Upfits - Operations Staff

- Blower Building and Sludge Pumping Building constructed in 1977
- Renovations include: New lunchroom, office spaces, Operator workroom, laboratory, bathrooms, IT space, locker room, and temporary work area in Duty Station.

Building Upfits - Maintenance Staff

- Maintenance and Vehicle Shop Buildings constructed in 1977
- Renovations include: New lunchrooms, office spaces, workroom, conference room, bathrooms, IT space, locker room, and gas and oil storage area.
- Aeration Basins: 6 new slide gate actuators on valves to secondary clarifiers




New Aeration Basin Actuators


Rendering of New Vehicle Maintenance Building

MAINTENANCE

Gravity Thickener Improvements

- Gravity Sludge Thickeners constructed in 1977
- Renovations Include: New Chemical Feed Building and Sludge Line Cleanouts

BUDGET AND MODIFICATIONS

- Eliminate Window Relocation: ($3,500)
- Remove Attic Access Ladder and Platform: ($12,000)
- Simplify Sludge Chlorination System: ($30,000)
- Revise Gravity Sewer Piping Material from DIP to PVC: ($33,000)
- Provide Partial Replacement of Concrete Slab Instead of Full Replacement: ($111,000)

BID EVALUATION:

English Bid:	$9,821,000
Negotiated Reductions:	$189,500
Revised Bid Amount:	$9,631,500

Engineer's Estimate:
$7,025,372

FY 25-29 CIP Budget:

Current:	Amendment:	New Total:
$5.15M	+$6.65M	=$11.8M

QUESTIONS?

Board Action Requested:

1. Amend the FY 25 – 29 CIP for the MCAWRRF Building Upfits and Gravity Thickener Improvements project to increase the budget by $6,650,000. This amendment would bring the total CIP budget for this project to $11,800,000.

2. Authorize the Executive Director to award a construction contract for IFB#422 to W. English Construction Company, Inc. for a total amount of $9,631,500 ($9,821,000 bid amount less $189,500 in reductions) and to approve any change orders to the construction contract necessary for completion of the work not to exceed 10% of the original construction contract award.

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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 CONSTRUCTION CONTRACT AWARD AND CAPITAL IMPROVEMENT PLAN AMENDMENT– ADMINISTRATION BUILDING RENOVATION AND ADDITION PROJECT – MARTIN HORN, INC.**

DATE: **FEBRUARY 25, 2025**

This request is to authorize the award of a contract for $22,094,000 to the Martin Horn company of Charlottesville, Va. to construct the Administration Building renovation and addition project. An amendment to increase the FY 25-29 CIP funding for this project by $7.6 M is required to construct and furnish administrative, education and lab spaces and to remove the existing Engineering trailers. The total budget for this project will be $27.6 M. Construction will be completed from June 2025 through December 2027.

Background

RWSA currently has its administrative headquarters in two buildings at the Moores Creek Advanced Water Resource Recovery Facility. The two-story, 12,260 SF Administration Building was constructed in the early 1980's and houses offices, IT server space, meeting space and a full-service laboratory. The second building is a series of four trailers installed between 2003 and 2010 that house the Engineering department. Based on the condition of these facilities and the growth of our programs, there is a need to renovate the existing building and provide approximately 19,500 SF of additional office and meeting spaces for the Finance, IT, Human Resources, Administration and Executive staff, along with a new Education space as well as relocation of the Engineering staff into the building to eliminate the trailers. The renovation and addition will modernize the IT server workrooms, Laboratory, and Board meeting room, while also providing space for an educational exhibit space to enhance RWSA's community outreach efforts.

An Invitation for Bids (IFB #425) was issued on December 20, 2024. A pre-bid conference was held on January 7, 2025. Construction bids were opened for the project on February 13, 2025. Three competitive bids were received with offers ranging from $22 M to $26 M. The apparent low bidder was Martin Horn from Charlottesville with a total base bid of $22,094,000.

Our design engineer, Short Elliot Hendrickson Inc. (SEH), has reviewed the bid documents submitted by Martin Horn and verified that the bid and attached documents are both responsive and responsible. Martin Horn's bid was comparable to our Engineer's estimate of $22.3 M. Based

on Martin Horn's experience and positive references, SEH and staff recommend the company be awarded the contract. The current CIP budget for the MCAWRRF Engineering and Administration Building project is $20 M. A budget increase of $7.6 M is required to fully fund the project.

Board Action Requested:

Approval of the following:

1. An amendment to the FY 25 – 29 CIP for the Administration Building Renovation and Addition Project to increase the budget by $7.6 M to a total budget of $27.6 M.

2. Authorization for the Executive Director to award a construction contract to Martin Horn, Inc. for a total amount of $22,094,000 and to approve any change orders to the construction contract necessary for completion of the work not exceed 10% of the original construction contract amount.

Administration Building Renovation & Addition Project

Construction Award and

FY 25 – 29 CIP Amendment

Presented to the Board of Directors

By Scott Schiller, Engineering Manager

February 25, 2025

EAST ELEVATION - MAIN ENTRY

RIVANNA
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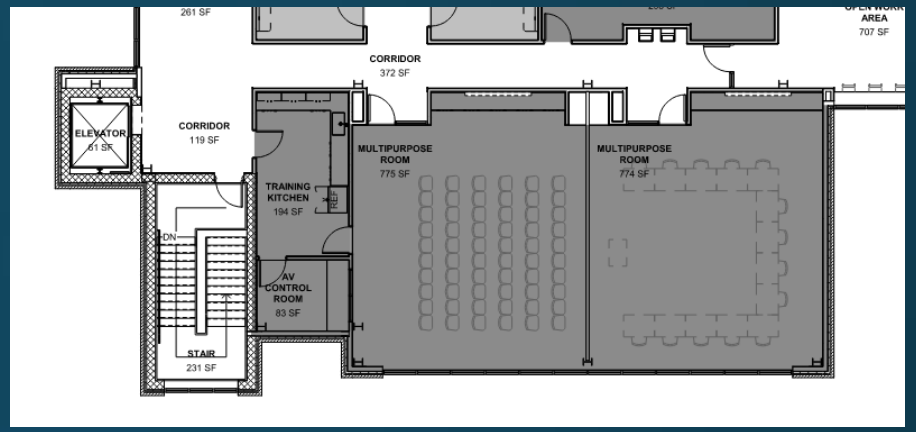
Existing Administration Building

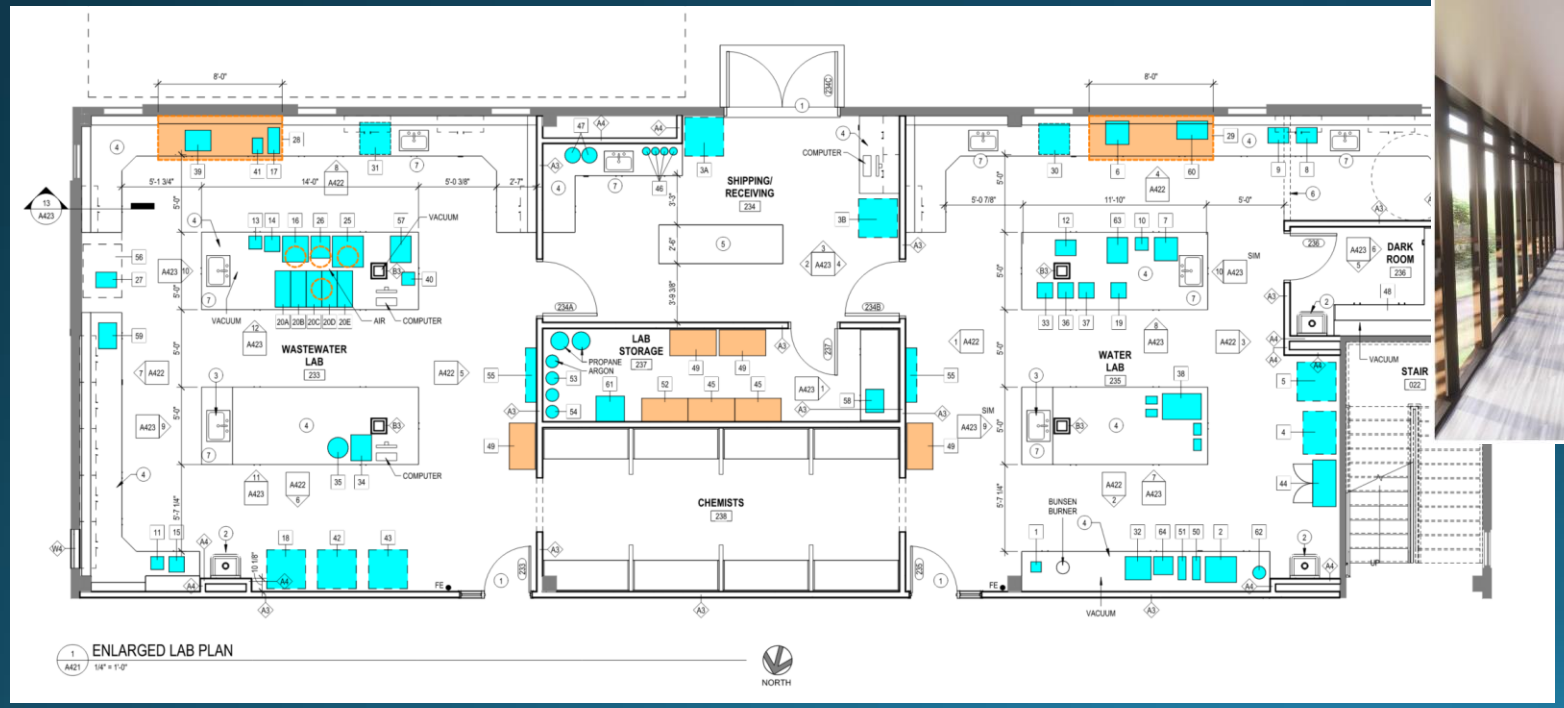
- Original building constructed in early 1980's
- Engineering department located in series of 4 trailers installed between 2003 and 2010.
- Needed to renovate the space and expand
  - Account for all Admin and Engineering staff through 2035
  - Modernize facilities (IT space, laboratory and Board meeting space)
  - Provide space for educational exhibit to enhance RWSA public outreach efforts
- Additional 19,500 square feet
- Performed an extensive building program evaluation

Existing Engineering Trailers

Facility Modernization

- Complete redesign and modernization of laboratory space
- New expanded Board meeting and multipurpose room
- Installation of solar panels on both the expanded roof and the existing roof



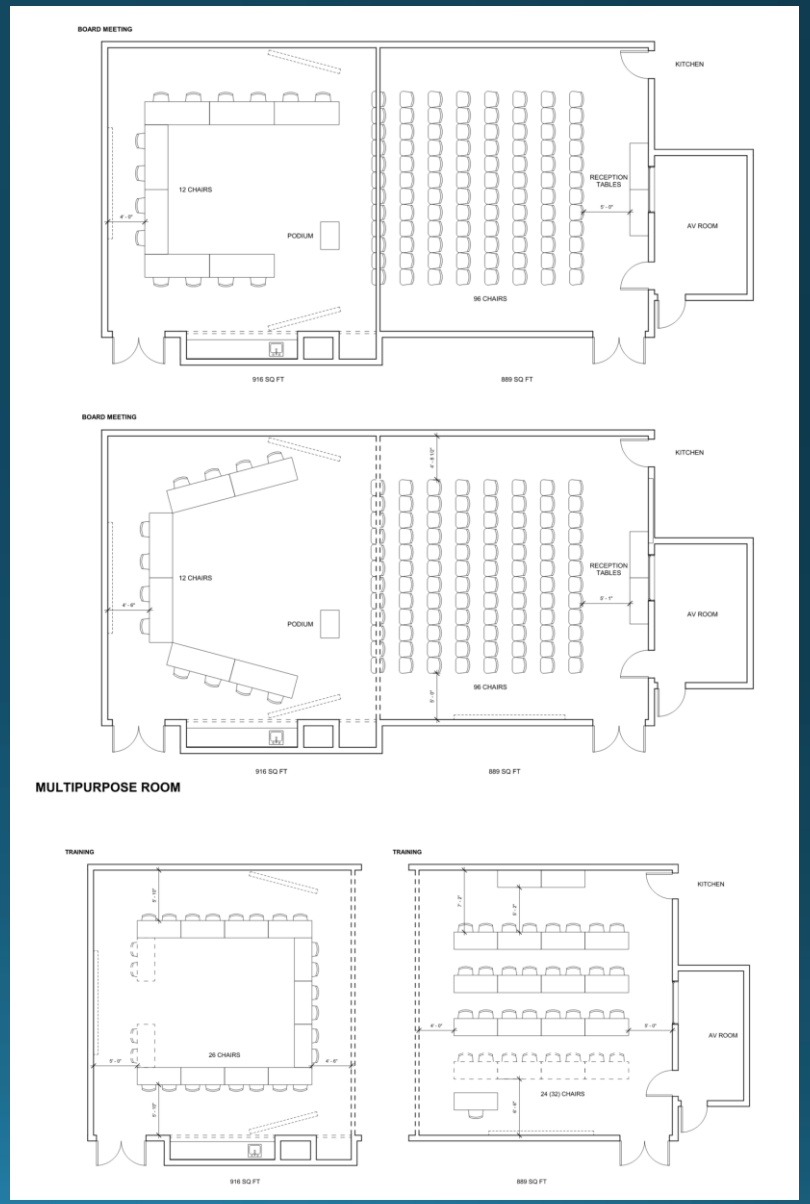


Building Program and Room Diagrams

Building Program

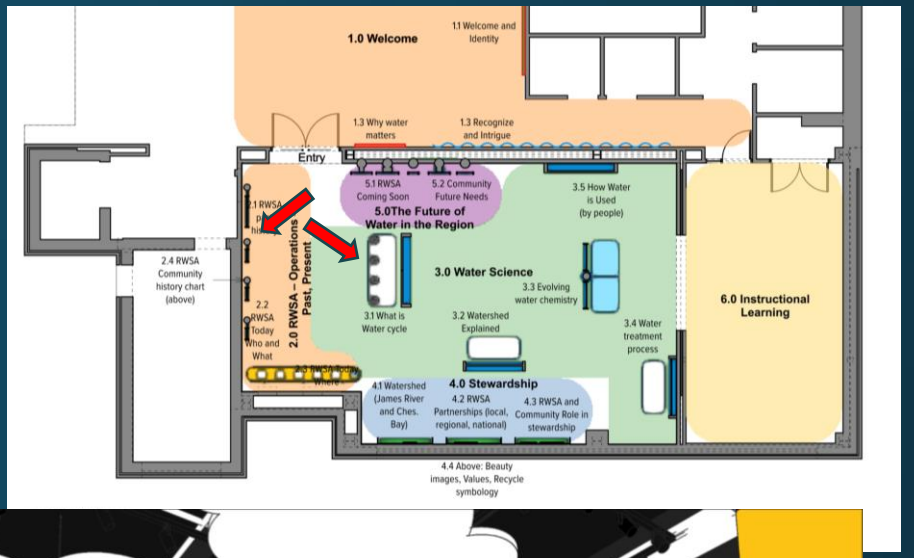
RWSA Engineering and Administration Building
SEH and Thrive Architecture
2/22/2023

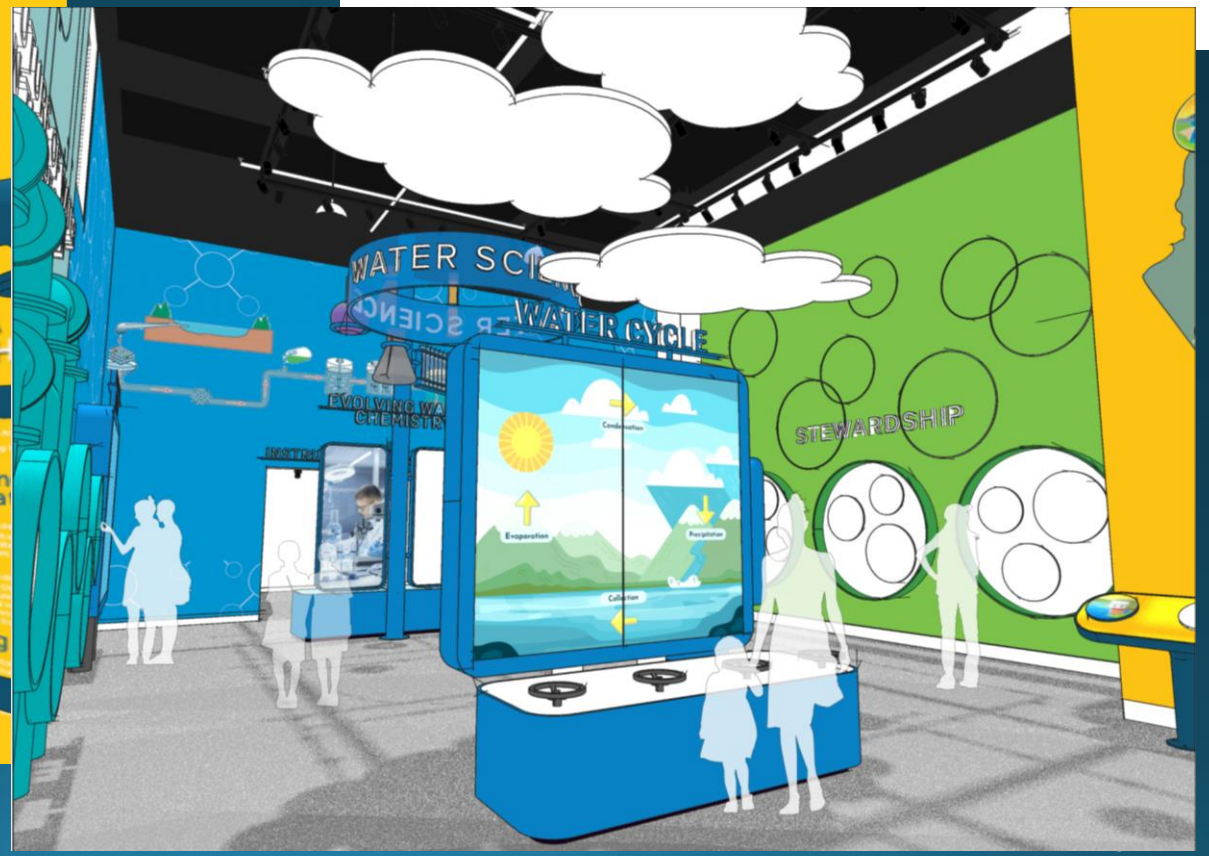
Department	Group	Space	FTE 2035	Qty	Net Area (SF)			Comments
				Proposed	Each Proposed	Extended	Subtotal	
Engineering & Maintenance								
		Director of Engineering & Maint.	1	1	125	125		
		Engineering Manager	1	1	125	125		
		CE: Supervisor of Inspectors (fut)	1	1	100	100		Near inspectors
		Inspector	3	3	25	75		Consider half walls around
		Inspector, Miss Utility	1	1	100	100		Near Miss Utility counter.
		Inspector (fut)	1	1	25	25		
		Admin. Tech	1	1	100	100		
		Civil Engineer	4	4	100	400		
		Civil Engineer (fut)	0	0	100	0		
		CE: Dam Management (fut)	1	1	100	100		
		CE: Development Review	1	1	100	100		Considered existing engineer for FTE purposes
		Asset Management	1	1	100	100		Does access control, works with GIS staff
		Grants & Sustainability (fut)	1	1	100	100		



Public Outreach – Education Exhibit

- Design accounts for education exhibit space
- Exhibit displays, media and finishes currently being developed
- Will be bid as separate contract – specialty work





Competitive Bid Results and Budget

- 3 Bids received on Feb 13, 2025, $22 – 26 M
- Engineer's estimate: $22,270,000
- Apparent low bid:
  Martin Horn - $22,094,000
- Construction: June 2025 - December 2027

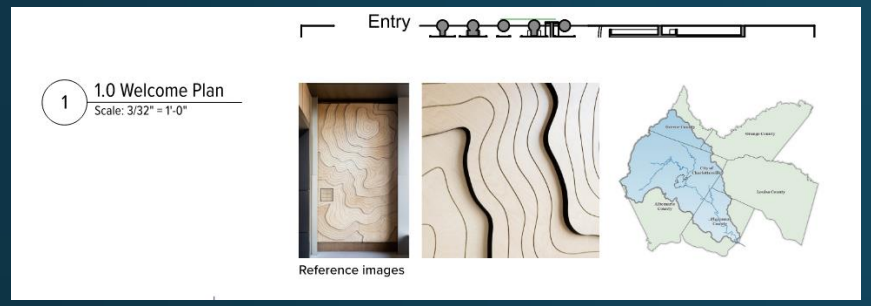
- FY 25 – 29 CIP Budget: $20 M
- Total Project Budget: $27.6M
  - Estimated prior to bid opening
  - Included in proposed CIP
- **Proposed Budget Amendment - $7.6M**

NORTH ELEVATION

OFFICE AREA - ENGINEERING

Questions?

Board Action Requested



Consider approval of the following:

1. An amendment to the FY 25 – 29 CIP for the Administration Building Renovation and Addition Project to increase the budget by $7.6 M to a total budget of $27.6 M.

2. Authorization for the Executive Director to award a construction contract to Martin Horn, Inc. for a total amount of $22,094,000 and to approve any change orders to the construction contract necessary for completion of the work not exceed 10% of the original construction contract amount.