




# Board of Directors Meeting


May 24, 2022


2:15pm



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

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[www.rivanna.org](http://www.rivanna.org) 

## BOARD OF DIRECTORS

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

**DATE:** May 24, 2022

**LOCATION:** Virtually via ZOOM

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

### AGENDA

**1. CALL TO ORDER**

**2. STATEMENT FROM THE CHAIR**

**3. MINUTES OF PREVIOUS BOARD MEETING**

*a. Minutes of Regular Board Meeting on April 26, 2022*

**4. RECOGNITION**

**5. EXECUTIVE DIRECTOR'S REPORT**

**6. ITEMS FROM THE PUBLIC**

*For matters not listed on the agenda for public hearing*

**7. RESPONSES TO PUBLIC COMMENTS**

**8. CONSENT AGENDA**

*a. Staff Report on Finance*

*b. Staff Report on Operations*

*c. Staff Report on Ongoing Projects*

*d. Staff Report on Wholesale Metering*

*e. Staff Drought Monitoring Report*

*f. Approval of the FY 2022-2023 Personnel Management Plan Update*

*g. Approval of FY 2022-2023 Pay Scale Adjustment*

*h. Award of Term Contracts for Professional Dam Engineering Services*

*i. Authorization for Construction Change Order – Moores Creek Slide Gate Improvements Project*

*j. Update on Buck Mountain Property Management Plan*

**9. OTHER BUSINESS**

- a. Presentation and Approval: FY 2023-2027 Capital Improvement Plan  
Bill Mawyer, Executive Director*
- b. Presentation, Public Hearing, and Approval: FY 2022-2023 Rate Schedule and Operating Budget  
Bill Mawyer, Executive Director*
- c. Presentation: Urban Finished Water Master Plan  
Michelle Simpson, P.E., Senior Civil Engineer*

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

**11. CLOSED MEETING**

**12. ADJOURNMENT**

## GUIDELINES FOR PUBLIC COMMENT AT VIRTUAL RIVANNA BOARD OF DIRECTORS MEETINGS

If you wish to address the Rivanna Board of Directors during the time allocated for public comment, please use the “chat” feature in the Zoom Meeting interface.

Members of the public who submit comments will be recognized during the specific time designated on the meeting agenda for “Items From The Public.” The comment(s) will be read aloud to the Board of Directors only during this agenda item, so comments must be received prior to the end of this agenda item. The comments will be read by the Rivanna Authority’s Executive Coordinator/Clerk of the Board.

Members of the public requesting to speak will be recognized during the specific time designated on the meeting agenda for “Items From The Public.” 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.

If you would like to submit a comment, please keep in mind that Board of Directors meetings are formal proceedings and all comments are recorded on tape. In order to give all who wish to submit a comment proper respect and courtesy, the Board requests that commenter follow the following guidelines:

- Submit your comment prior to the start of or during the “Items from the Public” section of the Agenda.
- In your comment, state your full name and address and your organizational affiliation if commenting 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;
- Be respectful and civil in all interactions at Board meetings;
- 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 commenters who have questions for the Board or staff submit those questions in advance of the meeting to permit the opportunity for some research before the meeting.

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

Rev. May 20, 2020



## CALL TO ORDER

## STATEMENT OF CHAIR TO OPEN MEETING

This is Mike Gaffney, Chair of the Rivanna Water and Sewer Authority.

I would like to call the May 24, 2022 meeting of the Board of Directors to order.

Notwithstanding any provision in our Bylaws to the contrary, as permitted under the City of Charlottesville's Continuity of Government Ordinance adopted on March 7, 2022 (Ordinance No. O-22-029), Albemarle County's Continuity of Government Ordinance adopted on April 15<sup>th</sup>, 2020, and last revised effective November 4, 2020 (Ordinance No. 20-A(16)) and Chapter 1283 of the 2020 Acts of the Virginia Assembly effective April 24, 2020, we are holding this meeting by real time electronic means with no board member physically present at a single, central location.

All board members are participating electronically. This meeting is being held pursuant to the second resolution of the City's Continuity of Government Ordinance and Section 6 of the County's revised Continuity of Government Ordinance. All board members will identify themselves and state their physical location by electronic means during the roll call which we will hold next. I note for the record that the public has real time audio-visual access to this meeting over Zoom as provided in the lawfully posted meeting notice and real time audio access over telephone, which is also contained in the notice. The public is always invited to send questions, comments, and suggestions to the Board through Bill Mawyer, the Authority's Executive Director, at any time.

## ROLL CALL:

Ms. Hildebrand: Please state your full name and location.

Ms. Mallek: Please state your full name and location.

Mr. O'Connell: Please state your full name and location.

Mr. Pinkston: Please state your full name and location.

Mr. Richardson: Please state your full name and location.

Mr. Rogers: Please state your full name and location.

And I am Mike Gaffney, located at \_\_\_\_\_.

Joining us today electronically are the follow Authority staff members and consultants:

Bill Mawyer, Lonnie Wood, David Tungate, Betsy Nemeth, John Hull, Jeff Southworth, Andrea Bowles, Michelle Simpson, Deborah Anama, and Attorney Valerie Long (Williams Mullen).

We are also joined electronically by Carrie Stanton (Williams Mullen), counsel to the Authority.



**RWSA BOARD OF DIRECTORS**  
**Minutes of Regular Meeting**  
**April 26, 2022**

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, April 26, 2022 at 2:15 p.m. via Zoom.

**Board Members Present:** Mike Gaffney, Lauren Hildebrand, Ann Mallek, Brian Pinkston, Jeff Richardson, Michael Rogers.

**Board Members Absent:** Gary O'Connell.

**Rivanna Staff Present:** Bill Mawyer, Lonnie Wood, Deborah Anama, David Tungate, John Hull, Jennifer Whitaker, Jeff Southworth, Andrea Bowles.

**Attorney(s) Present:** Valerie Long, Carrie Stanton

**1. CALL TO ORDER**

Mr. Gaffney called the April 26, 2022, regular meeting of the Rivanna Water and Sewer Authority to order at 2:15 p.m.

**2. STATEMENT FROM THE CHAIR**

Mr. Gaffney read the following statement aloud:

“This is Mike Gaffney, Chair of the Rivanna Water and Sewer Authority. I would like to call the April 26, 2022 meeting of the Board of Directors to order.

“Notwithstanding any provision in our Bylaws to the contrary, as permitted under the City of Charlottesville’s Continuity of Government Ordinance adopted on March 7, 2022 (Ordinance No. O-22-029), Albemarle County’s Continuity of Government Ordinance adopted on April 15, 2020, and last revised effective November 4, 2020 (Ordinance No. 20-A(16)) and Chapter 1283 of the 2020 Acts of the Virginia Assembly effective April 24, 2020, we are holding this meeting by real time electronic means with no Board member physically present at a single, central location.

“All Board members are participating electronically. This meeting is being held pursuant to the second resolution of the City’s Continuity of Government Ordinance and Section 6 of the County’s revised Continuity of Government Ordinance. All Board members will identify themselves and state their physical location by electronic means during the roll call which we will hold next. I note for the record that the public has real time audio-visual access to this meeting over Zoom as provided in the lawfully posted meeting notice and real time audio access over telephone, which is also contained in the notice. The public is always invited to send questions, comments, and suggestions to the Board through Bill Mawyer, the Authority’s Executive Director, at any time.”

Mr. Gaffney called the roll. He noted that Mr. Gary O'Connell was absent.

Ms. Lauren Hildebrand stated she was located at 305 4<sup>th</sup> Street Northwest in Charlottesville, VA.

Ms. Ann Mallek stated she was located at her home in 4826 Advance Mills Road, Earlysville, Albemarle County.

Mr. Brian Pinkston stated he was located at 1450 Leake Drive in Charlottesville, VA.

Mr. Jeff Richardson stated he was located at the County Office Building at 401 McIntire Road in Charlottesville, VA.

Mr. Michael Rogers stated he was located at Charlottesville City Hall, 605 Main St, Charlottesville, VA.

Mr. Mike Gaffney stated he was located at 3180 Dundee Road in Earlysville, VA.

Mr. Gaffney stated the following Authority staff members were joining the meeting electronically: Bill Mawyer, Lonnie Wood, David Tungate, Jennifer Whitaker, John Hull, Jeff Southworth, Andrea Bowles, Deborah Anama, and Attorney Valerie Long with Williams Mullen.

Mr. Gaffney stated they were also joined electronically by Ms. Carrie Stanton with Williams Mullen, Counsel to the Authority.

### **3. MINUTES OF PREVIOUS BOARD MEETING**

#### ***a. Minutes of Regular Board Meeting on March 22, 2022***

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

**Ms. Mallek moved that the Board approve the minutes of the March 22, 2022 meeting. The motion was seconded by Ms. Hildebrand and passed unanimously (6-0). (Mr. O'Connell was absent from the vote.)**

### **4. ELECTION OF CHAIR, VICE CHAIR, & SECRETARY-TREASURER**

Mr. Gaffney stated he is currently the Chair, Mr. Richardson is the Vice Chair, and the Secretary-Treasurer position has been vacant since the departure of Mr. Boyles in October 2021. He stated normally that position would be held by the City Manager or Assistant City Manager.

Mr. Mawyer stated they rotated historically; the City was the Vice Chair the last term, and then they flipped so that the City could be the Vice Chair and the County the Secretary-Treasurer if that was the pleasure of the Board, but there was no requirement to do that.

Mr. Gaffney asked if there were any nominations for these offices.

Ms. Mallek stated she assumed they would follow the procedure and flip.

**Ms. Mallek moved to nominate Mr. Gaffney as Chair, Mr. Rogers as Vice Chair, and Mr. Richardson as Secretary-Treasurer.**

Mr. Gaffney asked if there was any further discussion or motions. Hearing none, he asked if there was a second.

**Ms. Hildebrand seconded the motion.**

Mr. Gaffney asked if there was any further discussion. Hearing none, he asked the vote to be called.

**The motion carried unanimously (6-0). (Mr. O'Connell was absent from the vote.)**

## **5. RECOGNITIONS**

There were no recognitions on the agenda.

## **6. EXECUTIVE DIRECTOR'S REPORT**

Mr. Mawyer stated things were going well at the Authority. He stated they celebrated one of their wastewater operators earned a higher Wastewater Operator License. He stated that Dennis Barbieri passed the Class 3 exam. He stated they congratulated Dennis on that, and stated he was a graduate of Old Dominion University. He stated Dennis had been with Rivanna for about a year and a half. He stated they would celebrate Drinking Water Week next week, which recognized drinking water professionals and the benefits and support they provide to their community. He stated they would thank all of their staff next week.

Mr. Mawyer stated Ragged Mountain was about a quarter inch down today, but otherwise all the reservoirs were full heading into the warm summer months, which was good news. He stated as Ms. Bowles would present to them on the Consent Agenda Item 9e, the Staff Drought Monitoring Report, they were watching closely because they ended up almost eight inches and 19% lower last year than normal precipitation. He stated in January through March of this year they were down about an inch, so they were monitoring the precipitation and staying on guard for any drought-like conditions.

Mr. Mawyer stated they were hosting a regional safety training program this month. He stated they were starting to get back to in-person meetings and their staff as well, as staff from the City Utilities Department, would work together with the PVCC trainer on fall protection and lock-out tag-out procedures as well as other safety measures. He stated ACSA was also invited and they had a number of individuals that needed that training, but we did not have enough seats. He stated they were reconstituting our regional safety training as much as we could.

Mr. Mawyer stated he was happy to report they had applied for a \$21.3M grant with the Virginia Department of Health through their Office of Drinking Water. He stated this grant would be to fund construction of additional GAC vessels at four of their water treatment plants as part of a federal bipartisan infrastructure law and specifically a program that targeted removal of emerging contaminants from drinking water. He stated they were targeting PFAS and PFOA, which were the per- and poly- fluoroalkyl substances.

Mr. Mawyer stated this funding program was to help utilities remove those emerging contaminants from drinking water. He stated the EPA had not established drinking water

standards for these chemicals. He stated they were removing contaminants but they did not have any removal standards. He stated they already had GAC and this proposal for \$21M was to fund additional GAC vessels for the water treatment system. He stated they should know by the end of summer or early fall whether VDH would accept this application.

Mr. Mawyer stated the Central Water Line Project was moving forward. He stated they had community meetings with a lot of neighborhoods in this City, contacted other neighborhoods, and mailed about 480 letters to businesses and residents that were directly adjacent to the proposed waterline route. He showed a slide with the water line project fact sheet and map. He stated they were continuing to assess this route and others they had heard of at the neighborhood meetings. He stated they were trying to create an objective matrix that would help them rank the route alternatives. He stated he believed they would be invited to present this information to City Council, possibly in June, and would return to this Board in June with the final recommendation.

Mr. Mawyer stated they were also working with the UVA Foundation to try to get the last easement so they could build the section of Rivanna to Ragged Mountain waterline that would connect at the north end of the Birdwood Golf Course, go under Route 250 and Old Garth Road. He stated that was a 36-inch raw water pipe, which was a part of their community water supply plan to get water into their largest reservoir at Ragged Mountain. He stated they were hoping to start construction this summer and finish within about one year.

Mr. Mawyer stated they were also pleased they had the lighting fixtures around their aeration basins replaced, and the correct fixtures were there now. He stated they were broadcasting much less light and had heard from the neighborhood that they appreciated the change and that the difference was noticeable with the decrease in light level. He stated he sent an email to another resident who voiced concern about that and hoped to receive positive feedback from him soon as well.

Mr. Mawyer stated they had selected a consultant to help them facilitate their next strategic plan, and in the next month or so Board Members may be hearing from the consultant as they put together the process to update their Five-Year Strategic Plan. He stated they would have a contract with Raftelis, which was the firm that helped them with their current strategic plan. He noted they were also restarting some of their outreach programs, and they had recently given tours to Albemarle County's virtual school and students from the University.

Mr. Gaffney asked if there were any comments or questions for Mr. Mawyer. Hearing none, he stated they would move on to the next agenda item.

## ***7. ITEMS FROM THE PUBLIC***

Mr. Gaffney opened the meeting to the public. He asked speakers to identify their name and where they live, and to keep in mind the three-minute time limit.

Mr. Lucas introduced himself as Matthew Lucas of 1766 Buck Mountain Road. He stated he was presenting today to discuss the ongoing challenges associated with maintaining a buffer behind his house to protect his farm and conservation easements from the effects of potential sale of property by the RWSA. He stated they may recall the farm he now owned was originally a 110-

185 acre lot that approximately 66 acres was condemned by the Authority in the 1980s for the Buck  
186 Mountain Reservoir. He stated the 66 acres that was condemned was known as Lot 29-36A. He  
187 stated since the Water and Sewer Authority had discussed options for that condemned property,  
188 he was advocating for a boundary line adjustment to mitigate the effects of potential  
189 development.

190  
191 Mr. Lucas stated over the past few years, he had worked hard to advocate for a boundary line  
192 adjustment and ultimately management supported it and the Board approved it in February. He  
193 stated the issue now was that the previous owner, Mr. Via, put a conditional access easement on  
194 his farm such that if Mr. Via ever acquired 29-36A or portions thereof back from the Water and  
195 Sewer Authority, he could access it. He stated specifically way back when, he felt he had the  
196 legal means to force the Authority to sell him that lot. He stated he was wrong about that and had  
197 not been successful, but he thought it was possible at the time. He stated that when he bought the  
198 house, he agreed that he would provide Mr. Via some access if he got some or all portions of 29-  
199 36A back. He stated unfortunately, he did not include a sunset clause or time period as such;  
200 even though this condemnation was over 40 years ago, with all things real estate, that access was  
201 still out there.

202  
203 Mr. Lucas stated the issue now was that the access agreement had spooked Mr. Mawyer and their  
204 attorneys so that they were reconsidering an adjustment or flat-out denying it. He stated that he  
205 did not think the access agreement was a problem, and to the extent that it was, he would like  
206 permission to keep working with management to address it to their satisfaction. He stated  
207 specifically, he had no problem agreeing to providing Mr. Via, the executor of the estate of  
208 Gertrude Via, who passed and was the original owner, the same access across any property he  
209 acquired through the boundary line adjustment considered, so nothing would change. He stated if  
210 Mr. Via ever got a portion of 29-36A back, he would provide him access. He stated that was a  
211 deal that he had poorly negotiated then but would stick with today, or he would look at a more  
212 limited boundary line adjustment and provide Mr. Via direct access to 29-36A just as he would  
213 have had under the original agreement. He stated it would be the exact same, with no difference,  
214 and no additional access would be required across the boundary line adjustment.

215  
216 Mr. Lucas stated he could alternatively provide indemnification to the Authority, even though it  
217 was a private agreement that they were not a party to, if they were worried about a lawsuit, he  
218 was not, so he could provide indemnification. He stated all he was asking for was a chance to  
219 address the problem, because Mr. Via and others would love the opportunity to acquire this  
220 property for development, and everyone agreed that a boundary line adjustment was fair and  
221 reasonable to provide himself with a buffer from that potential development. He stated that was  
222 still the problem he was trying to solve, and he believed this was a solvable problem and that it  
223 could be solved to everyone's satisfaction if they allowed him to try. He stated it had caused him  
224 considerable anxiety and stress, but it was important to him and the community. He stated he  
225 thought it was worth fighting for and all he was asking for was to give Mr. Mawyer the go-ahead  
226 to see if they could find a solution that everyone could be satisfied with.

227  
228 Mr. Gaffney thanked Mr. Lucas.  
229



Mr. Beights introduced himself as Justin Beights of 1 Canterbury Road. He stated he wanted to reiterate his family's interest in reacquiring the property at Buck Mountain that was acquired by the Authority 40 years ago as part of the Buck Mountain Reservoir Project. He stated in their previous discussions, they had talked about the idea of acquiring it at market value based on appraisal and were still very interested in that. He stated since they last spoke to the Board, he and his wife had explored the possibility of restoring the existing house on the property, and that was something they would like to continue to explore. He stated he believed if they were afforded the opportunity to purchase the property outside of a public sealed bid process, the same way the property was acquired from his in-laws, that the likelihood that they could restore that house and incorporate it into what they envisioned for the property was very strong. He stated they had reached out to Mr. Lucas and others to assist them in that evaluation process, and they would love to continue to be able to pursue that.

Mr. Gaffney thanked Mr. Beights.

Ms. Anama stated the first letter to the Board was dated April 20, 2022. "Comments regarding agenda for RWSA Buck Mountain Property Management Lease and Sale Procedures for Approval at April 26, 2022 RWSA Board of Directors Meeting. From June E. Mooney, 1039 Allen Farm Lane, Earlysville, VA. Assuming that whatever rules/procedures will be used by Rivanna for selling and/or leasing parcels of the Buck Mountain Property Management Update proposed and discussed in the March 2022 meeting I would like to submit my particular circumstances for the Property Management of Allen Farm Lane and Bridge even though no specific proposals have been submitted yet to the Board for this area. My husband and I had to deed to RWSA 27.362 acres and an easement on an adjoining 9.734 acres on 12/21/1986 for the proposed Buck Mountain Reservoir which subsequently could not be built.

"The same day we signed a lease effective the next day for the property and have maintained the lease ever since including the real estate tax on it. My daughter joined me on the lease when my husband died and our current lease runs until 2/28/24. However, her name (McCarson) was left of the Lease Summary Table and should be corrected before any adoption of the Table. My daughter is the 5th generation on the farm and she and her husband and then their 2 boys all plan to retire here. My farm is not sustainable with the remaining 41.34 acres which might affect its land use designation for real estate taxes. The bridge in question is part of my lease and but excludes responsibility for bridge repairs. Albemarle County real estate assessments are required by the Code of Virginia to be at 100% of Fair Market Value which is defined as the most "probable price expressed in terms of money" that a property would bring if sold in the open market between willing seller and willing buyer.

"The Overview of County Process is furnished with each Real Estate Assessment (copy attached). I have wanted to buy back the parcel and discussed it over the years with Ms. Bowles but this is the first time it appears Rivanna may sell some of the land taken. I was very encouraged when this process started and then very discouraged when sealed bids and other methods of assessments and procedures were discussed at the March 2022 Board meeting. The current Agenda says sales will be at market value, as determined by RWSA. Why would RWSA have priority of the real estate assessment over the Code of Virginia? I was hoping to buy back whatever Rivanna decides to sell of the 27.362 acres and drop the easement based on my being

the original owner of the property deeded to Rivanna and based on the 2022 current appraisal method and value when RWSA makes their proposals for the Northern section of RWSA parcels but I cannot accept ownership and responsibility for repair of the bridge. We are not financially able to accept that cost.

“The current Agenda for Approval of GAP #17 says Rivanna has no legal requirement to offer parcels for sale to prior owners. No legal requirement does not say it can’t be done. I am requesting that whatever rules and procedures are voted on today will not absolutely rule out future considerations. There was part of a subdivision taken located off Earlysville Road for a project which was canceled and years later first refusal to buy it back was offered to the original owners. My family has been dealing with this since 1986, never knowing if we would lose our lease and our planned future. I am very much hoping that RWSA and the Board of Directors can take into consideration the consequences of how their decisions can affect the lives of others. Thank you, June E. Mooney.” She stated there was attachment of the 2021 Real Estate Tax Assessment Info Sheet and the 2022 Info Sheet.

Ms. Anama read the second letter to the Board as follows: “Question about Allen Farm Lane Bridge. Submitted by Nancy Chamberlin and Allan Mayer, Owners/Residents of 1358 Allen Farm Lane. For the April 26, 2022 RWSA Board of Directors Meeting. We submitted a number of questions at the last RWSA meeting. We have not received any answers. In fact, those questions and comments are not even included in the draft minutes. Today we are submitting only one question. The 2019 consulting structural engineers’ report requested by RWSA identified repairs needed on the Allen Farm Lane Bridge. Specifically, the report recommended that concrete reinforcing be added for several of the already installed piers to improve stability and reduce the risk of further undermining the integrity of the bridge. Our question is when will these repairs be completed? Thank you. Nancy and Allan.”

Mr. Gaffney thanked Ms. Anama. He asked Mr. Hull if anyone else was present to speak.

Mr. Hull stated that concluded the speakers for today.

Mr. Gaffney stated they would now close public comment.

## ***7. RESPONSES TO PUBLIC COMMENT***

Mr. Mawyer stated they had talked with Mr. Lucas quite a bit. He stated he would provide a presentation about the Buck Mountain properties and what they recommended today, although that was not intended to be a public hearing, so it was appropriate for these people to speak during this period of the meeting. He stated they struggled with having sales directly to individuals. He stated they looked at whether they might have justification if those properties were landlocked, and they got entangled on the Lucas property with the contingent easement that would have rendered it not landlocked. He stated ultimately, after much discussion with their attorneys, they were not going to recommend at this time any sales directly to an adjacent owner. He stated he would talk a little more about that later.

Mr. Mawyer stated as far as Mr. Beights reacquiring the Elliot House, they would recommend



that the house and property should be offered for sale, to the public and not to any individual, former or adjacent owner.

Mr. Mawyer stated Ms. Mooney talked about adding her daughter's name to their lease table, and they had already done that. He stated they were going to help the residents and work with the County on real estate taxes and whether those were supposed to be paid by lessees or by Rivanna. He stated there seemed to be some inconsistency with their lessees and those who were being billed for real estate taxes versus those who were not. He stated they would try to help out with that, and Williams Mullen was helping them with that issue. He stated like most things, it seemed simple, but it was not,

Mr. Mawyer stated Ms. Chamberlin asked for a response to her questions, and they would answer all her questions this week. He stated submitted comments from last month were included in March minutes, although the full text of her comments was not included, but they would be glad to provide her comments to anyone who would like them. He stated she also mentioned repairs to the bridge; they did not have any plan at the moment to make any repairs to the bridge. He stated they would review the report that she referred to from the structural engineer, but they did not have the understanding that there were any significant repairs needed and did not have a plan to do any repairs right now.

Mr. Gaffney asked if there were any comments from the Board. Hearing none, he stated his only question was to ask if they could add Ms. Chamberlin's letter from the last meeting to the Board minutes they just approved today.

Mr. Mawyer stated they could if he liked.

Mr. Gaffney stated he thought they should since it was read into the comments of the meeting last month.

Mr. Mawyer stated they could include the full text of all letters they received in the minutes.

Mr. Gaffney stated that was something they should do.

Ms. Stanton stated that they should make a motion to amend the previously adopted minutes.

**Ms. Mallek moved to amend the minutes of March 22, 2022 to include the full text of all letters that were read into the meeting. The motion was seconded by Mr. Pinkston and passed unanimously (6-0). (Mr. O'Connell was absent from the vote.)**

## **8. CONSENT AGENDA**

*a. Staff Report on Finance*

*b. Staff Report on Operations*

*c. Staff Report on Ongoing Projects*

- 368
- 369       *d. Staff Report on Wholesale Metering*
- 370
- 371       *e. Staff Drought Monitoring Report*
- 372
- 373       *f. Approval of the “Northern Area Drinking Water Projects Agreement”*
- 374
- 375       *g. Transfer of Ownership to Albemarle County Service Authority – Upper Morey Creek*
- 376       *Interceptor*
- 377
- 378       *h. Concurrent Resolution of the City Council of the City of Charlottesville, Virginia and*
- 379       *the Board of Supervisors of the County of Albemarle, Virginia to Extend the Existence of*
- 380       *the Rivanna Water and Sewer Authority*
- 381
- 382       *i. Award of Term Contract for Easement Acquisition and Real Estate Services*
- 383
- 384       *j. Construction Contingency Addition – Moores Creek AWWRF Lighting Improvements*
- 385       *Project*
- 386
- 387       *k. Capital Improvement Plan Budget Amendment – South Rivanna Water Treatment Plant,*
- 388       *Rehabilitation and Expansion Project*
- 389

390 **Mr. Pinkston moved that the Board approve the Consent Agenda as presented. Ms. Mallek**

391 **seconded the motion, which passed unanimously (6-0). (Mr. O’Connell was absent.)**

392

393 **9. OTHER BUSINESS**

- 394       *a. Presentation and Approval: Buck Mountain Property Update, Lease and Sale Procedures;*
- 395       *Bill Mawyer, Executive Director*

396 Mr. Mawyer stated they had a lot of discussion among staff and with Williams Mullen staff

397 about how to lease and sell properties at Buck Mountain. He stated this tied back to their

398 strategic plan goals of environmental stewardship and operational optimization. He stated they

399 were still planning for a reservoir and wanted to maintain the property that would be needed. He

400 stated a reservoir would also provide water quality protection for the streams in that area that

401 flowed to the Rivanna Reservoir, but they also wanted to optimize their resources and property

402 they perhaps did not need or could lease.

403

404 Mr. Mawyer stated they came up with a fairly flexible and liberal policy as far as leasing real

405 estate at Buck Mountain. He stated essentially, all the property at Buck Mountain could be

406 available for leasing strategically, if they were inclined. He stated when looking at the map

407 displayed on the slide, they could see that the blue parcels were already leased and they had

408 renewed nine leases with existing lessees at the new market rates in the last month or two. He

409 stated the orange parcels shown were not leased and were candidates for leasing. He stated the

410 green parcels shown were ones that they would talk about today. He stated that included three

411 parcels they were recommending for leasing. He stated the other noteworthy things about this

map was the black line, which displayed the normal pool of the water if the reservoir was built as designed.

Mr. Mawyer stated the yellow line was the normal pool elevation plus 10 feet vertical, or what he would call a high-water buffer. He stated if wind or a storm was blowing and pushing water up into a cove, the water could be higher, and the yellow line reflected that high water mark. He stated they were recommending that there be a prioritized order of leasing properties. He stated the first priority would be given to renewal with existing lessees at new market rates. He stated the second priority would be given to adjacent resident property owners because they served as the eyes and ears for trespassing and other activities that could go on at the property and could help staff manage the properties in an informal way. Mr. Mawyer stated thirdly, if the first two lease priorities did not apply, they would offer properties to the public for leasing. He stated in all of these cases, they would establish the market value of the property to be leased. He stated they have three property types included in most leases, all with different lease values: farmland, forested land, and deed-restricted land. He stated as they went forward, they would update that information to keep the lease values market-based.

One of the properties to be leased, TM-29-36A, was adjacent to Mr. Lucas' property, TM 29-36B3. Ms. Stanton confirmed that TM 29-36A was the parcel RWSA owned that was a candidate for potential lease. Mr. Mawyer stated they had talked with the Board about completing a boundary line adjustment for Mr. Lucas. He stated rather than doing that, they now would rather offer him a lease and continue to talk about any future sale, if that was the desire of the Board. As a minimum, they would offer to lease the adjacent property to him. He stated there was also a vineyard on TM 29-33 that had property adjacent which could be leased, TM 29-33F. He stated the resident vineyard owners were interested in leasing the property adjacent to them. He also recommended they offer property TM 29-33C to the adjacent resident owner of TM 29-34D. He stated they did not know if that owner was interested, but because the resident owner was adjacent, they would offer TM 29-33C to the owner as a lease. He stated those were the three properties staff was recommending to offer to adjacent resident property owners as a lease at this time. He stated they were going to offer them a longer term lease of five years rather than two years offered in the past.

Ms. Mallek asked if they kept a record of when activities such as gunfire or bonfires occurred historically on the existing leased parcels before offering them back to lessees. She stated it was good for them to be able to require, as a landlord, good neighborliness on part of their lessees.

Mr. Mawyer asked if she wanted them to offer to adjacent resident property owners who were responsible and did not have any history of doing the things she mentioned to which they would object.

Ms. Mallek stated she would just like those criteria to be considered during the leasing process to make sure they were improving the situation.

Mr. Mawyer stated Ms. Bowles had the history of existing lessees and she could certainly make sure they were offering leases to responsible adjacent resident property owners.

458 Ms. Mallek thanked Mr. Mawyer. She stated he had also mentioned three leases that would be  
459 available to the public. She asked if those had access onto Catterton Road.

460  
461 Mr. Mawyer stated the three they were offering now were for lease only and were only to the  
462 adjacent property owners. He stated those were the three green properties: 29-33F, 29-33C, and  
463 29-36A, which do not have access to Catterton Road.

464  
465 Ms. Mallek stated she thought that the 29-33C must be someone on Catterton Road.

466  
467 Ms. Stanton stated she did not think any of those properties bordered Catterton.

468  
469 Mr. Mawyer confirmed they did not border Catterton.

470  
471 Ms. Mallek stated she wanted to make sure they were thoughtful about offering landlocked  
472 properties that would not cause further disturbance to neighbors.

473  
474 Mr. Mawyer stated they would do that.

475  
476 Ms. Mallek stated to please do their homework on those concerns so they had peace in the  
477 valley. She stated it was very important. She stated they had made some important progress on  
478 some things that she did not want to be lost in this transition.

479  
480 Mr. Mawyer thanked Ms. Mallek.

481  
482 Mr. Gaffney asked if they had any leases currently that were to people who were not residents.

483  
484 Mr. Mawyer asked Ms. Bowles if there were any.

485  
486 Ms. Bowles responded there has been one lease for a property that did not have an adjacent  
487 resident property owner since the late 1980s. But that lessee was on the leased property every  
488 single day.

489  
490 Mr. Mawyer stated to Mr. Gaffney that their strategy was to grandfather people who had been  
491 responsible lessees for a number of years. He stated if they were to have a break in the lease  
492 term, they would no longer qualify as existing and would lose that priority.

493  
494 Mr. Gaffney noted that he asked that question for clarification.

495  
496 Mr. Mawyer stated the next process to be discussed was the sale of improved and unimproved  
497 real estate. He stated at one point they thought they might have different rules if it was land only  
498 versus land with a house, such as the Elliot House, but they combined those criteria into simple  
499 criteria for both circumstances. He stated whether there was a house or no house, their criteria to  
500 sell a property would be first that the property must be above the normal pool elevation plus 10  
501 feet (474 above sea level). He stated the normal pool level of the planned reservoir plus 10 feet  
502 was the yellow line they showed on the map. He stated the process was to offer any property for  
503 sale to the public through sealed bidding, and they would specify in the bid solicitation a

504 minimum fair market value for which they would accept bids.

505  
506 Mr. Mawyer stated in other words, if someone bid \$1, they would not sell property to them. He  
507 stated the same was true for a lease, and that they were not leasing property for \$1 or some  
508 minimum amount. He stated if there were no bidders that bid the minimum, then possibly they  
509 would not sell the property, but they would specify in the solicitation a minimum bid price. He  
510 stated the minimum bid price would be determined by using all their resources; the County  
511 assessment, any local sales or other sales, and any knowledgeable people in the area who could  
512 help them with that valuation.

513  
514 Mr. Mawyer stated that currently, they recommended the only property to be offered for sale was  
515 the 2.2 acres they would carve off of TM 29-35H with the Elliot House. He stated they would  
516 have an invitation for bids in the newspaper and specify a bid date and any other terms of the  
517 bidding requirements, including a minimum bid amount. He stated they would receive those bids  
518 and open them at the specified time. He stated they would then bring the bid results back to the  
519 Board to have a public hearing. He stated public hearings were prominent parts of the process in  
520 the state code requirements for disposal of real estate. He stated if the Board approved, they  
521 would execute a sale with the highest responsible bidder who complied with all the terms and  
522 met at least the minimum sale amount.

523  
524 Mr. Mawyer reported that in summary, staff recommended they offer property to lease first to  
525 existing lessees for renewal, and secondly to adjacent resident property owners, which they  
526 would amend to say "responsible" adjacent property owners. He stated "responsible" would  
527 mean complying with local ordinances and laws. He noted that the reason they were giving  
528 adjacent property owners priority was so they could help monitor the property remotely. He  
529 stated thirdly they would offer leases to the public. He stated the second category was offering  
530 property for sale, and that would be only to the public as a public bidding process at a minimum  
531 fair market value, followed by a public hearing conducted by the Board before they executed a  
532 contract with the highest responsive bidder.

533  
534 Mr. Mawyer stated Rivanna would not offer any property for sale at this time that would be  
535 below elevation 474. They would let the Board know if they planned to offer any property for  
536 sale and get concurrence. He stated again that this took a lot of discussion and a lot of review of  
537 state code to boil down to this relatively simple recommendation. He stated this was what they  
538 came up with to optimize and utilize these properties and make them available, in part at least, to  
539 the public. He stated there were a lot of issues, as was noted last month, about using public  
540 property and offering it to anyone other than the public in a public bidding process. He stated  
541 they explored that issue, but right now they were not ready to recommend any priority on a sale  
542 of any property, but did offer a priority process for the leasing of property.

543  
544 Mr. Pinkston stated with respect to leasing, if they ended up having to lease something to the  
545 public, he supposed there would be a process similar to what they had laid out for selling  
546 property to the public.

547  
548 Mr. Mawyer confirmed his understanding. He explained there would be an invitation for bid  
549 solicitation, and they would specify what property they were offering. He stated they had a list of

550 terms and conditions to lease property including what those property owners could do with the  
551 property, as they could not have row crops, they could have cattle, they could grow hay, they  
552 could not build permanent structures, or have temporary structures without permission, they  
553 could not apply chemicals, pesticides, or herbicides without permission, and conditions like that.  
554 He stated they already had long-standing terms and conditions for their lessees, and they would  
555 apply those to any public offering, then have a minimum lease amount, and take the bids for  
556 those properties.

557  
558 Ms. Mallek asked how one could combine the list of terms and conditions that had already been  
559 decided on for leasing with different criteria for the sale. She asked if there was legal ability to  
560 combine the bid amount and other criteria at the decision stage, or were all the criteria laid out  
561 first, and after they were met, could the bid amount be considered. She stated tree preservation  
562 had been discussed at prior meetings along with staying off slopes and possibly reusing parts of  
563 the existing structure for historical renovation. She stated those were conditions that she wanted  
564 to know if they could be applied in the offering process. She stated she was unsure whether that  
565 came first or later.

566  
567 Mr. Mawyer stated there were no conditions recommended in the sale process, but if the Board  
568 would like, conditions could be added. He stated there was discussion about requirements for  
569 buyers to preserve the structure. He stated it was thought to be a challenge in reducing the value  
570 of the property and for the staff who had to administer the conditions. He stated defining the  
571 conditions was an issue and the extent to which the property could be altered had a lot of details.  
572 He stated the County could enforce the steep slope restrictions on any development on the  
573 property as far as exceeding 25% slopes. He stated the house and 2.2 acres were outside of the  
574 tree preservation area. He noted there were large trees around the house and the preservation  
575 area. He asked Ms. Bowles if there were tree conditions around the house.

576  
577 Ms. Bowles stated there was nothing that needed to be specified around the house or in the 2.2-  
578 acre parcel. She noted the tree at the front of the house. She stated all the trees in the preservation  
579 area at the back of the property up to Piney Creek would be preserved.

580  
581 Mr. Rogers stated he had questions from the last meeting regarding the sale and leasing  
582 procedures. He stated the procedures presented today represented a thoughtful approach. He  
583 stated he fully supported the procedures.

584  
585 Ms. Mallek asked if there was the possibility for a two-stage process where a first offering would  
586 require some percentage reuse of the original structure, and afterwards a more draconian  
587 approach could be taken. She stated there were not many of such iconic structures left, and it was  
588 always easier for someone to come in with a bulldozer. She stated there was material in the  
589 house that should be reused. She stated it might take more time.

590  
591 Mr. Gaffney asked Mr. Mawyer to review the historic study for the house and the value as a  
592 historic property.

593  
594 Mr. Mawyer asked Ms. Bowles if she wanted to answer the question.  
595



Ms. Bowles stated the County committee that documented historic resources had done that for the property. She stated that Rivanna had been in touch with the Virginia Department of Historic Resources to understand the value of the house and whether they would consider it something to be preserved into the future. She stated the department stated the house was a historic structure because it was 50 years old or older and for no other reason. She noted that there had been other evaluations and opinions on the property and whether it would be reasonable to require preservation.

Mr. Pinkston asked what sort of ways could the future owner of a property be bound to terms beyond what was included in basic zoning law. He asked if they would be able to specify to an owner or purchaser of the property a certain set of criteria they had to follow.

Ms. Long stated the Board had broad discretion to attach whatever types of restrictions on future use of the property it might deem appropriate or desirable. She stated the Virginia Water and Waste Authorities Act, which applied in this situation, clearly gave Rivanna the legal, enabling authority to sell land and did not provide any other parameters. She stated other statutes were looked to for guidance. She stated a public hearing was a good idea but not entirely required by the VWWA act.

Ms. Long stated there was no limit on requiring certain restrictions, such as retaining the house or not disturbing certain areas or trees—so they could do that. She stated part of the discussion had noted the challenges of enforcing and monitoring the restrictions. She stated there were enough challenges that it would be difficult and not the best use of the Authority's funds to enforce the restrictions moving forward. She noted the restrictions would have an impact on the price. She stated the only area of steep slopes in the 2.2-acre lot were along Buck Mountain Road and appeared to be manmade when the road was created. She stated there were steep slopes beyond the overhead utility line, but not otherwise.

Mr. Gaffney stated staff had asked them to approve the procedure for the lease and sale of Buck Mountain real estate. He asked if the Board wanted to do that or discuss further prior to the next Board meeting about the sale of the 2.2 acres.

Mr. Pinkston asked if it was possible to approve the procedures then have a requirement that there be a follow-up at the next meeting about the property. He stated the rules seemed clear and valid, but there needed to be more discussion around the conditions attached to the sale of the property.

Mr. Gaffney asked the legal counsel if the proposal could be approved as-is while requiring further discussion.

Ms. Long confirmed this. She asked for clarification from Mr. Pinkston with regard to the exact issues he would like more clarification on so that they could be prepared for the next month.

Mr. Pinkston stated he would ask Ms. Mallek what she was suggesting. He stated there was a desire to attach certain conditions to the sale of the property. He stated it could be a contingent one-off decision for the property. He stated the Board was considering the overall process. He

642 stated for each individual property that came up, there would be a specific set of factors and  
643 decisions that would come into play. He stated he wanted to separate what was before the Board  
644 and what was specific to the particular property.

645  
646 Ms. Long stated that was part of the idea behind some of the text at the beginning of the  
647 proposed policy that referenced the Authority retaining discretion and to consider each parcel,  
648 sale, or lease on a case-by-case basis. She stated there was flexibility to take unique situations  
649 into account. She stated they could clarify that they vote to approve the proposal with the one  
650 caveat that they would like to have a discussion at the next meeting. She stated she did not  
651 believe that was inconsistent with the policy as stated, and it did not need to be amended—it just  
652 provided helpful guidance for the record.

653  
654 Ms. Mallek asked if there was an obligation after the sealed-bid process. She stated the Board did  
655 not have the obligation to accept the highest-dollar bid because the Authority retained discretion.

656  
657 Ms. Long responded that based on the reference to the highest responsible bidder, the Authority  
658 would retain the discretion.

659  
660 Mr. Mawyer clarified that they would have to know why they disqualified anyone who might be  
661 the highest bidder—there would have to be solid reasons.

662  
663 Ms. Mallek stated that was why she wanted to know the criteria beforehand. She stated if the  
664 requirements were stipulated with the first bid, it would discourage bidders who wanted to  
665 destroy the property. She stated if they did not receive bids, she would have learned a hard  
666 lesson, but it would not hurt to try.

667  
668 Mr. Pinkston stated it was based on defining “responsible bidder.”

669  
670 Mr. Rogers stated the requirements had to be stated up front in the process so all bidders and  
671 interested parties had the opportunity to respond. He stated if they were not responsive to the  
672 requirements, then there was a legitimate basis to disqualify bidders. He emphasized if it should  
673 be stated up front in a public notice.

674  
675 Ms. Mallek stated the lawyers would say if they had to be more specific.

676  
677 Mr. Gaffney asked if there was a motion to approve the procedure for the lease and sale of Buck  
678 Mountain real estate.

679  
680 **Mr. Rogers moved to approve the policies as proposed and the lease and sale of property**  
681 **by the RWSA. Ms. Mallek seconded the motion, which carried unanimously (6-0). (Mr.**  
682 **O’Connell was absent from the vote.)**

683  
684 Mr. Mawyer stated they would return the following month to discuss the sale of the Elliot House  
685 and what terms and conditions would be possible, along with the pros and cons.

686  
687 Mr. Gaffney asked if there were any nays to the motion. There was no response.



688  
689 Mr. Mawyer stated they would move forward with the recommended leases as long as the  
690 adjacent property owners wanted to lease. He stated they were not including a public hearing for  
691 leases, only for sales. He stated historically, leases had been done at the staff level for 40 years.  
692

693 *b. Presentation: Review of RWSA Organizational Agreements*

694 *Bill Mawyer, Executive Director*

695 Mr. Mawyer stated he had given the presentation the year before, but with a number of new  
696 Board members, it was a good time to give it again. He reported that Rivanna was created in  
697 1972, and articles of incorporation were prepared by the City and the County in a concurrent  
698 resolution, then forwarded to the State Corporation Commission to incorporate Rivanna. He  
699 stated the initial articles specified that the mission was to acquire, finance, construct, and  
700 maintain facilities for potable drinking water supply and treatment and for the abatement of  
701 pollution resulting from sewage from the City and the County.  
702

703 Mr. Mawyer stated the original RWSA Board of Directors had five members: two from the City,  
704 two from the County, and one jointly appointed. He stated the articles prohibited Rivanna from  
705 contracting from any other party in the City or the County for water and sewer services. He  
706 stated they could not go directly to a business and make them a customer. He stated the  
707 customers remained with the County and the City—not with Rivanna. He stated Rivanna had  
708 two customers: the City and the Albemarle County Service Authority.  
709

710 Mr. Mawyer explained a service agreement was written in 1973, also known as the “Four-Party  
711 Agreement,” between the City, County, ACSA, and RWSA that gave more specificity about  
712 what the Authority’s charge was, and it enabled them to acquire the existing water and  
713 wastewater facilities from the City and the County. He stated for example, the City had owned  
714 the South Rivanna Water Treatment Plant and the Moores Creek Wastewater Treatment Plant.  
715 He stated the ACSA owned the North Rivanna WTP, the Piney Mountain tank, and the Beaver  
716 Creek Reservoir. Mr. Mawyer stated the service agreement allowed Rivanna to purchase those  
717 facilities from the various parties. He stated it instructed the Authority to construct any new  
718 facilities needed. New facilities could be funded through bonds, and the Authority would be the  
719 sole provider of water and wastewater treatment for the community. He stated the water rates  
720 would be uniform throughout the urban area—the charges to the City and the County had to be  
721 the same.  
722

723 Mr. Mawyer stated wastewater rates were not uniform. He stated the City sold more facilities to  
724 the RWSA, so while the operating costs would be uniform, the City would pay one half of the  
725 debt service costs for facilities that were scheduled to be built. He stated the term for the Four-  
726 Party Agreement expired in June 2012. He stated there was a provision that the agreement  
727 continued until the bonds had been paid off. He stated there was about \$200 million in bonds, so  
728 there was no termination of the agreement. He stated it was on their list of items to update with  
729 the City and the County and get the term changed. He stated there were bylaws written for  
730 Rivanna in 1973.  
731

732 Mr. Mawyer stated the articles of incorporation were amended in 1985 to limit Rivanna to only  
733 servicing the City and the ACSA. He stated in 1986, the executive director of the ACSA, or

another County department head as may be appointed by the Board of Supervisors, was placed on the Board in lieu of the County engineer. He stated the Third Restated Articles happened 23 years later, and increased the number of Board members from five to seven by adding two elected officials. He stated Mr. Pinkston's and Ms. Mallek's positions were added in 2009 and increased Board membership to seven.

Mr. Mawyer stated in 2017, the City decided to split the Department of Public Works and create a Department of Utilities along with the Department of Public Works. He stated the City decided that its director of utilities would be on the RWSA Board and the director of public works would be on the RSWA Board. He stated the bylaws had been changed a number of times. He stated in 1975, an executive director was established, restated the board of directors, and scheduled meetings for the third Monday.

Mr. Mawyer stated in 1983, the bylaws were amended to allow a member who would miss a meeting to designate an alternate to attend the meeting, but the alternate could not vote and was not necessarily allowed to attend closed meetings. He stated in 1986, the meeting date was changed from the third Monday to the fourth Monday. He stated in 2010, the meetings were changed from the fourth Monday to the fourth Tuesday, which was the current meeting date. He stated in 2014, the bylaws allowed Board members to participate remotely in Board meetings through electronic communications, however, a quorum of four had to be physically present at the meeting. He stated those would be the rules once they ended the virtual protocol and went back to normal meeting requirements. He stated in 2016, the bylaws allowed the executive director to sign contracts up to \$100,000. He stated in 2020, the threshold was increased to \$200,000.

Mr. Mawyer stated the City and ACSA typically shared the cost of Rivanna. He stated when one of the entities required more capacity and facilities, there had to be a separate agreement to determine the cost sharing for the new facility. He stated the working agreement for the wholesale flow allocation and billing methodology in 1983 determined that Rivanna charge the water and sewer operating expenses based on the amount of water and sewer that each locality used each year. Mr. Mawyer stated the City and ACSA sent the retail customer usage, and that proportion was used to charge for Rivanna's operating expenses.

He stated in 1983, there was a joint resolution that authorized Rivanna to purchase the Buck Mountain property with an intent to create a reservoir. He stated the Buck Mountain surcharge was created on all new public water connections in the City and the County to pay for the debt service to buy the property. He stated the Southern Loop Agreement was adopted in 1987. He stated it was a plan to build more water transmission pipes.

Mr. Pinkston asked if the 1983 agreement on wholesale flow allocation and billing methodology was the basis that governed the Northern Service Agreement.

Mr. Mawyer stated the Northern Area Agreement that was approved today would be addressed later in the presentation. He stated it related to debt service charges for building new facilities. He stated the 1983 agreement Mr. Pinkston referenced related to Rivanna's cost of producing drinking water and treating wastewater—the operating expenses. He stated the agreement

780 allocated operating expenses to the City and the ACSA based on their proportional use of the  
781 water and wastewater.

782  
783 Mr. Gaffney stated the Northern Area drinking water project and similar projects were related to  
784 debt service as opposed to operating costs.

785  
786 Mr. Pinkston asked if the breakdown was typically 48% City, 52% ACSA.

787  
788 Mr. Mawyer stated typically, on non-capacity projects—a project everyone needed and did not  
789 serve one locality more than the other—the cost was shared 48% (City) to 52% (ACSA). He  
790 stated the City paid 30% and the ACSA paid 70% of the debt service for the Moore's Creek  
791 Relief Sewer, which was built to provide sewer capacity from Quarry Road to the plant. He  
792 stated it was a negotiation on who needed the facility and to what capacity each entity would use  
793 the new pipe.

794  
795 Mr. Mawyer stated the urban water line was negotiated at 48% to the City and 52% to the  
796 ACSA. He stated the South Rivanna WTP Expansion Agreement was adopted in 2003. He stated  
797 the capacity of the South Rivanna WTP was increased by 4 million gallons. He stated the ACSA  
798 paid 100% of the cost, and they were allocated all of the capacity. He stated it was agreed that  
799 non-capacity urban water system CIP construction project debt served costs would be allocated  
800 48% to the City and 52% to the ACSA. He stated those projects included renovations that did not  
801 increase capacity. He stated the urban water plants capacity and the S. Rivanna reservoir were  
802 allocated in a similar way in the agreement.

803  
804 Mr. Mawyer stated the Ragged Mountain Dam Project Agreement was completed in 2012. It  
805 was on the heels of the 2002 drought and completion of the community water supply plan. He  
806 stated the agreement set forth how the community would provide more water—with a new dam  
807 at Ragged Mountain and a pipeline from the South Rivanna Reservoir to Ragged Mountain to fill  
808 the larger reservoir. He stated it specified that Rivanna would perform water supply and demand  
809 studies every decade. Mr. Mawyer stated the 2020 study had been completed. He stated the  
810 agreement required a wholesale meter system to be built around the City and the County so it  
811 could measure the water used by both parties. He stated that was included in the wholesale meter  
812 report, consent agenda item 9d. He stated it was a monthly report and showed how much water  
813 the City and the County used. He stated the top bar of the graphs was how much water was  
814 allocated through the agreement.

815  
816 Ms. Mallek noted that ACSA paid for 100% of the increase in capacity at the South Fork WTP.  
817 She asked how was the agreement carried forward in a drought situation.

818  
819 Mr. Mawyer stated there were the wholesale meters that measured how much water each entity  
820 used. He stated that helped monitor the usage.

821  
822 Ms. Mallek stated in the past, conservation requirements had gone everywhere. She stated she  
823 was curious how it would be carried forward. She asked where the wholesale meters were  
824 located.

826 Mr. Mawyer stated there were 25 meters around the perimeter of the City where there were large  
827 connecting pipes. He stated they could measure how much water was coming into the City and  
828 how much was staying in the County. He stated the wholesale meter system was a \$3 million  
829 project completed in 2019. He stated every month, there was a report in the Board package  
830 detailing how much water the City and the County used for that month. He stated it kept a  
831 running 12-month average usage. He stated it was item 9d on the Consent Agenda. He stated the  
832 graphs showed that the ACSA was allocated 11.99 million gallons per day, and the City was  
833 allocated 6.7 million gallons per day. He stated those allocations came from an agreement on  
834 who paid for infrastructure and who received the benefit.

835  
836 Ms. Mallek stated there were updates month to month on the investments from ACSA. She noted  
837 the work done to replace the old pipes. She stated they were charged for the water that went  
838 through the wholesale meter, whether it spilled on the ground or delivered to a customer.

839  
840 Mr. Mawyer stated Rivanna's total cost for water production was allocated based on the  
841 percentage of retail sales by the City and ACSA. He stated if Rivanna produced 4 billion gallons  
842 of water, and the City and ACSA only sold a total of 3 billion gallons, the City and ACSA still  
843 had to pay RWSA's full cost of producing 4 billion gallons. He stated it provided incentive to  
844 reduce leaks in the water lines, keep meters up to date, and maintain the water distribution piping  
845 system. He stated the City and ACSA had to pay for the water produced by Rivanna whether  
846 they were able to sell it or not.

847  
848 Mr. Pinkston stated the Southern Loop Agreement had been addressed recently. He asked Mr.  
849 Mawyer how the central waterline was transcending the Southern Loop Agreement. He asked if  
850 the Moore's Creek Relief Sewer Project was to construct Moores Creek.

851  
852 Mr. Mawyer stated the Moores Creek Sewer Project was to construct a second parallel sewer line  
853 from the Quarry Road area to the plant. He stated there was a capacity problem in the pipe and it  
854 was not big enough to handle the sewage, so another pipe had to be constructed. He stated there  
855 were two inflows of sewage to the plant—one came from the northern part of the City and  
856 County, and the second came from the southern part of the City and the County. He stated all of  
857 the wastewater from the City and the County came to the facility through two pipes. He stated  
858 the one pipe from the south was too small, so there was an agreement to build a parallel pipe to  
859 increase capacity. He stated the City paid 30% and the ACSA paid 70% of the project debt  
860 service costs.

861  
862 Mr. Mawyer stated the 1987 Southern Loop Agreement was for drinking water and how to get  
863 water into the City and all parts of the County. He stated the agreement had two parts—the  
864 western branch, a waterline from the Observatory WTP tank to Avon Street, and the second leg  
865 went from Avon Street to Pantops. He stated the second leg was now called the central waterline.  
866 He stated in 2018, when the eastern branch was to begin, the Board noted growth had not  
867 occurred as envisioned. He stated staff was requested to perform a new urban finish water master  
868 plan. He stated the master plan would be presented the following month. He stated the eastern  
869 branch was not to be started until the urban finish water plan was completed. He stated it was  
870 through the planning effort that it was determined a new pipe would be more beneficial to the  
871 regional water system through the central corridor of the City rather than at the perimeter.

872  
873 Mr. Mawyer stated the counterpart agreement to the Ragged Mountain agreement was the 2012  
874 Water Cost Allocation Agreement. He stated it was agreed that the new Ragged Mountain Dam  
875 would be paid 85% by the ACSA and 15% by the City. He stated accordingly, the additional  
876 water in the reservoir was allocated to the ACSA and the City. He stated the pipeline from  
877 Rivanna to Ragged Mountain would be paid 80% by the ACSA and 20% by the City. He stated it  
878 allocated the safe yield to be monitored by the wholesale meter system.

879  
880 Mr. Mawyer stated the Wastewater Projects Cost Agreement was one of the more complicated  
881 agreements. He stated it allocated how Rivanna charged for the Rivanna pump station. He stated  
882 the agreement addressed future capacity and non-capacity, wastewater construction projects, and  
883 it required Rivanna to put meters into the wastewater system every five years to determine how  
884 much flow came from the City and the ACSA. He stated it had a lot of terms and conditions in  
885 the agreement, and it was how they charged for wastewater projects.

886  
887 Mr. Mawyer stated there was an amendment to the Four-Party Agreement in 2015 that made debt  
888 service a separate charge from the per-1,000-gallon rates. He stated that was why the budget  
889 discussed the operating expenses separately from the debt service expense paid per month by the  
890 City and ACSA. He stated in 2019, the Buck Mountain surcharge was ended since it was decided  
891 there would be no reservoir in the near future, and sufficient funds had been collected to warrant  
892 ending the surcharge.

893  
894 Mr. Mawyer stated the Observatory WTP, raw water piping, and piping upgrade allocation  
895 agreement of 2020 was to add 2.3 million gallons of additional treatment capacity to the  
896 Observatory WTP and all the water lines would be replaced from the Ragged Mountain  
897 Reservoir to the Observatory WTP and a new pump station would be constructed to move water  
898 from the reservoir to the WTP. He stated the pump station would also pump water to the South  
899 Rivanna WTP when the pipeline from the S. Rivanna reservoir was completed. He stated there  
900 was a commitment in the agreement for the parties to construct the central waterline through the  
901 center of the City in a location to be identified by Rivanna after the Urban Finished Water master  
902 plan was completed.

903  
904 Mr. Mawyer stated about three years had been spent working with the University of Virginia to  
905 renew the 99-year lease that recently expired in 2021 for the Observatory WTP. He stated the  
906 plant was located on the University's property. He stated a new, 49-year ground lease was  
907 negotiated. He stated Rivanna paid \$175,000 per year for the lease. He stated the cost escalated  
908 every year, but the payment was only updated every 10 years.

909  
910 Mr. Mawyer stated the Board approved the Northern Area Drinking Water Projects Agreement  
911 of 2022. He stated it would be formally approved when the City and the ACSA signed the  
912 agreement. He stated there were projects located north of the South Rivanna River that did not  
913 benefit the City, so the ACSA was to pay for 100% of the projects. He noted projects such as the  
914 airport road pump station that was under construction. He stated the agreement addressed four  
915 projects and all future water CIP projects north of the South Rivanna River—they would be  
916 funded by the ACSA with the exception of the decommissioning of the North Rivanna River  
917 WTP was a shared cost. He stated when tanks were added to Airport Road, the City would pay



for 10% of the cost for the first tank.

Ms. Mallek noted many millions would be paid to the University for the Observatory WTP to sit on the land for 49 years. She asked if the University paid the City because they were the City's customer. She asked if they paid for hookups for new building construction.

Ms. Hildebrand stated the City did charge UVA. She stated if there were new meters set for buildings that hooked up directly to the City system, there would be a facility fee charged.

Mr. Gaffney asked Ms. Hildebrand to speak to the old charges that the City used to bill the University and what the new charges were.

Ms. Hildebrand stated an update was done to the rate model four or five years ago. She stated it was determined that they needed to evaluate the charges to the University. She stated the University rates were historically based on a previous agreement in 1983, and they were charged a much lower rate for water and sewer. She stated the new rates were phased in over three years, and they now paid the same rate as any other customer in the City.

Mr. Gaffney stated that was one of the reasons for the negotiation for the new ground lease. He stated that the University felt \$175,000 per year was a fair lease price.

Mr. Mawyer stated the University felt they paid market rate for the water they consumed, so they wanted market rate for the property that they rented. He stated the lease had an automatic renewal if neither party requested renegotiations, it would roll over for another 50 years. He stated Rivanna originally wanted another 100-year lease, given the threshold of spending \$25 million on construction at Observatory.

He stated there were many guiding documents that allocated costs and dictated how the charges were determined, and it was an extensive matrix to keep track of in terms of costs and how much to charge each party. He recognized Mr. Wood and his staff.

Mr. Gaffney asked if there were further comments or questions.

Mr. Pinkston asked when new agreements were made whether Rivanna went back and cleaned up old agreements, such as with the Central Water Line.

Mr. Mawyer stated there was an agreement between City, ACSA and RWSA directors that the central waterline was a non-capacity project, and it would be allocated based on the 2003 South Rivanna WTP Expansion Agreement at 48% to the City and 52% to the ACSA. He stated they tried to clean up old agreements if the terms changed and make them as understandable as possible. He stated 30 years of agreements could be a maze.

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

There were none.

## ***11. CLOSED MEETING***

964 There was no reason for a closed meeting.

965

966 ***12. ADJOURNMENT***

967 Mr. Gaffney adjourned the meeting.

968

969 **At 3:55 p.m., Ms. Mallek moved to adjourn the meeting of the Rivanna Water and Sewer**  
970 **Authority. Mr. Rogers seconded the motion, which passed unanimously (6-0). (Mr.**  
971 **O’Connell was absent from the vote.)**

972



## MEMORANDUM

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

**FROM: BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT: EXECUTIVE DIRECTOR'S REPORT**

**DATE: MAY 24, 2022**

### *STRATEGIC PLAN GOAL: WORKFORCE DEVELOPMENT*

#### **Recognitions**

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

Seth Marshall - Water Operator, Class 3

### *STRATEGIC PLAN GOAL: COMMUNICATION & COLLABORATION*

#### **Outreach**

- RWSA Board Members participated in tours of the South Rivanna and Ragged Mountain Reservoirs, South Rivanna and Observatory Water Treatment Plants, and the Moores Creek Advanced Water Resource Recovery Facility:
  - Michael Rogers, Interim Charlottesville City Manager and RWSA Board Vice Chair on May 3<sup>rd</sup>
  - Brian Pinkston, Charlottesville City Councilor and RWSA Board Member along with Mike Gaffney, RWSA Board Chair on May 9<sup>th</sup>
  - Ann Mallek, Albemarle County Supervisor and RWSA Board Member along with Gary O'Connell, Executive Director of ACSA and RWSA Board Member on May 19.
- Jennifer Whitaker, Director of Engineering and Maintenance served as a Judge for the Energy and Environment Track at the IEEE Systems and Information Engineering Design Symposium (April 2022) at UVA. Institute of Electrical and Electronics Engineers (IEEE) is the world's largest technical professional organization dedicated to advancing technology for the benefit of humanity.
- Rob Haacke, Wastewater Manager hosted a tour of Moores Creek WWTP on April 28<sup>th</sup> to a group of 15 UVA students.



- Andrea Bowles, Water Resources Manager and Deborah Anama, Executive Assistant partnered with the Rivanna Conservation Alliance, Albemarle County Service Authority, City of Charlottesville, and others to host the Annual Rivanna RiverFest on May 1<sup>st</sup> at the Rivanna River Company. This free, public event was well attended by community members gathered to celebrate the Rivanna River and learn more about water conservation. The event concluded the Fix-A-Leak 5K Race and Scavenger Hunt events.
- I was requested by the Virginia Department of Environmental Quality, Office of Water Supply, to serve on a Regulatory Advisory Panel to amend the regulations and require every surface water withdrawal permit application and every ground water withdrawal permit application to include a water auditing plan and leak detection and repair plan. Meetings will be held in Richmond starting in June.



## MEMORANDUM

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

**FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND  
ADMINISTRATION**

**REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT: MARCH MONTHLY FINANCIAL SUMMARY – FY 2022**

**DATE: MAY 24, 2022**

Urban Water flows and rate revenues are 2% over budget estimates through the first nine month of this fiscal year, and Urban Wastewater flows and rate revenues are 1% over budget. Revenues and expenses are summarized in the table below:

	Urban Water	Urban Wastewater	Total Other Rate Centers	Total Authority
<b>Operations</b>				
Revenues	\$ 6,347,227	\$ 7,084,820	\$ 1,768,568	\$ 15,200,615
Expenses	(6,028,790)	(6,916,416)	(1,903,612)	(14,848,818)
Surplus (deficit)	<u>\$ 318,437</u>	<u>\$ 168,404</u>	<u>\$ (135,044)</u>	<u>\$ 351,797</u>
<b>Debt Service</b>				
Revenues	\$ 5,747,163	\$ 6,561,218	\$ 1,506,223	\$ 13,814,604
Expenses	(5,752,035)	(6,545,738)	(1,508,279)	(13,806,052)
Surplus (deficit)	<u>\$ (4,872)</u>	<u>\$ 15,480</u>	<u>\$ (2,056)</u>	<u>\$ 8,552</u>
<b>Total</b>				
Revenues	\$ 12,094,390	\$ 13,646,038	\$ 3,274,791	\$ 29,015,219
Expenses	(11,780,825)	(13,462,154)	(3,411,891)	(28,654,870)
Surplus (deficit)	<u><u>\$ 313,565</u></u>	<u><u>\$ 183,884</u></u>	<u><u>\$ (137,100)</u></u>	<u><u>\$ 360,349</u></u>

When reviewing the Authority as a whole, operating revenues are \$749,000 over the prorated budget and operating expenses are \$532,000 over the prorated budget, for a net prorated budget surplus of \$217,000 as shown on page 1 of the Consolidated Summary. (This does not include debt service.)

### A. Annual and Quarterly Transactions

Some revenues and expenses are over the prorated year-to-date budget due to one-time receipts of revenues for the year and quarterly or annual payments of expenses. These

transactions appear to be significant impacts on the budget vs. actual monthly comparisons but will even out as the year progresses. Septage receiving support revenue of \$109,441 is billed to the County annually in July. Annual payments are made for leases, health savings account contributions, and certain maintenance agreements. Insurance premiums are paid quarterly.

- B. Personnel Costs (Urban Water, Urban Wastewater – pages 2, 5) – The Urban Wastewater rate center salaries are running high due to pay increases for plant operators resulting from operators achieving higher licenses. Urban Water also had an overlap of salaries for the outgoing water department manager and the interim manager's salaries in July and August. These Urban Water salary overages are offset by overbudgeted health insurance costs, so total personnel costs are under budget.
- C. Professional Services (Crozet Water, Glenmore Wastewater, Administration – pages 3, 6, 8) – Crozet Water incurred unbudgeted engineering and technical services expenses for a water demand forecast update. Glenmore Wastewater has spent \$95,000 this year to perform a needs evaluation for Glenmore WRRF, which is an unbudgeted cost. This will cause Glenmore Reserves to be overdrawn, causing the other rate centers to fund Glenmore cost overruns. The Administration department has incurred \$518,000 in unbudgeted bond issuance costs which were paid with bond proceeds.
- D. Information Technology (Crozet Water, Scottsville Water, Administration – pages 3, 4, 8) – Crozet and Scottsville Water incurred some unbudgeted SCADA maintenance and support costs to replace modems. The Administration department has spent about \$37,000 more than the annual budget in this category. Extra costs will be incurred this year to mitigate several items identified in a Cyber Security Assessment conducted in August of 2021.
- E. Operations & Maintenance (Crozet Water, Scottsville Water, Urban Wastewater, Scottsville Wastewater, Maintenance – pages 3, 4, 5, 7, 9) – Scottsville Water has incurred some unbudgeted building and grounds maintenance costs. Crozet Water is over budget for Beaver Creek Watershed signs and utility easement clearing costs, but we will be reimbursed by a grant from the State for the watershed sign costs. Urban Wastewater's chemical costs and repair costs are running higher than estimated. Scottsville Wastewater incurred \$14,000 of unbudgeted repairs to the lagoon intake gates. The Maintenance department is over budget on the cost of fuel, lubricants, and other maintenance supplies.
- F. Other Services and Charges (Urban Wastewater – page 5) - Urban Wastewater is over budget on odor control chemical costs at Crozet Pump Station and on the cost of sludge hauling for composting. This cost center remains under the prorated annual budget.

Attachments

**Rivanna Water & Sewer Authority**  
**Monthly Financial Statements - March 2022**  
**Fiscal Year 2022**

**Consolidated**  
**Revenues and Expenses Summary**

<i>Budget</i>	<i>Budget</i>	<i>Actual</i>	<i>Budget</i>	<i>Variance</i>
<i>FY 2022</i>	<i>Year-to-Date</i>	<i>Year-to-Date</i>	<i>vs. Actual</i>	<i>Percentage</i>

**Operating Budget vs. Actual**

**Notes**

**Revenues**

Operations Rate Revenue		\$ 18,810,555	\$ 14,107,916	\$ 14,312,156	\$ 204,240	1.45%
Lease Revenue		105,000	78,750	98,849	20,099	25.52%
Admin., Maint. & Engineering Revenue	<b>C</b>	553,000	414,750	948,648	533,898	128.73%
Other Revenues		540,589	405,442	527,417	121,975	30.08%
Use of Reserves-GAC		316,250	237,188	101,850	(135,338)	-57.06%
Rate Stabilization Reserves		200,000	150,000	150,000	-	0.00%
Interest Allocation		8,200	6,150	10,344	4,194	68.19%
<b>Total Operating Revenues</b>		<b>\$ 20,533,594</b>	<b>\$ 15,400,196</b>	<b>\$ 16,149,263</b>	<b>\$ 749,068</b>	<b>4.86%</b>

**Expenses**

Personnel Cost	<b>A, B</b>	\$ 9,649,988	\$ 7,102,475	\$ 6,990,825	\$ 111,650	1.57%
Professional Services	<b>C</b>	712,050	534,038	1,083,098	(549,061)	-102.81%
Other Services & Charges	<b>F</b>	3,111,400	2,333,550	2,313,843	19,707	0.84%
Communications		191,412	143,559	151,719	(8,160)	-5.68%
Information Technology	<b>A, D</b>	447,100	335,325	458,756	(123,431)	-36.81%
Supplies		42,160	31,620	27,870	3,750	11.86%
Operations & Maintenance	<b>A, E</b>	4,864,235	3,648,176	3,879,852	(231,676)	-6.35%
Equipment Purchases		615,250	461,438	216,503	244,934	53.08%
Depreciation		900,000	675,000	675,000	-	0.00%
Reserve Transfers		-	-	-	-	
<b>Total Operating Expenses</b>		<b>\$ 20,533,595</b>	<b>\$ 15,265,180</b>	<b>\$ 15,797,466</b>	<b>\$ (532,286)</b>	<b>-3.49%</b>
<b>Operating Surplus/(Deficit)</b>		<b>\$ (1)</b>	<b>\$ 135,015</b>	<b>\$ 351,797</b>		

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue		\$ 18,193,960	\$ 13,645,470	\$ 13,645,485	\$ 15	0.00%
Use of Reserves		-	-	-	-	
Septage Receiving Support - County		109,440	82,080	109,441	27,361	33.33%
Buck Mountain Lease Revenue		1,600	1,200	3,995	2,795	232.94%
Trust Fund Interest		33,700	25,275	3,664	(21,611)	-85.50%
Reserve Fund Interest		80,000	60,000	52,019	(7,981)	-13.30%
<b>Total Debt Service Revenues</b>		<b>\$ 18,418,700</b>	<b>\$ 13,814,025</b>	<b>\$ 13,814,604</b>	<b>\$ 579</b>	<b>0.00%</b>

**Debt Service Costs**

Total Principal & Interest		\$ 14,256,077	\$ 10,692,058	\$ 11,024,058	\$ (332,001)	-3.11%
Reserve Additions-Interest		80,000	60,000	52,019	7,981	13.30%
Debt Service Ratio Charge		725,000	543,750	543,750	-	0.00%
Reserve Additions-CIP Growth		3,357,634	2,518,226	2,186,225	332,001	13.18%
<b>Total Debt Service Costs</b>		<b>\$ 18,418,711</b>	<b>\$ 13,814,033</b>	<b>\$ 13,806,052</b>	<b>\$ 7,981</b>	<b>0.06%</b>
<b>Debt Service Surplus/(Deficit)</b>		<b>\$ (11)</b>	<b>\$ (8)</b>	<b>\$ 8,552</b>		

**Summary**

<b>Total Revenues</b>	\$ 38,952,294	\$ 29,214,221	\$ 29,963,868	\$ 749,647	2.57%
<b>Total Expenses</b>	38,952,306	29,079,213	29,603,518	(524,305)	-1.80%
<b>Surplus/(Deficit)</b>	<b>\$ (12)</b>	<b>\$ 135,007</b>	<b>\$ 360,350</b>		

**Rivanna Water & Sewer Authority**  
**Monthly Financial Statements - March 2022**

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

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Operations Rate Revenue	\$ 7,971,504	\$ 5,978,628	\$ 6,104,663	\$ 126,035	2.11%
Lease Revenue	75,000	56,250	75,695	19,445	34.57%
Miscellaneous	-	-	1,987	1,987	
Use of Reserves-GAC	300,000	225,000	85,600	(139,400)	-61.96%
Rate Stabilization Reserves	100,000	75,000	75,000	-	0.00%
Interest Allocation	3,400	2,550	4,282	1,732	67.93%
<b>Total Operating Revenues</b>	<b>\$ 8,449,904</b>	<b>\$ 6,337,428</b>	<b>\$ 6,347,227</b>	<b>\$ 9,799</b>	<b>0.15%</b>

**Expenses**

Personnel Cost	B \$ 2,039,157	\$ 1,502,833	\$ 1,488,919	\$ 13,914	0.93%
Professional Services	279,200	209,400	129,156	80,244	38.32%
Other Services & Charges	734,150	550,613	512,003	38,609	7.01%
Communications	98,670	74,003	77,613	(3,610)	-4.88%
Information Technology	80,500	60,375	72,343	(11,968)	-19.82%
Supplies	5,100	3,825	4,915	(1,090)	-28.49%
Operations & Maintenance	2,250,440	1,687,830	1,658,863	28,967	1.72%
Equipment Purchases	15,400	11,550	11,550	0	0.00%
Depreciation	300,000	225,000	225,000	-	0.00%
Reserve Transfers	-	-	-	-	
<b>Subtotal Before Allocations</b>	<b>\$ 5,802,617</b>	<b>\$ 4,325,428</b>	<b>\$ 4,180,361</b>	<b>\$ 145,067</b>	<b>3.35%</b>
Allocation of Support Departments	2,647,289	1,951,617	1,848,429	103,188	5.29%
<b>Total Operating Expenses</b>	<b>\$ 8,449,906</b>	<b>\$ 6,277,045</b>	<b>\$ 6,028,790</b>	<b>\$ 248,255</b>	<b>3.95%</b>
<b>Operating Surplus/(Deficit)</b>	<b>\$ (2)</b>	<b>\$ 60,383</b>	<b>\$ 318,437</b>		

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue	\$ 7,621,725	\$ 5,716,294	\$ 5,716,296	\$ 2	0.00%
Trust Fund Interest	12,000	9,000	1,330	(7,670)	-85.22%
Reserve Fund Interest	39,300	29,475	25,541	(3,934)	-13.35%
Use of Reserves	-	-	-	-	
Lease Revenue	1,600	1,200	3,995	2,795	232.94%
<b>Total Debt Service Revenues</b>	<b>\$ 7,674,625</b>	<b>\$ 5,755,969</b>	<b>\$ 5,747,163</b>	<b>\$ (8,806)</b>	<b>-0.15%</b>

**Debt Service Costs**

Total Principal & Interest	\$ 5,215,275	\$ 3,911,456	\$ 4,215,569	\$ (304,113)	-7.77%
Reserve Additions-Interest	39,300	29,475	25,541	3,934	13.35%
Debt Service Ratio Charge	400,000	300,000	300,000	-	0.00%
Reserve Additions-CIP Growth	2,020,050	1,515,038	1,210,925	304,113	20.07%
<b>Total Debt Service Costs</b>	<b>\$ 7,674,625</b>	<b>\$ 5,755,969</b>	<b>\$ 5,752,035</b>	<b>\$ 3,934</b>	<b>0.07%</b>
<b>Debt Service Surplus/(Deficit)</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (4,872)</b>		

**Rate Center Summary**

<b>Total Revenues</b>	\$ 16,124,529	\$ 12,093,397	\$ 12,094,390	\$ 993	0.01%
<b>Total Expenses</b>	16,124,531	12,033,014	11,780,825	252,189	2.10%
<b>Surplus/(Deficit)</b>	<b>\$ (2)</b>	<b>\$ 60,383</b>	<b>\$ 313,564</b>		
<b>Costs per 1000 Gallons</b>	\$ 2.49		\$ 2.32		
<b>Operating and DS</b>	\$ 4.75		\$ 4.53		
<b>Thousand Gallons Treated</b>	3,397,700	2,548,275	2,602,158	53,883	2.11%
<b>or</b>					
<b>Flow (MGD)</b>	9.309		9.497		

**Rivanna Water & Sewer Authority**  
**Monthly Financial Statements - March 2022**

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

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Operations Rate Revenue	\$ 1,058,856	\$ 794,142	\$ 794,142	\$ -	0.00%
Lease Revenues	30,000	22,500	23,154	654	2.91%
Use of Reserves-GAC	13,000	9,750	13,000	3,250	33.33%
Interest Allocation	500	375	600	225	59.98%
<b>Total Operating Revenues</b>	<b>\$ 1,102,356</b>	<b>\$ 826,767</b>	<b>\$ 830,896</b>	<b>\$ 4,129</b>	<b>0.50%</b>

**Expenses**

Personnel Cost	\$ 324,463	\$ 239,139	\$ 236,247	\$ 2,892	1.21%
Professional Services	15,100	11,325	25,197	(13,872)	-122.49%
Other Services & Charges	104,450	78,338	87,011	(8,673)	-11.07%
Communications	17,530	13,148	13,717	(569)	-4.33%
Information Technology	5,250	3,938	37,051	(33,114)	-840.98%
Supplies	1,500	1,125	880	245	21.76%
Operations & Maintenance	296,900	222,675	235,567	(12,892)	-5.79%
Equipment Purchases	28,000	21,000	2,822	18,178	86.56%
Depreciation	60,000	45,000	45,000	-	0.00%
Reserve Transfers	-	-	-	-	
<b>Subtotal Before Allocations</b>	<b>\$ 853,193</b>	<b>\$ 635,686</b>	<b>\$ 683,491</b>	<b>\$ (47,805)</b>	<b>-7.52%</b>
Allocation of Support Departments	249,161	183,706	173,945	9,761	5.31%
<b>Total Operating Expenses</b>	<b>\$ 1,102,354</b>	<b>\$ 819,392</b>	<b>\$ 857,437</b>	<b>\$ (38,044)</b>	<b>-4.64%</b>
<b>Operating Surplus/(Deficit)</b>	<b>\$ 2</b>	<b>\$ 7,375</b>	<b>\$ (26,541)</b>		

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue	\$ 1,847,832	\$ 1,385,874	\$ 1,385,874	\$ -	0.00%
Trust Fund Interest	2,900	2,175	308	(1,867)	-85.85%
Use of Reserves	-	-	-	-	
Reserve Fund Interest	2,500	1,875	1,613	(262)	-14.00%
<b>Total Debt Service Revenues</b>	<b>\$ 1,853,232</b>	<b>\$ 1,389,924</b>	<b>\$ 1,387,794</b>	<b>\$ (2,130)</b>	<b>-0.15%</b>

**Debt Service Costs**

Total Principal & Interest	\$ 1,216,667	\$ 912,500	\$ 912,500	\$ -	0.00%
Reserve Additions-Interest	2,500	1,875	1,613	262	14.00%
Reserve Additions-CIP Growth	634,070	475,553	475,553	-	0.00%
<b>Total Debt Service Costs</b>	<b>\$ 1,853,237</b>	<b>\$ 1,389,928</b>	<b>\$ 1,389,665</b>	<b>\$ 262</b>	<b>0.02%</b>
<b>Debt Service Surplus/(Deficit)</b>	<b>\$ (5)</b>	<b>\$ (4)</b>	<b>\$ (1,871)</b>		

**Rate Center Summary**

<b>Total Revenues</b>	\$ 2,955,588	\$ 2,216,691	\$ 2,218,690	\$ 1,999	0.09%
<b>Total Expenses</b>	2,955,591	2,209,320	2,247,102	(37,782)	-1.71%
<b>Surplus/(Deficit)</b>	<b>\$ (3)</b>	<b>\$ 7,371</b>	<b>\$ (28,412)</b>		
<b>Costs per 1000 Gallons</b>	\$ 5.44		\$ 4.52		
<b>Operating and DS</b>	\$ 14.58		\$ 11.85		
<b>Thousand Gallons Treated</b>	202,697	152,023	189,632	37,609	24.74%
<b>Flow (MGD)</b>	0.555		0.692		

Rivanna Water & Sewer Authority  
Monthly Financial Statements - March 2022

Scottsville Water Rate Center  
Revenues and Expenses Summary

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Operations Rate Revenue	\$ 514,704	\$ 386,028	\$ 386,028	\$ -	0.00%
Use of Reserves-GAC	3,250	2,438	3,250	813	33.33%
Interest Allocation	200	150	290	140	93.09%
<b>Total Operating Revenues</b>	<b>\$ 518,154</b>	<b>\$ 388,616</b>	<b>\$ 389,568</b>	<b>\$ 952</b>	<b>0.25%</b>

**Expenses**

Personnel Cost	\$ 195,695	\$ 144,185	\$ 143,990	\$ 196	0.14%
Professional Services	2,900	2,175	8,567	(6,392)	-293.86%
Other Services & Charges	28,100	21,075	28,103	(7,028)	-33.35%
Communications	4,930	3,698	5,189	(1,492)	-40.34%
Information Technology	D 1,250	938	13,143	(12,206)	-1301.93%
Supplies	770	578	71	507	87.76%
Operations & Maintenance	E 87,200	65,400	86,191	(20,791)	-31.79%
Equipment Purchases	1,500	1,125	1,533	(408)	-36.27%
Depreciation	40,000	30,000	30,000	0	0.00%
Reserve Transfers	-	-	-	-	
<b>Subtotal Before Allocations</b>	<b>\$ 362,345</b>	<b>\$ 269,173</b>	<b>\$ 316,786</b>	<b>\$ (47,613)</b>	<b>-17.69%</b>
Allocation of Support Departments	155,813	114,933	108,375	6,558	5.71%
<b>Total Operating Expenses</b>	<b>\$ 518,158</b>	<b>\$ 384,106</b>	<b>\$ 425,161</b>	<b>\$ (41,055)</b>	<b>-10.69%</b>
<b>Operating Surplus/(Deficit)</b>	<b>\$ (4)</b>	<b>\$ 4,510</b>	<b>\$ (35,593)</b>		

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue	\$ 138,888	\$ 104,166	\$ 104,166	\$ -	0.00%
Trust Fund Interest	300	225	33	(192)	-85.36%
Reserve Fund Interest	1,200	900	780	(120)	-13.31%
<b>Total Debt Service Revenues</b>	<b>\$ 140,388</b>	<b>\$ 105,291</b>	<b>\$ 104,979</b>	<b>\$ (312)</b>	<b>-0.30%</b>

**Debt Service Costs**

Total Principal & Interest	\$ 125,892	\$ 94,419	\$ 98,403	\$ (3,984)	-4.22%
Reserve Additions-Interest	1,200	900	780	120	
Reserve Additions-CIP Growth	13,299	9,974	5,990	3,984	
<b>Total Debt Service Costs</b>	<b>\$ 140,391</b>	<b>\$ 105,293</b>	<b>\$ 105,174</b>	<b>\$ 120</b>	<b>0.11%</b>
<b>Debt Service Surplus/(Deficit)</b>	<b>\$ (3)</b>	<b>\$ (2)</b>	<b>\$ (194)</b>		

**Rate Center Summary**

<b>Total Revenues</b>	\$ 658,542	\$ 493,907	\$ 494,547	\$ 640	0.13%
<b>Total Expenses</b>	<b>658,549</b>	<b>489,399</b>	<b>530,334</b>	<b>(40,935)</b>	<b>-8.36%</b>
<b>Surplus/(Deficit)</b>	<b>\$ (7)</b>	<b>\$ 4,508</b>	<b>\$ (35,788)</b>		
<b>Costs per 1000 Gallons</b>	\$ 30.07		\$ 27.54		
<b>Operating and DS</b>	\$ 38.22		\$ 34.35		
<b>Thousand Gallons Treated</b>	17,230	12,923	15,440	2,518	19.48%
<b>or</b>					
<b>Flow (MGD)</b>	0.047		0.056		

**Rivanna Water & Sewer Authority**  
**Monthly Financial Statements - March 2022**

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

<b>Budget FY 2022</b>	<b>Budget Year-to-Date</b>	<b>Actual Year-to-Date</b>	<b>Budget vs. Actual</b>	<b>Variance Percentage</b>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Operations Rate Revenue	\$ 8,535,195	\$ 6,401,396	\$ 6,479,601	\$ 78,205	1.22%
Stone Robinson WWTP	20,589	15,442	12,708	(2,734)	-17.70%
Septage Acceptance	475,000	356,250	408,247	51,997	14.60%
Nutrient Credits	45,000	33,750	104,475	70,725	209.56%
Rate Stabilization Reserve	100,000	75,000	75,000	-	0.00%
Miscellaneous Revenue	-	-	-	-	
Interest Allocation	3,800	2,850	4,789	1,939	68.04%
<b>Total Operating Revenues</b>	<b>\$ 9,179,584</b>	<b>\$ 6,884,688</b>	<b>\$ 7,084,820</b>	<b>\$ 200,132</b>	<b>2.91%</b>

**Expenses**

Personnel Cost	<b>A, B</b>	\$ 1,289,471	\$ 949,567	\$ 975,388	\$ (25,822)	-2.72%
Professional Services		208,500	156,375	175,257	(18,882)	-12.07%
Other Services & Charges	<b>F</b>	2,011,700	1,508,775	1,534,544	(25,769)	-1.71%
Communications		9,800	7,350	8,763	(1,413)	-19.23%
Information Technology		56,500	42,375	50,976	(8,601)	-20.30%
Supplies		1,200	900	1,470	(570)	-63.35%
Operations & Maintenance	<b>A, E</b>	1,672,520	1,254,390	1,536,429	(282,039)	-22.48%
Equipment Purchases		294,250	220,688	71,990	148,698	67.38%
Depreciation		470,000	352,500	352,500	(0)	0.00%
Reserve Transfers		-	-	-	-	
<b>Subtotal Before Allocations</b>		<b>\$ 6,013,941</b>	<b>\$ 4,492,919</b>	<b>\$ 4,707,316</b>	<b>\$ (214,397)</b>	<b>-4.77%</b>
Allocation of Support Departments		3,165,643	2,334,413	2,209,100	125,314	5.37%
<b>Total Operating Expenses</b>		<b>\$ 9,179,584</b>	<b>\$ 6,827,333</b>	<b>\$ 6,916,416</b>	<b>\$ (89,083)</b>	<b>-1.30%</b>
<b>Operating Surplus/(Deficit)</b>		<b>\$ (0)</b>	<b>\$ 57,355</b>	<b>\$ 168,405</b>		

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue	\$ 8,568,221	\$ 6,426,166	\$ 6,426,171	\$ 5	0.00%
Septage Receiving Support - County	109,440	82,080	109,441	27,361	33.33%
Trust Fund Interest	18,500	13,875	1,990	(11,885)	-85.66%
Use of Reserves	-	-	-	-	
Reserve Fund Interest	36,300	27,225	23,617	(3,608)	-13.25%
<b>Total Debt Service Revenues</b>	<b>\$ 8,732,461</b>	<b>\$ 6,549,346</b>	<b>\$ 6,561,218</b>	<b>\$ 11,873</b>	<b>0.18%</b>

**Debt Service Costs**

Total Principal & Interest	\$ 7,689,212	\$ 5,766,909	\$ 5,787,825	\$ (20,916)	-0.36%
Reserve Additions-Interest	36,300	27,225	23,617	3,608	13.25%
Debt Service Ratio Charge	325,000	243,750	243,750	-	0.00%
Reserve Additions-CIP Growth	681,950	511,463	490,547	20,916	4.09%
<b>Total Debt Service Costs</b>	<b>\$ 8,732,462</b>	<b>\$ 6,549,347</b>	<b>\$ 6,545,738</b>	<b>\$ 3,608</b>	<b>0.06%</b>
<b>Debt Service Surplus/(Deficit)</b>	<b>\$ (1)</b>	<b>\$ (1)</b>	<b>\$ 15,480</b>		

**Rate Center Summary**

<b>Total Revenues</b>	\$ 17,912,045	\$ 13,434,034	\$ 13,646,039	\$ 212,005	1.58%
<b>Total Expenses</b>	17,912,046	13,376,679	13,462,154	(85,475)	-0.64%
<b>Surplus/(Deficit)</b>	<b>\$ (1)</b>	<b>\$ 57,355</b>	<b>\$ 183,885</b>		
<b>Costs per 1000 Gallons</b>	\$ 2.71		\$ 2.69		
<b>Operating and DS</b>	\$ 5.28		\$ 5.23		
<b>Thousand Gallons Treated</b>	3,390,400	2,542,800	2,574,335	31,535	1.24%
<b>or</b>					
<b>Flow (MGD)</b>	9.289		9.395		



**Rivanna Water & Sewer Authority**  
**Monthly Financial Statements - March 2022**

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

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Operations Rate Revenue	\$	404,028	\$	303,021	\$	303,021	\$	-	0.00%
Rate Stabilization Reserve		-		-		-		-	
Interest Allocation		200		150		217		67	44.83%
<i>Total Operating Revenues</i>	<b>\$</b>	<b>404,228</b>	<b>\$</b>	<b>303,171</b>	<b>\$</b>	<b>303,238</b>	<b>\$</b>	<b>67</b>	<b>0.02%</b>

**Expenses**

Personnel Cost	\$	94,885	\$	69,876	\$	71,945	\$	(2,069)	-2.96%
Professional Services		12,900		9,675		95,000		(85,325)	
Other Services & Charges		34,300		25,725		25,271		454	1.77%
Communications		3,130		2,348		2,451		(103)	-4.40%
Information Technology		2,000		1,500		661		839	55.93%
Supplies		-		-		69		(69)	
Operations & Maintenance		121,650		91,238		76,336		14,901	16.33%
Equipment Purchases		3,800		2,850		2,850		(0)	0.00%
Depreciation		10,000		7,500		7,500		0	0.00%
<i>Subtotal Before Allocations</i>	<b>\$</b>	<b>282,665</b>	<b>\$</b>	<b>210,711</b>	<b>\$</b>	<b>282,083</b>	<b>\$</b>	<b>(71,372)</b>	<b>-33.87%</b>
Allocation of Support Departments		121,563		89,715		83,884		5,831	6.50%
<i>Total Operating Expenses</i>	<b>\$</b>	<b>404,229</b>	<b>\$</b>	<b>300,427</b>	<b>\$</b>	<b>365,967</b>	<b>\$</b>	<b>(65,541)</b>	<b>-21.82%</b>
<i>Operating Surplus/(Deficit)</i>	<b>\$</b>	<b>(1)</b>	<b>\$</b>	<b>2,744</b>	<b>\$</b>	<b>(62,729)</b>			

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue	\$	7,412	\$	5,559	\$	5,562	\$	3	0.05%
Trust Fund Interest		-		-		-		-	
Reserve Fund Interest		200		150		156		6	4.03%
<i>Total Debt Service Revenues</i>	<b>\$</b>	<b>7,612</b>	<b>\$</b>	<b>5,709</b>	<b>\$</b>	<b>5,718</b>	<b>\$</b>	<b>3</b>	<b>0.05%</b>

**Debt Service Costs**

Total Principal & Interest	\$	1,578	\$	1,184	\$	4,172	\$	(2,988)	-252.47%
Reserve Additions-CIP Growth		5,834		4,376		1,388		2,988	68.29%
Reserve Additions-Interest		200		150		156		(6)	-4.03%
<i>Total Debt Service Costs</i>	<b>\$</b>	<b>7,612</b>	<b>\$</b>	<b>5,709</b>	<b>\$</b>	<b>5,715</b>	<b>\$</b>	<b>(6)</b>	<b>-0.11%</b>
<i>Debt Service Surplus/(Deficit)</i>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>3</b>			

**Rate Center Summary**

<b>Total Revenues</b>	\$	411,840	\$	308,880	\$	308,956	\$	76	0.02%
<b>Total Expenses</b>		411,841		306,136		371,682		(65,547)	-21.41%
<b>Surplus/(Deficit)</b>	<b>\$</b>	<b>(1)</b>	<b>\$</b>	<b>2,744</b>	<b>\$</b>	<b>(62,726)</b>			
<b>Costs per 1000 Gallons</b>	\$	9.76			\$	15.28			
<b>Operating and DS</b>	\$	9.95			\$	15.52			
<b>Thousand Gallons Treated</b>		41,401		31,051		23,952		(7,099)	-22.86%
<b>or</b>									
<b>Flow (MGD)</b>		0.113				0.087			

Rivanna Water & Sewer Authority  
Monthly Financial Statements - March 2022

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

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Operations Rate Revenue	\$ 326,268	\$ 244,701	\$ 244,701	\$ -	0.00%
Interest Allocation	100	75	165	90	120.60%
<b>Total Operating Revenues</b>	<b>\$ 326,368</b>	<b>\$ 244,776</b>	<b>\$ 244,866</b>	<b>\$ 90</b>	<b>0.04%</b>

**Expenses**

Personnel Cost	\$ 94,875	\$ 69,869	\$ 71,945	\$ (2,076)	-2.97%
Professional Services	10,250	7,688	1,547	6,140	79.88%
Other Services & Charges	21,800	16,350	17,072	(722)	-4.42%
Communications	3,400	2,550	2,916	(366)	-14.34%
Information Technology	1,500	1,125	1,873	(748)	-66.53%
Supplies	-	-	-	-	
Operations & Maintenance	58,100	43,575	64,074	(20,499)	-47.04%
Equipment Purchases	3,800	2,850	2,850	(0)	0.00%
Depreciation	20,000	15,000	15,000	(0)	0.00%
<b>Subtotal Before Allocations</b>	<b>\$ 213,725</b>	<b>\$ 159,006</b>	<b>\$ 177,278</b>	<b>\$ (18,271)</b>	<b>-11.49%</b>
Allocation of Support Departments	112,640	83,121	77,769	5,352	6.44%
<b>Total Operating Expenses</b>	<b>\$ 326,365</b>	<b>\$ 242,128</b>	<b>\$ 255,047</b>	<b>\$ (12,919)</b>	<b>-5.34%</b>
<b>Operating Surplus/(Deficit)</b>	<b>\$ 3</b>	<b>\$ 2,648</b>	<b>\$ (10,180)</b>		

**Debt Service Budget vs. Actual**

**Revenues**

Debt Service Rate Revenue	\$ 9,882	\$ 7,412	\$ 7,416	\$ 5	0.06%
Trust Fund Interest	-	-	4	4	
Reserve Fund Interest	500	375	312	(63)	-16.76%
<b>Total Debt Service Revenues</b>	<b>\$ 10,382</b>	<b>\$ 7,787</b>	<b>\$ 7,732</b>	<b>\$ (55)</b>	<b>-0.70%</b>

**Debt Service Costs**

Total Principal & Interest	\$ 7,453	\$ 5,590	\$ 5,590	\$ -	0.00%
Reserve Additions-Interest	500	375	312	63	16.76%
Estimated New Principal & Interest	2,431	1,823	1,823	-	0.00%
<b>Total Debt Service Costs</b>	<b>\$ 10,384</b>	<b>\$ 7,788</b>	<b>\$ 7,725</b>	<b>\$ 63</b>	<b>0.81%</b>
<b>Debt Service Surplus/(Deficit)</b>	<b>\$ (2)</b>	<b>\$ (2)</b>	<b>\$ 7</b>		

**Rate Center Summary**

<b>Total Revenues</b>	\$ 336,750	\$ 252,563	\$ 252,598	\$ 36	0.01%
<b>Total Expenses</b>	336,749	249,916	262,772	(12,856)	-5.14%
<b>Surplus/(Deficit)</b>	<b>\$ 1</b>	<b>\$ 2,647</b>	<b>\$ (10,174)</b>		
<b>Costs per 1000 Gallons</b>	\$ 13.80		\$ 19.42		
<b>Operating and DS</b>	\$ 14.24		\$ 20.01		
<b>Thousand Gallons Treated</b>	23,643	17,732	13,130	(4,602)	-25.95%
<b>or</b>					
<b>Flow (MGD)</b>	0.065		0.048		

Rivanna Water & Sewer Authority  
Monthly Financial Statements - March 2022

**Administration**

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

	Notes					
<b>Revenues</b>						
Payment for Services SWA		\$	551,000	\$	413,250	\$ 415,503 \$ 2,253 0.55%
Bond Proceeds Funding Bond Issuance Costs	C		-		-	518,307 518,307
Miscellaneous Revenue			2,000		1,500	13,211 11,711 780.74%
<i>Total Operating Revenues</i>		<b>\$</b>	<b>553,000</b>	<b>\$</b>	<b>414,750</b>	<b>\$ 947,021 \$ 532,271 128.34%</b>
<b>Expenses</b>						
Personnel Cost		\$	2,177,998	\$	1,601,356	\$ 1,562,462 \$ 38,894 2.43%
Professional Services	C		163,200		122,400	643,254 (520,854) -425.53%
Other Services & Charges			86,200		64,650	69,519 (4,869) -7.53%
Communications			21,000		15,750	19,491 (3,741) -23.75%
Information Technology	A, D		171,900		128,925	209,548 (80,623) -62.53%
Supplies			21,500		16,125	15,971 154 0.96%
Operations & Maintenance			68,600		51,450	34,961 16,489 32.05%
Equipment Purchases			25,200		18,900	11,400 7,500 39.68%
Depreciation			-		-	- -
<i>Total Operating Expenses</i>		<b>\$</b>	<b>2,735,598</b>	<b>\$</b>	<b>2,019,556</b>	<b>\$ 2,566,607 \$ (547,050) -27.09%</b>

**Department Summary**

<b>Net Costs Allocable to Rate Centers</b>		<b>\$</b>	<b>(2,182,598)</b>	<b>\$</b>	<b>(1,604,806)</b>	<b>\$</b>	<b>(1,619,585)</b>	<b>\$</b>	<b>14,779</b>	<b>-0.92%</b>
<b>Allocations to the Rate Centers</b>										
Urban Water	44.00%	\$	960,343	\$	706,115	\$	712,618	\$	(6,503)	
Crozet Water	4.00%	\$	87,304		64,192		64,783		(591)	
Scottsville Water	2.00%	\$	43,652		32,096		32,392		(296)	
Urban Wastewater	48.00%	\$	1,047,647		770,307		777,401		(7,094)	
Glenmore Wastewater	1.00%	\$	21,826		16,048		16,196		(148)	
Scottsville Wastewater	1.00%	\$	21,826		16,048		16,196		(148)	
	100.00%	<b>\$</b>	<b>2,182,598</b>	<b>\$</b>	<b>1,604,806</b>	<b>\$</b>	<b>1,619,585</b>	<b>\$</b>	<b>(14,779)</b>	

**Rivanna Water & Sewer Authority**  
**Monthly Financial Statements - March 2022**

**Maintenance**

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Payment for Services SWA  
Miscellaneous Revenue

*Total Operating Revenues*

\$ -	\$ -	\$ -	\$ -	\$ -
-	-	623	623	
<b>\$ -</b>	<b>\$ -</b>	<b>\$ 623</b>	<b>\$ 623</b>	

**Expenses**

Personnel Cost  
Professional Services  
Other Services & Charges  
Communications  
Information Technology  
Supplies  
Operations & Maintenance  
Equipment Purchases  
Depreciation

E

*Total Operating Expenses*

\$ 1,398,597	\$ 1,029,248	\$ 1,008,690	\$ 20,557	2.00%
-	-	-	-	
61,200	45,900	24,943	20,957	45.66%
15,730	11,798	12,046	(248)	-2.10%
9,500	7,125	843	6,282	88.17%
2,000	1,500	320	1,180	78.64%
89,600	67,200	82,762	(15,562)	-23.16%
208,100	156,075	94,000	62,075	39.77%
-	-	-	-	
<b>\$ 1,784,727</b>	<b>\$ 1,318,845</b>	<b>\$ 1,223,604</b>	<b>\$ 95,241</b>	<b>7.22%</b>

**Department Summary**

**Net Costs Allocable to Rate Centers**

<b>\$ (1,784,727)</b>	<b>\$ (1,318,845)</b>	<b>\$ (1,222,981)</b>	<b>\$ (94,618)</b>	<b>7.17%</b>
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**Allocations to the Rate Centers**

Urban Water	30.00%	\$ 535,418	\$ 395,654	\$ 366,894	\$ 28,759
Crozet Water	3.50%	62,465	46,160	42,804	3,355
Scottsville Water	3.50%	62,465	46,160	42,804	3,355
Urban Wastewater	56.50%	1,008,371	745,147	690,984	54,163
Glenmore Wastewater	3.50%	62,465	46,160	42,804	3,355
Scottsville Wastewater	3.00%	53,542	39,565	36,689	2,876
	100.00%	<b>\$ 1,784,727</b>	<b>\$ 1,318,845</b>	<b>\$ 1,222,981</b>	<b>\$ 95,864</b>

Rivanna Water & Sewer Authority  
Monthly Financial Statements - March 2022

Laboratory

Budget FY 2022	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
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**Operating Budget vs. Actual**

Notes

**Revenues**

N/A

**Expenses**

Personnel Cost	\$ 411,037	\$ 302,349	\$ 279,417	\$ 22,932	7.58%
Professional Services	-	-	-	-	
Other Services & Charges	7,900	5,925	5,104	821	13.85%
Communications	1,300	975	913	62	
Information Technology	200	150	610	(460)	-306.67%
Supplies	1,300	975	1,166	(191)	-19.60%
Operations & Maintenance	120,590	90,443	70,830	19,612	21.68%
Equipment Purchases	1,700	1,275	1,383	(108)	-8.50%
Depreciation	-	-	-	-	
<b>Total Operating Expenses</b>	<b>\$ 544,027</b>	<b>\$ 402,092</b>	<b>\$ 359,424</b>	<b>\$ 42,668</b>	<b>10.61%</b>

**Department Summary**

<b>Net Costs Allocable to Rate Centers</b>		<b>\$ (544,027)</b>	<b>\$ (402,092)</b>	<b>\$ (359,424)</b>	<b>\$ (42,668)</b>	<b>10.61%</b>
<u><b>Allocations to the Rate Centers</b></u>						
Urban Water	44.00%	\$ 239,372	\$ 176,920	\$ 158,146	\$ 18,774	
Crozet Water	4.00%	21,761	16,084	14,377	1,707	
Scottsville Water	2.00%	10,881	8,042	7,188	853	
Urban Wastewater	47.00%	255,693	188,983	168,929	20,054	
Glenmore Wastewater	1.50%	8,160	6,031	5,391	640	
Scottsville Wastewater	1.50%	8,160	6,031	5,391	640	
	100.00%	<b>\$ 544,027</b>	<b>\$ 402,092</b>	<b>\$ 359,424</b>	<b>\$ 42,668</b>	

Rivanna Water & Sewer Authority  
Monthly Financial Statements - March 2022

**Engineering**

<i>Budget FY 2022</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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**Operating Budget vs. Actual**

Notes

**Revenues**

Payment for Services SWA

*Total Operating Revenues*

\$ -	\$ -	\$ 1,004	\$ 1,004	
<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,004</b>	<b>\$ 1,004</b>	

**Expenses**

Personnel Cost

Professional Services

Other Services &amp; Charges

Communications

Information Technology

Supplies

Operations &amp; Maintenance

Equipment Purchases

Depreciation &amp; Capital Reserve Transfers

*Total Operating Expenses*

\$ 1,623,810	\$ 1,194,053	\$ 1,151,822	\$ 42,231	3.54%
20,000	15,000	5,122	9,879	65.86%
21,600	16,200	10,272	5,928	36.59%
15,922	11,942	8,621	3,321	27.81%
118,500	88,875	71,708	17,167	19.32%
8,790	6,593	3,008	3,585	54.38%
98,635	73,976	33,839	40,137	54.26%
33,500	25,125	16,125	9,000	35.82%
-	-	-	-	
<b>\$ 1,940,757</b>	<b>\$ 1,431,763</b>	<b>\$ 1,300,516</b>	<b>\$ 131,247</b>	<b>9.17%</b>

**Department Summary**

Net Costs Allocable to Rate Centers

\$ (1,940,757)	\$ (1,431,763)	\$ (1,299,512)	\$ (130,243)	9.10%
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**Allocations to the Rate Centers**

Urban Water

Crozet Water

Scottsville Water

Urban Wastewater

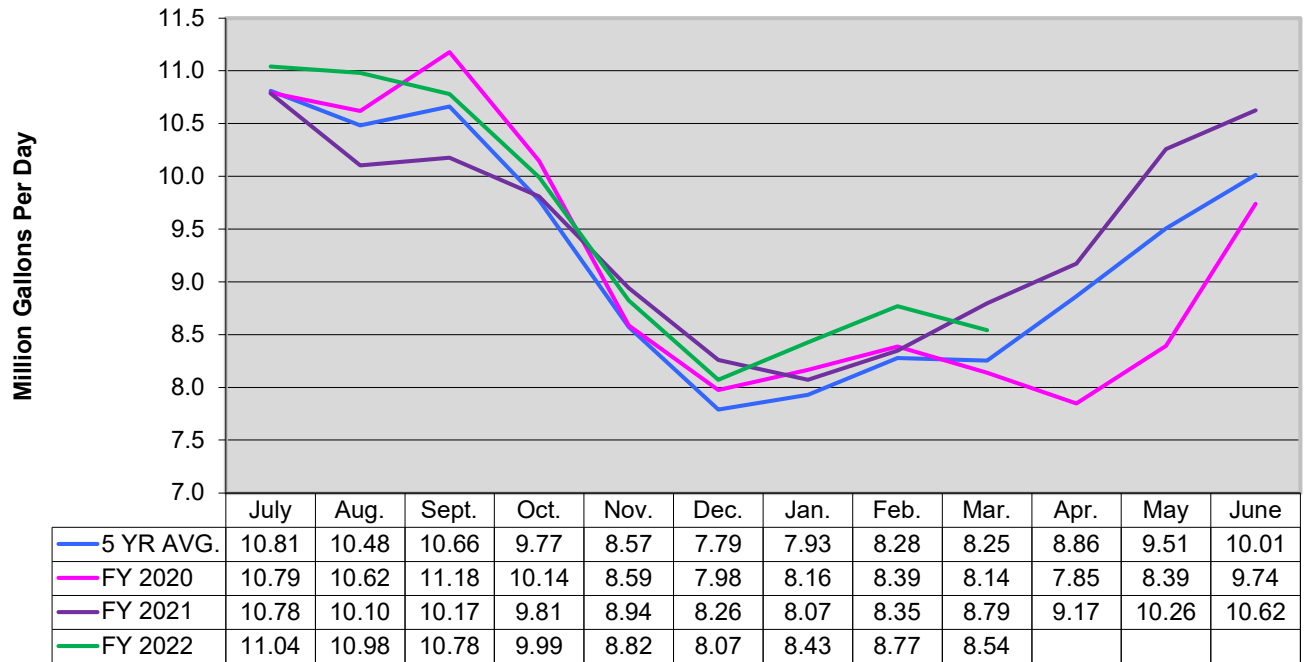
Glenmore Wastewater

Scottsville Wastewater

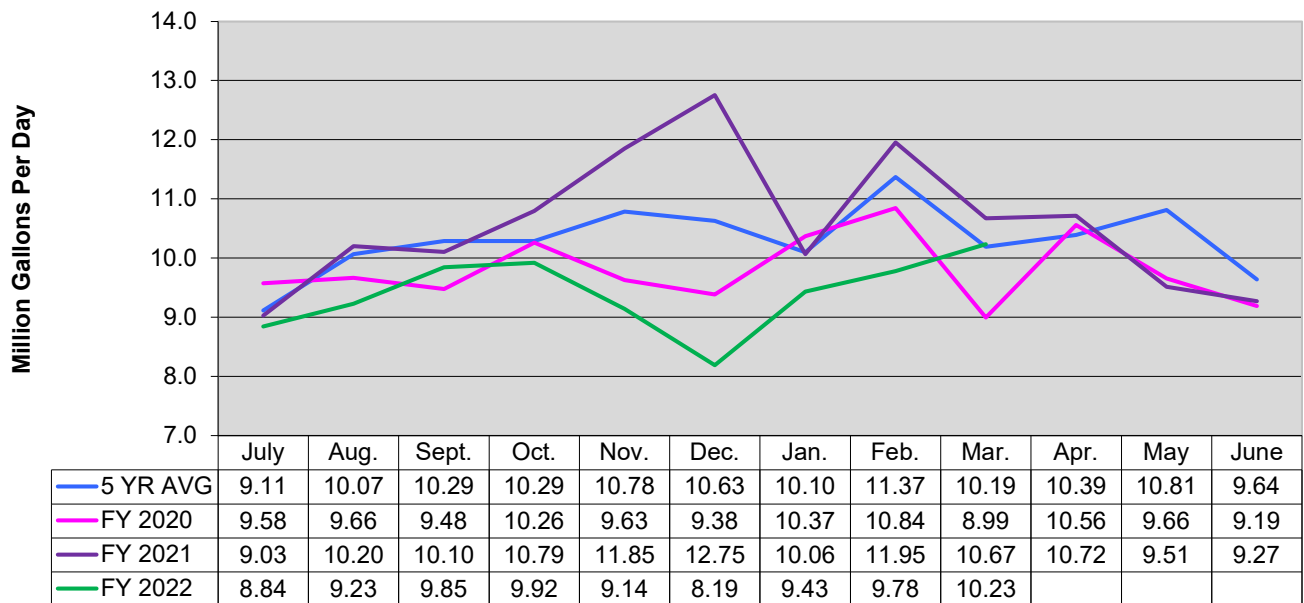
47.00%	\$ 912,156	\$ 672,929	\$ 610,770	\$ 62,158
4.00%	77,630	57,271	51,980	5,290
2.00%	38,815	28,635	25,990	2,645
44.00%	853,933	629,976	571,785	58,190
1.50%	29,111	21,476	19,493	1,984
1.50%	29,111	21,476	19,493	1,984
100.00%	<b>\$ 1,940,757</b>	<b>\$ 1,431,763</b>	<b>\$ 1,299,512</b>	<b>\$ 132,251</b>

**Rivanna Water and Sewer Authority  
Flow Graphs**

**Urban Water Flows**



**Urban Wastewater Flows**







## MEMORANDUM

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

**FROM: DAVE TUNGATE, DIRECTOR OF OPERATIONS**

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

**SUBJECT: OPERATIONS REPORT FOR APRIL 2022**

**DATE: MAY 24, 2022**

### WATER OPERATIONS:

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

<i>Water Treatment Plant</i>	<i>Average Daily Production (MGD)</i>	<i>Maximum Daily Production in the Month (MGD)</i>
South Rivanna	7.96	9.12 (4/28/2022)
Observatory	0.75	1.79 (4/12/2022)
North Rivanna	<u>0.40</u>	<u>0.52 (4/25/2022)</u>
<b><i>Urban Total</i></b>	9.11	10.26 (4/25/2022)
Crozet	0.58	0.71 (4/13/2022)
Scottsville	0.06	0.07 (4/13/2022)
Red Hill	<u>0.0016</u>	0.003 (4/19/2022)
<b><i>RWSA Total</i></b>	9.75	-

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

### Status of Reservoirs (as of May 18, 2022):

- Urban Reservoirs: 99.6% of Total Useable Capacity
- Ragged Mountain Reservoir is not full (99.2%)
- Sugar Hollow Reservoir is full (100%)
- South Rivanna Reservoir is full (100%)
- Beaver Creek Reservoir is full (100%)
- Totier Creek Reservoir is full (100%)

## **WASTEWATER OPERATIONS:**

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

<i>WRRF</i>	<i>Average Daily Effluent Flow (MGD)</i>	<i>Average CBOD<sub>5</sub> (ppm)</i>		<i>Average Total Suspended Solids (ppm)</i>		<i>Average Ammonia (ppm)</i>	
		<i>RESULT</i>	<i>LIMIT</i>	<i>RESULT</i>	<i>LIMIT</i>	<i>RESULT</i>	<i>LIMIT</i>
<b>Moores Creek</b>	10.06	3.0	10	<QL	22	<QL	2.2
<b>Glenmore</b>	0.104	4.0	15	4.9	30	NR	NL
<b>Scottsville</b>	0.048	3.5	25	4.5	30	NR	NL
<b>Stone Robinson</b>	0.001	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 April 2022.

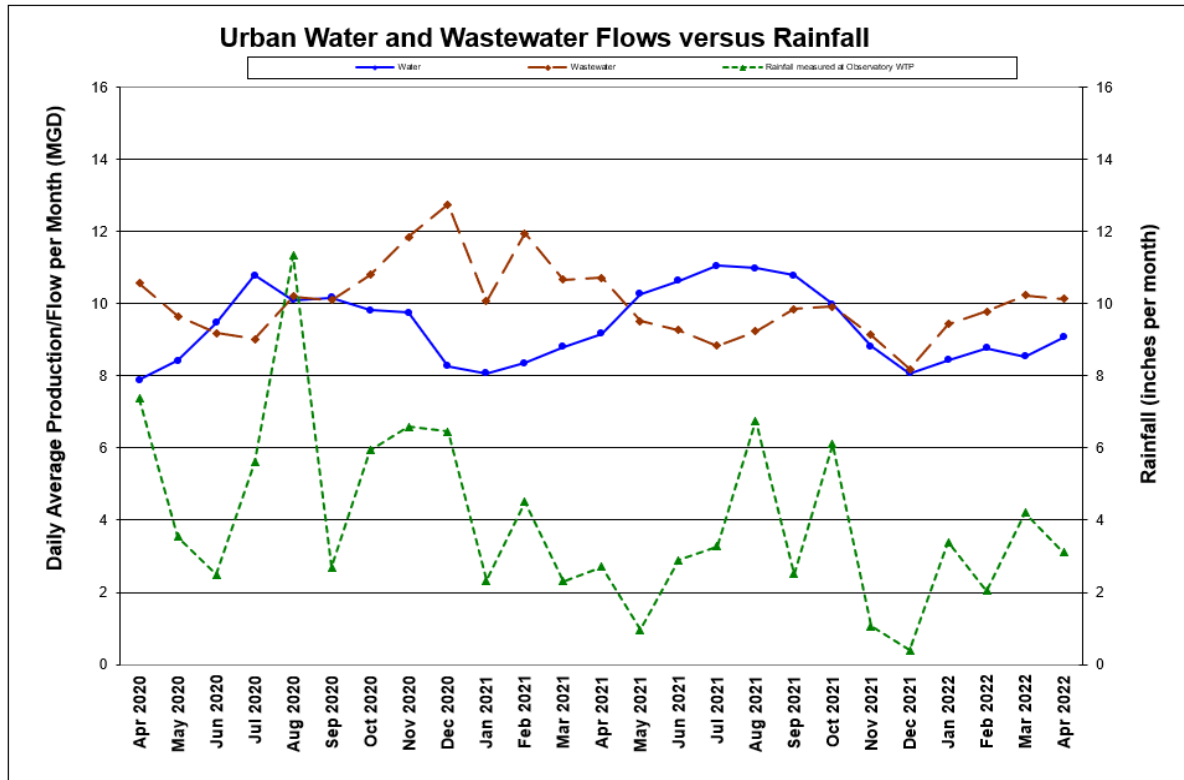
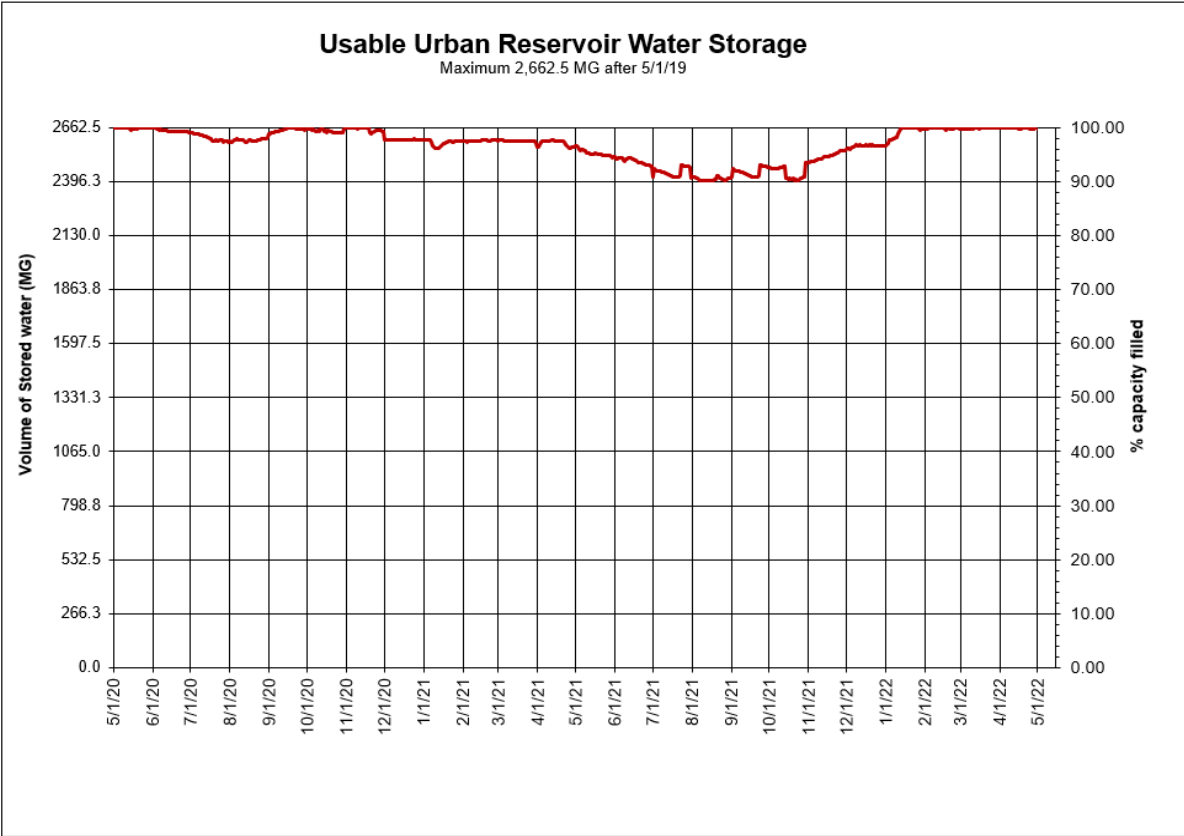
<i>State Annual Allocation (lb./yr.) Permit</i>		<i>Average Monthly Allocation (lb./mo.) *</i>	<i>Moores Creek Discharge April (lb./mo.)</i>	<i>Performance as % of monthly average Allocation*</i>	<i>Year to Date Performance as % of annual allocation</i>
<b>Nitrogen</b>	282,994	23,583	9,213	39%	12%
<b>Phosphorous</b>	18,525	1,544	758	49%	10%

\*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





## MEMORANDUM

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

**FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING &  
MAINTENANCE**

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

**SUBJECT: STATUS REPORT: ONGOING PROJECTS**

**DATE: MAY 24, 2022**

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

For the current, approved CIP, please visit: <https://www.rivanna.org/wp-content/uploads/2021/06/2022-2026-CIP-Final.pdf>

### Under Construction

1. South Rivanna and Observatory Water Treatment Plant Renovations
2. Crozet Flow Equalization Tank
3. MC Aluminum Slide Gate Replacements
4. MC Clarifier and Lime Silo Demolition
5. Glenmore WRRF Influent Pump & VFD Addition
6. Airport Road Water Pump Station and Piping
7. MC 5kV Electrical System Upgrades
8. Scottsville WTP Lagoon Liners Replacement

### Design and Bidding

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

## Planning and Studies

21. South Rivanna Reservoir to Ragged Mtn Reservoir Water Line Right-of-Way
22. Asset Management Plan
23. MC Facilities Master Plan Supplement
24. SRR to RMR Pipeline – Pretreatment Pilot Study
25. Moores Creek AWRRF Cogeneration Upgrades

## Other Significant Projects

26. Urgent and Emergency Repairs
27. Interceptor Sewer & Manhole Repair
28. Security Enhancements

## **Under Construction**

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

Design Engineer:	Short Elliot Hendrickson, Inc. (SEH)
Construction Contractor:	English Construction Company (Lynchburg, VA)
Construction Start:	May 2020
Percent Complete:	59%
Base Construction Contract +	
Change Orders to Date = Current Value:	$\$36,748,500 + \$718,669.49 = \$37,467,169.49$
Completion:	May 2023
Budget:	\$43,000,000

Current Status: Work continues on the SRWTP Administration Building, piping work in the Filter Building, and improvements at the Raw Water Pump Station. Work at the OBWTP includes the new Chemical Storage Building, sedimentation basin improvements, excavation work for the GAC expansion and a large retaining wall.

### **2. Crozet Flow Equalization Tank**

Design Engineer:	Schnabel Engineering
Construction Contractor:	Anderson Construction (Lynchburg, VA)
Construction Start:	September 2020
Percent Complete:	94%
Based Construction Contract +	
Change Orders to Date = Current Value:	$\$4,406,300 + \$71,916.31 = \$4,478,216.31$
Completion:	June 2022
Budget:	\$5,400,000

Current Status: Final construction of the tank continues with only completion of the tank dome, additional leak testing, and painting remaining. The new pumps and motors are set on bases. Variable speed drives are installed and the pumps and variable speed drives have been tested. Final SCADA and control work is in progress.

### 3. MC Aluminum Slide Gate Replacements

Design Engineer:	Hazen and Sawyer
Construction Contractor:	Waco Incorporated (Sandston, VA)
Construction Start:	September 2020
Percent Complete:	95%
Base Construction Contract +	
Change Orders to Date = Current Value:	$\$373,600 + \$32,050.02 = \$405,650.02$
Completion:	October 2022
Budget:	\$675,000

Current Status: During the final calibration and startup of the actuators at the headworks, it was determined that 2 of the older 30" mud valves are excessively grinding and vibrating and will not operate within the acceptable tolerance of the new actuators. A separate Board Report is included in this month's package to request additional contingency funding to replace the 2 malfunctioning valves.

### 4. MC Clarifier and Lime Silo Demolition

Design Engineer:	Hazen and Sawyer
Construction Contractor:	Pleasant View Developers (Staunton, VA)
Construction Start:	November 2021
Percent Complete:	40%
Base Construction Contract +	
Change Order to Date = Current Value:	\$649,000
Completion:	August 2022
Budget:	\$790,000

Current Status: Contractor has removed the lime silo and conditioning tank and is working on demolition of the clarifiers.

### 5. Glenmore WRRF Influent Pump and VFD Addition

Design Engineer:	Wiley Wilson
Construction Contractor:	MEB (Chesapeake, VA)
Construction Start:	September 2021
Percent Complete:	5%
Base Construction Contract +	
Change Order to Date = Current Value:	\$288,000
Completion:	October 2022
Budget:	\$370,000

Current Status: The contractor is waiting for the pump to be delivered but has started mobilizing to the site.

### 6. Airport Road Water Pump Station and Piping

Design Engineer:	Short Elliot Hendrickson (SEH)
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Construction Contractor:	Anderson Construction, Inc. (ACI) (Lynchburg, VA)
Construction Start:	December 2021
Percent Complete:	5%
Base Construction Contract +	
Change Order to Date = Current Value:	\$8,520,312.50
Completion:	December 2023
Budget:	\$10,000,000

Current Status: The contractor has mobilized pipe and equipment to the Kohl's site. Excavation has begun and rock has been encountered. Additional hammering equipment has been brought in to break up the rock. Clearing of the pump station site is anticipated to begin this month.

## 7. **MC 5kV Electrical System Upgrades**

Design Engineer:	Hazen and Sawyer (Hazen)
Construction Contractor:	Pyramid Electrical Contractors (Richmond, VA)
Construction Start:	May 2022
Percent Complete:	0%
Base Construction Contract +	
Change Order to Date = Current Value:	\$5,180,000 - \$970,000 = \$4,210,000
Completion:	June 2024
Budget:	\$5,050,000

Current Status: Negotiations with the low-bidder have been finalized. The Contractor is working on providing applicable bonds, and the Contract will be signed and NTP granted as soon as that has been completed.

## 8. **Scottsville WTP Lagoon Liners Replacement**

Design Engineer:	Wiley Wilson
Construction Contractor:	Haren Construction Company, Inc. (Etowah, TN)
Construction Start:	May 2022
Percent Complete:	0%
Base Construction Contract +	
Change Order to Date = Current Value:	\$448,000
Completion:	May 2023
Budget:	\$540,000

Current Status: The NTP was issued on May 2, 2022. The contractor and design engineer are preparing shop drawing submittals.

## **Design and Bidding**

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

Design Engineer:	Michael Baker International (Baker) (Right of Way)
Design Engineer:	Kimley-Horn (Design)
Project Start:	August 2018



Project Status:	Easement Acquisition & Design (13%)
Construction Start:	2025
Completion:	2028
Budget:	\$29,375,000

Current Status: Preparation of engineering plans and specifications is underway. Topographic survey work to the East of the proposed pump station site continues, while stake out on UVA Foundation property has been completed to further easement negotiations. Staff has reviewed 50% plans for the water line between Ragged Mountain Reservoir and UVA Foundation property. Staff has also begun providing feedback on the technical memorandum summarizing pump station sizing and hydraulic requirements, in order to continue progress for the basis of design. Easement negotiations with one private owner, UVA, and the UVA Foundation continue.

#### **10. South Rivanna Reservoir to Ragged Mtn. Reservoir Raw Water Line – Birdwood to Old Garth**

Design Engineer:	Kimley-Horn
Project Start:	June 2021
Project Status:	90% Design
Construction Start:	Summer 2022
Completion:	2023
Budget:	\$1,980,000

Current Status: Preparation of engineering plans and specifications is substantially complete for a 0.25-mile section of this 36” raw water pipe from Birdwood to Old Garth Road. One remaining easement is under negotiation with the UVA Foundation for this phase of the project. Design documents have been submitted to local regulatory authorities for review. Finalization of permits, design, and bidding are currently on hold awaiting the final UVAF easement.

#### **11. 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:	75% NRCS Planning Process
Construction Start:	2024
Completion:	2027
Budget:	\$30,870,000

Current Status: Staff are moving forward with development of a Joint Permit Application and supporting documents for submission to DEQ by June. Remaining NRCS requirements, including review and approval of the planning study, are scheduled for completion by December 2022. An application for design funding from NRCS will be submitted in 2022.

#### **12. South Rivanna River Crossing**

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2020
Project Status:	40% Design
Construction Start:	January 2023

Completion:	April 2024
Budget:	\$5,850,000

Current Status: Baker has recommended a water line route that will cross the river parallel to the west side of the Berkmar Bridge and follow Rio Mills Road until it intersects the new 24” water line in Route 29. They are proceeding with 50% design documents.

### **13. Central Water Line**

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	5% Design
Construction Start:	2024
Completion:	2028
Budget:	\$31,000,000

Current Status: Survey and utility designation work is ongoing along the proposed 5-mile alignment. Based on comments from community meetings, Baker is performing additional modeling and routing evaluations. It is anticipated that results from this supplemental work will be presented to City Council and the RWSA Board in June.

### **14. Upper Schenks Branch Interceptor, Phase II**

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

Current Status: A revised draft alignment of the sewer line to be installed within easements and out of the roadway has been completed and provided to the City of Charlottesville and Albemarle County for review. Pending review, a determination will be made regarding whether the line will be installed in McIntire Road or an easement adjacent to the road.

### **15. Red Hill Water Treatment Plant Upgrades**

Design Engineer:	Short Elliot Hendrickson (SEH)
Project Start:	May 2022
Project Status:	Design
Construction Start:	September 2022
Completion:	September 2023
Budget:	\$400,000

Current Status: A work authorization is being negotiated with the design engineer.

### **16. Emmet Street Water Line Betterment**

Design Engineer:	Whitman, Requardt & Associates (WRA)
Project Start:	September 2021
Project Status:	Contemplative Commons – Preconstruction Emmet Streetscape – Preliminary Design
Completion:	2030
Budget:	\$1,000,000

Current Status: Upgrading a section of 16” water main in Emmet Street to 30” as part of the UVA Ivy Corridor Public Realm project is complete. Upgrading a section of 16” water main adjacent to the Dell Pond to 30” as part of the UVA Contemplative Commons project is expected to start in July 2022. WRA and RWSA are developing a scope of work for design of a 24-30” water main in Emmet Street as part of the City’s Emmet Streetscape Phase I project. Lastly, WRA has developed a draft technical memorandum detailing additional opportunities for betterment along Emmet Street, which is under review and is expected to be finalized this spring for CIP planning purposes.

#### **17. Crozet Pump Station Rehabilitation**

Design Engineer:	TBD
Project Start:	Summer 2022
Project Status:	Design
Construction Start:	TBD
Completion:	TBD
Budget:	\$590,000

Current Status: Work authorizations are being developed to address various improvements needed at the four wastewater pump stations to include roof, generator and pump replacements. An internal workshop is scheduled to confirm the scope of the work and then a final work authorization(s) will be developed to perform design and construction administration services. This work is being initiated based on the anticipated completion of the Crozet FET project in June.

#### **18. Moores Creek AWRRF Concrete Repairs**

Design Engineer:	TBD
Project Start:	Summer 2022
Project Status:	Design
Completion:	TBD
Budget:	\$2,650,000

Current Status: The project scope to complete repairs in the 2 holding ponds and 2 equalization basins is being reviewed. A consultant will be selected and a work authorization will be developed. This work is being initiated following completion of the MCAWRRF Master Plan.

#### **19. Moores Creek AWRRF Compost Shed Roof Rehabilitation**

Design Engineer:	TBD
Project Start:	Summer 2022
Project Status:	Design

Completion:	TBD
Budget:	\$1,360,000

Current Status: The shed roof rafters are deteriorated and may need to be replaced. Selecting a consulting engineer for design and developing a work authorization.

## 20. **Scottsville WRRF Whole Plant Generator and ATS**

Design Engineer:	Wiley Wilson
Project Start:	December 2021
Project Status	Design (30%)
Completion:	Summer 2023
Budget:	\$200,000

Current Status: The current back-up power generator at the Scottsville Water Treatment Plant has reached the end of its service life (22 years), does not power the entire plant, serving only the facilities needed to send flow to the lagoons, and needs to be replaced. A site plan is being prepared for the Town of Scottsville. Additionally, Wiley|Wilson is preparing an analysis of alternatives to the propane generator at the wastewater influent pump station.

## **Planning and Studies**

### 21. **South Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way**

Design Engineer:	Michael Baker International (Baker)
Project Start:	October 2017
Project Status:	Easement Acquisition
Completion:	2022
Budget:	\$2,295,000

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

### 22. **Asset Management Plan**

Design Engineer:	GHD, Inc. (GHD)
Project Start:	July 2018
Project Status:	CMMS Implementation – 76% Complete
Completion:	CMMS Implementation – October 2022
Budget:	\$1,180,000

Current Status: For implementation of the new CMMS, GHD is completing updates to our facility geodatabase and continuing the software configuration process. Upgrades to both our ESRI and Cityworks software were necessary for security improvements, which has extended the overall implementation schedule as those upgrades are completed. Discussions related to Phase 3 of RWSA's overall Asset Management Program have begun with additional work authorizations to follow towards this effort.

### 23. **MC Facilities Master Plan Supplement**

Design Consultant:	Hazen and Sawyer (Hazen)
Project Start:	February 2022
Project Status:	20% Complete
Completion:	August 2022
Budget:	\$45,000

Current Status: The master plan has been finalized. Data collection and analysis work has begun on the supplement to include the impact of the recent wastewater collection system flow allocation analysis.

#### **24. SRR to RMR Pipeline – Pretreatment Pilot Study**

Design Consultant:	SEH
Project Start:	August 2020
Project Status:	100% Complete (Phase 1), 65% Complete (Phase 2)
Completion:	December 2022
Budget:	\$22,969 (Phase 1), \$98,629 (Phase 2)

Current Status: Phase 2 of the study continues with detailed reservoir water quality modeling performed by DiNatale Water Consultants. Modeling efforts using the Excel-based desktop model have been completed, and while these efforts were helpful in determining high-level transfer scenarios, the more detailed reservoir model will be utilized to help better represent the future conditions at Ragged Mountain Reservoir based upon the known characteristics of the proposed transfer system. Development of the more detailed reservoir model continues, and staff has supplied the consultant with additional data to assist with model development following the initial request.

#### **25. Moore's Creek AWRRF Cogeneration Upgrades**

Design Engineer:	SEH
Project Start:	October 2021
Project Status:	Preliminary Engineering/Study (75%)
Completion:	June 2024
Budget:	\$2,145,000

Current Status: A study is underway to determine the viable manufacturers in the Cogeneration Industry and how to proceed with procuring the new unit. All manufacturer/vendor interviews have been completed, and the Consultant is finalizing the technical memo to be distributed to staff.

### **Other Significant Projects**

#### **26. 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
2020-08	UWL-010 Leak	\$40,000

2020-21	PCI Erosion and Access Improvements	\$80,000
2021-09	SLW Erosion Near SLW-022	\$30,000
2022-01	PCI-MH-10 Exploratory Excavation and Height Adjustment	\$30,000
2022-04	UBW-002 Valve Issue	\$10,000

UWL-010 Leak: In 2020, during routine line maintenance, RWSA Maintenance Staff discovered that a blowoff valve on the Urban Waterline, UWL-010, was leaking into an adjacent creek. A blind flange was installed to stop the leakage at that time. Staff is coordinating the replacement of this defective valve with its On-Call Maintenance Contractor. Right-of-way clearing to support this repair was completed on March 4<sup>th</sup>, 2022. Installation of the new valve was completed on May 3<sup>rd</sup>, 2022, with all site restoration completed on May 5<sup>th</sup>.

- PCI Erosion and Access Improvements: In October 2020, the RWSA Maintenance Department raised concerns about several creek crossings and ditch lines along the Powell Creek Interceptor (PCI). Through the On-Call Maintenance Contract, two of the worst ditch lines were addressed in November 2020, including the installation of culverts and erosion control as appropriate. In June 2022, staff will address the remaining 5 areas of concern along the interceptor, mostly focused to smaller creek crossings where access is particularly challenging. The scope of work will be to install vehicular rip-rap crossings, which will allow for much improved access for staff performing maintenance and inspections on the sewer, as well as emergency access for small-mid size construction equipment.
- Erosion Near SLW-022: In Spring 2021, staff identified an area of erosion over RWSA's 20" Southern Loop Waterline (SLW), located near Forest View Road in Albemarle County. During subsequent site visits, it was determined that an adjacent creek/stormwater channel has silted in, causing water to become redirected over the RWSA Easement during heavy rain events. Easement restoration efforts were completed on April 27<sup>th</sup>, protecting the waterline from further erosion. Staff will continue coordinating with Albemarle County Water Resources staff on potential collaborative efforts to address the issues on the RWSA easement and improve stormwater flow in the area.
- PCI-MH-10 Exploratory Excavation and Height Adjustment: Recently, while performing sewer evaluation of the Powell Creek Interceptor (PCI), RWSA staff identified that PCI-MH-10 appeared to be buried just off the shoulder of PCI-MH-10. At the time, it was unknown how deep the lid of this MH was buried, but during sewer cleaning efforts, staff could hear the equipment in the manhole. RWSA's On-Call Maintenance Contractor, Faulconer Construction, performed exploratory excavation on April 18<sup>th</sup> and was able to locate this manhole approximately 2' below grade, under the guardrail. This manhole was appropriately raised to grade and received a new frame and cover, enabling future access and maintenance.
- UBW-002 Valve Issue: On March 24<sup>th</sup>, 2022, during a planned shutdown of the South Rivanna Water Treatment Plant for the ongoing Improvements Project, UBW-002, the first isolation valve (36") outside of the facility, became stuck in the closed position. Staff was ultimately able to free and reopen the valve that afternoon, but it was apparent that the valve was in need of repairs. After some exploratory work, it was determined that the valve gearbox required several replacement parts. The applicable parts were ordered, and RWSA Maintenance staff along with the gearbox manufacturer were able to repair the gearbox and make the valve fully operational once again.

## 27. Interceptor Sewer and Manhole Repair

Design Engineer:	Frazier Engineering
Construction Contractor:	Insituform Technologies (Chesterfield, MO)
Construction Start:	November 2017
Percent Complete:	5%
Base Construction Contract + Change Orders to Date = Current Value:	\$701,011
Expected Completion:	June 2022
Budget:	\$1,088,330 (Urban) + \$880,000 (Crozet) = \$1,968,330

Current Status: Staff continues coordination on the lower Powell Creek Interceptor (PCI) and a portion of the Woodbrook Interceptor (WBI), as these are the next high-priority areas to be addressed based upon the latest CCTV footage. Notice to Proceed for the new contract with Insituform was issued on April 8<sup>th</sup>, and the first two Work Authorizations have been signed, which authorize all necessary main line sewer and manhole rehabilitation efforts necessary on these two sections of the system. The pre-rehabilitation cleaning and CCTV was completed during the week of 4/25, with cured in place pipe lining scheduled for May, as well as manhole rehabilitation.

## 28. Security Enhancements

Design Engineer:	N/A
Construction Contractor:	Security 101 (Richmond, VA)
Construction Start:	March 2020
Percent Complete:	99% (WA 2 & 3), 80% (WA 4), 0% (WA #5)
Based Construction Contract + Change Orders to Date = Current Value:	\$718,428.00 (WA1) + \$91,130.32 (WA2) + \$128,166.69 (WA3) + \$189,698.95 (WA4) + \$76,920.11 = \$1,204,344.07 (total)
Completion:	October 2022 (WA #5)
Budget:	\$2,810,000

Current Status: The only task that remains under WA #2 is some door and lock hardware improvements, which will enhance the functionality of the card access system. Card access installation at the Crozet and Scottsville WTP exterior doors under WA #3 is substantially complete. Finally, WA #4 includes security conduit at the South Rivanna and Observatory WTPs that was not included in the Improvements Project. This work began on November 2, 2021, with the majority of the work at South Rivanna WTP now complete, with the exception of the Filter Building. Security 101's subcontractor has also completed most work at Observatory, aside from the Pretreatment Building, which is also currently undergoing heavy renovations. The subcontractor will return as these buildings become more available for the work. Staff also recently executed WA #5, which authorizes card access installation at Glenmore Water Resource Recovery Facility (GWRRF), Scottsville Water Resource Recovery Facility (SVWRRF), and Red Hill Water Treatment Plant (RHWTP). Security 101 is developing a schedule for this work, as it navigates long material lead times.



## **History**

## **Under Construction**

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

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

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

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

### **2. Crozet Flow Equalization Tank**

A 2016 update to the 2006 model was completed which evaluated the I&I reduction goals previously established and future capital project needs. Based on the results of that study, it was determined that the Crozet Interceptor system and the existing Crozet Pump Stations (1 through 4) have adequate capacity to handle the 2015 peak wet weather flow from the Crozet Service Area during a two-year storm. However, as projected growth in the service area occurs, peak wet weather flows in the area under the storm conditions established in the updated model will begin to exceed the firm capacities of the pump stations by 2025. Additional I&I reductions in order to reduce flows enough to not exceed the pump station firm capacities are not feasible and as a result, the construction of a flow equalization tank was identified as the best method to alleviate wet weather capacity issues.

While the study indicates that capacity should not be an issue until 2025, a flow equalization tank would also provide a significant benefit to the maintenance of the Crozet Pumping Station system which currently lacks system storage necessary to allow adequate time to perform repairs on the pumps and the associated force mains while the system is down.

Greeley and Hansen completed a siting study to determine the location for the flow equalization tank based on the results of the comprehensive model update. The results of the siting study were reviewed

with ACSA and a final tank location was determined.

A work authorization with Schnabel Engineering was finalized and a Project Kick-off Meeting was held on July 12, 2018. The construction bids were received on July 16, 2020. Anderson Construction of Lynchburg, VA was awarded the construction contract. Notice to Proceed on this project was given on October 9, 2020 and now construction is in progress.

**3. MC Aluminum Slide Gate Replacements**

Several large aluminum slide gates are located at the influent side of the Moores Creek Pump Station. These gates allow staff to stop or divert flow to perform maintenance activities. After repeated attempts to repair the deteriorated gates, it is now necessary to replace the gates and modify the gate arrangement. There are also several deteriorated gates at the Ultraviolet disinfection facility that leak water, causing a reduced capacity of the facility. Replacement of these gates will restore the process to full capacity. Work also includes replacement of the cast iron gates in the holding pond pump station and new actuators on the headworks gates. A Notice to Proceed for these efforts was provided on October 6, 2020. The work specific to the Moores Creek Pump Station will be bid under a separate project due to the extensive bypass pumping.

**4. MC Clarifier and Lime Silo Demolition**

The two in-plant clarifiers were constructed in the late 1950's and were taken out of service as a result of the Odor Control Project at the plant. Due to the age of the tanks, various components have significantly deteriorated over time and no additional uses for these tanks have been identified. In addition, due to their out-of-service status, they remain empty and a safety concern for plant staff and visitors. There is also an abandoned lime silo currently located adjacent to the Solids Handling Building. Lime was previously used with the old plate and frame presses before centrifuges were installed for sludge dewatering purposes. This project will include the complete demolition of the in-plant clarifiers by removing all existing components, backfilling the area, and returning the area to open space and removing the lime silo from the plant and properly disposing of it. The project was advertised, and bids are due on July 1, 2021. A Notice of Award was issued on August 6, 2021 and a Notice to Proceed was issued on September 28, 2021.

**5. Glenmore WRRF Influent Pump and VFD Addition**

The 0.381-mgd water resource recovery facility, located within the Glenmore subdivision, is operated by RWSA. The facility includes an influent pumping station located immediately adjacent to the treatment facility. The Glenmore WRRF is predicted to see additional dry and wet weather flows as construction within the service area continues. Future wet weather flows will require higher influent pumping capacity and an additional pump and electrical variable frequency drive will be required to maintain firm capacity. After discussions with the Operations and Maintenance departments, installation of a new exhaust fan in the influent pump station will also be included. A work authorization for this project has been finalized and design is underway. The project was advertised, and bids are due on July 8, 2021. A Notice of Award was issued on August 6, 2021.

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

The Rt. 29 Pump Station and Pipeline master plan was developed in 2007 and originally envisioned a multi-faceted project that reliably connected the North and South Rivanna pressure bands, reduced excessive operating pressures, and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan update was completed in

June of 2018 to reflect the changes in the system and demands since 2007. This project, along with the South Rivanna River Crossing and North Rivanna Transmission Main project, will provide a reliable and redundant finished water supply to the North Rivanna area. The proposed pump station will be able to serve system demands at both the current high pressure and future low-pressure conditions. These facilities will also lead to future phase implementation which will include a storage tank and the creation of the Airport water pressure zone. The North Rivanna Transmission Main improvements included under a separate CIP project have been added to this project to allow connection of the pump station to the distribution system.

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

## **7. MC 5 kV Electrical System Upgrades**

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

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

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

## **8. Scottsville WTP Lagoon Liners Replacement**

The Scottsville Water Treatment Plant (WTP) has two lined lagoons that receive filter backwash water, filter-to-waste water, and flow from the sedimentation basin sludge collectors. The lagoons are regulated under the Virginia DEQ VPDES permit program. The earthen lagoons are original to the plant and were lined at the request of DEQ in 2007 to prevent water infiltration out of the lagoons.

Recently, the lagoon liners have shown signs of degradation from ultraviolet sunlight. As such, a liner replacement project was added to the FY 22-26 CIP to begin in FY23 and be completed in FY24. Unfortunately, in early June '21, the liner in one of the lagoons failed during a high flow event. DEQ has been notified and the lagoon taken out of service, leaving the plant with only one remaining lagoon. In order to advance replacement of the liners, bid documents were developed, a Request for Bids was issued on January 4, 2022, and bids were received on February 1, 2022. A Notice of Award was provided to Haren Construction on March 4, 2022 and a Notice to Proceed was issued on May 2, 2022.

## **Design and Bidding**

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

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

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

Both Design Work Authorizations received Board of Directors approval on July 27, 2021. A kickoff meeting was held on September 17, 2021, and a meeting to begin establishing boundary conditions for the RMR Pump Station was held on October 25, 2021. An internal RMR Pump Station Operations workshop was held on February 23, 2022 to set the boundary conditions for the facility, and this information was provided promptly to the Design Consultant to allow design efforts to continue progressing.

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

This project is the continuation of the SRR to RMR 36" raw water pipeline built on the Birdwood Golf Course. Design efforts were authorized in June 2021 with construction anticipated in Summer 2022.

## **11. Beaver Creek Dam and Pump Station Improvements**

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

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

In 2020, staff received grant funding for a planning and environmental study from the Natural Resources Conservation Service (NRCS). The project kicked off in August 2020 and is expected to be completed in July 2022. Following completion of the study and acceptance of the Plan-Environmental document by NRCS, staff will pursue additional grant funding through NRCS that, if available, could cover up to 65% of final design and construction costs.

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

## **12. South Rivanna River Crossing**

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

### **13. Central Water Line**

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

### **14. Upper Schenks Branch Interceptor, Phase II**

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

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

### **15. Red Hill Water Treatment Plant – Upgrades**

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

### **16. Emmet Street Water Line Betterment**

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

#### **17. Crozet Pump Station Rehabilitation**

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

#### **18. Moores Creek AWWRF Concrete Repairs**

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

#### **19. Moores Creek AWWRF Compost Shed Roof Rehabilitation**

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

#### **20. Scottsville WRRF Whole Plant Generator and ATS**

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

### **Planning and Studies**

#### **21. South Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way**

The approved 50-year Community Water Supply Plan includes the construction of a raw water line from the South Rivanna Reservoir to the Ragged Mountain Reservoir. This water line will replace the



existing Upper Sugar Hollow Pipeline and increase raw water transfer capacity in the Urban Water System. The preliminary route for the water line followed the proposed Route 29 Charlottesville Bypass; however, the Bypass project was suspended by VDOT in 2014, requiring a more detailed routing study for the future water line. This project includes a routing study, preliminary design, and preparation of easement documents, as well as acquisition of water line easements along the approved route.

Baker has completed the routing study. Preliminary design, plat creation and the acquisition of easements are underway. Property owners were contacted to request permission to access properties for topographical surveying. A community information meeting was held in June 2018.

## **22. Asset Management Plan**

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

## **23. MC Facilities Master Plan**

The majority of the Moores Creek Water Resource Recovery Facility was constructed in the early 1980's. At the time, the plant layout was developed with space held open for future process expansion. With the Enhanced Nutrient Removal (ENR) project in 2009, the operation and layout of the plant was fundamentally altered, as needed to meet the new regulation. The project did anticipate the need for future expansion and some of the processes have readily available space. However, a full expansion plan was not developed at the time. As identified in the Strategic Plan, the Authority has a goal to plan, deliver and maintain dependable infrastructure in a financially responsible manner. Staff has identified asset master planning as a priority strategy to improve overall system development. As such, this project will serve to evaluate and plan for future space and process needs to accommodate capacity expansion and/or anticipated regulatory changes.

## **24. SRR to RMR Pipeline – Pretreatment Pilot Study**

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

The study is anticipated to be completed in 4 phases: 1. Analysis and Correlation of Existing Water Quality and Seasonal Weather Data 2. Enhanced Water Quality Sampling 3. Pretreatment Piloting 4. Level Setting for the Final Pretreatment Solution. Phase 1 commenced in January 2021 and was

completed in July 2021. Phase 2 began in June 2021. The Excel Desktop Modeling portion of the analysis was completed in February 2022.

## **25. MCAWRRF Cogeneration Upgrades**

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

## **Other Significant Projects**

### **26. Urgent and Emergency Repairs**

- **South Rivanna Dam Apron and Riverbank Repairs**

Intense rainfall between May 30-31, 2018 resulted in extensive flooding throughout Charlottesville and parts of Albemarle County, with flows over the South Fork Rivanna Dam reaching more than 7 feet over the spillway crest at its peak. Staff has inspected the dam and abutments to determine the extent of damage resulting from the extreme flooding. Although there is no discernible damage to the dam itself, staff found erosion damage to the north downstream riverbank and substantial displacement of large stone downstream of the dam to form a rock dam and pool below the north apron. Additionally, some damage to concrete structures on both aprons was noted, including possible creation of voids beneath the concrete and loss of concrete joint filler. Repairs to the riverbank and removal of the rock dam were completed June 3-7, 2019 under RWSA's on-call construction contract.

- **Urban Water Line Valve and Blow-off Repair**

During its routine inspections of the Water System, the Maintenance Department discovered a blowoff (drain) valve along the Urban Waterline (UWL-017) that had significant leakage. In addition, during one of the numerous heavy rain events received in 2018, the water in the creek adjacent to the drain line rose, eroding the area around the drain line and causing the headwall to become disconnected from the end of the pipe. Staff will be coordinating internally to confirm the overall scope of the project, including whether the drain line will need to be further reinforced or restrained.

### **27. Interceptor Sewer and Manhole Repair**

Results from sewer flow monitoring and modeling under the Comprehensive Sanitary Sewer Study provided awareness to specific inflow and infiltration (I&I) concerns in the collection system and resulted in strengthened commitments from the City, ACSA and RWSA to continue professional engineering services to aid in the rehabilitation and repair of the sewer collection system. Engineering services will be used for sewer infrastructure condition assessments and the development of a sewer rehabilitation bid package for the procurement of a contractor to perform the recommended

rehabilitation work.

Lining work and manhole rehabilitation on the Upper Morey Creek Interceptor began in Fall 2019 and was completed in Fall 2020. A critical section of upper Morey Creek Interceptor under Rt. 250 was lined on August 28, 2020. 65' of new ductile iron sewer to replace a sagging section of vitrified clay piping was installed in May 2021. Tri-State Utilities completed over 3,000 LF of Sewer Cleaning and CCTV under RFQ No. 1105 in October 2021 on high-priority portions of the Powell Creek and Woodbrook Interceptors.

A bid package was developed to address the highest priority known defects on the Powell Creek, Woodbrook, and Crozet Interceptors. A Request for Bids (RFB) was issued on December 22, 2021, and bids were submitted on February 3, 2022. A Construction Contract Award for Insituform Technologies was approved by the RWSA Board of Directors on February 22, 2022, and a Notice of Award (NOA) was provided to Pyramid on March 4, 2022.

## **28. Security Enhancements**

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

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

Access Control on exterior doors at the CZWTP and SVWTP was substantially completed in November 2021.

## 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 APRIL 2022**

**DATE: MAY 24, 2022**

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

	<i>Month</i>	<i>Daily Average</i>	
City Usage (gal)	140,248,988	4,674,966	<b>51.6%</b>
ACSA Usage (gal)	131,754,838	4,391,828	<b>48.4%</b>
<b>Total (gal)</b>	<b>272,003,826</b>	<b>9,066,794</b>	

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

Note: Staff detected a read issue with Meter Site 15 – Ivy Road at Colonnade Drive in March and has determined that the meter’s register will require replacement. Staff will report a flow estimate for this site using available data until the issue is resolved, likely this summer.

Figure 1: City of Charlottesville Monthly Water Usage and Allocation

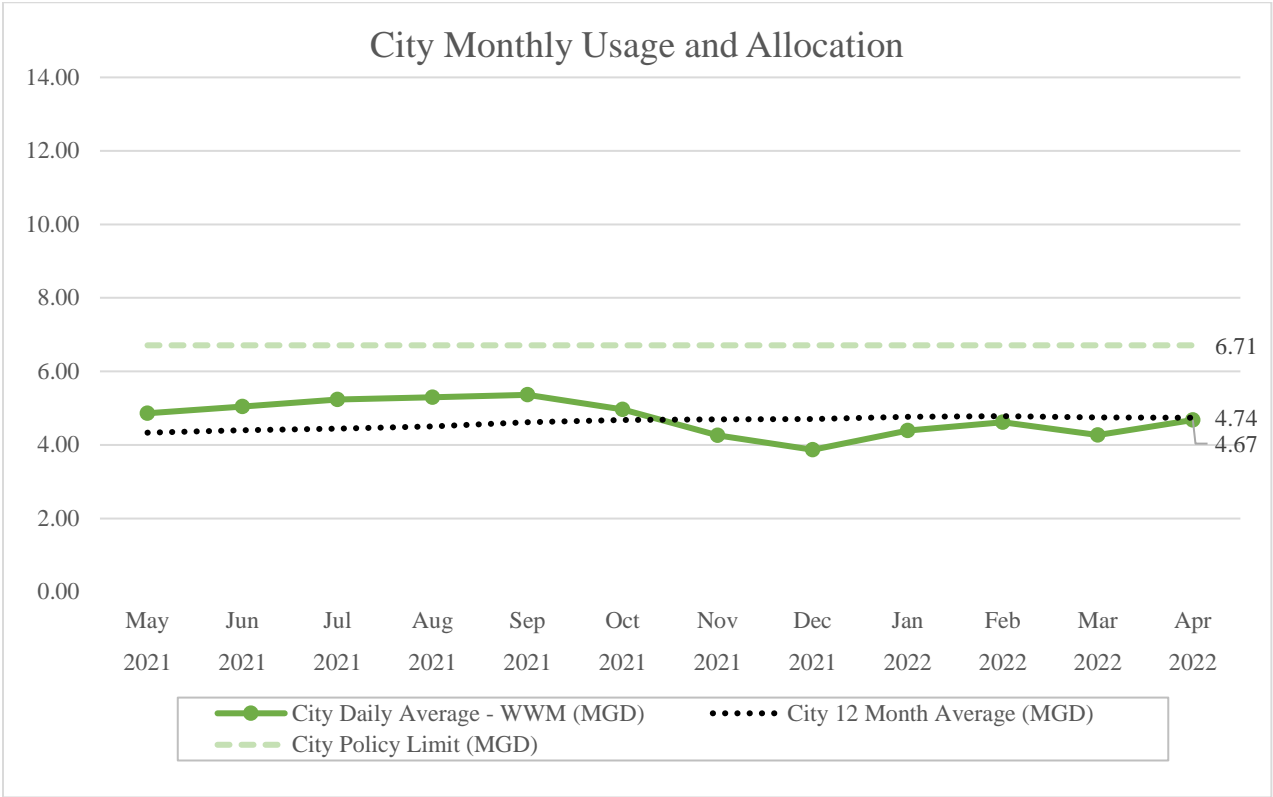
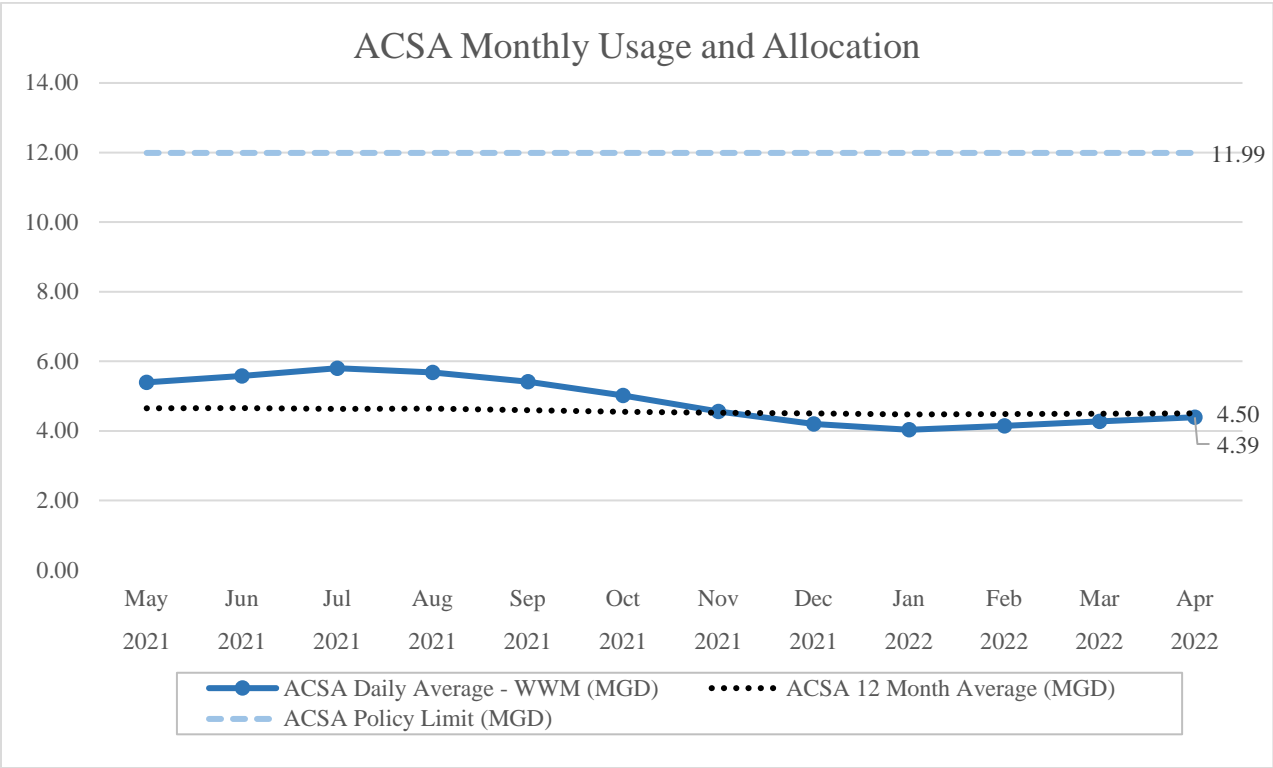


Figure 2: Albemarle County Service Authority Monthly Water Usage and Allocation





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

**FROM: ANDREA BOWLES, WATER RESOURCES MANAGER**

**REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT: DROUGHT MONITORING REPORT**

**DATE: MAY 24, 2022**

Drinking Water Supply and Drought Monitoring, as of May 12, 2022:

A. U.S. Drought Monitoring Report:

- No drought phases have been initiated. Albemarle County is noted to be abnormally dry.

B. VDEQ Drought Status Report:

- Our region is at a “Watch” level for low precipitation and groundwater.

C. Urban Reservoirs Status (Sugar Hollow, South Rivanna, Ragged Mountain):

- 98.89% full.

**Precipitation**

Charlottesville Precipitation				
Year	Month	Observed (in.)	Normal (in.)	Departure (in.)
2021	Total: Jan - Dec	33.82	41.61	-7.79
2022	January	3.79	2.96	0.83
	February	1.48	2.35	-0.87
	March	3.19	3.54	-0.35
	April	3.05	3.17	-0.12
	Total: Jan - Apr	11.51	12.02	-0.51

Source: National Weather Service, National Climatic Data Center.



## MEMORANDUM

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

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

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

**SUBJECT: APPROVAL OF FISCAL YEAR 2022-2023 PERSONNEL  
MANAGEMENT PLAN UPDATE**

**DATE: MAY 24, 2022**

The Personnel Management Plan (PMP) is the policy guidance of the Authorities to document and communicate labor regulations, management practices, and overall personnel policies approved by the Board. It covers many topics ranging from employee hiring procedures, compensation, and benefits to grievance rights, substance abuse and code of conduct.

Annually, staff must review and update the PMP to reflect recent changes in the labor laws and benefits, and to provide a general review for best practices. This year's updates are a mixture of regulatory changes and administrative clarifications. Significant changes include:

- increases the pay for water or wastewater operators for each higher license they obtain from 5% to 7%. This increase is recommended due to ongoing employment market competition, retention of our licensed operators, and to provide incentive for operators to sit for and pass the required exams.
- Removes the "Family Sick Leave" category and allows employees to use any amount of their accrued sick leave time to take care of sick family members.
- Gives new employees 20 hours of sick leave on their date of hire to help avoid a "leave without pay" status for new employees with illness situations shortly after being hired.

Below is a summary of the changes proposed for the PMP.

### **Section B. – Recruitment and Hiring Policy**

**B.2. Job Posting** - Changed length of time that all open positions must be posted from 10 business days to "until filled". Removed the requirement of listing a closing date on all job postings to allow Human Resources to hire candidates more quickly.

**B.3. Application Policy** - Allows applicants to submit a resume in lieu of a job application. Removed the requirement to complete an application before the closing date of a job posting.

**B.5. Criminal Background Checks** - Eliminated the requirement of having only the Executive Director review criminal offenses revealed on criminal background checks.

**B.6. Post-Offer Physicals** - Added the requirement to complete a drug test within 2 business days of receiving a job offer.

**Section D. – Compensation Plan and Administration**

**D.5. Pay Rates** - Added the requirement that all position reclassifications must be approved by the Executive Director. Eliminated pay change requirements for employees whose positions are reclassified.

**D.7. Other Forms of Compensation** - Increase the pay increase for operators who obtain licenses from 5% to 7%. Due to a change in State law, allows employees to request annual leave in lieu of up to 20 hours of overtime pay per calendar year. This allows employees to add up to an additional 30 hours of annual leave to their annual leave bank per calendar year.

**Section F. – Leave Policies and Rules**

**F.3. Annual Leave** - Removes Family Sick Leave and allows employees to use any amount of their sick leave time to take care of sick family members.

**F.4. Sick Leave** - Gives new employees 20 hours of sick leave on their date of hire.

**Section I. – Administrative Policies**

**I.7. Inclement Weather Policy** – Eliminated. This is a General Administrative Policy and no longer needs to be in this Manual.

**I.13. Safety Shoe Program** - Updated annual allowance for each authority.

**Section J. – Employee Training, Development and Educational Assistance Program**

**J.6. Degree Program** - Changed reimbursement time-period from fiscal year to calendar year to match the IRS regulation.

**Board Action Requested:**

Approve the recommended updates to the Personnel Management Plan to be effective on July 1, 2022.

Attached: Redline of changes to the PMP



RIVANNA AUTHORITY

PERSONNEL MANAGEMENT PLAN

Adopted May 2021

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RIVANNA AUTHORITY

PERSONNEL MANAGEMENT PLAN

Adopted May 2021

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## A. Introduction and Organization Chart

It is the policy of the Rivanna Water & Sewer Authority and the Rivanna Solid Waste Authority that a fair and uniform personnel management system be established and maintained in order to ensure effective service to our customers and community.

### 1. Authority

The policies and procedures in this Manual are intended to cover all aspects of the Rivanna Water & Sewer Authority and the Rivanna Solid Waste Authority (the Authority) personnel management system. They have been adopted or revised by the Authority's Boards of Directors (Boards) on the dates noted in each chapter or section. Administrative authority has been delegated to the Executive Director. The authority to revise or add to this manual remains with the Boards with day to day supervision by the department managers, or as delegated, with the exception that *Section D.3., "Compensation Plan and Administration, Job Descriptions"* may be revised as needed by the Executive Director. The authority to add full-time and part-time equivalent staff (FTE'S) and departments remains with the Boards. Nothing in this Personnel Manual is to be construed as a contract of employment.

### 2. Work Service

All employees work under these policies as approved by the Authority's Boards and administered by the Executive Director. The followings categories of work service do not fall under these provisions:

- a. Consultants, contractors, and counsel;
- b. Volunteers, or persons appointed to serve without pay;
- c. Members of Boards, commissions, or committees;
- d. Other positions as designated by the Board.

### 3. Organizational Chart

The Executive Director may request or recommend changes to the organizational charts from time to time. When this occurs, the organizational charts shall be presented to the Board for review and approval. Once approved, the organizational charts will be updated accordingly. For Authority organizational charts see *Section M. Forms and Attachments*.

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## B. Recruitment and Hiring Policy

### 1. Policy

It is the policy of the Authority to hire employees through a systematic recruitment and selection process that identifies, attracts, and selects the most qualified applicants for employment. All applicants are considered on the basis of job requirements and applicant qualifications and otherwise without regard to race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, marital status, pregnancy, childbirth or related medical conditions, status as a veteran, disability, hairstyles, hair texture, or any other non-job-related factor. The Authority's programs and practices seek to foster internal advancement opportunities for current employees. The Human Resources Department is responsible for overseeing the recruitment and selection process. All recruitment and selection will be done in accordance with applicable policies and laws and no selection decision will be made that would constitute unlawful discrimination in violation of state or federal laws.

### 2. Job Posting

a. Open positions can be posted in one of the following ways:

- 1) The job may be opened to Authority personnel only, in which case interested employees will notify the appropriate department manager or the Human Resources Manager of their interest.
- 2) The job may be filled by evaluating applications already filed by qualified persons.
- 3) The job may be advertised by contacting local schools, agencies, the Virginia Employment Commission, or by paid advertisements in appropriate newspapers, journals or Web posting and/or television.

b. All open positions will be posted ~~until filled for a minimum of ten business days.~~

~~c. The closing date of the posting will be listed as a part of the posting.~~

~~d.~~ Job advertisement is under the direct supervision of the Human Resources Manager. No position may be opened and filled without notifying the Human Resources Manager and following one of the above procedures. This policy is to ensure that job openings are publicized adequately, both in the interest of fairness and of finding the best candidate for a job opening.

### 3. Application Policy

a. All applicants must complete an Authority employment application, either an online application or a paper application, or submit a complete resume. All employment applications and resumes are submitted to the Human Resources Manager.

~~b. Applicants must complete an employment application for a position before the closing date of the job posting.~~

~~e.b.~~ All applications and resumes received for any position must be retained as stated in the retention policy of the Library of Virginia. Destruction of employment applications and resumes at the end of the retention period must be confidential.

~~d.c.~~ All applicant data will be tracked by the Human Resources Department.

#### 4. Job Offer Policy

The Executive Director has final approval of all hiring decisions. A recommendation will be made to the Executive Director by the hiring department manager and/or the Human Resources Manager for all open positions.

#### 5. Criminal Background Checks

All applicants who are offered positions shall be required, as a condition of employment, to authorize the Authority to have a criminal background check investigation performed and additionally a motor vehicle investigation check when driving a motor vehicle is an essential function of the position.

- a. When an applicant has a prior conviction, ~~the Executive Director will consider~~ the nature of the offense, the date of the offense, and the relationship between the offense and the position for which application is sought will be reviewed. The Authorities may withdraw a job offer based on what type of offense an applicant was convicted of in the past.
- b. If an applicant should refuse to permit a background check, the applicant will be removed from further employment consideration.

#### 6. Post-Offer Physicals

- a. A post offer physical is required of the successful candidate. The candidate must meet the physical requirements of the position and must successfully pass a medical examination prior to the first day of employment. All medical records are confidential and shall comply with HIPPA guidelines.
- b. A post offer drug screening is required of the successful candidate within 2 business days of accepting a job offer. At the time of the physical examination the candidate will submit a urine specimen for drug screening purposes. The candidate must test negative for any illegal drug use to be eligible for employment. All drug and alcohol records are confidential and are maintained in a file separate from the employee's personnel file. *See Section L, "Substance Abuse Policy"* for additional information on the Authority's drug testing policy.

#### 7. Orientation Policy

All new employees will receive a copy of the Authority Employee Handbook prior to their first day of employment. New employees will attend an orientation session with the Human Resources Manager, the Payroll and Benefits Coordinator and the Safety Manager on their first day of employment. During this time, new employees will review all of their employment documentation, complete Employment Eligibility forms, and receive a comprehensive review of safety procedures.

## C. Personnel File Policy

### 1. Policy

This policy establishes guidelines for the personnel files for each employee of the Authority and governs the access, dissemination, and purging of information contained within this file.

### 2. Description

The Personnel File contains personal information relevant to the individual's employment. These files are maintained under the supervision of the Human Resources Manager and are kept in a file cabinet which is locked at all times except when the files are inspected, or materials are added.

The personnel file shall be the only file which is to be considered official and complete in matters related to wages and salary, employee selection, employee relations, and arbitration hearings. Information pertaining to any personnel related aspect of employment (personnel action forms, letters of reprimand, letters of commendation, unemployment compensation requests, and any other pertinent information) shall be contained within the file.

All documents containing employee health information shall be maintained in a separate locked file and only those individuals with a need to know shall have access to these files as defined in the HIPAA Security Rule.

### 3. Access

The access, dissemination, and purging of information contained within a personnel file shall be in accordance with the federal Privacy Protection Act of 1974 and may from time to time be amended.

- a. The following individuals or agencies shall be designated as having regular access to the personnel files:
  - 1) The Executive Director.
  - 2) The Director of Finance and Administration, the Human Resources Manager, and the Payroll & Benefits Coordinator (for administrative purposes).
  - 3) Federal, State, or local law enforcement agencies during a properly warranted investigation of a violation or potential violation of the law.
- b. The following individuals or agencies may inspect a limited number of personnel files:
  - 1) An individual employee or former employee may inspect his or her own official personnel file after presenting proof of identity.
  - 2) An immediate department manager or Divisional Director may inspect portions of the official personnel file of any employee under their supervision.
  - 3) The members of a Grievance Appeals Board may inspect relevant files.
  - 4) The Virginia Employment Commission Unemployment Compensation Division may inspect relevant files.

All personnel files shall be reviewed in the presence of the Executive Director, the Director of Finance and Administration or the Human Resources Manager. No files shall be removed from the Administration Building unless needed for a grievance or court hearing.

There will be no release of any personal information contained within a personnel file to any individual or organization not having regular or limited access unless the employee has authorized the release of the information. The authorization from the employee must be in writing and signed by the employee.

Wage and salary information is not considered confidential under Freedom of Information Act laws and may be released as a part of a Freedom of Information Act (FOIA) request.

#### **4. Official Personnel Forms**

a. The following forms will be maintained in an employee's personnel file:

- 1) Performance Evaluation forms
- 2) Personnel Action forms
- 3) Employee pay history
- 4) Tax forms
- 5) Any policy sign-off forms
- 6) Any documentation of performance issues, to include reprimands and suspensions
- 7) Original hiring documents such as offer letters and applications
- 8) Any other confidential documents pertaining to that specific employee

b. The following forms will not be maintained in an employee's personnel file:

- 1) Any health-related documents, to include health insurance applications, doctor's notes, physical and drug testing results and Family & Medical Leave forms
- 2) Employment Eligibility Verification Form I-9
- 3) Requests for employment verification

## D. Compensation Plan and Administration

### 1. Policy

By these rules and regulations, the Authority intends to establish a means of providing fair compensation to its employees while ensuring orderly and cost-effective operations. Employees shall be paid based on the value of work that they perform. Job performance shall be the major factor in determining wage and salary adjustments. Requests and appeals by employees regarding the application of these rules and regulations are to be submitted through appropriate channels, reaching to the Executive Director if necessary.

### 2. Definitions

Base Pay: An employee's normal hourly rate or annual salary, to include merit and administrative increases through the tenure of their employment. Base pay does not include overtime rates and premium rates. Base pay does include any relief or night shift operator differential pay.

Employee: Individual within a position.

Full-time Employee: A person with a work schedule of 40 hours per week. Treatment plant operators who work the 12-hour rotating shift schedule are also considered full time. Full time employees are eligible to receive benefits.

Intern: A student/trainee who works in a particular position full time for a restricted period of time or part-time, in order to gain work experience in a particular field. All interns will be paid at least the federal minimum wage and are considered temporary employees.

Job Title: A specific job that may have more than one position within it. (Note: a job title is defined by its job description that details the duties, qualifications and skills needed to perform the work.)

Part-time Employee: A part-time employee is an employee with a work schedule of less than 30 hours per week.

Position: An individual job. All positions must be approved by the Board of Directors.

Night Shift Operator – A water or wastewater operator who works a rotating schedule of shifting from day shifts to overnight shifts on a regular basis. Night shift operators must be permanent employees.

*The Manager of each Water and Wastewater Department or the Divisional Director shall designate for each department the employees assigned as Night Shift Operators. There shall be only 8 designated night shift operators at any given time in each of the two operating departments, for a total of 16 designated night shift operators.*

Pay Grade/Grade: A single pay range within a pay scale to which one or more job titles may be assigned.

Pay Range: The minimum, midpoint and maximum annual salary range within a pay grade paid for a specific job/position.

Pay Scale: A system that determines how much an employee in a job/job title can or may be paid as a base wage/salary for the job/position.

Performance or Merit Increase: An increase within grade to reward performance which meets or exceeds expectations of the position.

Separation or Termination: An employee ceasing to be employed by the Authority, either by resigning or by being dismissed.

Temporary Employee: A person whose employment with the Authority will last no longer than 90 days. These employees are not eligible for participation in the Authority benefits program.

Workweek: A fixed and regular recurring period of 168 hours – seven consecutive 24-hour periods. Different workweeks may be established for different employees or groups of employees.

The Authority uses a pay scale of numbered pay grades, with each grade approximately 5% above the previous grade. The pay range for each position has a total spread from the minimum to the maximum of approximately 66%. The determination of a pay grade in which a particular position falls will take into account pay equity for work performed and consistency in pay with positions that perform similar work. The assignment of positions to pay ranges and the pay rates within each grade may be modified both by reclassification, such as through a classification study, or by across-the-board adjustments added to all pay rates as approved by the Authority Boards.

The Executive Director will recommend adjustments to the pay scale annually as needed. All adjustments to the pay scale must be approved by the Board of Directors.

The Authority will conduct a Compensation and Classification Study a minimum of every five years, or sooner as needed, to ensure the internal and external equity of the pay scale.

### 3. Job Descriptions

Each job title has a specific job description. In the job description, the following items are outlined:

- a. Job Summary: A statement that contains overall job function/duties, department manager responsibilities, if any, and the job title of the department manager of the position.
- b. Essential Job Functions: A detailed list of job responsibilities for the job title.
- c. Minimum Education and Experience: A list of the minimum education and work experience expected of the employee in the job.
- d. Knowledge, Skills and Ability: A list of the basic abilities an employee must possess in order to effectively perform the job.
- e. Physical Requirements: A list of physical acts that the employee must be able to perform in the job.
- f. Work Environment: A summary of the working conditions in which the job is performed.
- g. Special Requirements: Any requirements for the job that are not listed elsewhere in the job description or that are unique to the job.

#### 4. Determination of Pay Grade

All job titles are assigned a pay grade based on:

a. Complexity of the Work

- 1) Unskilled: Work requiring the performance of uncomplicated tasks, physical work.
- 2) Semi-Skilled: Work requiring the performance of uncomplicated work, specialized physical work.
- 3) Skilled: Work requiring specialized physical skills used in the performance of complicated tasks.
- 4) Clerical: Work requiring the use of basic language, mathematical and social skills in orderly duplication, processing, recordation and maintenance of information documents.
- 5) Skilled Clerical: Work requiring the use of basic language, mathematical and social skills in orderly duplication, processing, recordation and maintenance of information and financial documents and requiring typing skills.
- 6) Technical: Work requiring the specific application of detailed procedures and techniques to recurring situations or problems. Work may also require specialized physical skills.
- 7) Paraprofessional: Work requiring the application of advanced knowledge and often advanced social skills in support of professional activities and may include research and data collection, client assistance or other activities.
- 8) Professional: Work requiring the application of advanced knowledge and personal ingenuity, creativity, estimation or related input and often advanced social skills, to the solution of complex problems or situations.
- 9) Administrative: Work requiring the application of general procedural knowledge and advanced social skills in the planning, organizing, coordinating, directing and/or control of agency activities, procedures and practices.

b. Level of Work

- 1) Routine: This is the lowest level of the type of work performed requiring the employee to handle a restricted scope of simple or more basic assignments or problems.
- 2) Responsible: This is the senior and often department manager level of this type of work requiring the employee to handle a variety of typical assignments or problems.
- 3) Difficult: This is the senior and often department manager level of this type of work requiring the employee to handle all assignments or problems except those requiring unit or departmental policy or procedural change.
- 4) Complex: This is the highest level of mastery of this type of work and is often a managerial position. It requires the employee to handle or direct the handling of all assignments or problems.

## c. Supervision Received

- 1) Immediate Supervision: The employee works under close supervision and work is checked regularly.
- 2) Regular Supervision: The employee generally works independently, following standard practices requiring only occasional supervision, work is checked periodically for quality accuracy and quantity; department manager normally available for consultation and advice upon request.
- 3) General Supervision: The employee requires only general direction, working from broad policies and on general objectives. Refer specific matters to superior only when interpretation of municipal or agency policies is deemed necessary; sets own standard of performance, limited only by general policies and budget; direct responsibility for final results.
- 4) Supervision Exercised: The employee is responsible for the supervision of others. This is determined by the number of employees supervised – a small group being less than six employees, a medium group being between six and twenty employees and a large group being over 20 employees supervised.

## d. Knowledge, Skills, and Abilities

- 1) Some Knowledge: the employee has sufficient familiarity with the subject to know elementary principles and terminology and to understand simple problems.
- 2) General Knowledge: The employee has sufficient knowledge of the subject to enable the employee to work effectively in a limited range of work situations.
- 3) Thorough Knowledge: The employee has almost complete coverage of the subject matter; work calls for sufficient comprehension to solve unusual as well as common-place work problems.
- 4) Comprehensive Knowledge: The employee has the most advanced degree of knowledge likely to be found; work calls for complete mastery and understanding of the subject.

## e. Education and Experience

Level of education required for the job, as stated in the job description.

- 1) Some Experience: Sufficient to enable employee to acquire some familiarity with methods and nomenclature in common work situations of the occupational field (usually six months to two years).
- 2) Considerable Experience: Sufficient experience in an occupational field to perform work as assigned with little direct supervision, work calls for a journeyman comprehension of standard work situations (usually two to five years).
- 3) Administrative Experience: Extensive experience as defined and develop or advise on major policy matters and independently direct the operations of a major agency.



f. Special Job Requirements

These are specific requirements that must be met by an employee working in a particular job, such as licensing and specific physical requirements.

g. Current Pay Scale & Position Table

For current pay scale and position table, *see Section M., "Forms and Attachments"*.

h. The Authority will conduct a comprehensive classification and compensation study every five years at a minimum. The Executive Director may, if warranted, recommend an adjustment to the overall pay scale during a year that a survey is not completed, which must be approved by the Board of Directors.

## 5. Pay Rates

a. Starting Pay

The Executive Director is authorized to hire employees at any point within the salary range based on market conditions and the qualifications of the individual.

Original appointment above the minimum pay rate for a class may be recommended, subject to approval by the Executive Director, if any of the following conditions exist:

- 1) The qualifications and/or experience of the applicant exceed the basic requirements for the position.
- 2) The applicant is a former employee.
- 3) Difficulty of recruitment requires offering a higher pay rate.

b. Promotion, Demotion and Transfer

When an employee is promoted from one job to another having a higher pay range/pay grade and additional responsibilities, the employee shall receive an increase of at least ten percent (10%).

*See 7.d. of this Section, "Other Forms of Compensation, Operator License Incentive Program"* regarding license increases, which are not considered promotions under these rules and regulations.

When a position is filled by demotion, the employee shall be paid at any rate in the pay grade assigned to the position the employee is demoted to, as determined by the Executive Director.

When a position is filled by a transfer of an employee from a position assigned the same grade, the base pay rate normally shall not change. When an employee chooses to apply and transfers to a position in a lower pay grade, that employee may receive a reduction in base pay, as determined by the Executive Director.

c. Former Employee Hiring

A former employee who is hired to fill a position in the same pay grade in which they previously served, shall be paid the current base pay rate within the grade commensurate with their current work experience and qualifications.

A former employee who is hired to fill a position in a pay grade other than which they previously served, shall be paid the current base pay rate within the pay grade commensurate with his/her current work experience and qualifications, at the discretion of the Executive Director.

d. Reclassification

A reclassification is the change in a job title or the reassignment of a job title to a different pay grade because the previous title/pay grade/pay range no longer accurately reflects the duties performed. All reclassifications must be approved by the Executive Director.

~~An employee whose regular and continuing duties are reclassified from one pay grade into a higher pay grade will receive a 5% pay increase in their base pay for reclassification resulting in a one pay grade increase and a 10% increase in their base pay for reclassification resulting in a two or more pay grade increase or the minimum in the new grade, whichever is higher.~~

~~An employee whose regular and continuing duties are reclassified to a lower pay grade shall not incur any base pay rate reduction even if the employee's current base pay rate is higher than the maximum in the new pay grade when not related to less than expected performance.~~

Any employee whose position is reclassified into a higher pay grade as the result of a Compensation/Classification study or market survey will not automatically be entitled to an increase in base pay, unless their current rate of base pay is below the minimum of the new pay grade.

## 6. Employee Performance Appraisal and Merit Pay

a. Purpose

The annual employee performance appraisal is a process that allows an employee and their department manager to discuss the employee's performance from the prior year, as well as to set performance expectations for the following year. Employee performance that meets or exceeds expectations can result in an annual merit increase. Merit increases will take effect on July 1 for the review period of April 1 through March 31. Merit increase funding is a function of the annual budget process and must be reviewed and approved by the Boards of Directors. The total merit pool is a percentage of total salaries.

Specific policy and procedures related to the execution of employee performance appraisals are found in the Performance Evaluation System Manual, a separate manual from this policy, which is approved by the Board of Directors.

**b. Appraisal Procedure and Merit Increase Eligibility**

If the Boards approve a merit increase with the adopted annual budget, increases can be awarded to all eligible employees, to be allocated based on each employee's performance appraisal by a calculation method stated in the Performance Evaluation System Manual and formally approved by the Board or Directors.

No employee shall receive a salary increase that would cause the employee's base pay rate to exceed the maximum pay rate in the employee's pay grade. If an employee is ineligible for a salary increase because an increase would cause their annual salary to exceed to top of their pay grade; the employee may receive a performance bonus. *See Section 7.b.1. of this Section, "Other Forms of Compensation, Bonuses, Performance Bonus".*

New employees in a probationary status as of March 31 are not eligible for a merit increase in the next fiscal year; however, the same employee may be eligible of a one-time administrative increase after a successful six-month probation period, pending Executive Director approval. *See 7.c. of this Section, "Other Forms of Compensation, Administrative Increase".*

Eligibility for performance increases shall not be affected by other salary increases, including administrative, promotion, and bonus increases or by a transfer or reclassification provided there remain sufficient range in the grade.

Employee performance information is personal information and shall be handled in a confidential manner and retained in their personnel file.

**7. Other Forms of Compensation****a. On-Call Pay**

Certain positions are required to participate in an after-hours on-call schedule. In the event of an emergency, the on-call employee is expected to respond immediately and be fit for duty. Employees that are on-call will receive a wage rate of 10% of their hourly base pay rate for every hour waiting to be called outside of their normal work schedule. Lunchtime during the normal workweek is not considered on-call time. Should the employee be required to come into work during their on-call schedule, he/she will receive Unscheduled Premium pay for two hours or the actual hours worked out of schedule. In the case of an emergency operation status, as determined by the Executive Director, other positions may temporarily be included in the on-call schedule. Department Managers shall designate any employee that is in On-Call status for each pay period.

**b. Bonuses**

- 1) Performance Bonus. An employee who is at the maximum of his or her pay grade shall be eligible for a performance bonus. If an employee is ineligible for a salary increase because an increase would cause their annual salary to exceed to top of their pay grade; the employee may receive a performance bonus as determined by the merit-based pay increases, if any. *See Section D.6.b., "Compensation Plan and*

*Administration, Employee Performance Appraisal and Merit Pay, Appraisal Procedure and Merit Increase Eligibility”.*

- 2) Meritorious Bonus Award. The Executive Director may make a cash award to an employee(s) for extraordinary events; such as, extraordinary performance or significant money saving suggestions conceived outside the usual and normal expectations of their position(s). The award is a one-time, lump sum bonus of \$100 to \$3000. Only the Executive Director has the authority to award such a bonus.

c. Administrative Increase

An employee who performs the duties and responsibilities of his position in a consistently superior manner deserving recognition beyond what is provided through pay for performance increases, as determined by the Executive Director, shall be eligible to be considered for an administrative increase where a promotion may not be possible and/or may not be warranted. An administrative increase may also be used to adjust any inequities, which may arise from the application of these rules and regulations. An administrative increase shall have no effect upon eligibility for pay for performance increases.

An administrative increase to advance an employee when such action seems justifiable may be recommended to or by a divisional director and/or the Executive Director. Such a recommendation shall be submitted in writing to the Executive Director for approval and shall state the reason for the recommendation.

An administrative increase shall not exceed 15% within grade.

An administrative increase may be granted in the case of a temporary promotion or transfer, limited to the duration of the temporary assignment. *See 7.c. of this Section, “Other Forms of Compensation, Administrative Increase”.*

d. Operator License Incentive Program

Persons in an Operator position who pass a licensing exam for a higher-class license than the one currently held will be reclassified and be paid either the minimum for the new pay grade or a rate in the new range ~~75~~7% above the current salary/base pay, whichever is greater, if the experience requirements have been met.

Granting of a license increase shall not be considered a promotion under these rules and regulations.

e. Overtime

Overtime shall be utilized to relieve specific occasional peak workloads or emergencies, and as a part of the Authority’s day-to-day operations.

Non-exempt employees are paid overtime for hours worked in excess of 40 hours in a workweek. Overtime pay is based on the employee’s base rate of pay for hours actually worked. This includes compensation for hours worked while in unscheduled premium and

compensation while in on-call pay status; which is added to the base rate of pay (or blended). It also includes compensation for relief operator differential pay and nighttime shift differential pay within in any given week. It does not include compensation or time for sick, vacation, holiday or other leave granted, holiday premium pay, or discretionary bonuses received within the workweek. Pay for these items is added after overtime is calculated.

This will result in non-exempt employees receiving a Blended Overtime rate each week there is applicable time worked beyond the statutorily required 40 hours per week.

Regular part-time employees and interns receive overtime pay for work hours exceeding 40 hours in a workweek.

All overtime specified above, must be preauthorized by the immediate department manager on a daily basis.

Vacation leave is available to non-exempt employees in lieu of overtime pay. In all instances of overtime, the employee may request in lieu of overtime pay, a vacation leave credit at a rate of 1.5 times the overtime hours worked. An employee may request up to a total of 30 hours of vacation leave time instead of overtime pay (instead of 20 hours of overtime pay) per calendar year as allowed by law. An employee's department manager must approve the request for vacation leave in lieu of overtime.

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f. Premium Pay

Holiday Premium Pay: Hourly employees will receive premium pay at the rate of 0.5 times their hourly rate of base pay, in addition to their regular base pay for any hours worked in the workweek that are on an Authority designated regular holiday.

Unscheduled Premium Pay: Hourly employees will receive premium pay at the rate of 0.5 times their hourly base pay rate, in addition to their regular base pay, for any hours worked in the workweek that are unscheduled hours worked due to emergency call-in, special workload needs or covering another employee's work schedule. (Examples: line breaks, plant shutdowns, special construction needs requiring nighttime work.)

g. Pay Differential – Relief Operators

In recognition of the additional demands with the Relief Operator assignment and to implement an incentive to retain qualified operators in Relief Operator assignment, the Relief Operator will be eligible to receive a 10% pay differential above their hourly base pay rate once fully trained at all related facilities as determined by the department manager. This new pay rate becomes their base pay.

At such time when a water or wastewater operator ceases to perform the assignment of a Relief Operator, the 10% pay differential for the Relief Operator assignment will no longer be paid.

#### h. Night Shift Pay Differential – Water and Wastewater Night Shift Operators

In recognition of the additional demands on water and wastewater operators who are working overnight shift schedules, these operators will be eligible to receive a 2% pay differential above their hourly base pay rate. This new pay rate becomes their base pay. Overnight shift operators must be designated by the Water and Wastewater Managers.

When a water or wastewater operator no longer works the overnight shift schedule, the 2% pay differential for the shift assignment will no longer be paid.

### 8. Benefits Briefly Explained

#### a. Retirement

The Authority is a member of the Virginia Retirement System (VRS). The Authority makes contributions into the plan as determined and instructed by VRS. In addition, the employee pays a minimum 5% employee member contribution as a pre-tax deduction from their creditable compensation. An employee's creditable compensation is their annual salary, or their hourly base pay rate multiplied by 2,080 hours (which is 40 hours per week for a year). Participation in VRS is a condition of employment for all eligible employees.

#### b. Retirement Pay Out

In recognition of employee service to the Authority, employees who are eligible to retire under the Virginia Retirement System will be paid one of the following upon their retirement based on the VRS Plan in which they participate:

- 1) VRS Hybrid Plan participants will be paid a Service Bonus of \$200 per year of continuous service to the Authority, up to a maximum of \$5,000.
- 2) VRS Plan 1 and Plan 2 participants will be paid a percentage of their accrued sick leave time at the time of retirement, based on the table below, up to a maximum of \$5,000.

Years of Service	%	Benefit Calculation
<3	0	No cash benefit
3 to <5	10	Sick leave balance x employee hourly rate x 10%
5 to <10	15	Sick leave balance x employee hourly rate x 15%
10 to <15	20	Sick leave balance x employee hourly rate x 20%
15 to <20	25	Sick leave balance x employee hourly rate x 25%
20 +	30	Sick leave balance x employee hourly rate x 30%

#### c. Life Insurance

All Authority employees must participate in a group life insurance plan tied to the retirement plan. The premium and benefits are based upon each employee's base gross salary. The Authority pays the premium cost. The contribution made by the Authority is subject to change as part of the Authority's annual budget. Employees may also elect to purchase additional life insurance and extend coverage to family members. This additional optional life insurance is at the employee's expense.

d. Medical/Dental Insurance

The Authority participates in a major medical and dental plan for employees and their families. The Authority makes a contribution towards the premiums and the employee pays the remaining amount through a payroll deduction. The specific features of this plan are normally subject to change annually.

e. Workers' Compensation

Under State Law, the Authority maintains workers' compensation insurance to pay for treatment of work-related injuries and to protect against loss of income resulting from a job-related injury. See Section F.10., "Leave Policy and Rules, Workers' Compensation Leave".

f. Leave

The various types of leave are covered in Section F., "Leave Policy and Rules".

g. Other Optional Benefits

In addition to optional life insurance noted above, other optional benefits include dependent and health care flexible spending accounts, health savings accounts, optional critical care insurance, a 457 Deferred Compensation Account and gym memberships at a reduced rate.

The Authority retains the right to change, alter or discontinue benefits offered where applicable.

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## E. Harassment Policy

### 1. Policy

It is the policy of the Authority to provide a working environment that is free from all forms of discrimination and conduct that is considered harassing, coercive, intimidating, or disruptive, to include sexual harassment. Actions, words, jokes or comments based on an individual's sex, race, color, national origin, age (over 40), religion, disability, genetic information, sexual orientation, gender identity, pregnancy, childbirth and related medical conditions, hairstyles, hair textures, and any other legally protected characteristic will not be tolerated. This policy includes reporting procedures and remedies in the event of harassing behavior.

### 2. Workplace Harassment

Offensive behavior toward an employee may constitute workplace harassment if:

- a. The conduct occurs because of a person's inclusion in a legally protected class;
- b. The conduct is unwelcome;
- c. The conduct results in a tangible employment action against the alleged victim (termination, demotion, denial of promotion, decrease in pay, or altering that individual's duties in a way that blocks the individual's opportunity for promotion or salary increase);
- d. Or if the conduct is sufficiently severe or pervasive to create a hostile, intimidating or offensive work environment, to unreasonably interfere with a person's work performance, or to otherwise adversely affect terms, conditions, or opportunities of a person's employment.

Such behavior can include, but is not limited to:

- a. Repeating stereotypical jokes or making stereotypical comments related to race, age, sex, sexual orientation, gender identity, national origin, religion or disability or any other legally protected characteristic;
- b. Displaying derogatory pictures or offensive printed material;
- c. Insults, name-calling, and any other words or comments that demean, stigmatize, intimidate, or single out a person because of one's sex, sexual orientation, gender identity, race, religion, national origin, age, disability or other legally protected status;
- d. Physical contact, invading one's physical space, damaging one's personal property, offensive gestures, or any other demeaning physical act directed at someone based on their legally protected status.

### 3. Sexual Harassment

Sexual harassment is defined as unwanted sexual advances, or visual, verbal, or physical conduct of a sexual nature. This definition includes many forms of offensive behavior and includes gender-based harassment. The following is a partial list of sexual harassment examples:

- a. Unwanted sexual advances;

- b. Offering employment benefits in exchange for sexual favors;
- c. Making or threatening reprisals after a negative response to sexual advances;
- d. Visual conduct that includes leering, making sexual gestures, or displaying sexually suggestive objects or pictures, cartoons, or posters;
- e. Verbal conduct that includes making or using derogatory comments, epithets, slurs or jokes;
- f. Verbal sexual advances or propositions;
- g. Verbal abuse of a sexual nature, graphic verbal commentaries about an individual's body, sexually degrading words used to describe an individual, or suggestive or obscene letters, notes or invitations;
- h. Physical conduct that includes touching, assaulting, or impeding or blocking movements.

Unwelcome sexual advances (either verbal, written, online or physical), requests for sexual favors, and other verbal, written, online or physical conduct of a sexual nature constitute sexual harassment when:

- a. submission to such conduct is made either explicitly or implicitly a term or condition of employment;
- b. submission or rejecting of the conduct is used as a basis for making employment decisions; or
- c. the conduct has the purpose or effect of interfering with work performance or creating an intimidating, hostile, or offensive work environment.

#### **4. Employee Responsibilities**

All employees are responsible for assisting in the prevention of harassment by refraining from participation in, or encouragement of, actions that could be perceived as harassment. An employee who feels they have experienced or witnessed sexual or other unlawful harassment in the workplace is required to immediately report such incidents. Employees are required to report incidents to either their immediate department manager, their divisional director or any other divisional director, the Human Resources Manager, or the Executive Director. Employees are assured that concerns and reports can be made without fear of reprisal or retaliation.

#### **5. Department Manager Responsibilities**

Each department manager and divisional director is responsible for assisting in the prevention of harassment by monitoring the work environment for signs that harassment may be occurring, counseling employees on the types of behavior prohibited, and knowing and following procedures for reporting and resolving complaints of harassment.

#### **6. Complaint Procedures**

All allegations of sexual or other unlawful harassment will be quickly and discreetly investigated. To the extent possible, confidentiality of the complainant and any other witnesses, as well as the harasser, will be protected against unnecessary disclosure.

- a. Any employee encountering harassment is encouraged to tell the person directly responsible that their actions are unwelcome and offensive. The employee should document all incidents of harassment in order to provide the fullest basis for investigation.
- b. If the incident is serious (i.e., physical advance), unacceptable or repeated, especially if the employee has asked the offender to refrain from such behavior in the past, a written complaint should be filed immediately.
- c. A complaint should be reported to one's immediate department manager, a department manager from another department, their divisional director or any other divisional director, the Human Resources Manager, or the Executive Director. The employer representative taking such complaint must document all information including dates, times, places, names, and quotes.
- d. The employee will be informed as to how and when the employer representative intends to follow up on the complaint. If the situation warrants, immediate steps to protect the employee from further harassment may be taken.

#### **7. Corrective and/or Disciplinary Action**

Any employee engaging in sexual or other unlawful harassment will be subject to disciplinary action, including one or more of the following:

- a. A verbal reprimand
- b. A written reprimand
- c. Suspension with or without pay
- d. Discharge Dismissal

In addition, the filing of a false complaint, or false statements during an investigation will be subject to disciplinary action as stated above.

#### **8. Recourse Through Other Policies/Agencies**

Employees who have encountered harassment, or employees accused of harassment, are not precluded by this policy from filing a complaint with the Equal Employment Opportunity Commission (EEOC). Employees may also file an appeal or grievance through the Authority's grievance policy, see *Section H., "Grievance Procedure"*.

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## F. Leave Policy and Rules

### 1. Policy

Department managers shall grant leave in accordance with these policies, on the basis of the work requirements, and whenever possible in accordance with the wishes of the employee. Employees are encouraged to plan use of their cumulated annual leave far enough in advance that full consideration can be given to their requests.

### 2. Holiday Leave

It is the policy of the Authority to ensure that all regular employees enjoy the same number of holidays each year, irrespective of the provisions of the section below on granting holiday leave. The standard shall be the number of holidays in a year which will be celebrated by regular employees.

The following holidays are observed by the Authority and shall be granted to all full-time employees with pay, and to part-time, non-benefited employees without pay, unless such employees are required to be on duty as scheduled:

- New Year's Day, January 1
- \*Martin Luther King Day, Third Monday in January (Floating)
- \*Presidents' Day, Third Monday in February (Floating)
- Memorial Day, Last Monday in May
- \*Juneteenth, June 19 (Floating)
- Independence Day, July 4
- Labor Day, First Monday in September
- \*Veterans Day, November 11 (Floating)
- Thanksgiving
  - Fourth Wednesday of November, close at 12:00 pm
  - Fourth Thursday and Friday of November
- Christmas Eve, December 24
- Christmas Day, December 25

\*The RWSA/RSWA offices will be open. Holiday leave may be taken on the formal holiday with the department manager's approval. If leave is not taken on the holiday, it will become 8 hours of annual leave and will be treated as such. Holiday premium pay will not be paid for time worked on Martin Luther King Day, Presidents' Day, Juneteenth or Veterans Day.

Holidays observed by the Authority shall be subject to the following rules:

- a. Holiday on weekend. In the case of non-shift employees when a holiday falls on Saturday, it shall be observed on the preceding Friday. When a holiday falls on a Sunday, it shall be observed on the following Monday. Employees working shift schedules (water operators, wastewater operators) will observe the holiday on the actual day and be paid accordingly.
- b. Holiday on a mandatory work day. Any hours worked on a holiday will be paid at a rate noted in *Section D., "Compensation and Plan Administration"*. The employee will also

receive 8 hours of pay at their base pay rate. Temporary employees are not eligible for holiday pay.

- c. Holidays during paid leave. A holiday falling within a period of paid leave shall not be counted as a workday when computing the amount of leave debited. When an employee takes unauthorized leave on a holiday, time shall be deducted from his/her sick leave or annual leave or be charged as leave without pay. *See Item 9. of this Section, "Unauthorized Absence/Leave".*
- d. Holiday during unpaid leave. When a holiday falls within a period of leave without pay or immediately preceding or following such leave, the employee shall receive no pay for the holiday.
- e. Employment or separation on a holiday. The employment or separation of a regular or part-time employee shall not be affected by a holiday, except when the employee works that day.

### 3. Annual Leave

Annual leave is intended to be used for personal leave and for vacations. Annual leave must be scheduled with and approved by the appropriate department manager at least one business day prior to the employee taking the leave time. Final approval rests with the department manager, divisional director or as delegated.

#### a. Accrual

Annual leave shall normally be accrued to regular full-time employees at the following rates (employees on unpaid leave will not receive an accrual during leave):

Years of Service	<5 Years	5 to <10 Years	10 to <15 Years	15 to <20 Years	20 to <25 Years	25 + Years
Annual Accrual Rate	96 hours	120 hours	144 hours	168 hours	192 hours	216 hours

#### b. Annual Carry Over

Annual leave may be carried over to the next calendar year at the following rates:

Years of Service	<5 Years	5 to <10 Years	10 to <15 Years	15 to <20 Years	20 to <25 Years	25 + Years
December 31 Maximum	192 hours	240 hours	288 hours	336 hours	384 hours	432 hours

Employees may carry over twice their annual accrual as of January 1st each year. Annual leave in excess of these limits on January 1st shall be lost. Only the Executive Director or his designate may grant an extension to this date.

#### c. Taking

The following rules pertain to taking annual leave:

~~1) In most cases, annual leave may not be taken until an employee has completed their 6 month probation period. This is at the department manager's discretion.~~

~~2)~~ 1) Annual leave shall normally be granted each calendar year. Any annual leave taken should be approved by the employee's department manager prior to the leave being taken.

~~3)~~ 2) Annual leave taken shall not exceed the annual leave time that has been accrued by the employee at the time they are taking annual leave. Exceptions must be approved by the Executive Director. Such excess leave granted will be debited against future annual leave credits. Any such negative accumulation at the time of separation must be reimbursed.

~~4)~~ 3) Failure to return from an approved annual leave may result in an unauthorized leave or in disciplinary action, up to and including termination.

d. Debiting

The amount of annual leave debited will be computed on the basis of the days or hours an employee is scheduled to work during the period when leave is taken. Holidays and other regular days off will not be included.

e. Effect of Separation

- 1) Provided that an employee has given a two-week notice at the time of resignation and worked through those two-weeks, any unused annual leave shall be paid to the employee at their current hourly base pay.
- 2) Annual leave credits shall be prorated through the employee's effective date of separation.
- 3) Upon separation, all annual leave hours shall be cleared from the employee's leave record.
- 4) Employees shall reimburse the Authority for any unearned or excess leave taken, regardless of leave type, upon separation. Any reimbursement to the Authority or any nonpayment for hours taken shall be documented for the record and appropriate action taken in accordance with these rules and regulations and the documentation filed in the employee's personnel file.

4. Sick Leave

Sick leave is leave with pay granted to an employee for an illness, bodily injury resulting in temporary disability, medically required confinement, ~~and~~ medical/dental appointments ~~and the care of a sick family member, to include individuals residing in the same household.~~ Up to 40 hours of sick leave may also be used for bereavement leave in the event of the death of an ~~immediate~~ family member ~~or loved one~~, per instance. ~~Up to 40 hours of sick leave may be used as immediate family sick leave per year. Immediate family includes spouse, children, parents, stepsiblings, foster children, siblings, grandparents, grandchildren, step children, step parents, guardian or same~~

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~~relative of spouse and any other relatives or individuals residing with the employee.~~ The FMLA policy may apply in some instances of sick leave after the first 12 months of employment.

A doctor's certificate or other documentation of illness may be required by a department manager should absence exceed three days or when misuse of sick leave is suspected. This certificate or documentation will include the nature of the employee's condition and the expected date on which the employee will be able to return to work and perform their normal job duties.

a. Accrual

All employees will accrue sick leave time at a rate of 12 days annually or 3.69 hours per pay period. New employees will be given 20 hours of sick time on their date of hire.

b. Annual Carry Over

- 1) VRS Plan 1 and VRS Plan 2 participating employees do not have any limit to the amount of sick time that they may carry over.
- 2) VRS Hybrid Plan participating employees may accrue up to 480 hours of sick leave time. Accrual of sick leave time will stop when an employee has accrued 480 hours and will begin again if they drop below 480 hours of sick leave time.

c. Taking

The following rules pertain to taking sick leave:

- 1) Sick leave taken shall not exceed the total cumulated sick leave hours earned by the employee.
- 2) Leave without pay may be granted for sickness extending beyond the use of all sick or other leave. *See Item 5 of this Section, "Family and Medical Leave Act (FMLA) Provisions".*
- 3) Employees ~~who have completed six months of service~~ may use annual leave hours when sick leave hours have been exhausted.

d. Debiting

The amount of sick leave debited will be computed on the basis of the days or hours an employee is scheduled to work during the period when the leave is taken. Holidays and other regular days off will not be included when computing debits.

e. Other Rules and Regulations Regarding Sick Leave

- 1) Reporting of sickness



- a) An employee who is absent from duty for reasons which entitle them to sick leave shall notify his/her department manager at least four (4) hours before his/her usual reporting time, or as required by his/her department manager, if physically able. Failure to do so may result in unauthorized *leave*. See *Items 2.b. and 3.a. below*.

2) Investigation of sickness

- a) A department manager may verify the questionable illness of an employee using sick leave by requesting a note from the employee's physician.
- b) Failure by the employee to cooperate in sick leave investigating or to return from sick leave when expected may result in an unauthorized leave or in disciplinary action.

3) False or fraudulent use of sick leave

- a) Use of sick leave for other than the purposes stated above shall be cause of disciplinary action (including suspension or dismissal) against the offending employee.

4) Conversion of sick leave

- a) the use of sick leave for annual leave purposes shall not be permitted.

f. Sick Leave Pay Out Upon Separation

Accrued sick leave will not be paid out in the event of a termination or resignation. For sick leave pay out upon retirement, see *Section D.8.b., "Compensation Plan and Administration, Benefits Briefly Explained, Retirement Pay Out"*.

## 5. Family and Medical Leave Act (FMLA) Provisions

Notwithstanding any other provision of this Manual, eligible employees may take up to 12 workweeks of paid or unpaid leave under the provisions of the Family and Medical Leave Act, subject to the following rules and regulations. The twelve (12) month period during which an employee may take up to twelve (12) workweeks of leave under the Family and Medical Leave Act will begin on the first day that leave is taken. *In this Section, see: Item 3, "Annual Leave"; Item 4, "Sick Leave"; and, if eligible, Item 6, "Sick Leave Bank"*.

a. General Description

An eligible employee may take family/medical leave, continue any paid medical/dental insurance during such leave and be restored to the same position upon their return (or a position equivalent in pay, benefits and terms of employment) in any of the cases of:

- 1) Birth, adoption or foster placement of a child;
- 2) Care of a spouse, child or parent with a serious medical condition;

- 3) Serious health condition of the employee rendering the employee unable to perform an essential function of his/her position;
- 4) Covered military active duty; and
- 5) Care of a covered service member with a serious injury or illness when the employee is the spouse, child, parent or next of kin of the service member, as defined by the Family and Medical Leave Act. This type of leave may be for up to 26 workweeks.

b. Definitions

Child: Includes son or daughter under the age of 18 or son or daughter over 18 who is disabled and cannot care for themselves, legal wards, stepchildren and others for whom the employee stands in the place of parent.

Eligible employee: An employee who has been employed at least one year and has worked at least 1,250 hours during the 12 months immediately preceding the proposed leave.

Health Care Provider: A licensed medical doctor or any other person determined by the U.S. Secretary of Labor to be capable of providing health care service.

Parent: Biological parents as well as any others who have acted in the place of a parent to the employee. This does not include parents-in-law.

Serious Medical Condition: A physical or mental illness or an injury requiring inpatient care at a hospital, hospice, or residential medical care facility; or continued treatment by a health-care provider.

Leave due to the birth or adoption must be completed within the 12-month period beginning on the date of birth or adoption. In addition, in cases where the married couple are both employed by the Authority, the two together may be limited to a combined total of twelve (12) workweeks of leave during any 12-month period for the birth or adoption of a child, or for the care of the same son, daughter, or parent.

c. Notice of Leave

If the need for family/medical leave is foreseeable, the employee must give his/her immediate department manager written notice at least 30 days prior to leave, except in extraordinary circumstances. Additionally, if medical treatment is planned the employee must first consult with his/her immediate department manager regarding the dates of such treatment. If this is not possible, the employee must at least give notice as soon as practicable (within one or two business days of learning of the need for leave). Failure to provide such notice may be grounds for delay of leave. As in all cases of leave, a leave request form must be submitted to the immediate department manager. Family/medical leave forms are available from department managers or the Human Resources Manager. These forms must be used when specifically requesting family/medical leave. In cases where family/medical leave has not been specifically requested, but has been determined

as FMLA-qualifying leave, a family/medical leave form will be provided and must be completed as soon as possible so that FMLA leave may be approved.

d. Medical Certification

If leave is requested due to the employee's or a covered relation's serious health condition, the employee and relevant health care provider must supply appropriate medical certification. Medical Certification forms are available from the Human Resources Manager. When leave is requested, the Authority will notify employees of the requirement for medical certification and when it is due. Failure to provide requested medical certification in a timely manner may result in delay of leave until such time as it is received. The Authority, at its expense, may require an examination by a second health care provider designated by the Authority if initial medical certification is deemed incomplete or unsatisfactory. If the second health care provider's opinion conflicts with the original medical certification, the Authority, at its expense, may require a third, mutually agreeable, health care provider to conduct an examination and provide a final binding opinion. The Authority may require subsequent medical recertification.

e. Reporting While on Leave

In cases of leave for the employee's own serious health condition, or to care for a covered relation, the employee and the Human Resources Manager will determine how often the employee should contact their department manager regarding the status of their condition and their intention to return to work. In addition, notice must be given as soon as is practicable (within two business days if feasible) if the dates of leave change or are extended, or initially unknown.

f. Pay During FMLA Leave

Family/medical leave is legally unpaid leave (with the exception of worker's compensation benefits). The Authority requires an employee taking a leave covered by the FMLA to use first, their sick leave hours, and then their annual leave hours during their FMLA leave. Family/medical leave runs concurrently with other type of leave, including leave for work-related injury or illness.

g. Medical and Other Benefits

During an approved family/medical leave, the Authority will maintain health benefits for the employee, as in cases of active employment. The Authority will continue to deduct the health and dental insurance premiums from the employees pay. If the employee does not have leave time to use during their family/medical leave and the family/medical leave is unpaid, the employee is responsible to pay by the 25th of each month, the monthly employee portion of the premium. Employees will be notified if payments are more than 15 days late. If payments are not received within 15 days from the date of the late notice, coverage will cease, effective on the last day for which premiums have been paid.

Membership with the Virginia Retirement System will not be affected by family/medical leave; however, no wages will be reported during periods of unpaid leave. In addition, life

insurance premiums will not be paid by the Authority during periods of unpaid leave and must be paid by the employee, as well as applicable premiums for optional life insurance, as set forth above. Upon return to work, the employee may be eligible to purchase the lost service with VRS, if the leave is necessitated by birth or adoption, as defined by VRS policies. The Authority will resume its contribution to life insurance and wage reporting to VRS, with no lapse in credited service.

h. Exemption for Highly Compensated/Key Employees

Highly compensated or key employees (the highest paid 10 percent of employees) may not be returned to their former or equivalent position following a leave if the employee's restoration to their position will cause substantial and grievous economic injury to the Authority. This determination is not based on whether the absence of the employee will cause such substantial and grievous injury to the Authority. The Authority will make this fact-specific determination on a case-by-case basis. The Authority will notify the employee at the time of a leave request if he/she qualifies as a "highly compensated" employee, if the Authority believes that the restoration of the employee to their position may be denied, and of the employee's rights in such instances.

i. Intermittent and Reduced-Schedule Leave

Leave due to a serious health condition, or to care for a covered relation with a serious health condition, can be taken intermittently (in separate blocks of time, due to a single health condition) or on a reduced-leave schedule (reducing the usual number of hours worked per workday or workweek), if medically necessary. Requests for intermittent or reduced leave schedule for birth or adoption of a child must be approved in advance and will be approved on a case-by-case basis. If leave is unpaid, the Authority will reduce the employee's salary based on the amount of time actually worked. In addition, while on intermittent or reduced-schedule leave, the Authority may temporarily transfer the employee to an available alternative position that better accommodates the recurring leave, and which has equivalent pay and benefits.

j. Record Keeping and Anti-Retaliation

The Human Resources Manager shall maintain records necessary to demonstrate compliance with FMLA. A doctor's note is not required for each absence under a FMLA leave. FMLA requires that no employee be subject to any penalty for seeking rights under FMLA or for testifying for or otherwise helping other employees seek rights under FMLA.

**6. Sick Leave Bank**

Each Authority will maintain a sick leave bank to be used when a member of the bank becomes incapacitated by long-term and/or chronic illness or injury as long as one-third of the eligible employees agree to participate in accordance with the terms contained herein. The sick leave bank is not for use for any other type of illness or injury leave, such as that of a family member.

Membership in the sick leave bank shall be voluntary and open to all eligible personnel who accrue sick leave. Each employee of the Authority who accumulates sick leave is eligible for membership and agrees to donate eight (8) hours of their sick leave to join the bank.

The Human Resources Manager is designated as the administrator of the sick leave bank.

a. Enrollment Procedures

- 1) An eligible employee may enroll within the first thirty days of employment by completing a Sick Bank Donation Form.
- 2) An employee who does not enroll when first eligible may do so between any subsequent January 1 to January 31 period by completing a Sick Bank Donation Form and providing satisfactory evidence of good health from a doctor to the Human Resources Manager.
- 3) An employee gains membership into the sick leave bank by contributing eight (8) hours of their sick leave time to the bank and eight (8) hours thereafter whenever an assessment is required. The donated leave will be deducted from the employee's accumulated days of sick leave. Employees will be notified of an assessment two (2) weeks prior to any deduction to their sick leave hours.

b. Rules of Use

- 1) The first twenty (20) working days of illness or disability will not be covered by the bank and must be covered by the member's own accumulated leave or leave without pay.
- 2) Requests for use of the sick leave bank must be made in writing by the employee (or representative if the employee is unable to submit the request) prior to the absence for which the leave days are to be used. In extenuating circumstances, retroactive request may be considered. Requests must be supported by a medical doctor's certification.
- 3) A maximum of 180 hours each rolling 12-month period can be used by any one member.
- 4) Hours drawn from the sick leave bank for any one period of eligibility do not need to be used consecutively but must be for the same illness.
- 5) A member of the bank will not be able to use the sick leave bank benefit until all of the employee's leave balances decline to zero.
- 6) Members of the bank will be assessed an additional eight (8) hours of sick leave when the bank is depleted to 40 hours unless they choose not to participate further in the bank. Members who have no sick leave to contribute at the time of assessment will be assessed eight (8) hours and allowed to temporarily maintain a negative balance. Should an employee drop membership at the time of an assessment, the member will not be eligible to rejoin the bank until open enrollment in January of each year and only after providing satisfactory evidence of good health.

- 7) Members utilizing sick leave from the bank will not have to replace hours used except as a regular contributing member of the bank.

- c. Termination

Upon termination of employment or membership in the sick leave bank, a participating employee may not withdraw the hours he/she has contributed to the bank.

## 7. Military Leave

This policy provides employees with the time required to perform any form of military service for the Armed Forces of the United States, National Guard or Naval Militia whether voluntary or involuntary, called or activated, such as being placed on active duty and for training.

Any full-time employee who is also a member of the organized reserve forces of any of the armed services of the United States, National Guard, or Naval Militia, is entitled to a leave of absence from their duties without loss of accumulated leave or regular salary on all days when in training or when called to duty by the Governor of Virginia, in accordance with the Code of Virginia, Article 10, Section 44-93 and Title 38 of the United States Code, Chapter 43, Section 2024 (d). Up to fifteen (15) days, or time as required by federal law, of Military Leave per calendar year is available to those employees who are called for training with their military units. Employees are required to submit a copy of their orders, prior to the effective date of the leave, to the Executive Director for approval. The Authority will pay to the employee the difference between the employee's military pay and their regular Authority base pay for the period of time that the employee is on Military Leave. It is not intended that the employee receive an amount of compensation greater than he would normally have received from their regular employment for the period of the Military Leave.

The Authority will make all efforts to accommodate National Guard weekend drills.

## 8. Court Leave

A regular employee shall be granted court leave when summoned to jury duty. Employees serving jury duty will receive full salary and may retain compensation received from the court. Employees are expected to give their department manager notice of jury duty and submit a copy of the official summons for jury duty. If the employee's presence is required for less than a full workday, the employee is required to contact the department manager concerning return to work.

Employees who are subpoenaed to appear as witnesses in legal proceedings in their capacity as an Authority employee will be entitled to treat time spent in such proceedings as compensable working time. However, employees who initiate or are otherwise involved in private legal actions of any kind (excluding employee grievance proceedings) will not be permitted to treat time spent during working hours in connection with such actions as compensable working time. Employees will be required to use accrued annual or compensatory time for all hours spent in connection with such action that occur during working hours.

## 9. Unauthorized Absence/Leave

Unauthorized absence includes:

- a. Failure to report for a scheduled shift without notifying your department manager.

- b. Failure to report to work at the end of an authorized leave.
- c. Absence without leave time available.

An employee shall receive no pay for the duration of any unauthorized leave and may be subject to disciplinary action, using the following procedure as a guide:

- a. The first occurrence of absence without approved leave shall result in a written reprimand.
- b. The second occurrence of absence without approved leave shall result in a suspension without pay.
- c. The third occurrence of absence without approved leave shall result in immediate dismissal.
- d. Failure to report for three consecutive scheduled shifts without department manager notification shall be considered a voluntary resignation.

#### 10. Workers' Compensation Leave

All Authority employees receive benefits provided by the Virginia Workers' Compensation Act (referred to in this policy as "WCA") if they suffer a work-related injury or disease, and covered employees who are entitled to benefits under the WCA also are eligible for supplemental benefits provided by the Authority.

If an employee suffers a workplace injury that causes them to miss time from work, they will be placed on sick leave. If the disability continues past seven working days, workers' compensation insurance will provide compensation from that point forward. An employee may not receive payment from worker's compensation and sick leave at the same time. If an employee does not have enough sick and/or annual leave hours to cover the first seven days of absence, the employee will be placed on leave without pay.

Temporary modified duty or a reasonable accommodation (a modification or adjustment to the work environment, or to the manner or circumstances under which the position held is customarily performed, that enable a qualified individual with a disability to perform the essential functions of that position) may be offered to an injured employee, once the treating physician states that it is safe for the employee to return to work and once the physician provides information in regard to the employee's capabilities. When an employee is released to modified duty the Authority:

- a. May assign a temporary modified/light duty work assignment for the employee.
- b. May offer temporary modified duty at a reduced wage.
- c. May offer temporary modified duty in a different department than the employee's pre-injury job.
- d. May offer temporary modified duty at a reduced number of hours.
- e. May modify an employee's pre-injury job to accommodate the employee's restrictions.

The Authority will make every effort to place the employee in an available position for which he/she is qualified for. In all cases, the Authority will comply with the American's with Disabilities Act and will make reasonable accommodations to maintain the individual as an employee.

#### **11. Procedures for Requesting Leave**

For all leave except holiday and unplanned sick leave, a request indicating the type of leave, and duration of leave to include start date and time and end date and time must be approved in advance by the appropriate department manager. The request should be made at least one business day prior to the planned leave time that is being requested. This time is to allow the department manager to make any schedule or workload adjustments necessary to accommodate the request. Unless an absence for voluntary leave is approved by the appropriate department manager, the absence will be regarded as unauthorized leave. All time away from work requires either the use of leave time or prior approval from the Executive Director for unpaid leave.

#### **12. Maintenance of Leave Records**

The Human Resources Manager is responsible for maintaining accurate leave records in a form acceptable to the Executive Director. Questions regarding leave should be addressed to the Human Resources Manager or the appropriate department manager.



## G. Disciplinary Policy

### 1. Policy

This policy provides a guideline to effectively correct an employee's unsatisfactory work performance or misconduct in an effort to promote maximum employee potential. All employees will be covered under this policy. Any disciplinary matters involving drugs or alcohol are covered in *Section L, "Substance Abuse Policy"*.

### 2. Unsatisfactory Work Performance or Misconduct

Each need for discipline has varying circumstances and requires the exercise of discretion on the part of the employee's department manager. Disciplinary action may be taken for any of the following examples of unsatisfactory work performance and misconduct. These examples are not in any way to be construed as a comprehensive listing of possible violations nor are they to be considered as rigid guidelines.

- a. Recurring tardiness
- b. Absence without leave
- c. Violation of the Substance Abuse Policy
- d. Sleeping on the job
- e. Serious neglect of work
- f. Serious neglect of duty
- g. Insubordination, defined as refusal to comply with a direct order from a department manager
- h. Deliberate or careless conduct endangering the safety of oneself or other employees
- i. Pattern(s) of safety violations, severity of risk to be determined
- j. Negligence in the care and handling of Authority or customer property
- k. Theft or unauthorized use of Authority property or of another employee's property
- l. Incompetence or inefficiency in the performance of required job duties
- m. Use of offensive, abusive, threatening, coercive, indecent or discourteous language toward department managers, divisional directors, other employees, or members of the public
- n. Intentional falsification of personnel records, time records, or any other Authority records or reports
- o. Provoking, instigating or participating in a fight while on duty or on Authority property or in an Authority vehicle
- p. Harassing other employees
- q. Violation of *Section I.1., "Administrative Policies, Conflict of Interest/Accepting Gifts"*.
- r. Violation of Authority Policies

### 3. Progressive Discipline Policy

The Authority will support the practice whereby all employees will be disciplined by the same process. The discipline of an employee will be a progressive process in most cases, where disciplinary actions of lesser severity than dismissal/involuntary separation can be taken in an attempt to correct an employee's unsatisfactory work performance or misconduct before a dismissal/involuntary separation is initiated. However, the Authority reserves the right to bypass the progressive discipline policy to address breaches of law, Authority policy and actions by employees which hinder the goals and or public perception of the Authority. Disciplinary actions may take any of the following forms and are not necessarily restricted to the order set forth below:

- a. Verbal reprimand
- b. Written reprimand
- c. Suspension
- d. Executive Director Inquiry
- e. Administrative decrease
- f. Demotion
- g. Dismissal/Involuntary Separation

All formal disciplinary actions, as listed above, should be documented. In the case of all of the above, except for a verbal reprimand, the employee should receive a copy of the written notice that will be placed in their personnel file. Any written notice should contain a statement of reasons for the disciplinary action, a warning of what further disciplinary action could result if the situation is not corrected and a statement of the employee's right to appeal in accordance with the Authority's Grievance Procedure, *See Section H., "Grievance Procedure"*.

- a. Verbal Reprimand: A verbal reprimand is a discussion between the department manager and the employee during which the employee is advised and cautioned in reference to unsatisfactory work performance or misconduct. Department managers are required to document the date, subject and details of the conversation for future reference if needed.
- b. Written Reprimand: A written reprimand is a written documentation to the employee from the department manager during which the employee is advised and cautioned with reference to unsatisfactory work performance or misconduct. A copy of the written reprimand should be signed by the employee and retained in their personnel file.
- c. Suspension: A suspension is the temporary prohibiting of an employee to perform his/her duties. The suspension period shall be without pay for just cause or with pay for investigative purposes. All suspensions must be approved by the Executive Director. A copy of the suspension letter should be signed by the employee and retained in their personnel file.
- d. Executive Director Inquiry: Prior to any demotion or dismissal recommendation from the department manager or divisional director, the Human Resources Manager/Director of Finance & Administration and the Executive Director will conduct a formal interview with

the employee and applicable management staff regarding the merits of the recommendation regarding the employee's unsatisfactory work performance or misconduct. Any disciplinary action that takes place will be approved by the Executive Director and documented in the employees personnel file.

- e. Administrative Decrease: An administrative decrease is a reduction in an employee's pay. All administrative decreases must be approved by the divisional director and the Executive Director. The letter of notification of an administrative decrease stating the specific reason for the decrease and signed by the employee should be retained in the employee's personnel file.
- f. Demotion: A demotion is a reduction in the pay range of an employee in conjunction with a change in job duties and responsibilities. All demotions must be approved by the divisional director and the Executive Director. The letter of notification of a demotion stating the specific reason for the demotion and signed by the employee should be retained in the employee's personnel file.
- g. Dismissal/Involuntary Separation: A dismissal is an involuntary termination from employment initiated by the Authority as a result of the employee's unsatisfactory work performance or misconduct. All dismissals/involuntary separations must be approved by the divisional director and the Executive Director and are subject to appeal or Loudermill hearing/grievance.

All formal disciplinary actions, as listed above, should be documented. In cases above, except for a verbal reprimand, the employee should receive a copy of the written notice that will be placed in their personnel file. Any written notice should contain a statement of reasons for the disciplinary action, a warning of what further disciplinary action could result if the situation is not corrected and a statement of the employee's right to appeal in accordance with the Authority's Grievance Policy. *See Section H., "Grievance Procedure".*

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## H. Grievance Procedure

### 1. Policy

The Authority Grievance Procedure affords an immediate and impartial method for the resolution of disputes that may arise between the Authority and employees in the Authority service.

### 2. Coverage of Grievance Procedure

This procedure applies to all non-probationary employees in permanent full-time and permanent part-time positions in the Authority.

This procedure shall not apply to the following employees:

- a. Appointees of the Board of Directors;
- b. Employees in temporary or seasonal positions;
- c. Student interns, volunteers, or persons appointed to serve without pay;
- d. Probationary employees; and
- e. The Executive Director

### 3. Definitions

Executive Director: shall mean either the Executive Director or his/her designee.

Grievance: shall mean a complaint or dispute by an employee eligible to use this procedure relating to his or her employment, including but not limited to:

- a. disciplinary actions, including dismissals, demotions and suspensions, provided that dismissals shall be grievable only when resulting from formal discipline or unsatisfactory job performance;
- b. the application of personnel policies, procedures, rules and regulations;
  - 1) acts of retaliation as the result of using the grievance procedure or of participation in the grievance of another Authority employee;
- c. acts of retaliation because the employee has complied with any law of the United States or of the Commonwealth of Virginia, has reported any violation of such law to a governmental authority, or has reported an incidence of fraud, abuse, or gross mismanagement; and
- d. complaints of discrimination on the basis of sex, sexual orientation, gender identity, race, color, creed, political affiliation, religion, national origin, age, disability or other legally protected status.

Grievant: shall mean an eligible employee who has filed a complaint under this procedure.

Human Resources Manager: shall mean either the Human Resources Manager or his/her designee.

Management: shall mean the Board of Directors and its designees who establish policy for the Authority.

#### 4. Management Responsibilities

Management retains the exclusive right to manage the affairs and operations of the Authority. Accordingly, the following complaints are non-grievable:

- a. establishment and revision of wages or salaries, position classification or general benefits;
- b. work activity accepted by the employee as a condition of employment or work activity which may reasonably be expected to be a part of the job content;
- c. the contents of established personnel policies, procedures, rules and regulations;
- d. failure to promote except where the employee can show that established promotional policies or procedures were not followed or applied fairly;
- e. the methods, means and personnel by which or by whom work activities are to be carried out;
- f. termination, layoff, demotion or suspension from duties because of lack of work, reduction in work force, or job elimination, except where such action affects an employee who has been reinstated within the previous six months as the result of the final determination of a grievance;
- g. the hiring, promotion, transfer, assignment and retention of employees within the Authority; and
- h. the relief of employees from duties of the Authority in emergencies.

In any grievance brought under the exception to Section 4.f above, the Authority's action shall be upheld upon a showing by the Authority that:

- a. there was a valid business reason for the action, and
- b. the employee was notified of the reason in writing prior to the effective date of the action.

#### 5. Human Resources Department Responsibilities

The Authority Human Resources Department shall serve as an impartial administrator of this process. Upon the filing of a grievance, the Human Resources Department shall do the following:

- a. establish and maintain a file;
- b. ensure that all parties are aware of the process;
- c. monitor procedures and time frames;
- d. notify either party of noncompliance;
- e. be informed of the status of the grievance by both parties at each step;
- f. maintain appropriate documentation; and
- g. perform all other responsibilities as specified in this Procedure.

## 6. Grievance Procedure Generally

For purposes of this procedure, “days” shall be defined as calendar days and time periods shall begin to run on the day following that on which any action is taken, or report rendered, without regard to weekends or Authority-observed holidays. If a time period specified in this procedure ends on a weekend or holiday, the last day of the time period shall be the next full business day following the weekend or holiday.

For example, a written grievance under Step 1 must be presented to the grievant’s immediate department manager within five (5) days of the department manager’s verbal reply to the informal grievance. The five (5) days shall begin to run on the day after receipt of the department manager’s verbal reply and shall terminate on the fifth day following. If the fifth day is a weekend or holiday, the time period shall terminate at the end of the next full business day.

Time limits established under this procedure are intended to be strictly construed and enforced. However, in the interests of fairness, such time limits may be extended if both parties agree to such extensions in writing.

All stages of this procedure beyond Step 1 shall be reduced to writing on forms supplied by the Human Resources Department. With the exception of the final management step, the only persons who may normally be present in the management step meetings are the grievant, the appropriate Authority official and appropriate witnesses for each side. Witnesses shall be present only while actually providing testimony. At Step 4 and above, the grievant may, at his option, choose to have a representative of his choice, including legal counsel. If the grievant is represented by legal counsel or other person(s), the Authority likewise has the option of being represented by legal counsel, provided that a person may not serve as both a witness and a representative at any Step under this procedure.

The grievant shall bear any and all costs involved in employing representation and preparing his case at all steps of this procedure, including but not limited to attorneys’ fees and expenses and any costs of judicial filings or appeals.

After the initial filing of a written grievance, failure of either party to comply with all substantial procedural requirements of this procedure, without just cause, shall result in a decision in favor of the other party on any grievable issue, provided that the noncomplying party fails to correct the noncompliance within five (5) days of receipt of written notification by the other party of the compliance violation.

However, the right of the grievant to correct compliance violations shall not apply to any determinations under Steps 1 through 3, or to grievability determinations, provided that the grievant has previously received written notice of the applicable deadlines for appealing such determinations at the time the determination was rendered but has failed to respond in a timely fashion.

The Executive Director may require a clear written explanation of the basis for any requests for just cause extensions or exceptions and shall determine all compliance issues. Such determinations by the Executive Director are subject to appeal by the grievant by filing a petition with the Circuit

Court of Albemarle County within thirty (30) days of the compliance determination. The grievant shall be solely responsible for filing such petition.

## **7. Grievability**

Decisions regarding grievability, including the question of access to this procedure, shall be made by the Executive Director. Grievability decisions shall be made at the request of the grievant or his divisional director or immediate department manager within ten (10) days of such request. A copy of the Executive Director's decision concerning grievability shall be sent to the grievant, to the divisional director and/or immediate department manager and to the Human Resources Manager.

Decisions by the Executive Director that an issue or complaint is not grievable may be appealed by the grievant to the Circuit Court of Albemarle County for a hearing de novo on the issue of grievability as provided in Virginia Code § 15.2-1507(A)(9).

Proceedings for the review of the Executive Director's decision regarding grievability shall be instituted by filing a notice of appeal with the Executive Director within ten (10) days from the date of receipt of the decision and giving a copy thereof to all other parties. Within ten (10) days thereafter, the Executive Director shall transmit to the Clerk of the Circuit Court of Albemarle County a copy of his decision, a copy of the notice of appeal, and any exhibits that may have been provided in connection with the resolution of the issue of grievability. A list of the evidence furnished to the court shall also be furnished to the grievant.

The failure of the Executive Director to transmit the record shall not prejudice the rights of the grievant. If the Executive Director fails to transmit the record within the time required, the Circuit Court, on motion of the grievant, may issue a writ of certiorari requiring the Executive Director to transmit the record on or before a certain date.

The Circuit Court, sitting without a jury, shall hear the appeal on the record transmitted by the Executive Director and such additional evidence as may be necessary to resolve any controversy as to the correctness of the record. The Court, in its discretion, may receive such other evidence as the ends of justice require. The Court may affirm, reverse or modify the decision of the Executive Director. The decision of the Court is final and is not appealable.

The issue of grievability may be raised at any step of the Grievance Procedure prior to the panel hearing provided in Section 13 of this procedure, or it shall be deemed waived by all parties. Once raised, the issue shall be resolved before further processing of the complaint. A request that grievability be determined shall toll the time limits under this procedure. Time limits shall begin to run again the day after the decision on grievability is made by the Executive Director or the Circuit Court.

The classification of a complaint as nongrievable by either the Executive Director or the Circuit Court of Albemarle County shall not be construed to restrict any employee's right to seek, or management's right to provide, customary administrative review of complaints outside the scope of the Grievance Procedure.



## 8. Consolidation of Grievances

If more than one grievance is filed arising from the same factual circumstances, the Executive Director may, at any time prior to a panel hearing, consolidate those grievances for joint processing, including grievability determinations. If consolidation occurs, all time limits set forth in this procedure shall thereafter be calculated from the date of the last filed grievance. Once consolidated, the grievances shall all be processed as a single matter pursuant to this procedure.

## 9. Step 1 Procedure - Immediate Department Manager

No later than fifteen (15) days after the occurrence or condition giving rise to the grievance, the employee affected shall identify the grievance verbally to his immediate department manager. Within ten (10) days of such identification, the immediate department manager shall give his response to the employee with respect to the particular grievance. The failure of an employee to identify the grievance within the time specified above shall constitute forfeiture and a waiver of any rights to proceed further and shall terminate the grievance.

If a satisfactory resolution is not reached by this informal process, the employee shall notify the Human Resources Department of the intent to file a grievance and shall obtain a copy of Grievance Form, see *Section M., "Forms and Attachments"*. The employee shall reduce the grievance to writing on the Grievance Form, Part A, identifying specifically and in detail the nature of the grievance and the requested remedy. Should he prevail in the grievance, an employee is entitled only to the relief specifically requested. Such written grievance shall be presented to the immediate department manager within five (5) days of the department manager's verbal reply to the oral grievance. The department manager shall then reply in writing to this written grievance within five (5) days of receiving it.

If the employee's immediate department manager is also his department manager, he shall pass by Step 2 of this procedure and proceed immediately to Step 3. If the employee's immediate department manager is the divisional director, he shall pass by Steps 2 and 3 and proceed to Step 4. If the employee's immediate department manager is the Executive Director, he shall pass by Steps 2, 3 and 4 and proceed to Step 5.

## 10. Step 2 Procedure - Department Manager

If a satisfactory resolution is not reached at the conclusion of Step 1 as outlined above, the grievant shall have the right to appeal as follows. Within five (5) days following receipt of the Step 1 (written reply), the grievant shall notify his department manager and the Human Resources Department in writing on the Grievance Form, Part A that resolution has not occurred and shall supply the reasons why the grievant believes that resolution has not occurred. The department manager shall schedule and hold a meeting with the grievant to review the grievance within five (5) days of receipt of such submission, or on such other date as the parties may mutually agree.

The only persons who may be present at this meeting are the grievant and the department manager. The Human Resources Manager may be present if requested by either party. The meeting may be adjourned to another time or place by agreement of the parties. A written reply to the grievance shall be provided to the employee and the Human Resources Department within five (5) days after the meeting.

**11. Step 3 Procedure - Divisional Director**

If a satisfactory resolution is not reached at the conclusion of Step 2 as outlined above, the grievant shall have the right to appeal as follows. Within five (5) days following receipt of the Step 2 written reply, the grievant shall notify the divisional director and the Human Resources Department in writing on the Grievance Form, Part A that resolution has not occurred and shall supply the reasons why the grievant believes that resolution has not occurred. The divisional director shall schedule and hold a meeting with the grievant to review the grievance within five (5) days of receipt of such submission, or on such other date as the parties may mutually agree.

The only persons who may be present at this meeting are the grievant and the divisional director. The Human Resources Manager may be present if requested by either party. The meeting may be adjourned to another time or place by agreement of the parties.

A written reply to the grievance shall be provided to the employee and the Human Resources Department within five (5) days after the meeting.

**12. Step 4 Procedure - Executive Director Level (Final Management Step)**

If a satisfactory resolution is not reached at the termination of Step 3 as outlined above in Section 11, the grievant shall notify the Human Resources Department, indicate on the Grievance Form, Part A that resolution has not occurred and submit the grievance to the Executive Director within five (5) days following receipt of the Step 3 reply. The Executive Director or his designee shall schedule and hold a meeting with the grievant to review the grievance within ten (10) days of receipt of such submission, or on such other date as the parties may mutually agree.

The grievant may have legal representation or another representative present at the Step 4 meeting. If the grievant is represented by legal counsel or another representative, the Executive Director may also have legal counsel or another representative present. The grievant shall inform the Authority in writing of the name of his legal counsel or other representative at least five (5) days prior to the Step 4 meeting and failure to do so shall result in a waiver by the employee of his right to representation. The Executive Director or designee shall, in his sole discretion, determine whether the testimony of a witness is relevant or, if witnesses have testified, whether additional testimony by other witnesses is necessary.

A written reply to the grievance shall be provided to the grievant and the Human Resources Department within ten (10) days after the Step 4 meeting, or on such other date as the parties may mutually agree.

**13. Step 5 Procedure - Grievance Panel**

If a satisfactory resolution is not reached at the termination of Step 4 as outlined above in Section 12, the grievant shall notify the Human Resources Department, indicate on the Grievance Form, Part A that resolution has not occurred and request a hearing before a Grievance Panel ("Panel"). The request shall be submitted to the Human Resources Manager within five (5) days following receipt of the Step 4 reply.

An impartial Grievance Panel shall be constituted and selected for each grievance hearing. The Human Resources Manager shall arrange for the Panel selection. If the Human Resources Manager

is a party to the grievance, the request form shall be submitted to the Director of Administration, who shall make the necessary arrangements.

#### 14. Composition of the Grievance Panel

The Panel shall be composed of three (3) members who shall be chosen in the following manner: one member shall be appointed by the grievant, one member shall be appointed by the Executive Director and a third member shall be selected by the first two Panel members. To ensure an objective, impartial Panel, no persons having direct involvement with the grievance being heard by the Panel, or with the complaint or dispute giving rise to the grievance, shall serve on the Panel. Managers who are in a direct line of supervision of a grievant, persons residing in the same household as the grievant and the following relatives of a participant in the grievance process or a participant's spouse are prohibited from serving as panel members: spouse, parent, child, descendants of a child, sibling, niece, nephew and first cousin.

Both the grievant and the Executive Director shall make their appointments to the Panel within ten (10) days after the request for a panel hearing is filed. The Human Resources Manager shall be notified of the appointments on the Grievance Form Part B. The two panel members chosen by the grievant and Executive Director shall select the third panel member within ten (10) days after the request for a panel hearing is filed and shall notify the Human Resources Manager of their selection. Unless it is necessary to involve the Circuit Court in the selection of the third member, a complete panel shall be selected within ten (10) days after the request for a panel hearing is filed.

In all cases where the first two members cannot reach an agreement as to the third member within ten (10) days, the Human Resources Manager, after confirming such fact, shall immediately notify the Director of Administration who shall request the Chief Judge of the Circuit Court of Albemarle County to appoint the third member pursuant to the selection procedures outlined in paragraph one of this section. The Authority and grievant shall share equally in the costs and expenses, if any, of the third panel member.

The Authority, at its sole option, may use an administrative hearing officer in employee termination or retaliation cases. When the Authority elects to use an administrative hearing officer as the third panel member in an employee termination or retaliation case, the administrative hearing officer shall be appointed by the Executive Secretary of the Supreme Court. The appointment shall be made from the list of administrative hearing officers maintained by the Executive Secretary pursuant to Va. Code § 9-6.14:14.1. If the Authority elects to use an administrative hearing officer, it shall bear the expense of such officer's services.

In all cases, the third member shall serve as chairperson of the panel. The chairperson shall set the time for the hearing and notify the Human Resources Manager, who shall in turn notify the grievant and Executive Director. The grievant and the Executive Director shall each be responsible for arranging the presence of their respective witnesses. The hearing shall be held as soon as possible after the date of the original request for a hearing, allowing sufficient time for access to records as specified in paragraph six below. Either party may have an attorney or other representative of his choice present at the Panel hearing.

The Human Resources Manager shall provide the Panel with copies of the grievance record prior to the hearing and provide the grievant with a list of documents furnished to the Panel. At least ten (10) days prior to the hearing, the grievant and his attorney or other representative shall be allowed access to, and copies of all relevant documents intended by the Authority to be used in the hearing. At least five (5) days prior to the hearing, the grievant and the Authority shall exchange lists of witnesses and exhibits to be called or introduced at the proceeding.

#### **15. Conduct of Grievance Panel Hearing**

The Panel is constituted solely for the purpose of determining whether a grievance filed by an employee is substantiated and what remedy, if any, should be provided. The Panel may not formulate or change Authority policy, rules or procedures. The Panel shall determine whether the grievant has demonstrated, by a preponderance of the evidence, that the action complained of was without cause, or done in violation of a law, rule, regulation or other policy. The Panel shall not otherwise substitute its judgment for that of management.

The Panel shall conduct the hearing as follows:

- a. At the request of either party, the hearing shall be private and limited to the grievant, the Panel members, the legal counsel or other representative of the grievant and the Authority, appropriate witnesses as they testify, and any court reporters or other official recorders of the hearing. At the request of either party, witnesses shall be separated from the hearing room and allowed to be present only during the time that they actually testify.
- b. The Panel shall consider the grievance without regard to any proposed disposition (including offers of settlement) by any lower authority, unless the grievant and the Executive Director shall agree in writing that the issue(s) shall be so limited. In all other cases, the Panel shall consider the matter as if presented to it in the first instance.

The Panel may at any time ask the parties or their representatives for statements clarifying the issues involved in the grievance.

Exhibits, when offered by the grievant or the Authority, may be received as evidence by the Panel, and when so received shall be marked and made a part of the record.

Both parties shall have the right to make opening statements, starting with the grievant. After opening statements, the order of the hearing shall be as follows: the grievant shall proceed first and shall bear the ultimate burden of persuasion. At the conclusion of the grievant's evidence, the Authority shall have the opportunity to present its evidence. At the conclusion of the Authority's presentation, the Chairperson shall specifically inquire of all parties whether they have any further evidence to offer or witnesses to be heard. Upon receiving a negative response, the Chairperson shall permit the parties to summarize their cases (beginning with the grievant) and shall then declare the hearing closed.

Both parties have the right to offer evidence, cross-examine witnesses, and shall produce such additional evidence as the Panel deems necessary for understanding and ruling upon the dispute. There shall be no formal rules of evidence at the hearing; however, the Panel shall have the right

to determine the relevancy of any evidence offered. All evidence shall be taken in the presence of the Panel and the parties, except by mutual consent of the parties.

The hearing may be reopened by the Panel on its own motion or upon application of either party for good cause shown at any time before a final decision is made.

Upon the request of the Panel, the Authority or the grievant, the Human Resources Manager shall insure that a verbatim record of the hearing is made and retained in his/her custody for not less than 12 months. The record may be in writing or by a taped recording. The party requesting the record shall bear the costs of preparation and transcription, including any costs associated with attendance of a court reporter. If both the grievant and the Authority request such a record, they shall share equally in all costs incurred.

The Human Resources Manager or his/her designee may be called upon by the Panel or either party as a witness at any time to provide specific policy interpretation or clarification of applicable Authority policy and these procedures.

In any matters not covered by this section, the Panel shall determine the applicable procedures to be followed.

#### **16. Decision of Grievance Panel Hearing**

The decision of the Panel shall be filed in writing by the Chairperson with the Executive Director and the grievant no later than thirty (30) days after the completion of the hearing. The decision shall summarize the grievance and the evidence, shall make specific findings of fact, and shall state in full the reasons for the decision, and the remedy (if any) to be granted. Decisions shall be made by majority vote of the entire Panel. The decision of the Panel shall be final and binding and shall be consistent with law and written policy.

The question of whether the relief granted by the Panel is consistent with written policy shall be determined by the Executive Director, or his designee, unless such person has a direct personal involvement with the event or events giving rise to the grievance, in which case the decision shall be made by the Commonwealth's Attorney of Albemarle County. The Executive Director or Commonwealth's Attorney shall request the Panel to reconsider any decision which in his judgment is inconsistent with the laws or written policy applicable to grievance resolution. He shall not disturb any decision consistent with the laws or written policy.

If the Panel determines that the grievant prevails on any grievable complaint or dispute, it may remedy that complaint or dispute by ordering that the grievant be reinstated to a former position; awarding back pay; or ordering expungement of information contained in the grievant's personnel file(s) maintained by the Authority Human Resources Department or individual department; or rendering opinions specifying the application or interpretation of Authority personnel policies and procedures as they may relate to the specific facts of the grievance. The grievant shall not, however, be entitled to any relief that he has not specifically requested in the original written grievance form, unless the parties have mutually agreed otherwise as to alternative relief.

If, in response to a grievable complaint or dispute, the Panel finds that a divisional director or other Authority official failed to follow established procedures governing promotion, demotion, transfer,

hiring or layoff, the Panel shall remand the grievance back to the divisional director or official with instructions that the actions taken be rescinded, and proper procedures be followed for the matter at issue. In connection with such remand, the Panel may make appropriate provisional orders concerning the case.

#### **17. Implementation of Grievance Panel Decision**

The Executive Director shall implement any remedy that may be ordered by the Panel, provided that such remedy is consistent with applicable law and Authority personnel policies. If the Executive Director determines that the Panel decision is not consistent with applicable law or Authority personnel policies, the following steps shall be taken:

- a. The Executive Director shall inform the Panel and the grievant of his determination within ten (10) days of his receipt of the Panel's written decision; and,
- b. The Executive Director shall not implement the decision of the Panel.

Either party may petition the Albemarle County Circuit Court for an order requiring implementation of the Panel decision. The review of the Circuit Court shall be limited to the question of whether the panel's decision is consistent with provisions of law and written policy.

## I. Administrative Policies

### 1. Conflict of Interest/Accepting Gifts

All employees are expected to make business decisions that are in the best interest of the Authority and the customers it serves. Employees are prohibited from engaging in any private business or professional activity, or having a financial interest in such activity, which would be or appear to be in conflict with their public responsibilities. Any employees having official responsibility for procurement transactions will conduct themselves in a manner that avoids the appearance of impropriety or unlawful conflicts of interest.

An employee cannot accept money, loans, trips, gifts, gift cards, reward cards, favor, service, business or professional opportunity of any value that might influence them in the performance of their official duties, or when it is known there is a reasonable likelihood that the item is being offered to influence an Authority employee in the performance of their duties. Employees are responsible for avoiding any impropriety or the appearance of impropriety. If there is a question as to what is permissible, the final decision will be made by the Executive Director.

### 2. Service Awards

This is a program that recognizes employees' years of work service. Awards are presented for service in five-year increments. All awards are presented annually in a mass setting.

Gift cards or cash are fully taxable under IRS regulations; all appropriate federal, state and other taxes will be withheld from the employee's next payroll.

### 3. De Minimis Fringe Benefits

De minimis fringe benefits are defined by the Internal Revenue Service as any property or service given to an employee by the employer which, after taking into account the frequency provided, whose value is so small as to make accounting for it unreasonable or administratively impracticable. Any benefit, with the exception of cash or gift cards, with a value of under \$25 will be considered as a de minimis fringe benefit by the Authority and will not be subject to taxation. In accordance with Internal Revenue Service regulations, any cash or gift cards given to employees as awards or benefits will be subject to taxation.

### 4. Termination of Employment

Any employee who voluntarily terminates their employment with the Authority is expected to give two-weeks' notice to their department manager. All Authority property, to include phones, uniforms and any other equipment supplied to the employee by the Authority, is to be returned prior to any employee's last day of employment. If the employee fails to return any Authority property, they will be expected to reimburse the Authority for the cost of the property through a payroll deduction from their last paycheck.

## 5. Voluntary Early Retirement Incentive Program (VERIP)

### a. Eligibility

Participants in the VERIP must be regular full-time employees eligible for benefits and meet the following requirements:

- 1) Be eligible for early or full retirement under the provisions of the Virginia Retirement System (VRS). Part-time employees must meet the same criteria as if covered under VRS.
- 2) Have been employed by the Authority for 10 of the last 13 years prior to retirement and meet the VRS requirements.
- 3) Employees retiring under the disability provisions of VRS and/or Social Security shall not be eligible for the VERIP.

### b. Benefits

VERIP benefits shall be paid monthly for a period of five years after retirement or until age 65, whichever comes first.

Benefits under VERIP will be calculated as follows:

- 1) Compute the annual VRS benefit. This computation shall include any reductions for early VRS retirement if appropriate;
- 2) Recompute the annual VRS benefit with the addition of five more years of service, or the number of additional years needed to reach age 65, whichever is the lesser;
- 3) The difference between these two calculations shall be the annual VERIP benefit to be paid on a monthly basis.

The Board will pay the employee the amount of the Board's contribution toward an individual employee's health insurance as long as the employee is covered by VERIP benefits. The benefit will be paid to the retiree on a monthly basis.

If the retiree returns to work in a part-time position with the Authority and chooses to participate in the Authority's health care program while receiving VERIP benefits, there will be no additional Board contribution towards the individual's health insurance.

### c. Application

Applications for VERIP must be made to the Executive Director prior to December 1st of the year preceding the fiscal year the VERIP takes effect. Applications received after December 1 may be approved based on the needs of the Authority.

### d. VERIP Contract

Any employee retiring under the VERIP program must read and sign a VERIP Contract. The contract is administered by the Human Resources Manager, and it reviews all of the provisions and rules of the VERIP program, as well as information specific to the employee.



e. Administration

Administration of the VERIP policy is delegated by the Board of Directors to the Executive Director.

f. Duration

Once an employee has been approved for VERIP, the benefits will continue without interruption as outlined in this policy. Subsequent alternations or deletion of this policy shall not affect the benefits of those who have retired under these provisions.

This policy automatically continues unless the Board acts to discontinue the policy for another year.

## 6. Anti-Nepotism Policy

No administrator or any other person in a department manager position shall have under his or her direct supervision any employee whose relationship is that of father, mother, brother, sister, spouse, son, daughter, son in law or daughter in law, aunt, uncle, or same relative of spouse and any other relatives or individuals residing with the employee. In the event of a promotion which brings about the conditions thus described, the employee of lower rank shall be transferred to another position for which he or she is qualified when and if such a vacancy occurs.

## ~~7. Inclement Weather Policy~~

~~The objective of this policy is to establish procedures and guidelines for all Authority employees concerning the potential closings or delays in opening Authority facilities.~~

~~a. Roles and Responsibilities~~

~~1) The Executive Director will be responsible for determining whether a delayed opening or closing of some or all of the Authority facilities is necessary due to inclement weather. Non-essential employees who are able to work from home will be expected to work from home if their work location is closed for the day. If there is a delay, the Executive Director/Divisional Director will determine if non-essential employees should work from home prior to coming into their work location.~~

~~2) Essential employees will be expected to report to work regardless of the weather. It is the department manager's responsibility to ensure their employees know whether they are considered essential employees. Essential employees are employees who are designated to work, even when offices are closed, because they work in operations that provide services to the community around the clock. (See Section I.19 Administrative Policies - Essential Employees)~~

~~3) The number that non-essential employees should call to ascertain weather related instructions is (434) 977-2970, ext. 333.~~

~~b. Use of Leave during Inclement Weather~~

~~1) Employees who are delayed due to weather conditions on days when the facilities are opened at the regular time or who need to leave early due to weather-related~~

~~concerns when the facility remains open until its normal closing time will be expected to account for time missed within the same workweek or use annual leave time to account for the time missed.~~

~~2) — Employees who are considered essential who do not report to their work location due to inclement weather are expected to use leave time.~~

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#### **8.7. Personal Use of Authority Vehicles**

Personal use of Authority vehicles is not permitted. Employees who use vehicles for personal errands or chores not incidental to work assignments are subject to disciplinary action.

#### **9.8. Technology System Acceptable Use Policy**

All employees will have access to the Authority's Technology System, which can include computers, printers, phones, cell phones, networks, software, internet access, email, voicemail, radios, Supervisory Control and Data Acquisition systems for industrial process control and any other technology used by the Authority. The following policies apply to all employees of the Authority:

- a. All employees are expected to follow the Technology System Acceptable Use Policy.
- b. All employees will receive a copy of this policy during their new hire orientation and will sign an acknowledgement of receipt of this policy at that time.
- c. All employees will maintain their own secure passwords ~~to the Technology System~~, and they will keep them confidential.
- d. Use of these systems by any employee implicitly consents to the Authority's right to monitor their activity on the systems.
- e. All employees using these systems to communicate are acting as representatives of the Authority.
- f. All information/communications must be retained as required to comply with the Library of Virginia Records Retention and Disposition Guidelines.
- g. No electronic communication is assured to be confidential. Sensitive and/or confidential information should not be sent electronically unless it is encrypted.

Further details as related to the Technology System Acceptable Use Policy can be found in the policy document (see Section M., "Forms and Attachments"). Any violation of this policy can result in disciplinary action, up to and including termination of employment.

#### **10.9. Effect of Criminal Conviction or Arrest**

It is the policy of the Board not to employ or to continue the employment of personnel who may be deemed unsuited for service by reason of arrest and/or criminal conviction.

Any employee who is arrested for a criminal violation of any kind, whether misdemeanor or felony, is required to report such arrest promptly to their department manager or divisional director within one (1) business day unless mitigating circumstances exist. This reporting requirement applies regardless of whether such arrest has occurred on-duty or off-duty. Failure to comply with this

reporting requirement shall be grounds for disciplinary action, up to and including dismissal. In addition, all employees shall have the continuing duty to notify the Authority of any arrest or criminal conviction that occurs subsequent to being hired by the Authority.

Department managers or divisional directors shall contact the Executive Director or designee upon receiving notification that an employee has been arrested. The Authority reserves the right to determine appropriate disciplinary action in such cases, up to and including dismissal, depending upon the facts and circumstances surrounding the arrest.

#### **11.10. Fitness for Duty**

All job descriptions will clearly state the minimum physical and emotional health requirements of the particular job. Employees are responsible for familiarizing themselves with these requirements.

All new employees are required to have a fit for duty medical examination within two days of signing their job offer and prior to their first day of work. The results must be received by the Human Resources Manager before the employee begins working.

Results of the fitness for duty examination will be shared with the employee. If the fitness for duty examination indicates that the employee requires some treatment prior to resuming their employment responsibilities, the employee is responsible for obtaining treatment sufficient to qualify as again fit for duty before returning to work. The employee may use leave authorized by this policy during the period of absence to the extent leave is available. If the Authority physician or the EAP counselor indicates that the employee is not fit for duty on a permanent basis, the employee may also have benefits such as retirement disability.

If the fitness for duty examination indicates that the employee could perform their responsibilities with some reasonable accommodation to the job, the Executive Director will determine whether or not such modifications to the job can be made.

When employees return to work after hospitalization or prolonged absence for health reasons, a doctor's release to return to duty is required. Should circumstances dictate, the Executive Director may require that the employee be examined by the Authority physician prior to allowing the employee to return to duty.

#### **12.11. ID Badges**

As a vital part of the Authority's security system, an identification badge with the employee's name, photo and department will be issued to employees on their first day of employment. All employees are required to carry an ID badge during their shift or while conducting any Authority business on or off premises. All employees are required to produce said ID badge when requested.

If an identification badge is lost or stolen, the employee must report the loss to their supervisor immediately and obtain a replacement. A fee of \$5.00 will be assessed for all replacement badges. Lost or stolen cards should be reported to the department manager as soon as possible. Failure to be able to display or produce your ID badge when requested or excessive loss or damage to cards can lead to disciplinary action.

Upon termination, employees will be required to return ID badges to the Human Resources Department.

#### **13.12. Dress Code/Personal Hygiene**

All employees are expected to dress neat and professionally based on the needs of their position.

- a. Uniforms are provided to certain departments. Employees in those departments are expected to wear their uniforms. Uniforms are to be returned to the Authority upon termination of employment.
- b. Any Personal Protective Equipment required in a certain location or work environment must be worn.

#### **14.13. Safety Shoe Program**

The Rivanna Water and Sewer Authority will provide all employees required to wear composite steel toed shoes with \$125 per fiscal year (July 1 – June 30) towards the purchase of their shoes. The Rivanna Solid Waste Authority will provide all employees required to wear composite toed, puncture resistant shoes with \$190 per fiscal year towards the purchase of their shoes. An employee may carry over up to \$250 by not using their annual voucher.

#### **15.14. Prescription Safety Glasses Program**

The Authority will provide all employees required to wear prescription safety glasses a voucher for \$250 for the purchase of those glasses. This program is administered by the Safety Manager.

#### **16.15. Social Media Policy**

The primary online presence for the Authority will be the Authority's website. If it is deemed necessary to establish an additional online presence via social media, the Communications Manager will be responsible for maintaining that presence. This policy will be further amended at that time.

#### **17.16. Smoking/Vaping**

Smoking and vaping are not permitted in any Authority building or vehicle. Additionally, employees are not permitted to smoke or vape at building entrances. Smoking and vaping will be permitted in designated areas and employees are expected to dispose of cigarette butts in the appropriate receptacles.

#### **18.17. Transferring Between Authority**

Employees may apply for open positions in the other Authority. If an employee transfers to the other Authority, they will maintain their years of service with the Authority. At the time of transfer, all annual and sick leave balances will be transferred to that Authority with no loss of accrued time. The employee will continue to accrue leave time based on their combined years of service.

#### **19.18. Essential Employees**

Employees who are designated as required to work when the main office is closed due to weather or other emergencies are considered essential. Essential employees generally must work to maintain ongoing and safe operations and basic public services, such as Water Operators,

Wastewater Operators, Chemists and Mechanics. Occasionally, employees who are not normally considered essential may be required to work if the circumstances require it. This determination will be made by the Executive Director and/or the employee's Manager or Divisional Director.

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## J. Employee Training, Development and Educational Assistance Program

### 1. Policy

The Authority promotes professional excellence and encourages employees to achieve their highest potential through education, training, and mentoring. The Authority encourages employees to use developmental opportunities to enhance their career progression, develop fully in their current position, and/or prepare for and become eligible to seek promotional opportunities within the organization. Training and education are separated into three categories: Essential Training, Advanced Development Training and Degree Programs.

### 2. Definitions

Advanced Development Training: Voluntary training and education that will assist the employee in their pursuit towards an advanced skill or licensing level.

Degree Program: Training and education that will result in credit or credit hours towards a college degree.

Essential Training: All training that is determined by the employee's department manager or divisional director to be necessary to perform duties of the employee's current position.

Financial Assistance: Financial assistance offered and paid for by the Authority, available to an employee participating in approved Advanced Development Training and Degree Programs.

Work Schedule: An employee's assigned hours to work as required by their position.

### 3. Employee Eligibility

Employees who have been employed for six months or less, are eligible to apply for Essential Training but are not eligible to participate in Advanced Development Training or Degree Programs. Employees who have been employed for more than six months are eligible to apply for Essential Training, Advanced Development Training and Degree Programs.

### 4. Essential Training

a. All training and education that is determined by the department manager and/or the divisional director as necessary to perform the duties of the employee's current position to include:

- 1) Training and education necessary to maintain and/or improve the employee's knowledge, skills and ability to perform the required job tasks;
- 2) Training and education mandated by law; and
- 3) Training and education necessary to keep up with technological or process changes.

b. Types of Essential Training includes:

- 1) Authority sponsored in-house training;
- 2) Off-site training;

- 3) Seminars or conferences; and
- 4) Webinars.
- c. Textbooks or study materials purchased for Essential Training may be:
  - 1) Prepaid and purchased by the Authority; or
  - 2) Prepaid and purchased by the employee, who will then be reimbursed by the Authority.
- d. Registration or Enrollment Fees will be:
  - 1) Paid for in advance by the Authority if possible; or
  - 2) Paid for by the employee and be reimbursed.
- e. Expense Reimbursement

Expenses paid by the employee related to the approved Essential Training are reimbursable. Request for reimbursement must be submitted to the Authority within 60 days after the expenses were incurred. Request for reimbursement must be clear, concise, itemized and include original receipts.

#### 5. Advanced Development Training

- a. All training and education that will assist the employee in their pursuit towards an advanced skill or licensing level as well as enhancing the employee's contribution to the Authority.
- b. Types of Advanced Development Training includes but is not limited to:
  - 1) Authority pre-approved training and education programs for operator correspondence courses (Sacramento); and
  - 2) Authority pre-approved mechanic training programs.
- c. Textbooks and/or study materials purchased for Advanced Development Training may be:
  - 1) Prepaid and purchased by the Authority; or
  - 2) Prepaid and purchased by the employee.
- d. Registration or Enrollment Fees will be:
  - 1) Paid for in advance by the Authority if possible; or
  - 2) Paid for by the employee and to reimbursed.
- e. Expense Reimbursement

Expenses paid by the employee related to the approved Advanced Development Training are reimbursable. Request for reimbursement must be submitted to the Authority within 60 days after the expenses were incurred. Request for reimbursement must be clear, concise, itemized and include original receipts.



## 6. Degree Program

- a. All training and education that will result in the earning of credit or credit hours towards a college degree and will enhance the employee's contribution to the Authority.

- 1) A Degree Program is not required to maintain the employee's current position.
  - 2) A Degree Program must be directly related to the employee's current position.

- b. Registration, enrollment, tuition, textbooks and study materials must be paid for by the employee.

- c. Financial Assistance & Reimbursement Requirements

The Authority offers financial assistance to those employees participating in an approved Degree Program. Through the financial assistance program, employees may request reimbursement for expenses related to an approved Degree Program to include registration/enrollment/tuition fees, textbooks, study materials or other degree related expenses.

- 1) All reimbursements are conditional upon the approval of the Authority's annual budget.
  - 2) The Authority will reimburse up to a maximum of \$5,250 per ~~calendar~~fiscal year (~~January 1~~ through ~~December 31~~June 30) for eligible educational expenses paid for by the employee.
  - 3) Reimbursements that exceed the maximum of \$5,250 per ~~calendar~~fiscal year will be held and reimbursed in upcoming ~~calendar~~fiscal years until all expenses have been reimbursed.

- d. Employee Requirements for Education Reimbursement

- 1) The employee's Degree Program and request for financial assistance must be pre-approved by the employee's department manager and divisional director;
  - 2) The employee must complete all course requirements within the prescribed timeframe;
  - 3) The employee must receive a passing grade of a C or higher for all undergraduate or business courses;
  - 4) The employee must receive a passing grade of a B or higher for all graduate college courses;
  - 5) The employee must submit an official grade transcript within 60 days of course completion;
  - 6) The employee must remain employed by the Authority; and
  - 7) In the event of voluntarily separation of employment the employee shall be required to repay all received reimbursed expenses from the prior 12-month period.

e. **Tax Liability for Tuition Reimbursements**

In some circumstances, education aid or reimbursement may be considered taxable income under the IRS regulations. Generally, educational assistance for job-related courses is not counted as taxable income. If an employee receives more than the annual IRS maximum allowable amount for educational assistance, the amount exceeding the IRS maximum will be subject to payroll taxes.

**7. Pre-Approval**

All employee requests for training, regardless of type, must be pre-approved by the employee's department manager or divisional director before registration.

**8. Work Schedule Adjustment**

Provided it is in the best interest of both the employee and the Authority, an adjusted work schedule may be approved if the Essential Training or Advanced Development Training is not allowed to be conducted during the normal work schedule hours. All requests will be approved on a case by case basis and must occur before training registration. Adjusted work schedules will not be granted for Degree Programs.

**9. Authority Responsibilities**

- a. Provide for the training and education necessary for employees to obtain or renew required certificates and licenses necessary for the position.
- b. Provide for the training and education necessary to keep up with changing work requirements.
- c. Provide for the training and education which is mandated by law.
- d. Provide timely payment and/or reimbursement upon receipt of all required expense reimbursement requests and transcripts if applicable.
- e. Register employees for training and education provided employee gives ample time to process. See employee's responsibilities below.

**10. Employee Responsibilities**

- a. Must submit a completed training request form to the department manager in enough time to process request.
- b. Complete all registration forms and if necessary, register in person at the training site.
- c. Complete all the required applications related to examinations.
- d. Employees seeking assistance from the Administration Office with registration, fees, travel and/or lodging arrangements must be made 30 days prior to travel and/or registration date.
- e. Must provide proof of successful completion.

- f. Expense Reimbursement Requests for reimbursement must be submitted to the Authority within 60 days after the expenses were incurred. Reimbursement requests must be clear, concise, itemized and include original receipts.

**11. Human Resources Responsibilities**

The Human Resources Manager or designee will maintain records of training, education and related requirements.

**12. Department Manager Responsibilities**

- a. The department manager will promptly review all employee requests for training and consistently apply the rules relating to this policy.
- b. The department manager will monitor the employee's progress.
- c. The department manager will develop an annual training and education needs assessment and request funds need in the department budget.

**13. Divisional Director Responsibilities**

The divisional director will ensure the rules of this policy are consistently applied.

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## K. Travel Policy

### 1. Policy

This policy establishes guidelines for the approval and reimbursement of travel related expenses. The Authority will reimburse employees traveling on official Authority business for reasonable and necessary expenses incurred. It is the policy of the Authority to limit travel costs to expenses that are necessary for providing essential services to its customers. The use of Authority funds to accommodate personal comfort and convenience is not permitted. Travelers and travel planners must seek ways to reduce the cost of travel.

### 2. Travel Reimbursement Requirements

#### a. Travel Request

All travel outside of the Authority's service area (Charlottesville or Albemarle County) requiring reimbursable travel expenses must be approved in advance by the employee's department manager or divisional director. The employee traveling must complete a Travel Request Form. (Please note – if travel expenses are related to properly approved training, education or conference attendance, then the appropriate form for that approval will suffice for approval of related travel request. This is for the form approval only and all policies herein apply.) Each Travel Request Form should detail anticipated or estimated expenses for the trip. The USGSA can be used to estimate travel costs.

The Authority has a policy of reimbursement for reasonable costs actually incurred to exempt such payments to employees from federal and state taxation. When an employee is seeking reimbursement of expenses incurred during a trip, they should complete an Expense Reimbursement Form, and have it approved by their department manager. An approved Travel Request Form should be attached to all Expense Reimbursement Forms that include overnight trips.

#### b. Reservations

Whenever possible, travel reservations should be made in advance through the Administration department. This would include airline tickets, hotel reservations, conference fees and any other travel cost that can be paid in advance.

Itemized receipts must be provided for all reimbursed travel. Any travel costs submitted without an itemized receipt will not be reimbursed, to include meals. An Expense Reimbursement Form should be completed with all receipts attached.

#### c. Expense Submittal

- 1) An Expense Reimbursement Form must be submitted to an employee's department manager within 14 days of the completion of the trip. The following expenses are reimbursable for overnight stays:

- a) Mileage
  - b) Transportation (airfare, rail, bus, rental car, taxi)
  - c) Tolls and Parking
  - d) Lodging
  - e) Meals
  - f) Registration Fees (conferences)
- 2) The following expenses are not reimbursable:
- a) Lost or stolen property
  - b) Alcoholic beverages
  - c) Damages to personal items
  - d) Movies charged to hotel bill
  - e) All expenses related to personal negligence such as fines
  - f) Entertainment expenses
  - g) Towing charges
  - h) Expenses for children, spouses or other companions while traveling
  - i) Travel insurance

This list is not all inclusive and traveler should use prudent judgement regarding travel expenses. Department managers have a responsibility to question any costs that seem to be unreasonable and deny any costs that are unreasonable or undocumented.

### 3. Authority Vehicles

Employees are encouraged to use Authority vehicles for business travel whenever possible. Vehicles can be reserved in advanced and can be used for overnight travel. All Authority vehicles must be signed out by the employee who is driving the vehicle. Authority vehicles must be returned immediately when the employee returns from a trip.

Employees who have take-home Authority vehicles should use those vehicles for all business travel.

Authority vehicles should not be used for any personal travel unless approved by the Executive Director or the Divisional Director.

### 4. Mileage

When traveling outside the service area, employees are permitted to use their personally owned vehicle when an Authority owned vehicle is not available, or when the use of a personally owned vehicle is cost-beneficial to the Authority. Employees electing to use their personal vehicle as a matter of convenience will not be reimbursed for mileage unless approved by their department manager.

Mileage will be reimbursed (when traveling outside of the service area) at the current same rate as the Federal IRS published rate for business travel deduction.

Round trip mileage for reimbursement purposes will be total miles traveled to and from the destination from the employee's home or Administration Office location, whichever is shorter. (i.e. any normal commuting costs are not reimbursable.)

## 5. Transportation

### a. Air Travel

- 1) Any air travel booked should be at economy airfare unless approved by the Executive Director or if the difference between the airfare purchased and economy airfare is paid for by the employee.
- 2) All flight reservations must be made by the Administration department.
- 3) Any baggage fees incurred will be reimbursed for a checked bag. Any baggage fees that are incurred due to a bag being over the air carriers weight limits or multiple bags checked must have a legitimate business reason or they will not be reimbursed.
- 4) Any change fees incurred due to flight changes made by the employee must have a legitimate business reason or they will not be reimbursed.

### b. Other Transportation

Other forms of transportation can be used for business travel is permissible if the reduction in cost is beneficial to the Authority.

### c. Rental Cars

- 1) Employees traveling to attend conferences should book the hotel where the conference is being held or a hotel within walking distance whenever possible.
- 2) All rental car reservations will be made through the Administration department.
- 3) Any fees, other than basic car rental expenses will not be reimbursed.

## 6. Lodging

- a. Reimbursement for lodging will include hotel nightly rate and any hotel taxes, fees or surcharges. Any other charges will not be reimbursed unless approved by the employee's department manager and/or divisional director. An itemized hotel bill must be provided.
- b. If travel plans change and a hotel reservation needs to be cancelled, it is the responsibility of the employee to notify either the Administration department so that the reservation can be cancelled or to cancel it themselves so as to not incur a cancellation charge.

## 7. Meals and Incidentals

- a. The employee must provide itemized receipts in order to be reimbursed for meals and incidentals.
- b. Employees will be reimbursed for tips up to 15% on meals.

- c. Any meal or incidental expenses deemed excessive will not be reimbursed. The Authority will use the U.S. GSA per diem as a guideline when appropriate.

#### **8. Compensation While Traveling, Overnight Travel**

- a. Overnight travel is travel away from home community, as defined by the FLSA and the Code of Virginia.
- b. An employee will be compensated for travel away from home when it clearly cuts across the employee's normal workday or the hours that correspond to an employee's normal work hours on nonworking days.
- c. An employee will be compensated for any hours spent in a class or training that was mandated by a department manager or divisional director.
- d. An employee will be compensated for time spent driving other employees to a location in an Authority vehicle if the employee was directed to do so by a department manager or divisional director.
- e. If an employee is offered transportation (air, rail, etc.) for travel away from home and chooses to use his/her own vehicle, either the time spent driving their own vehicle or the time it would have taken to use the offered transportation will be compensated if the time clearly cuts across the employee's normal workday.

#### **9. Travel Advances**

Cash advance for travel should be avoided; however, occasionally there is a need for an employee to estimate the costs of travel and obtain a cash advance. Once a cash advance has been approved (request must be made 30 days in advance of need) the employee is responsible for handing in all receipts to document the costs incurred like any other travel event. If the cash advance was more than the documented receipts, the employee will be required to pay the difference to the Authority. If, however; there were more costs (documented by receipts turned in) than the cash advance, the Authority will pay the employee the difference.

Then all the rules for submitting the documentation of costs will apply per 4 above. Any excess the employee will have to reimburse the Authority any shortage the Authority will pay the employee.



## L. Substance Abuse Policy

### 1. Policy

It is the policy of the Authority to ensure that its' workplaces are free of alcohol, illegal drugs and controlled substances by prohibiting the use, possession, purchase, distribution, or sale of these substances. Although the sale and use of alcohol by an adult is legal, the possession, use, or distribution of alcohol in the workplace or in any Authority vehicle is strictly prohibited.

This policy is applicable while employees are engaged in any work-related activity which includes performance of Authority business or any services for or by the Authority.

The use or distribution of alcohol; reporting to work under the influence of alcohol, or having alcohol in the body system at work, whether the alcohol was consumed at work or away from work, are all prohibited in the workplace. The Authority prohibits the use of alcohol while assigned to "on call" duty.

The unlawful possession, use, manufacture, or distribution of a controlled substance or illegal drug; the reporting to work under the influence of a controlled substance or illegal drug; having an illegal drug in the body system; or possession of drug paraphernalia are all prohibited in the workplace.

All Authority employees must report the use of any prescribed controlled substance or prescribed drug which may affect their ability to perform any aspect of their job to their Supervisor.

All Authority employees must notify their supervisor of any arrests, charges and/or convictions for criminal drug statute violations or of any alcohol beverage control law or law that governs driving while intoxicated.

When reasonable suspicion exists that any employee has reported to work under the influence of alcohol, illegal drugs, or is impaired due to the abuse or misuse of controlled substances or prescribed medications, the employee may be subject to assessment, testing, and disciplinary action or termination of employment.

This policy establishes clear and uniform guidelines in accordance with federal and state regulations for the Commonwealth of Virginia regarding alcohol, drugs, or controlled substances, including the provisions of the Drug-Free Workplace Act of 1988.

- Further, the purpose of this policy is to make every effort to provide and maintain a drug and alcohol-free workplace. The policy shall cover all Authority employees.
- The policy is to establish an Anti-Drug/Alcohol Misuse Policy that complies with the Department of Transportation's (DOT) 49 CFR parts 382 and 40, which mandates that employers provide Drug and Alcohol testing for drivers who are required to hold commercial driver's licenses (CDL), for the use of alcohol and controlled substances. Part 40 outlines the manner in which and by whom these tests are conducted.

The policy's goal is to comply with the Drug Free Workplace statute to eliminate the presence and/or use of alcohol, controlled substances and illegal drugs in the workplace.

- The intent of this policy is to ensure that all Authority workplaces and sites are safe, productive and secure for employees and the public we serve.
- This policy prohibits the use of alcohol and/or illegal drugs in the workplace as such use may affect an employee's job performance; bring discredit upon the reputation of the Rivanna Authorities as the employer, threaten the safety of fellow employees, the general public, and expose the Rivanna Authorities to any liability.

The Authority shall:

- Maintain a copy of the Drug Use/Alcohol Abuse policy in an accessible location.
- Enforce the policy and take appropriate action against individuals who are convicted or violate the policy as soon as possible from the date of the conviction or violation.
- Promptly deal with any possession, consumption, and /or distribution of alcohol, an illegal drug or controlled substance in the workplace, in accordance with legal and administrative disciplinary procedures as outlined in the Personnel Management Plan. Supervisors should contact their Department Manager or Human Resource Manager for guidance and/or access to the Substance Abuse Policy located in the Personnel Management Plan. However, in emergency situations supervisors should first ensure the safety of others and then, if necessary, contact 911 should the situation warrant such.

## 2. Definitions

**Alcoholic Liquors/Alcohol:** These include alcohol, beer, wine, and any liquid or solid containing alcohol and capable of being consumed.

**Arrest/Charges:** To be taken in custody or to be formally accused by law enforcement due to a violation of criminal statute.

**Commercial Driver's License:** Some maintenance and solid waste personnel are required to obtain and maintain a Class-A Commercial Driver's License as part of their job. Employees that have a Class-A License have a lower Breath Alcohol Concentration (BAC) limit of less than (0.04) while a non-CDL holder may have a (BAC) level of less than (0.08).

**Controlled Substance:** A federally regulated substance listed Schedules I through V of Section 202 of the Controlled Substance Act (21 U.S.C.812) and Virginia Code (2.2) that when taken into the body, may impair one's mental faculties and /or physical performance.

**Conviction:** A finding of guilt, (including a plea of no contest) or the imposition of a sentence or both, by any judicial body charged with the responsibility to determine violations of the federal or state criminal drug statutes.

**Criminal Drug Statute:** A criminal statute involving the manufacture, distribution, dispensation, use, or possession of any controlled substance.

**Employee:** Any person who works full-time or part-time, or temporary staff who are directly engaged in the performance of work for the Authority.

**Legal Drug:** Legal drugs include medications prescribed by a physician (to include controlled substances), and over the counter medications which have been legally obtained and are being used solely for the purpose for which they were prescribed by a physician or manufactured.

**Illegal Drug:** Any drug which is not legally obtainable or is being used in a manner or for a purpose other than as prescribed. Illegal drugs include those controlled substances under federal law or State Law (Virginia) which are not authorized for sale, possession, use, and legal drugs which are obtained or distributed illegally.

**Safety Sensitive Functions:** Any task performed where the employee performing the task has a responsibility for his/her own safety or the safety of others. The Authority has established the following list as Safety Sensitive Functions:

- All time working at any water or wastewater treatment facility.
- All time spent working at any Rivanna Solid Waste Authority facility.
- All time inspecting equipment as required by the Federal Motor Carrier Safety Regulations.
- All time spent at the driving controls of any motor vehicle or any motorized equipment.
- All time spent performing any assigned duties at a confined space operation.
- All time spent performing duties involving locating utilities.
- All time spent operating power tools such as chainsaws, pipe saws, drills, grinders, welders, etc.
- All time spent working on electrical equipment.
- All time spent working above ground/floor level.
- All time spent "On Call". On call will be considered "ready to perform safety-sensitive functions;" therefore failure to be available for an emergency due to drug use or alcohol misuse while on scheduled call will result in disciplinary action up to and including termination.

**Substance Abuse Professional (SAP):** A licensed physician (medical doctor or doctor of osteopathy), or licensed or certified psychologist, social worker, employee assistance professional, or addiction counselor (certified by the National Association of Alcoholism and Drug Abuse Counselors Certification Commission), with knowledge of and clinical experience in the diagnosis and treatment of drug and alcohol related disorders.

**Workplace:** A worksite where service or work is conducted in the performance of an employee's employment. The workplace shall include jobsite, facilities, properties, buildings, offices, structures, automobiles, trucks, and any location that work is performed as a representative of the Authority.

### 3. Drug and Alcohol Testing Requirements

#### a. Employee Testing Groups

Employees will be divided in to two testing groups:

- 1) Employees whose position requires them to have a Class A Commercial Driver's License and who operate vehicles requiring a Commercial Driver's License (CDL Pool).
- 2) Employees whose position does not require them to have or Commercial Driver's License and who do not operate vehicles requiring a Commercial Driver's License (Non-CDL Pool).

#### b. Types of Drug and Alcohol Testing

- 1) Random Testing – All fulltime and part time employees will be subject to unannounced drug and alcohol testing based on random selection by an outside contractor.
  - The percentage of employees tested from the CDL Pool will be determined by requirements from the Federal Motor Carrier Safety Administration and will be subject to changes based on these requirements.
  - The percentage of employees tested from the Non-CDL Pool will be 10% annually. This percentage can be changed by the Executive Director based on statistics from the prior year.
  - The Executive Director can, at any time, suspend random testing for the Non-CDL Pool.
- 2) Post-Accident – As soon as possible following an accident involving an Authority vehicle, the Authority shall test the employee driving the vehicle when any of the following apply:
  - The accident involves a fatality.
  - The accident involves bodily injury to any person who receives immediate medical treatment away from the accident scene.
  - The employee receives (or is expected to receive) a citation under state of local law for a moving violation arising from the accident.
  - One or more motor vehicles incur damage requiring the vehicle(s) to be towed away from the accident scene.

It is the employee's immediate supervisor's responsibility to ensure that the above provisions for post-accident testing are followed. The employee involved should submit to the test within two hours of the accident if able. Any employee who does not remain available for testing, unless they are receiving emergency medical

care, shall be deemed as refusing to submit to testing. If the employee is receiving medical care at an emergency facility, every attempt should be made to get a test performed however, any effort to get a test should stop after 32 hours.

- 3) Pre-Employment – Any person who has been offered a position with the Authority must take and pass a drug test, at the Authority’s expense, within 2 business days of receiving the job offer. If an applicant does not pass the drug test, their job offer will be rescinded immediately, and they will not be eligible for employment with the Authority for a period of three years.
- 4) Reasonable Suspicion – The Authority will test any employee when there is reasonable cause to believe that the employee is under the influence of drugs or alcohol during work hours or while on call. Only an employee’s supervisor, department manager or divisional director can send an employee for reasonable suspicion testing. Any factors leading to testing based on reasonable suspicion must be documented in writing. In making a determination of reasonable suspicion, the following should be considered:
  - Physical signs and symptoms that the employee is under the influence.
  - Evidence of alcohol or drug use, such as bottles, cans or drug paraphernalia.
  - Occurrence of a serious or potentially serious accident that may have been caused by flagrant violation of established safety, security or other policy/procedure.
  - Adequately documented pattern of unsatisfactory work performance for which no apparent non-impairment related reason exists, or a change in an employee’s prior pattern of work performance, especially where there is some evidence of alcohol or drug related impairment at the workplace.
- 5) Return to Duty – An employee who has engaged in prohibited conduct based on this policy must undergo a return to duty test with a negative result before returning to their job duties. If an employee refuses to submit to return to duty testing, they will not be permitted to return to work.
- 6) Follow-Up – Any employee who has engaged in prohibited conduct based on this policy will be subject to unannounced random follow up testing. The testing will be conducted while the employee is on duty. A minimum of six tests will be conducted in the twelve months following an employee’s return to duty or more if directed by a substance abuse professional (SAP). The SAP can terminate the requirement for the follow-up testing in excess of the minimum at any time if it is determined that the testing is no longer necessary.

c. Testing Notification

The Medical Review Officer (MRO) will notify the employee of the results of random, reasonable suspicion, and post-accident drug/alcohol tests if the results are verified as positive, prior to notification of the employee's department head. The MRO will notify a job candidate of results from a pre-employment drug test that are verified to be positive before notifying the Authority.

Should the employee want the split sample retested as the result of a positive test, the employee needs to make arrangements with the Medical Review Officer's (MRO) staff for prepaying to have the test redone. The Authority will not be responsible for the expense of the retest.

d. Refusal to Test and Uncompleted Tests

Compliance with this drug/alcohol testing policy is a condition of employment. Refusal to take a required drug/alcohol test, failure of a drug/alcohol test, or attempting to adulterate a sample may result in the termination of employment by the Authority.

e. Recordkeeping

The Authority will maintain all records and documentation in the Administration Office and under the control of the Executive Director and the Human Resources Manager. Each record shall be kept private and confidential and stored in a secured location. With the exception of the testing laboratory, MRO, designated supervisor(s), Human Resources Manager, or upon request of the FMCSA or other federal or state agency officials as part of an accident investigation, the results of individual drug and alcohol tests will not be released to anyone without the expressed written authorization of the individual tested. Drug and alcohol tests and/or rehabilitation records will only be released to subsequent employers upon written consent from the covered employee. Then only the specific information requested by the employer will be released.

f. Employee Assistance Program (EAP)

The Authority contracts with an Employee Assistance Program (EAP). EAP services are available to all employees. The EAP staff can provide employees with the appropriate education regarding the use of prohibited drugs.

#### 4. Testing Standards

All testing procedures performed under this policy must be in compliance with United States Department of Transportation Drug and Alcohol Regulations, 49 CFR, Part 40, regardless of if the testing is administered to an employee in the CDL Pool or the Non-CDL Pool. This includes regulations regarding sample collection, testing laboratories, medical review officers and the verification process.

The Authority are required by the Federal Motor Carrier Safety Administration (FMCSA) to adhere to the minimum annual percentage rate for random controlled substance testing for drivers of

commercial motor vehicles requiring a commercial driver's license as determined by the FMCSA. This rate is subject to change on an annual basis and effects the CDL Pool only.

All test results are considered confidential information and will not be released to third parties without the specific written consent of the employee.

a. Medical Review Officer (MRO)

The Medical Review Officer must meet the criteria in the US Department of Transportation's 49 CFR Parts 382 and 40.

b. Testing Laboratory

The testing laboratory for this policy must meet the criteria set in the US Department of Transportation's 49 CFR Part 382 and 40.

c. Specimen Collection Requirements

Specimen collection will be as required in the US Department of Transportation's 49 CFR Parts 382 and 40.

## 5. Disciplinary Actions

Once the Medical Review Officer (MRO) makes a determination that there is no legitimate medical explanation for a confirmed positive test result other than the unauthorized use of alcohol or a prohibited drug, the Authority will not knowingly allow such employee or person to work in any capacity. The employee shall be suspended or placed on unpaid leave immediately and referred to the Employee Assistance Program. The employee may return to work only after a Substance Abuse Professional (SAP) has determined the employee is fit for duty and has successfully completed the prescribed drug rehabilitation program. The employee must also have a negative drug screening under return-to-duty testing.

An employee will be dismissed immediately if:

- a. The employee refuses to report to a substance abuse professional (SAP) for assessment and evaluation and/or referral for treatment with an Authority substance abuse professional.
- b. The employee is referred for rehabilitation, by a substance abuse professional, and then refuses to enter or fails to successfully complete the rehabilitation program.
- c. The employee refuses to provide an adequate urine sample for drug testing without a valid medical explanation after receiving notice of the requirement to be tested, or who engages in conduct that clearly obstructs the testing procedure.
- d. The employee tests positive a second time during their employment with the Authority.
- e. The employee is in their probationary period.

Possession of illegal drugs on Authority property or in an Authority vehicle is considered unacceptable and will be considered grounds for termination of employment with the Authority.

**6. Revision Dates**

The policy was originally implemented January 1, 1996 and has been revised on the following effective dates:

November 25, 1996

September 24, 1999

July 25, 2005

April 2019

March 2021



## M. Attachments and Forms

- a. Rivanna Water & Sewer Authority Organizational Chart *(Section A)*
- b. Rivanna Solid Waste Authority Organizational Chart *(Section A)*
- c. Authority Pay Grade and Scale, Table 1 *(Section D)*
- d. Authority Pay Grade and Scale with Title, Table 2 *(Section D)*
- e. Sick Leave Bank Enrollment Form *(Section F)*
- f. Grievance Procedure Form Part A & Part B *(Section H)*
- g. Technology System Acceptable Use Policy *(Section I)*
- h. Employee Expense Reimbursement Form *(Section J)*
- i. Employee Training and Development Form *(Section J)*
- j. Employee Mileage Reimbursement Form *(Section K)*
- k. Employee Travel Request Form *(Section K)*
- l. Employee Drug and Alcohol Testing Pool Designation Letter *(Section L)*
- m. Employee Handbook



RIVANNA SOLID WASTE AUTHORITY  
RIVANNA WATER & SEWER AUTHORITY

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## MEMORANDUM

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

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

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

**SUBJECT: FISCAL YEAR 2022-2023 PAY SCALE ADJUSTMENT**

**DATE: MAY 24, 2022**

This request is to authorize a 5% increase in the pay ranges included in our Pay Scale. This increase will help us hire and maintain a qualified workforce and keep pace with extreme inflation. This adjustment will not apply to current staff salaries resulting in no budget impact for Fiscal Year 2022- 2023.

### **Background**

The Rivanna Authorities Personnel Management Plan allows the Executive Director to recommend adjustments to the pay scale. In January 2022, the Board approved a 4% pay scale adjustment based on a Compensation Study that was completed in August 2021. Most of the data used in that report was from earlier in calendar year 2021. Since that time, there continued to be a significant increase in inflation. The Consumer Price Index for all Urban Consumers (CPI-U) as of April 2022 was 8.3%.

Staff recommends the pay scale be increased by 5% effective July 1, 2022 (Fiscal Year 2022-2023). This recommendation supports our Strategic Plan – Workforce Development goal of attracting and retaining a highly-skilled team of professionals, by increasing starting pay at the lower end of our pay scale and reducing compression at the higher end of our pay scale.

The increase in the CPI-U from the Bureau of Labor Statistics from September 2021 to April 2022, the period after our Compensation study, is shown on the chart below:

Bureau of Labor Statistics CPI-U September 2021 to April 2022	
Month	Monthly Change
September 2021	0.4
October 2021	0.9
November 2021	0.7
December 2021	0.6
January 2022	0.6
February 2022	0.8
March 2022	1.2
April 2022	0.3
Cumulative Change	5.5

While the March 2022 unemployment rate in the Charlottesville area was 2.4%, the national unemployment rate in April 2022 was 3.6% and the unemployment rate for the State of Virginia in March 2022 was 3.0%. The Charlottesville area is still maintaining an unemployment rate that is lower than both the state and nation. The hiring market is proving to be very competitive as the unemployment rate continues to drop and inflation continues to increase. This adjustment will not apply to staff salaries, resulting in no budget impact for Fiscal Year 2022- 2023.

Attached is a comparison of the current pay scale and the recommended pay scale.

**Board Action Requested:**

Approve the recommended 5% increase in the pay scale to be effective July 1, 2022.

Current Pay Scale			
Grade	Min	Mid	Max
30	\$32,069	\$42,652	\$53,236
40	\$33,673	\$44,784	\$55,897
50	\$35,357	\$47,024	\$58,691
60	\$37,124	\$49,375	\$61,626
70	\$38,980	\$51,844	\$64,708
80	\$40,929	\$54,437	\$67,943
90	\$42,976	\$57,158	\$71,340
100	\$45,125	\$60,017	\$74,907
110	\$47,381	\$63,017	\$78,652
120	\$49,750	\$66,168	\$82,585
130	\$52,237	\$69,476	\$86,714
140	\$54,850	\$72,950	\$91,050
150	\$57,592	\$76,597	\$95,603
160	\$60,472	\$80,427	\$100,383
170	\$63,495	\$84,448	\$105,402
180	\$66,670	\$88,671	\$110,672
190	\$70,003	\$93,105	\$116,205
200	\$73,503	\$97,760	\$122,016
210	\$77,178	\$102,648	\$128,117
220	\$81,038	\$107,780	\$134,523
230	\$85,090	\$113,169	\$141,249
240	\$89,344	\$118,827	\$148,311
250	\$93,811	\$124,769	\$155,726

Proposed Pay Scale			
Grade	Min	Mid	Max
30	\$33,672	\$44,785	\$55,898
40	\$35,357	\$47,023	\$58,692
50	\$37,125	\$49,375	\$61,626
60	\$38,980	\$51,844	\$64,707
70	\$40,929	\$54,436	\$67,943
80	\$42,975	\$57,159	\$71,340
90	\$45,125	\$60,016	\$74,907
100	\$47,381	\$63,018	\$78,652
110	\$49,750	\$66,168	\$82,585
120	\$52,238	\$69,476	\$86,714
130	\$54,849	\$72,950	\$91,050
140	\$57,593	\$76,598	\$95,603
150	\$60,472	\$80,427	\$100,383
160	\$63,496	\$84,448	\$105,402
170	\$66,670	\$88,670	\$110,672
180	\$70,004	\$93,105	\$116,206
190	\$73,503	\$97,760	\$122,015
200	\$77,178	\$102,648	\$128,117
210	\$81,037	\$107,780	\$134,523
220	\$85,090	\$113,169	\$141,249
230	\$89,345	\$118,827	\$148,311
240	\$93,811	\$124,768	\$155,727
250	\$98,502	\$131,007	\$163,512



## 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: AWARD OF TERM CONTRACTS FOR PROFESSIONAL DAM  
ENGINEERING SERVICES (RFP 22-03)**

**DATE: MAY 24, 2022**

This request is to award a Term Contract (one year, with the option for four one-year renewals) to Schnabel Engineering and GAI Consultants for professional dam engineering services to include studies, evaluations, and other services in association with operation and maintenance projects, repair projects, or upgrades to any of the dams or ancillary structures which are owned or operated by RWSA.

### Background:

RWSA has maintained a term contract for Professional Dam Engineering Services for two five-year terms. Over the course of those contracts, access to a wide variety of dam engineering services has proved invaluable to the Authority's Dam Safety program. As the current contract will be expiring soon, RWSA needed to reprocurse these services.

A Request for Proposals (RFP) 22-03 was developed and advertised by RWSA and issued jointly with RSWA on March 22, 2022. Three proposals were received on April 19, 2022. The selection committee opted to interview all three firms on May 4-5, 2022. Based upon the qualifications provided in the RFP, the selection committee found that Schnabel Engineering and GAI Consultants are best qualified to provide the required dam engineering services. Both firms are extremely well equipped to provide a broad range of services related to dams and dam safety. Schnabel has provided exemplary service to RWSA under previous term contracts, and staff felt that the addition of GAI Consultants would offer additional capacity and expertise for undertaking dam related projects.

### Board Action Requested:

Authorize the Executive Director to execute Term Agreements with Schnabel Engineering and GAI Consultants for Professional Dam Engineering Services, and future work authorizations under the conditions of the Term Agreements.



## 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: AUTHORIZATION FOR CONSTRUCTION CHANGE ORDER –  
MOORES CREEK SLIDE GATE IMPROVEMENTS PROJECT –  
WACO, INC.**

**DATE: MAY 24, 2022**

This request is to authorize up to \$130,000 in additional expenditures to complete unforeseen repairs to two wastewater drain valves located in the floor of the headworks of the Moores Creek AWWRF. This increase would bring the total authorized contingency to \$205,920. The total project costs are still within the total CIP Budget of \$1,350,000.

### **Background**

Waco, Inc. was awarded a contract for a total value of \$343,200 for the MC Slide Gate Improvements Project (RFB No. 369), and any change orders not to exceed 10% of the original contract amount at the July 2020 Board meeting. During construction, Waco discovered that one of the four 30” “mud” valves located in the floor of the headworks basin was broken and needed to be completely replaced, and that due to corrosion, the stems and gears of all four mud valves needed to be replaced so that the new actuators would work. The Board approved increasing the contingency from 10% to 20% at the May 2021 Board meeting to complete this work.

All project work has been completed, however, during the startup and testing of the actuators at the headworks this month, it was determined that two additional 30” mud valves are not operating adequately enough to support the new actuators, despite replacement of their stems and gears. The existing valves are grinding and vibrating while opening and closing which is over-torquing the actuators, causing them to operate above their design limits and cut off. Continued operation in this fashion will burn out the actuator motors and make the valves inoperable which significantly impacts wet weather operations throughout our treatment process.

As such, we have requested that Waco completely replace these two broken mud valves. Waco’s total additional change orders are estimated to be approximately \$130,000, which is greater than the Board authorized 20% amount of \$68,640 expended to date. As this work will require installation of a bulkhead to divert flow at the headworks, and there is uncertainty on how difficult the valve repairs will be, this work will be completed on a time and materials basis.

**Board Action Requested:**

Authorize \$130,000 in additional contingency funding for the Moores Creek Slide Gate Project. This would bring the total authorized contingency to \$205,920. The total project costs are still within the total CIP Budget of \$1,350,000.



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

434.977.2970

434.293.8858

www.rivanna.org



## MEMORANDUM

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

**FROM: BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT: UPDATE ON BUCK MOUNTAIN PROPERTY MANAGEMENT PLAN**

**DATE: MAY 24, 2022**

This memo is to provide additional information to address requests during the April Board meeting concerning the leasing and sale of Buck Mountain properties, as follows:

### 1. Lease and Sale Procedures

There was a request to include lease and sale criteria which would require parties to be responsible to be eligible for a lease or sale. To address this request, requirements will be added to the “Lease and Sale Procedures”, as follows:

“Leases and sales will only be offered to responsive and responsible parties. Responsive parties are those who have complied with the requirements of any lease or sale solicitation. Responsible lessees are those who have been compliant with lease terms and conditions, and have utilized properties in ways consistent with the environmental stewardship goal of the RWSA. Responsible bidders for the purchase of any Buck Mtn. property are those with no known record of property management violations or property management practices inconsistent with the environmental stewardship goal of the RWSA.”

**Note: RIVANNA’S ENVIRONMENTAL STEWARDSHIP GOAL**

*To be a leader in our community’s environmental protection and education.*

*Maintaining and enhancing the long-term health of Rivanna’s community and environment are among Rivanna’s highest priorities. The Rivanna Authorities are committed to meeting or surpassing all regulatory requirements while providing high quality water, wastewater, and solid waste services.*

### 2. Rehabilitate the Elliot House

There was a request to receive bids with an optional requirement for any buyer to rehabilitate the Elliot House. To address this request, we have drafted the attached Bid Form which would allow interested bidders to offer on one or both options, as a condition of the purchase of the 2.2 acre parcel, including:

1. Rehabilitate the house
2. No requirement to rehabilitate the house.



Rehabilitation requirements of the Bid Documents are based on State Historic Preservation definitions and standards. We plan to issue a Request for Bids after receiving approval from the Bond Trustees for the sale of any property, and completion of subdivision requirements from Albemarle County.

**Considerations:**

1. As indicated in the LPDA Master Plan, *“The Elliot House is a documented historical resource, but is not designated as historically significant. This means that there are no restrictions to what can be done to the structure, as long as the associated project does not require state or federal action, such as a wetland permit.”*
2. From the comments received from neighbors during our public hearings, it would be positive to maintain the character and history of this house, property and neighborhood.
3. It may reduce the value of the sale and create challenges and expense for RWSA to enforce rehabilitation requirements after the property is sold.

**Special Note:**

We received the attached letter from Delegate Rob Bell requesting consideration of repairs for the bridge located on our property and utilized by the neighbors as part of Allen Farm Lane (a private road). We will respond to Delegate Bell with our plans for completion of repairs to the bridge.

**BACKGROUND:**

The Buck Mountain property is located in the Free Union area of Albemarle County. The 1,314-acre property was originally purchased in the 1980s for construction of a water supply reservoir. However, due to environmental restrictions imposed when an endangered species was located on the property, the James spinymussel, a regulatory permit could not be obtained. A significant portion of the property, about 600 acres, was placed in restrictive-use deeds in 2014 to create vegetated stream buffers to mitigate the environmental impacts from construction of the expanded Ragged Mountain reservoir and dam.

**Chronology of Recent Events during Board Meetings:**

- April 2019: a former property owner, Dr. Harry Wellons, requested the Board to consider selling him the Buck Mountain property RWSA acquired from him by condemnation in the 1980’s.
- June 2019: staff provided a presentation on the Buck Mountain property. The Board requested staff to prepare a Buck Mountain Master Plan to optimize use of the property.
- August 2020: staff presented a Master Plan to the Board. The Board concurred with a staff recommendation to develop a more detailed Property Management Plan.
- February 2022: the Board concurred with a staff recommendation to further investigate the leasing and sale of several parcels.
- March 2022: the Board held a Public Hearing and received comments about the proposed transactions.
- April 2022: the Board approved “Lease and Sale Procedures”, and requested the procedures to exclude non-responsible parties, as well as to consider rehabilitating the house as an optional requirement of any sale.

**Board Action Requested:**

Offer any comments on the plans outlined above to update General Administrative Procedure #17, “Lease and Sale of Buck Mountain Real Estate”, and a bidding process to include options to rehabilitate or not to rehabilitate the house as part of the sale of the 2.2 acre property.

**Attachments:**

1. GAP # 17: Lease and Sale of Buck Mountain Real Estate
2. Request for Bids (draft) to Sell the Elliot House and Property
3. Letter from Delegate Rob Bell dated May 3, 2022

## GENERAL ADMINISTRATIVE PROCEDURES

<b>17. Lease and Sale of Buck Mountain Real Estate</b>	Prepared By: Executive Director
Approved: April 26, 2022	Updated: May 24, 2022

### Purpose

To establish lease and sale procedures for Buck Mountain real estate.

### Buck Mountain Real Estate Lease and Sale Procedures

#### Factors Considered:

- RWSA maintains broad discretion to consider a wide variety of parcel characteristics and benefits to RWSA's mission and property management process when deciding to lease or sell any property.
- Lease criteria recognize resident adjacent property owners because they are in the best position to informally assist RWSA with management of the properties by monitoring for issues including trespassing.
- Lease and sale criteria differ since RWSA retains ownership and interest in leased property.
- Leases and sales will be at market value, as determined by RWSA, or at a greater value if offered through sealed bidding.
- *Leases and sales will only be offered to responsive and responsible parties. Responsive parties are those who have complied with the requirements of any lease or sale solicitation. Responsible lessees are those who have been compliant with lease terms and conditions, and have utilized properties in ways consistent with the environmental stewardship goal of the RWSA. Responsible bidders for the purchase of any Buck Mtn. property are those with no known record of property management violations or property management practices inconsistent with the environmental stewardship goal of the RWSA.*

#### Note: RIVANNA'S ENVIRONMENTAL STEWARDSHIP GOAL

*To be a leader in our community's environmental protection and education.*

*Maintaining and enhancing the long-term health of Rivanna's community and environment are among Rivanna's highest priorities. The Rivanna Authorities are committed to meeting or surpassing all regulatory requirements while providing high quality water, wastewater, and solid waste services.*

**The following processes will be utilized to lease and sell Buck Mountain real estate:**

**1. Lease of Real Estate**

**a. Criteria**

- i. All parcels are potentially eligible for leasing under specific terms and conditions determined by RWSA.
- ii. Leases will use standard RWSA terms which may reflect specific use limitations for certain parcels and will be subject to any existing use restrictions.

**b. Process**

- i. Offer for renewal to existing lessees.
- ii. Offer to adjacent resident property owner(s). If there is only one adjacent resident property owner, the lease would be based on the fair market value established for use in 1.b.i.
- iii. Request sealed bids if there are multiple adjacent resident property owners. The solicitation will specify the minimum bid to be submitted based on the fair market value established in 1.b.i. Execute lease with the highest responsive and responsible bidder.
- iv. If a lease is not executed with an adjacent resident property owner and the property is accessible to the public, offer lease to the public by sealed bids. The solicitation will specify the minimum bid to be submitted based on the fair market value established in 1.b.i. Execute lease with the highest responsive-and responsible bidder.

**2. Sale of Improved and Unimproved Real Estate**

**a. Criteria**

- i. Land must be above the ground elevation level of 474 ASL (the normal pool level of the planned reservoir + 10 vertical feet).
- ii. Any sale will be contingent upon approval by RWSA following a public hearing.

**b. Process**

- i. Offer property to the public for sealed bidding. The solicitation will specify the minimum bid to be submitted based on the fair market value determined by RWSA. Execute sale with the highest responsive and responsible bidder.

## REQUEST FOR BID (draft) (RFB)

**Issue Date:** xxx

**RFB No.:** xxx

**RFB Title:** Sale of 1880 Buck Mountain Road, TMP xxxxx  
2.2 acres, house and all improvements

**Due Date:** xxx by 2 PM Local Time

**Issuing Agency:**

☒ Rivanna Water & Sewer Authority

☐ Rivanna Solid Waste Authority

695 Moores Creek Lane  
Charlottesville, VA 22902-9016

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The Rivanna Water and Sewer Authority (RWSA) and Rivanna Solid Waste Authority (RSWA) are considered political subdivisions, each dedicated to providing essential services to the County of Albemarle and City of Charlottesville. RWSA provides reliable water and wastewater treatment services while RSWA provides recycling services and meets the solid waste needs of the community.

The RWSA (Authority) is seeking sealed bids for the sale of property with an address of 1880 Buck Mountain Road, Earlysville, VA 22936, TMP xxxxx, 2.2 acres, with an existing house and all improvements, as shown by the attached plat dated xxxxx. The Authority will conduct a Public Hearing prior to execution of a sale contract with the selected bidder.

### **REQUIREMENTS**

Bidders must submit bids on the Bid Form provided below in one or both categories, including:

#### **Category #1. Rehabilitate the House**

The minimum bid must be equal to or greater than \$ YYYYYY *(to be specified by RWSA)*.

#### **Category #2. No obligation to rehabilitate the House**

The minimum bid must be equal to or greater than \$ ZZZZZZ *(to be specified by RWSA)*.

At its discretion, the RWSA may approve sale of the property to the highest bidder in one of the two categories, or may reject all bids.

### **SPECIFICATIONS**

In accordance with the State Historic Preservation Office, “rehabilitation” of the house shall be defined as:

“the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values”.

In addition, standards are to be applied to this rehabilitation project in a reasonable manner, taking into consideration economic and technical feasibility, as follows:

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1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The successful bidder will be required to follow these specifications.

---

## **BID FORM**

Sealed bids will be received until **2 PM Local Time on xxxxx** at the following address:

**Purchasing Agent**  
**695 Moores Creek Lane**  
**Charlottesville, VA 22902-9016.**

Sealed bids received after the announced time and date for receipt will not be accepted. Bids will be publicly opened at 2 PM on xxxxx. **No telephoned, faxed or emailed bids will be considered.**

**Bidders must submit bids in one or both of the Categories below.**

	Category	Written Bid Amount	Bid \$	5% Deposit	Cash Purchase or Finance Purchase
1	Full Offer to Purchase TMP XX and rehabilitate the house.				
	The minimum bid must be equal to or greater than \$ YYYY (to be specified by RWSA).				
2	Full Offer to Purchase TMP XX with no obligation to rehabilitate the house.				
	The minimum bid must be equal to or greater than \$ ZZZZ (to be specified by RWSA).				

### **Terms of Sale:**

1. Transfer of property title and all funding must occur within 60 days of acceptance of bid by the RWSA.
2. A 5% Deposit Check is required with submission of this bid. If your bid is not accepted, your uncashed check will be returned to you by mail within 5 business days.
3. Property is Sold "as-is, where-is". Seller makes no warranty.
4. Home was built prior to 1978 and may contain lead-based paint or asbestos containing material (ACM). Seller has no knowledge of lead-based paint or ACM on/in this property. More information: <https://www.epa.gov/lead>
5. Any home inspections are for informational purposes only and must be scheduled with RWSA and completed prior to bid submission.
6. Cash purchase: Within 10 business days of bid acceptance, Purchaser must provide "proof of funds" available to close on the sale.
7. Lender assisted purchase: Within 10 business days of bid acceptance, Purchase must provide pre-approval for loan to purchase this property.

Name and Address of Bidder:			
ADDRESS		CITY	STATE ZIP CODE
Telephone No.:	Fax No.:	Email:	
(    )	(    )		
Business License No.:		SS # or Tax Identification No.:	

By my signature on this solicitation, I certify that this firm/individual is properly authorized to submit this bid to purchase.

Name (Please sign)	Date
--------------------	------

Name (Please print)	Title
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## TERMS AND CONDITIONS

**The Authority is subject to the Virginia Procurement Act, as amended.**

1. **Submission of Bids:** Sealed bids will be received by the Authority until **2 PM Local Time, xxx**. Bids may either be shipped, mailed or hand-delivered, addressed to the attention of the Purchasing Agent, 695 Moores Creek Lane, Charlottesville, VA 22902-9016. No telephoned, faxed or emailed bids will be accepted.
2. **Identification of Bids:** Bids must be submitted in a sealed envelope with a return address and be properly identified in the lower left corner of the envelope as specified below:  

RFB No. Click to enter text.

Click to enter text.

Click to enter date Click to enter time PM Local Time

“Name of Bidding Firm”
3. **Receipt of Bids:** All sealed bids, that are identified as such, will be time and date stamped upon receipt and retained in locked container until the time specified for bid opening.
4. **Late Bids:** It is the responsibility of the Bidder to ensure that the Authority receives sealed bid by the bid due date and time. No bids will be accepted after the bid due date and time. Late bids will be unopened, stored for 60 days by the Authority and then disposed of or returned at the Bidder’s expense.
5. **Submission of Erroneous Bids:** Bidders are cautioned to recheck their bid for errors. Errors discovered after public opening cannot be corrected and Bidders may be required to accept award if offered or bid may be rejected. Requests to withdraw bids will be handled as prescribed by the Authority's Purchasing Manual and the Virginia Public Procurement Act (VPPA), as amended. Should a Bidder discover that they have submitted an erroneous bid, prior to bid opening time, Bidder may submit a second bid provided it clearly notes that it supersedes the first submission and the Bidder has labeled the envelope "RFB No. **397**. Corrected Submission, Superseding All Previous Submissions". Such corrected submission must be completed in all detail. Any previous submissions will then be removed from consideration.
6. **Acceptance or Rejection of Bids:** Bids, to be acceptable, must be complete in all detail, complying with all terms and conditions, with all computations complete, and showing extension totals, item totals, and overall total. Modification or correction to the bid are not acceptable after bids are opened. The Authority reserves the right to waive informalities in bids, to reject any or all bids after all have been examined or to accept the bids which it deems most favorable to the interests of the Authority in accordance with the VPPA, as amended.
7. **Specifications:** The Bid Specifications and Requirements detailed herein are intended to allow the maximum latitude consistent with design or performance limitations required of the item(s). Bidders are warned that deviation from these specifications may disqualify their submission. However, the Authority reserves the right to accept or reject such deviations provided that their use could satisfy the requirement.
8. **Change of Specifications:** The Authority reserves the right to change the Bid Specifications and Requirements at any time prior to bid opening time. Such changes will be submitted to all Bidders through use of an addendum referencing the bid request number. If it is deemed necessary to extend the bid opening time, it will be so noted. All Bidders must acknowledge receipt of addendums.
9. **Bid Deposit and/or Performance Bond:** Bid deposit and/or performance bond are required only if specifically asked for within the Bid Specifications and Requirements.
10. **Bid Award:** The Authority Purchasing Agent intends to award the bid to the highest responsive and responsible Bidder in one of the two categories for the item(s) listed in the RFB.
11. **Inspection of Property:** The Authority will conduct an Open House on June 22, 2022 from 10 a.m. – noon to

allow prospective bidders to inspect the property.

12. **Payment:** All payments are to be sent directly to the Authority's Accounts Payable Department by mail, fax or e-mail. Invoices shall include the Authority's Purchase Order/Contract number and the Supplier's FEIN.

**Taxes: The Authority is exempt from Federal Excise Taxes and Virginia State Sales and Use Taxes.**

**Tax identification numbers: RWSA: 54-0934608, RSWA: 54-1562720**

13. **Interpretation of Bid:** Questions pertaining to this bid should be directed to:

**Lonnie Wood (Purchasing Agent)**, lwood@rivanna.org, or

**Brenda Clifford (Buyer)**, bcliffords@rivanna.org

695 Moores Creek Lane, Charlottesville, VA 22902-9016

Telephone No.: (434) 977-2970

14. **Identity of Bidders:** Names of Bidders will not be disclosed until bid opening.

15. **ADA Reasonable Accommodation Clause:** If you need any reasonable accommodations in order to participate in this procurement, please contact the Authority at (434) 977-2970 ext. 0 to make arrangements.

16. **Non-discrimination:** The Authority does not discriminate on the basis of race, religion, color, sex, national origin, age or disability, or against faith-based organizations as defined under the Virginia Public Procurement Act on the basis of such organization's religious or charitable character.

17. **Proprietary Information:** Except as provided herein or as otherwise set forth in §2.2-4342 of the Virginia Public Procurement Act (Va. Code Ann. §2.2-4300 et seq., the "Act"), all proceedings, records, contracts and other public records relating to procurement transactions shall be open to inspection in accordance with the Virginia Freedom of Information Act (Va. Code Ann. §2.2-3700 et seq., the "Virginia FOIA").

A Bidder, Offeror or Supplier shall have the right to identify data or other materials submitted in connection with this procurement as trade secrets or proprietary information, which shall not be subject to inspection pursuant to either §2.2-4342 of the Act or the Virginia FOIA, by submitting to the Authority prior to or at the time of submission of its proposal or bid a separate, written notice on its letterhead stationery setting forth the following: (i) a statement indicating that the Bidder, Offeror or Supplier wishes to invoke the protections of this section; (ii) an identification of the data or other materials for which protection is sought; and (iii) a statement with regard to why protection is necessary.



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

ROBERT B. BELL  
2309 FINCH COURT  
CHARLOTTESVILLE, VIRGINIA 22911

FIFTY-EIGHTH DISTRICT

May 3, 2022

Board of Directors  
Rivanna Solid Waste Authority  
695 Moores Creek Lane  
Charlottesville, VA 22902

Dear Board members:

I was recently contacted by constituents in Earlysville regarding the status of the Allen Farm Lane bridge.

These constituents explained that the bridge on Allen Farm Lane is owned by RSWA and is in desperate need of repairs. They stated that the needed repairs were outlined in a 2019 engineering report. These constituents believe that without the necessary work, the bridge will continue to deteriorate and become a hazard for those using it.

I respectfully request your consideration of this request. I appreciate your time and attention.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Bell", written over a horizontal line.

Rob Bell  
Delegate, 58<sup>th</sup> District

COMMITTEE ASSIGNMENTS:  
COURTS OF JUSTICE (CHAIR)  
HEALTH, WELFARE AND INSTITUTIONS  
RULES



## MEMORANDUM

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

**FROM: BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT: APPROVAL OF THE FY 2023 – 2027  
CAPITAL IMPROVEMENT PLAN**

**DATE: MAY 24, 2022**

The proposed FY 2023-2027 Capital Improvement Plan (CIP) totaling 41 projects and \$205.1 M was reviewed in detail with the Board during the February 2022 meeting, and will be briefly reviewed again today. We continue to strategically plan for the water supply, drinking water, and wastewater treatment facilities required to meet the requirements of Federal and State regulations, as well as the quantity, quality, and reliability expectations of the public drinking water and wastewater customers in our community. Projects to achieve these objectives in a financially responsible manner have been included in this proposed CIP.

During this five-year period, the CIP will significantly strengthen our drinking water systems with expenditures of \$122.5 M for essential projects including:

- Renovations and Upgrades to our largest Water Treatment Plants (S. Rivanna and Observatory)
- Additional Granular Activated Carbon Water Filtering Facilities at the Observatory Water Treatment Plant
- Replacement of Raw Water Piping and Pumping Stations from Ragged Mountain Reservoir to the Observatory Water Treatment Plant
- An Additional Water Pumping Station and Piping located near Airport Road
- Modifications to the Beaver Creek Reservoir Dam, Pump Station and Piping
- A Major Urban Area Water Distribution Pipe, the Central Water Line

We will also complete significant improvements to our wastewater treatment and piping facilities to ensure regulatory compliance and environmental protection. The proposed CIP includes about \$45 M for essential wastewater projects including:

- Replacement of Major Electrical Systems at Moores Creek
- Renovations and Repairs to Wastewater Facilities (Moores Creek, Scottsville, Glenmore, and Crozet Pump Stations and Piping)
- Repairs and Replacement of Wastewater Piping and Manholes (Lower Morey Creek, Powell Creek, Moores Creek, Upper Rivanna Interceptors)

This proposed CIP will continue the efforts of the Authority to provide reliable drinking water and wastewater infrastructure for our community.

### **Board Action Requested:**

Approve the FY 23 – 27 CIP totaling \$205.1 M.



# Capital Improvement Plan

## Fiscal Years 2023-2027

### Draft February 2022



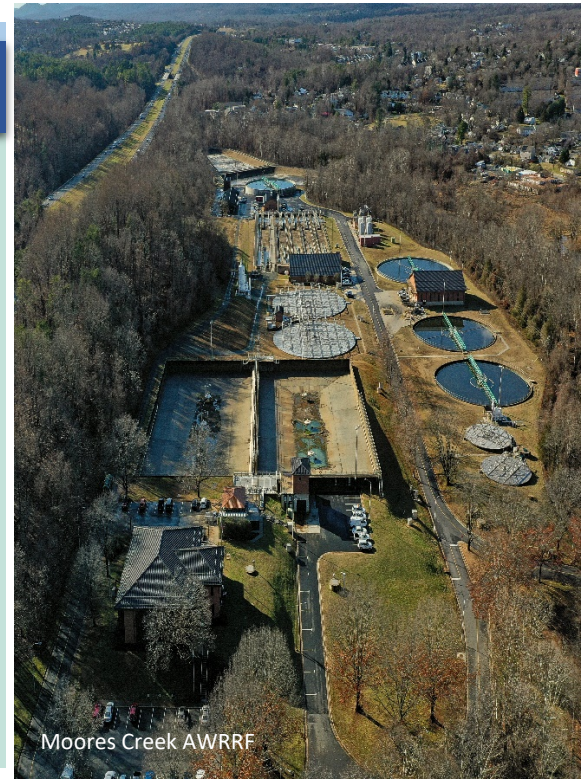
South Rivanna Water Treatment Plant



Beaver Creek Reservoir

## OUR MISSION

Our professional team of knowledgeable and engaged personnel serve the Charlottesville, Albemarle, and UVA community by providing high quality water and wastewater treatment services in a financially and environmentally responsible manner.



Moores Creek AWWRF



Observatory Water Treatment Plant



Ragged Mountain Reservoir

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





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## Introduction

The Capital Improvement Plan (CIP) for Fiscal Years 2023-2027 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, and as such are being removed from the 2023-2027 CIP. These projects account for approximately \$10.7 million or 6% of the FY 2022-2026 CIP. These projects include:

- 7 Sugar Hollow Dam Rubber Crest Gate Replacement
- 17 Crozet Water Treatment Plant Expansion
- 21 Crozet Ground Storage Tank Leak Repair
- 27 Interceptor Sewer and Manhole Repair (Phase 1)
- 42 Moores Creek AWRRF In-Plant Clarifier and Lime Silo Demolition
- 43 Moores Creek AWRRF Generator Fuel Storage Expansion
- 47 Moores Creek AWRRF Lighting Upgrade

The total 5-year 2023-2027 CIP is approximately \$205.1 million, with the previous expenditures on active projects totaling approximately \$20.9 million, leaving a net proposed 5-year projected expenditure of \$184.2 million.

There is one new project added to the CIP this year. The total estimated expenditures for the project equals \$1.5 million and includes:

- 35 Moores Creek AWRRF Gravity Thickener Pumping and Chem Feed Improvements

Three projects were removed from the CIP with a cost equal to \$4.4 million and include:

- 34 Moores Creek AWRRF Digester Sludge Storage Improvements
- 36 Moores Creek AWRRF Mechanical Thickener Improvement
- 45 Moores Creek AWRRF Facility Renovations

Two projects were added mid-year and several other projects had mid-year budget additions for a total of \$1.8 million. The new projects include:

- 6 South Rivanna Reservoir to Ragged Mountain Reservoir Pipeline Intake & Facilities
- 11 Emmet Street Betterment

There were eight projects in the FY 22-26 CIP that, due to budgetary constraints, were moved beyond the current 5-year CIP for a total of \$4.2 million and include:

- 11 Avon, Pantops and Observatory Tank Rehabilitation
- 12 Second North Rivanna River Crossing
- 15 South Rivanna Water Treatment Plant Plate Settlers Addition
- 20 Buck's Elbow Tank and Waterball Painting
- 23 Scottsville Tank Rehabilitation
- 24 Scottsville Water Treatment Plant Upgrade
- 31 Albemarle Berkley Pump Station Upgrade
- 32 Interceptor and Sewer Manhole Repair (Phase 2)

There are several projects where the proposed budgets have been modified based on the anticipated project requirements and necessitate funding adjustments. The projects with changes include:

- 3 Ragged Mountain Reservoir to Observatory WTP Raw Water Line (\$15.325 million existing / \$16.9 million proposed)
- 4 Ragged Mountain Reservoir to Observatory WTP Raw Water Pump Station (\$5.85 million existing / \$8.84 million proposed)
- 8 Central Water Line (\$9.083 million existing / \$24 million proposed)
- 9 South Rivanna River Crossing (\$3.655 million existing / \$5.85 million proposed)
- 10 Airport Road Pump Station and North Rivanna Transmission Main (\$7.6 million existing / \$10 million proposed)
- 14 North Rivanna WTP Decommissioning (\$2.35 million existing / \$2.425 million proposed)
- 16 Beaver Creek New Raw Water Pump Station & Intake (\$10.8 million existing / \$15.65 million proposed)
- 18 Red Hill WTP Upgrades (\$0.15 million existing / \$0.410 million proposed)
- 19 Upper Schenks Branch Interceptor (\$3.985 million existing / \$4.725 million proposed)
- 23 Interceptor Sewer and Manhole Repair (Phase 2) (\$1.95 million existing / \$0.965 million proposed)
- 24 Moores Creek AWRRF Administration Building (\$0.225 million existing / \$8.5 million proposed)
- 26 Moores Creek AWRRF Shed Roof Rehabilitation (\$0.2 million existing / \$1.36 million proposed)
- 28 Moores Creek AWRRF Cogeneration Upgrades (\$1.865 million existing / \$2.145 million proposed)
- 29 Moores Creek AWRRF Operations and Maintenance Building Upgrades (\$1.325 million existing / \$2.74 million proposed)



- 32 Moores Creek AWRRF 5kV Electrical System Upgrade (\$4.6 million existing / \$5.05 million proposed)
- 34 Moores Creek AWRRF Digester Repair (\$3.62 million existing / \$4 million proposed)
- 37 Glenmore WRRF Influent Pump & VFD (\$0.12 million existing / \$0.37 million proposed)

**FINANCIAL SUMMARY**  
**MAJOR SYSTEM CATEGORIES**

## FINANCIAL SUMMARY

### Major System Categories – Water

System Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress
	Current CIP	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
<b>Urban Water (UW)</b>										
Community Water Supply Plan	\$25,895,000	\$6,170,000	\$3,696,000	\$3,704,000	\$1,065,000	\$6,100,000	\$8,800,000	\$10,200,000	\$33,565,000	\$1,566,796
Observatory WTP & Ragged Mountain/Sugar Hollow Reservoir System	\$23,000,000	\$0	\$17,550,000	\$5,450,000	\$0	\$0	\$0	\$0	\$23,000,000	\$3,316,372
Finished Water Storage/Distribution	\$20,338,000	\$22,412,000	\$9,278,000	\$3,957,000	\$8,915,000	\$6,000,000	\$7,300,000	\$7,300,000	\$42,750,000	\$461,409
South & North Fork Rivanna Water System	\$23,050,000	\$100,000	\$18,310,000	\$2,800,000	\$90,000	\$2,300,000	(\$350,000)	\$0	\$23,150,000	\$10,202,370
<b>Subtotal (UW)</b>	\$92,283,000	\$28,682,000	\$48,834,000	\$15,911,000	\$10,070,000	\$14,400,000	\$15,750,000	\$17,500,000	\$122,465,000	\$15,546,947
<b>Non-Urban Water (NUW)</b>										
Crozet Water System	\$26,930,000	\$4,870,000	\$1,343,000	\$935,000	\$7,135,000	\$10,990,000	\$11,397,000	\$0	\$31,800,000	\$699,222
Scottsville Water System	\$465,000	\$260,000	\$175,000	\$550,000	\$0	\$0	\$0	\$0	\$725,000	\$0
<b>Subtotal (NUW)</b>	\$27,395,000	\$5,130,000	\$1,518,000	\$1,485,000	\$7,135,000	\$10,990,000	\$11,397,000	\$0	\$32,525,000	\$699,222
<b>WATER TOTAL</b>	\$119,678,000	\$33,812,000	\$50,352,000	\$17,396,000	\$17,205,000	\$25,390,000	\$27,147,000	\$17,500,000	\$154,990,000	\$16,246,169

# 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 2023	FY 2024	FY 2025	FY 2026	FY 2027	Recommended CIP	Work-in-Progress
Urban Wastewater (UWW)										
Wastewater Interceptors and Pumping Stations	\$12,805,000	(\$245,000)	\$10,590,000	\$1,380,000	\$590,000	\$0	\$0	\$0	\$12,560,000	\$2,513,488
Moore's Creek AWWRF	\$18,325,000	\$13,485,000	\$5,245,000	\$6,460,000	\$10,150,000	\$7,155,000	\$2,800,000	\$0	\$31,810,000	\$414,027
Subtotal (UWW)	\$31,130,000	\$13,240,000	\$15,835,000	\$7,840,000	\$10,740,000	\$7,155,000	\$2,800,000	\$0	\$44,370,000	\$2,927,515
Non-Urban Wastewater (NUWW)										
Scottsville WRRF	\$200,000	\$0	\$11,000	\$180,000	\$9,000	\$0	\$0	\$0	\$200,000	\$0
Glenmore WRRF	\$120,000	\$250,000	\$370,000	\$0	\$0	\$0	\$0	\$0	\$370,000	\$30,676
Subtotal (NUWW)	\$320,000	\$250,000	\$381,000	\$180,000	\$9,000	\$0	\$0	\$0	\$570,000	\$30,676
WASTEWATER TOTAL	\$31,450,000	\$13,490,000	\$16,216,000	\$8,020,000	\$10,749,000	\$7,155,000	\$2,800,000	\$0	\$44,940,000	\$2,958,191
All Systems Security & Technology	\$5,110,000	\$80,000	\$4,221,000	\$401,000	\$568,000	\$0	\$0	\$0	\$5,190,000	\$1,656,189
TOTAL	\$156,238,000	\$47,382,000	\$70,789,000	\$25,817,000	\$28,522,000	\$32,545,000	\$29,947,000	\$17,500,000	\$205,120,000	\$20,860,549

## **PROJECT DETAILS**

Page	9	<b>Completed Projects</b>
Page	12	<b>Urban Water</b>
Page	24	<b>Non-Urban Water</b>
Page	28	<b>Urban Wastewater</b>
Page	37	<b>Non-Urban Wastewater</b>
Page	41	<b>All Systems</b>

## Completed Projects

During fiscal year 2022, several capital improvement projects were completed, were advanced to the final phases of close-out, or were determined to be no longer necessary. As such they will be removed from consideration in future planning documents. Presented in the table below are the seven (7) 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 \$10.7 million.

7. Sugar Hollow Dam Rubber Crest Gate Replacement: In 1998 the Sugar Hollow Dam underwent a significant upgrade to improve structural stability and spillway capacity following the 1995 flood and landslide. The original metal spillway gates were replaced with a manufactured five-foot-high inflatable rubber dam that is bolted to the existing concrete structure. This rubber dam allows for the normal storage of water in the reservoir with the ability to be lowered during extreme storm events for a controlled release of water from the reservoir. The rubber dam has an approximate service life of twenty years and was therefore due for replacement. In addition to replacement of the rubber crest gate, the project included funding for clearing of vegetation and debris from the south abutment of the dam, improved fencing and water access for RWSA staff, and minor repairs, including replacement of the intake trash racks and cleaning of the foundation drains and drainage gallery.
17. Crozet Water Treatment Plant Expansion: The Crozet water treatment system was permitted and rated to supply up to 1.0 MGD of water to the ACSA distribution system. Over the past several years, average day usage of water has increased steadily, with maximum day demand approaching plant capacity. This project expanded the plant capacity infrastructure to 2 MGD and increased the interim pumping capacity from the raw water pump station and through the GAC facility to meet peak day demands prior to completion of the new raw water pump station and reservoir withdrawal permit.
21. Crozet Ground Storage Tank Leak Repair: The 500,000-gallon Crozet Ground Storage Tank serves as the wet well for the finished water pumps at the Crozet Water Treatment Plant and is one of two finished water storage tanks in the Crozet Service Area. In late 2017, a small leak at the base of the tank was discovered, and a subsequent inspection by a remotely operated vehicle (ROV) in February of 2018 confirmed that the leak was likely in the floor of the tank near the tank drain pipe. The tank was inspected, cleaned, and repaired using an NSF-approved epoxy designed to stop leaks, negating the need for further repairs to the tank at this time and allowing the work to be performed without draining the tank. Staff will continue monitoring the tank and will schedule subsequent inspections at regular intervals to ensure that the newly installed repairs remain in good condition.
27. Interceptor Sewer and Manhole Repair (Phase 1): This project was used to conduct assessments of various interceptors as well as rehabilitation of interceptors that do not have a separate CIP project. Projects completed under Phase 1 include the completion of rehabilitation efforts along the upper Morey Creek Interceptor, as well as high-priority manhole and pipeline rehabilitation on the Powell Creek and Woodbrook Interceptors. Rehabilitation of the Moores Creek, Moores Creek Relief, and Upper Rivanna Interceptors, as well as completion of rehabilitation efforts

along the Morey Creek, Powell Creek, and Crozet Interceptors, will take place during subsequent phases. A condition assessment of all RWSA interceptors (except for the Upper Rivanna Interceptor) has been completed which has helped staff complete the repair work under Phase 1 and plan for repairs under Phase 2. Periodic assessment of all sewer pipe reflects industry best practices and the maintenance expectations of federal and state regulators.

42. Moore's Creek AWWRF In-Plant Clarifier and Lime Silo Demolition: The two in-plant clarifiers were constructed in the late 1950's and were taken out of service as a result of the Odor Control Project at the plant. Various components have significantly deteriorated over time and no additional uses for these tanks have been identified. Due to their out-of-service status, they remained empty and a safety concern for plant staff and visitors. Additionally, there was an abandoned lime silo located adjacent to the Solids Handling Building. Lime was previously used with plate and frame presses before centrifuges were installed for sludge dewatering purposes. This project included complete demolition of the in-plant clarifiers by removing all existing components, backfilling the area and returning the area to open space as well as removal and disposal of the lime silo from the plant.
43. Moore's Creek AWWRF Generator Fuel Storage Expansion: The Moore's Creek AWWRF south side electrical facilities have a single large system back-up power generator that was installed between 2009-2012 during the ENR plant upgrade. The generator has a belly tank that allows for approximately 22 hours of operation. This project installed an ancillary fuel tank that will allow for approximately three days of operation.
47. Moore's Creek AWWRF Lighting Upgrade: The lighting at the 80-acre MCAWWRF consists of over 300 fixtures installed at various times over the life of the facility's presence. In 2019, Albemarle County investigated the existing and historic lighting at the facility and determined that upgrades were required to bring Moore's Creek AWWRF into zoning compliance. RWSA and Albemarle County staff worked together to determine the best way to address the issue. RWSA was able to construct a large-scale replacement of non-compliant fixtures as well as address industrial lighting standards for safety at the entire facility. The Moore's Creek AWWRF is now in compliance with the County Lighting Ordinance.

## Completed Projects

Five-Year Capital Program						
Line No.	Proj. No.	Project Description	Adopted Budget 5/2021	Previous Expenditures (6/30/2021)	Final Projected Costs/Close Out	Savings
7	20.07	Sugar Hollow Dam Rubber Crest Gate Replacement	\$1,900,000	\$1,382,264	\$1,900,000	\$0
17	20.22	Crozet Water Treatment Plant Expansion	\$500,000	\$58,587	\$500,000	\$0
21	21.03	Crozet Ground Storage Tank Leak Repair	\$115,000	\$0	\$105,000	\$10,000
27	20.26	Interceptor Sewer and Manhole Repair (Phase 1)	\$1,088,330	\$659,970	\$1,088,330	\$0
42	21.05	Moore's Creek AWRRF Inplant Clarifier and Lime Silo Demolition	\$790,000	\$48,139	\$790,000	\$0
43	21.09	Moore's Creek AWRRF Generator Fuel Storage Expansion	\$250,000	\$15,445	\$250,000	\$0
47	21.21	Moore's Creek AWRF Lighting Upgrade	\$1,900,000	\$106,275	\$575,000	\$1,325,000
<b>TOTAL</b>			\$6,543,330	\$2,270,680	\$5,208,330	\$1,335,000

CIP 22-26 Total	CIP 23-27 Completed or Removed	CIP 23-27 Remaining	CIP 23-27 New Funding	CIP 23-27 New Total
\$171,938,330	\$19,258,330	\$152,680,000	\$52,440,000	\$205,120,000



## 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 as necessary.

### Project Descriptions:

1. South Rivanna Reservoir to Ragged Mountain Reservoir Water Line Right-of-Way: The approved 50-year Community Water Supply Plan includes the future construction of a new raw water pipeline from the South Rivanna River to the Ragged Mountain Reservoir. This new pipeline will replace the Upper Sugar Hollow Pipeline along an alternative alignment to increase raw water transfer capacity in the Urban Water System. The project includes a detailed routing study to account for recent and proposed development and road projects in Albemarle County and the University of Virginia. Preliminary design, preparation of easement documents, and acquisition of water line easements along the approved route is also to be completed as part of this project.
2. South Rivanna Reservoir Dredging: The South Rivanna Reservoir stores raw water for treatment at the South Rivanna Water Treatment Plant and in the future, is proposed to provide water for transfer to the enlarged Ragged Mountain Reservoir. River flow into the reservoir is from a drainage area, almost entirely within Albemarle County, of approximately 259 square miles. Soil erosion from natural events, from land use in the agricultural area, from land disturbances in the developed areas, and from re-suspension of flood plain deposits created during the 19th century (stream bank erosion), are likely the causes of sediment becoming trapped within the reservoir. The initial design of the reservoir anticipated the accumulation of these sediments, and a significant portion of the total storage volume was designated for this purpose. Currently the sediment stored does not exceed the available sediment storage capacity.

The January 2012 Ragged Mountain Dam Project Agreement outlines that “the City and ACSA agree to direct, and RWSA agrees, to perform such dredging projects at the South Fork Rivanna Reservoir as may be specified jointly by the City and ACSA pursuant to the Water Cost Allocation Agreement.” The Cost Allocation Agreement stipulates that target maintenance dredging shall be performed, and that the dredging be market driven, cost effective, and opportunistic and shall not exceed \$3.5M. In 2012 and 2013, RWSA, via the Public-Private Education Facilities and Infrastructure Act (PPEA) process, solicited proposals to provide maintenance dredging. In July 2013, the one qualified PPEA proposer withdrew its proposal, citing difficulties in obtaining necessary land agreements.

Future Board decisions on the project contracting approach will dictate the next steps. This project remains in the CIP as the fulfillment of a contractual obligation from the January 2012 Ragged Mountain Dam Cost Allocation Agreement. The project has been moved to FY 2028.

3. 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 3.5 miles, including the connection of the proposed RMR to OBWTP raw water pump station with the Southern terminus of the Birdwood raw water line completed in 2019.
4. Ragged Mountain Reservoir to Observatory 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 OBWTP. The pump station will be designed to pump up to 10 million gallons per day (MGD) to the expanded OBWTP and will be integrated with the planned South Rivanna Reservoir (SRR) 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 to the South Rivanna WTP. The pump station property will be purchased as part of the SRR to RMR raw water main preliminary design and right of way acquisition project.
5. South Rivanna Reservoir to Ragged Mountain Reservoir WL – Birdwood to Old Garth: RWSA is expediting construction of a portion of the future South Rivanna to Ragged Mountain 36-inch raw water main from the northern end of the Birdwood Raw Water Line to the UVA Foundation Westover Property at Old Garth Road. This project will enable pipeline work to proceed ahead of planned redevelopment of the two adjacent Ivy Road Parcels to prevent subsequent disruption to the properties and decrease future construction and site restoration costs. This work includes approximately 1,200 linear feet of 36-inch raw water main, plus two trenchless crossings at Ivy Road and CSX Railroad/Old Garth Road. As of September 2021 this section of pipeline is in design with construction beginning in the summer of 2022.

6. South Rivanna Reservoir to Ragged Mountain Pipeline, Intake and Facilities: The South Rivanna Reservoir (SRR) 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 SRR to RMR Pipeline, Intake, and Facilities Project is intended to allow for continued analysis on the need and magnitude of pretreatment required in order to remove excess nutrients and convey water between the two reservoirs. Initially, this will include analysis of existing water quality data from the two reservoirs and a detailed nutrient model which will help staff better understand the fate of any nutrients transferred between the reservoirs. Later stages of the analysis may include a pilot study, in which various pretreatment technologies are tested and examined, should it be found that pretreatment is required.

## Community Water Supply Plan

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year						
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
1	20.01	South Rivanna Reservoir to Ragged Mountain Reservoir Water Line Right-of-Way	\$2,740,000		\$2,740,000						\$2,740,000	\$1,566,796
2	20.02	South Rivanna Reservoir Dredging									\$0	
3	20.03	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line	\$15,325,000	\$1,575,000	\$375,000	\$325,000	\$700,000	\$4,000,000	\$5,800,000	\$5,700,000	\$16,900,000	
4	20.04	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station	\$5,850,000	\$2,990,000	\$215,000	\$160,000	\$365,000	\$2,100,000	\$3,000,000	\$3,000,000	\$8,840,000	
5	22.01	South Rivanna Reservoir to Ragged Mountain Reservoir Birdwood to Old Garth	\$1,980,000		\$166,000	\$1,814,000					\$1,980,000	
6	20.48	South Rivanna Reservoir to Ragged Mountain Pipeline, Intake & Facilities		\$3,105,000	\$200,000	\$1,405,000				\$1,500,000	\$3,105,000	
		TOTAL	\$25,895,000	\$7,670,000	\$3,696,000	\$3,704,000	\$1,065,000	\$6,100,000	\$8,800,000	\$8,700,000	\$33,565,000	\$1,566,796

## **Observatory WTP and Ragged Mountain/Sugar Hollow Reservoir System**

The Observatory Water Treatment Plant (OBWTP) and Ragged Mountain/Sugar Hollow Reservoir System 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.

### **Project Descriptions:**

7. Observatory Water Treatment Plant Improvements: The Observatory Water Treatment Plant was originally constructed in the mid-1950s, and since very little has been replaced or upgraded at the facility, much of the original equipment remains. As a result, that equipment is inefficient, prone to unexpected failure, and does not have readily accessible replacement parts. Based on a Needs Assessment Study, the plant will undergo 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, is in need of replacement, filter control valves and piping will be replaced, and electrical and SCADA control systems upgraded. A portion of this project was 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 will increase the plant's capacity from 7.7 million gallons per day to 10 million gallons per day based on a feasibility analysis performed during the Preliminary Engineering phase of the project. It was determined that the capacity upgrades could be performed economically and would provide needed reliability and redundancy in the Urban System. As part of this capacity increase, it was also determined that the plant's GAC treatment capacity should increase as well. As a result, this project also includes efforts required for the addition of four GAC contactors.

It should be noted that the Observatory Water Treatment Plant is sited on land leased to RWSA by the University of Virginia. A new 49-year lease was signed which commenced on July 1, 2020.

## Observatory Water Treatment Plant and Ragged Mountain/Sugar Hollow Reservoir System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year						
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
7	20.06	Observatory Water Treatment Plant Improvements	\$23,000,000		\$17,550,000	\$5,450,000					\$23,000,000	\$3,316,372
		TOTAL	\$23,000,000	\$0	\$17,550,000	\$5,450,000	\$0	\$0	\$0	\$0	\$23,000,000	\$3,316,372

## **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:**

8. 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” and 30” 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.
9. 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 LF of 24-inch water main along Rt. 29 and 600 LF of 24-inch water main along the new Berkmar Drive Extension, behind the Kohl’s department store. To complete the connection between the SRWTP and the new 24-inch water main in Rt. 29, there is a need to construct a new river crossing at the South Fork Rivanna River. Acquisition of right-of-way will be required at the river crossing and along Rio Mills Road.

10. Airport Rd. Pump Station and North Rivanna Transmission Main: The 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. To complete the connection between the new 24-inch water main in Rt. 29 and the pump station, construction will include two “gap” sections of 24-inch water main between the already completed sections in the vicinity of Kohl’s. Much of the new water main route is within VDOT right-of-way; however, acquisition of right-of-way will be required on the Kohl’s Property at Hollymead Town Center. This project will begin construction in 2022.
11. 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 road, streetscape, utility, and development projects along the Emmet Street corridor to complete portions of the Emmet Street water main improvements as betterment, with the goal of completing the 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, the City of Charlottesville Emmet Streetscape Projects (multiple phases), and intersection improvements at Barracks Road, the US-250/Emmet Street Interchange, and Hydraulic Road.



## Finished Water Storage/Transmission – Urban System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year						
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
8	20.10	Central Water Line	\$9,083,000	\$14,917,000	\$1,838,000	\$1,462,000	\$1,100,000	\$5,000,000	\$7,300,000	\$7,300,000	\$24,000,000	\$191,666
9	20.12	South Fork Rivanna River Crossing	\$3,655,000	\$2,195,000	\$790,000	\$310,000	\$3,750,000	\$1,000,000			\$5,850,000	\$30,896
10	20.13	Airport Rd. Pump Station and North Rivanna Transmission Main	\$7,600,000	\$2,400,000	\$5,650,000	\$1,230,000	\$3,120,000				\$10,000,000	\$238,847
11	23.06	Emmet Street Betterment		\$2,900,000	\$1,000,000	\$955,000	\$945,000				\$2,900,000	
		TOTAL	\$20,338,000	\$22,412,000	\$9,278,000	\$3,957,000	\$8,915,000	\$6,000,000	\$7,300,000	\$7,300,000	\$42,750,000	\$461,409

## South and North Rivanna Water Systems

The South Rivanna Water System 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). 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 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:

12. South Rivanna Water Treatment Plant Improvements: The South Rivanna Water Treatment Plant recently 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 a single project within this Capital Plan. The project components include, but are not limited to, the following: 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 sub terrain 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. Currently this facility operates at 80-90% of capacity and the identified upgrades will improve reliability and resiliency, particularly at higher flow rates.
13. South Rivanna Hydropower Plant Decommissioning: The South Fork Hydropower Plant is a small hydroelectric generating facility constructed in 1987. The plant had historically operated intermittently, as river flows allow. The generated power was used at the South Rivanna Water Treatment Plant, thereby reducing power purchased off the electric grid. During an effort to troubleshoot and repair the turbine, a large rain and lightning event caused unexpected flooding into the facility. Insurance paid damages to more recent improvements, but not the pre-existing needs to repair the turbine. Engineering investigations in 2013 associated with the failed mechanical equipment and flood event confirmed the need for further disassembly and inspection of the turbine shaft and blade linkages from a remote factory location.

Due to the complexity of possible rehabilitation, the associated Federal Energy Regulatory Commission (FERC) dam permitting, and the numerous variables in the economic analysis, proposals were solicited from national hydropower experts to initiate a feasibility study to determine the cost effectiveness of rehabilitating the hydropower plant while making sure to

account for FERC-related costs and issues. The feasibility study was completed in May 2016 and determined that rehabilitation of the facility had a small likelihood for a positive return on investment. This conclusion was brought to the Board of Directors along with a recommendation to initiate the surrender of the exemption to licensure and decommission the facility. The Board approved this recommendation and staff filed the Surrender Application with FERC. The application was approved in 2020 and the decommissioning of the facility, which includes removing defunct electrical components, abandoning components of the turbine and re-establishment of the penstock as a reservoir drain will follow.

14. 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.

## South and North Rivanna Water Systems

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
12	20.16	South Rivanna Water Treatment Plant Improvements	\$20,000,000		\$17,200,000	\$2,800,000					\$20,000,000	\$9,967,058
13	20.15	South Rivanna Hydropower Plant Decommissioning	\$725,000		\$725,000						\$725,000	\$178,685
14	20.18	North Rivanna Water Treatment Plant Decommissioning	\$2,325,000	\$100,000	\$385,000		\$90,000	\$2,300,000	(\$350,000)		\$2,425,000	\$56,627
		<b>TOTAL</b>	<b>\$23,050,000</b>	<b>\$100,000</b>	<b>\$18,310,000</b>	<b>\$2,800,000</b>	<b>\$90,000</b>	<b>\$2,300,000</b>	<b>(\$350,000)</b>	<b>\$0</b>	<b>\$23,150,000</b>	<b>\$10,202,370</b>

## 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 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 (1.0 mgd rated capacity, soon to be 2 mgd) 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:

15. 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 2022, staff will proceed 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 up to 65% of the design and construction costs.
16. 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 and provide adequate raw water pumping capacity to serve the growing Crozet community for the next 50 years. 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 a Hypolimnetic Oxygenation System that will serve to enhance water quality within the reservoir.

## Crozet Water System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
15	20.19	Beaver Creek Dam Alteration	\$16,150,000		\$845,000	\$380,000	\$3,210,000	\$5,680,000	\$6,035,000		\$16,150,000	\$459,714
16	20.20 21.15	Beaver Creek New Raw Water Pump Station & Intake	\$10,780,000	\$4,870,000	\$498,000	\$555,000	\$3,925,000	\$5,310,000	\$5,362,000		\$15,650,000	\$239,508
		TOTAL	\$26,930,000	\$4,870,000	\$1,343,000	\$935,000	\$7,135,000	\$10,990,000	\$11,397,000	\$0	\$31,800,000	\$699,222

## 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).

### Project Description:

17. Scottsville Water Treatment Plant Lagoon Liner Replacement: The Scottsville Water Treatment Plant has two waste lagoons that receive filter backwash water, filter-to-waste water and flow from the sedimentation basin sludge collectors. These basins also receive drainage flows from the flocculator and sedimentation basins. The lagoons were initially lined in 2007, but that liner has now reached the end of its useful life and is showing sections of wear and degradation. In order to maintain the integrity of the lagoons, new HDPE liners will be installed.
18. Red Hill Water Treatment Plant – Upgrades: 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.

## Scottsville Water System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
17	21.04	Scottsville Water Treatment Plant Lagoon Liner Replacement	\$315,000		\$140,000	\$175,000					\$315,000	
18	22.07	Red Hill Water Treatment Plant - Upgrades	\$150,000	\$260,000	\$35,000	\$375,000					\$410,000	
		TOTAL	\$465,000	\$260,000	\$175,000	\$550,000	\$0	\$0	\$0	\$0	\$725,000	\$0



## 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:

19. 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.
20. Crozet Interceptor: The Crozet Interceptor is located in western Albemarle County and serves the Crozet and Ivy areas. Flow metering indicated that the interceptor experienced substantial inflow and infiltration and requires rehabilitation. In order to minimize future infrastructure improvements, ACSA and RWSA have agreed to rehabilitate this interceptor and the sewers that flow to the interceptor. The initial phase of rehabilitation to repair the highest priority defects in manholes and pipelines contributing to the inflow and infiltration in the interceptor upstream of Crozet Pump Station No. 4 has been completed. The current budget accounts for evaluation of the downstream portion of the interceptor, as well as outstanding rehabilitation items on upstream portions of the interceptor. While wet weather flows have moderately improved based on the initial phase of work, the ACSA and RWSA continue to investigate and remediate deficiencies along the entire interceptor. Rehabilitation efforts downstream of Crozet Pump Station No. 4 will take place in Phase 2 of the Interceptor Sewer and Manhole Repair Project.
21. Crozet Flow Equalization Tank: Rehabilitation work in the RWSA and ACSA sewer systems is on-going to meet the Inflow and Infiltration (I/I) reduction goals in the Crozet Interceptor. This is based on the flow metering and modeling results of the Comprehensive Sanitary Sewer Model & Study conducted in 2006 and as part of the Crozet Interceptor CIP project. The results of the 2006 study were updated in 2016 to evaluate I/I reduction goals and future capital project needs. The need to proceed with construction of a flow equalization tank in the Crozet area was confirmed as a result of this study update. Based on those results, a preliminary engineering evaluation and siting analysis of a flow equalization tank upstream of Crozet Pump Station No. 4 was completed to ensure that the facility could be designed,

permitted, constructed and ready for operation to meet projected two-year storm flow targets. The completion of construction is anticipated to be in late 2022.

22. 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 includes 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 includes roof replacements at all four pump stations, siding replacement for the wet well enclosure at Pump Station 3, and installation of new wells at Pump Stations 3 and 4.
23. 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 continuation of rehabilitation on the Powell Creek Interceptor, as well as rehabilitation along the lower Morey Creek, Moores Creek, Moores Creek Relief, and Upper Rivanna Interceptors. Similar to Phase 1, a sewer rehabilitation contract will be developed under this project in order to procure a dedicated contractor for any evaluation and rehabilitation work specified. 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. Phase 2 will also include inspections of siphons and force mains, which require specialty equipment in order to inspect due to the vastly different flow conditions present in these types of sewers.

## Urban Wastewater Interceptors/Pumping Stations

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
19	20.25	Upper Schenks Branch Interceptor	\$3,985,000	\$740,000	\$3,985,000	\$740,000					\$4,725,000	\$50,787
20	20.27 21.10	Crozet Interceptor	\$880,000		\$880,000						\$880,000	\$255,190
21	20.28	Crozet Flow Equalization Tank	\$5,400,000		\$5,400,000						\$5,400,000	\$2,165,244
22	20.30	Crozet Pump Station 1, 2, 3 Rehabilitation	\$590,000		\$325,000	\$210,000	\$55,000				\$590,000	\$42,267
23	21.07	Interceptor Sewer and Manhole Repair (Phase 2)	\$1,950,000	(\$985,000)		\$430,000	\$535,000				\$965,000	
		TOTAL	\$12,805,000	(\$245,000)	\$10,590,000	\$1,380,000	\$590,000	\$0	\$0	\$0	\$12,560,000	\$2,513,488

## **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 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:**

24. 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 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 in between 2003-2010 that house the Engineering department. There is currently a need to house additional staff; increase office and meeting space; plan for the replacement of the trailers; bring the IT server workrooms to modern standards; and provide classroom space for education outreach. This project was coordinated with the recent MCAWRRF Master Plan and expansion of the building will take place in the lower parking lot adjacent to the existing building.
25. Moores Creek AWRRF Aluminum Slide Gate Replacement: Several large aluminum slide gates are located at the influent side of the Moores Creek Pump Station. These gates allow staff to stop or divert flow to perform maintenance activities. After repeated attempts to access and repair the gates, it is now necessary to replace and modify the gate arrangement. The replacement includes new gates for greater flexibility and resiliency as well as significant flow bypass pumping. Likewise, there are several gates at the Ultraviolet disinfection facility that leak water, causing a reduced capacity of the facility. Replacement of these gates will restore the process to full capacity. Two additional gates in the holding pond pump station from the original 1977 Moores Creek facility construction are broken and non-operational and will be replaced as part of this work. In addition, motor operated valves at the headworks will improve wet weather operations related to the new grit facility. The work will be completed via two multiple construction contracts.
26. Moores Creek AWRRF Compost Shed Roof Rehabilitation: In the early 1980's a large metal-framed shed roof was constructed to house the biosolids composting operations. Subsequent to stopping composting at Moores Creek AWRRF, the shed serves as a covered equipment maintenance yard, solids handling facility and material storage lock-up. The shed roof is exhibiting signs of rafter deterioration and ongoing drainage issues. This project will evaluate and perform remediation needs at this facility.
27. Moores Creek AWRRF Gas Sphere Rehabilitation: The gas sphere was constructed in 1980 and is used to house pressurized methane gas as part of the boiler and cogeneration system at the Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF). An inspection of the sphere determined that the coating system was nearing the end of its serviceable life and

the tank would require some additional minor repairs and safety improvements. The project will include an updated inspection to confirm the necessary improvements, recoating the exterior of the tank, repairs to the grout around the concrete ring wall, installation of a safety climb on the exterior of the tank and other minor repairs.

28. Moore's Creek AWWRF Cogeneration Upgrades: The MCAWWRF has an existing cogeneration facility that was constructed in 2011. The purpose of the facility was to provide a beneficial use of the methane gas produced by the digester process at the plant, and in doing so provide both digester heating and energy to the plant's electrical distribution system. Unfortunately, the existing cogeneration facility requires expensive recurring maintenance services, has proprietary equipment which further complicates servicing needs, and has had a number of operational issues that have impeded the benefit this facility was intended to provide. As a result, a Cogeneration System Analysis was performed to determine a recommended approach for proceeding with improvements to the existing facility, installation of a new cogeneration facility without the issues of the previous facility or removing the cogeneration facility altogether and providing a backup boiler. This project includes costs of installation of a new cogeneration facility as described in the Cogeneration System Analysis.
29. Moore's Creek AWWRF Operations and Maintenance Building Space: The Moore's Creek Maintenance and Operations Department facilities are over 40 years old and undersized to serve the current staffing and functional needs. The Moore's Creek Master Plan recommended increases in space requirements and identified potential locations for the larger Maintenance and Operations spaces. However, major relocation of buildings is not warranted until future process upgrades are needed, approximately 15-20 years from now. Preliminarily, this project will increase and update personnel spaces such as offices, lunchrooms, labs, and locker rooms in the Maintenance, Blower, and Sludge Pumping Buildings. Additionally, the project will construct a new oil and grease storage facility that will meet all current best practices for safety and fire suppression. Lastly, the project will address the need for additional parts storage.
30. Moore's Creek AWWRF Structural Modifications: The aeration basins located at Moore's Creek are a series of chambers that each have uniquely controlled oxygen and nutrient loading conditions. Mid-way thru the basins are ten nitrogen recycle (NRCY) pumps. Due to the corrosive atmosphere, these submersed pumps require being pulled and rebuilt frequently. To remove the pumps, staff must currently hire a long boom crane. This project will provide the permanent means to pull, move, and load the pumps during maintenance activities.

Two of the six pumps in the Rivanna Pump Station are smaller and were designed to be replaced if future average day flows warrant increased capacity. The current configuration resulted in several valves being located approximately 40 feet above the pump floor level. Valve maintenance activities have been challenging due to their height. A project is proposed to install a catwalk from the upper mezzanine level to each valve to provide a safer, walkable access to each valve.

31. Moore's Creek AWWRF 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. This project involves installation of individual meters on each recycle flow line at locations that 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 meters is necessary for process and operational efficiency.

32. Moores Creek AWRRF 5kV Electrical System Upgrade: Discussions during the Moores Creek Facilities Master Plan process, identified that several areas of the MCAWRRF, including the Blower Building, Sludge Pumping Building, Grit Removal Building, Moores Creek Pumping Station, and the Administration Building are connected to the original 5kV electrical 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. In July 2020, staff recommended that a CIP Project be started as soon as possible to encompass replacement of the original 1980s-vintage 5kV cables, switchgear, transformers, and MCCs. All work is being coordinated with the Moores Creek Facilities Master Plan.
33. Moores Creek AWRRF Miscellaneous Concrete Repair: The two Holding Ponds and the two Equalization Basins were built with the 1977 Moores Creek Upgrades and are critical to the plant infrastructure to contain wet weather flows. The 40-year old concrete is showing signs of degradation. Following inspections in Fall 2020, Hazen recommended implementation of concrete repairs to extend the life of the concrete basins. Work will include crack repair, spalling repair, joint repair, and coating of miscellaneous metals and valves.
34. Moores Creek AWRRF Digester Replacement/Repair: 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. Furthermore, through the Moores Creek master planning process, Hazen has identified future plant improvements which will need to

be installed in this area. 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.

35. Moores Creek AWRRF Gravity Thickener Pumping and Chemical Feed Improvements: Sludge generated through treatment processes at the MCAWRRF is thickened at the Gravity Thickener and then pumped to the digestion process on the other side of the treatment plant. The existing pumps in the Sludge Pumping Building are capable of conveying the thickened sludge, but not at the preferred water content which then impacts the efficiency of the digestion process. In order to facilitate the thickening of the sludge in the Gravity Thickener, polymer is also added to improve solids capture. This project will evaluate and identified better performing sludge pumps, provide for a more permanent polymer storage and feed system and prepare underutilized space in the Sludge Pumping Building to be repurposed for Operations office space.

## Moores Creek Advanced Water Resource Recovery Facility

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
24	20.34	Moores Creek AWWRF Engineering and Administration Building	\$225,000	\$8,275,000		\$225,000	\$875,000	\$4,600,000	\$2,800,000		\$8,500,000	
25	20.36	Moores Creek AWWRF Aluminum Slide Gate Replacements	\$1,350,000		\$1,305,000	\$45,000					\$1,350,000	\$284,337
26	20.39	Moores Creek AWWRF Compost Shed Roof Rehabilitation	\$200,000	\$1,160,000	\$200,000	\$540,000	\$620,000				\$1,360,000	
27	20.40	Moores Creek AWWRF Gas Sphere Rehabilitation	\$840,000			\$90,000	\$750,000				\$840,000	
28	20.67	Moores Creek AWWRF Cogeneration Upgrades	\$1,865,000	\$280,000	\$1,865,000	\$280,000					\$2,145,000	
29	20.68	Moores Creek AWWRF Operations and Maintenance Building	\$1,325,000	\$1,415,000	\$275,000	\$40,000	\$1,700,000	\$725,000			\$2,740,000	
30	20.69 21.06	Moores Creek AWWRF Structural Modifications	\$900,000			\$110,000	\$790,000				\$900,000	
31	21.11 21.17	Moores Creek AWWRF Meter and Valve Replacements	\$750,000	\$25,000	\$750,000	\$25,000					\$775,000	\$7,549
32	21.18	Moores Creek AWWRF 5kV Electrical System Upgrade	\$4,600,000	\$450,000	\$600,000	\$2,830,000	\$1,620,000				\$5,050,000	\$122,141
33	22.11	Moores Creek AWWRF Miscellaneous Concrete Repair	\$2,650,000		\$250,000	\$1,650,000	\$750,000				\$2,650,000	



## Moores Creek Advanced Water Resource Recovery Facility (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
34	22.12	Moores Creek AWWRF Digester Replacement/Repair	\$3,620,000	\$380,000		\$500,000	\$2,340,000	\$1,160,000			\$4,000,000	
35	23.22	Moores Creek AWWRF Gravity Thickener Pumping and Chemical Feed Improvements		\$1,500,000		\$125,000	\$705,000	\$670,000			\$1,500,000	
		TOTAL	\$18,325,000	\$13,485,000	\$5,245,000	\$6,460,000	\$10,150,000	\$7,155,000	\$2,800,000	\$0	\$31,810,000	\$414,027

## **Scottsville Wastewater System**

The Scottsville Wastewater System includes the influent pumping station, the water resource recovery facility 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:**

36. 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. This project will provide back-up power for the entire plant and will offer greater treatment flexibility and monitoring capability for the operations staff, particularly when the plant is unmanned and monitored remotely.

**Scottsville Water Resource Recovery Facility**

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
36	21.12	Scottsville WRRF Whole Plant Generator and ATS	\$200,000		\$11,000	\$180,000	\$9,000				\$200,000	
		TOTAL	\$200,000	\$0	\$11,000	\$180,000	\$9,000	\$0	\$0	\$0	\$200,000	\$0

## **Glenmore Wastewater System**

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

### **Project Descriptions:**

37. Glenmore WRRF Influent Pump and VFD Addition: The Glenmore WRRF is owned by ACSA and operated by the RWSA. The facility is an extended aeration treatment facility for domestic wastewater. A 2014 capacity evaluation confirmed that the facility was designed for growth in the Glenmore neighborhood and surrounding jurisdictional areas and could accommodate expansion. The Glenmore neighborhood has reached the point where a third pump is now necessary.

Glenmore Water Resource Recovery Facility

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
37	20.42	Glenmore WRRF Influent Pump and VFD Addition	\$120,000	\$250,000	\$370,000						\$370,000	\$30,676
		TOTAL	\$120,000	\$250,000	\$370,000	\$0	\$0	\$0	\$0	\$0	\$370,000	\$30,676

## All Systems

### Project Descriptions:

38. Radio Upgrades: The regional 800 MHz Public Safety Communication System, in which the Rivanna Water and Sewer Authority participates to provide internal and emergency radio communication, is nearing the end of its service life. Because of technology changes (software and hardware) the Charlottesville-UVA-Albemarle County Emergency Communications Center (ECC) will need to upgrade or replace the system to keep it useable. This project plans 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 is being apportioned a part of the project cost proportionately based on the number of radios. In addition to this assessment from the ECC, the Authority will replace its fleet of portable radios.
39. Asset Management: Asset management is the practice of managing our infrastructure to minimize the total cost of owning and operating these assets while providing desired service levels. In doing so, it is used to make sure planned maintenance activities take place and that capital assets are replaced, repaired or upgraded at the right time, while ensuring that the resources necessary to perform those activities is available. RWSA has some components of an asset management program in place (i.e. GIS, work order system), but has identified the need to further develop the program as part of our Strategic Planning process. In order to continue to build the program, a consultant was procured to assist with a three-phase process that will include facilitation and development of an asset management strategic plan, development and management of a pilot study where the results of the strategic plan will be applied to a specific facility, and assistance through a full implementation process. Procurement of software to facilitate the overall program is also included in this project.
40. 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 will include: industrial strength door and window components, security gate and fencing modifications, an improved lock and key program, facility signage, closed circuit television (CCTV) enhancements, intrusion detection systems (IDS), additional security lighting, mass emergency notification systems, and emergency call stations/panic buttons. 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), and Scottsville Water Treatment Plant (SVWTP), and implementation work is underway at several other RWSA water and wastewater facilities.

41. IT Master Plan – Software: The IT Master Plan assessed and identified needed upgrades in the network and business processes at the Authority. Work is currently underway to reconfigure the Network infrastructure and to install and implement major software initiatives. This project will continue to address those Authority wide needs.

## All Systems

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
38	20.44	Radio Upgrades	\$600,000		\$600,000						\$600,000	\$280,607
39	20.45	Asset Management	\$1,180,000		\$915,000	\$97,000	\$168,000				\$1,180,000	\$441,104
40	20.46	Security Enhancements	\$2,730,000	\$80,000	\$2,106,000	\$304,000	\$400,000				\$2,810,000	\$727,020
41	20.47	IT Master Plan - Software	\$600,000		\$600,000						\$600,000	\$207,458
		TOTAL	\$5,110,000	\$80,000	\$4,221,000	\$401,000	\$568,000	\$0	\$0	\$0	\$5,190,000	\$1,656,189



## **APPENDICES**

**CIP Financial Summary**

**Water System Summary**

**Wastewater System Summary**

**All Systems Summary**

## CIP Financial Summary

Line No.	Proj. No.	Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
1	20.01	South Rivanna Reservoir to Ragged Mountain Reservoir Water Line Right-of-Way	\$2,740,000	\$0	\$2,740,000	\$0					\$2,740,000	\$1,566,796
2	20.02	South Rivanna Reservoir Dredging	\$0	\$0	\$0	\$0					\$0	
3	20.03	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line	\$15,325,000	\$1,575,000	\$375,000	\$325,000	\$700,000	\$4,000,000	\$5,800,000	\$5,700,000	\$16,900,000	
4	20.04	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station	\$5,850,000	\$2,990,000	\$215,000	\$160,000	\$365,000	\$2,100,000	\$3,000,000	\$3,000,000	\$8,840,000	
5	22.01	South Rivanna Reservoir to Ragged Mountain Reservoir - Birdwood to Old Garth	\$1,980,000	\$0	\$166,000	\$1,814,000					\$1,980,000	
6	20.48	South Rivanna Reservoir to Ragged Mountain Pipeline, Intake & Facilities	\$0	\$3,105,000	\$200,000	\$1,405,000				\$1,500,000	\$3,105,000	
7	20.06	Observatory Water Treatment Plant Improvements	\$23,000,000	\$0	\$17,550,000	\$5,450,000					\$23,000,000	\$3,316,372
8	20.10	Central Water Line	\$9,083,000	\$14,917,000	\$1,838,000	\$1,462,000	\$1,100,000	\$5,000,000	\$7,300,000	\$7,300,000	\$24,000,000	\$191,666
9	20.12	South Fork Rivanna River Crossing	\$3,655,000	\$2,195,000	\$790,000	\$310,000	\$3,750,000	\$1,000,000			\$5,850,000	\$30,896
10	20.13	Airport Rd. Pump Station and North Rivanna Transmission Main	\$7,600,000	\$2,400,000	\$5,650,000	\$1,230,000	\$3,120,000				\$10,000,000	\$238,847
11	23.06	Emmet Street Betterment	\$0	\$2,900,000	\$1,000,000	\$955,000	\$945,000				\$2,900,000	

## CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
12	20.16	South Rivanna Water Treatment Plant Improvements	\$20,000,000	\$0	\$17,200,000	\$2,800,000					\$20,000,000	\$9,967,058
13	20.15	South Rivanna Hydropower Plant Decommissioning	\$725,000	\$0	\$725,000	\$0					\$725,000	\$178,685
14	20.18	North Rivanna Water Treatment Plant Upgrade	\$2,325,000	\$100,000	\$385,000	\$0	\$90,000	\$2,300,000	(\$350,000)		\$2,425,000	\$56,627
15	20.19	Beaver Creek Dam Alteration	\$16,150,000	\$0	\$845,000	\$380,000	\$3,210,000	\$5,680,000	\$6,035,000		\$16,150,000	\$459,714
16	20.20 21.15	Beaver Creek New Raw Water Pump Station & Intake	\$10,780,000	\$4,870,000	\$498,000	\$555,000	\$3,925,000	\$5,310,000	\$5,362,000		\$15,650,000	\$239,508
17	21.04	Scottsville Water Treatment Plant Lagoon Liner Replacement	\$315,000	\$0	\$140,000	\$175,000					\$315,000	
18	22.07	Red Hill Water Treatment Plant - Upgrades	\$150,000	\$260,000	\$35,000	\$375,000					\$410,000	
19	20.25	Upper Schenks Branch Interceptor	\$3,985,000	\$740,000	\$3,985,000	\$740,000					\$4,725,000	\$50,787
20	20.27 21.10	Crozet Interceptor	\$880,000	\$0	\$880,000	\$0					\$880,000	\$255,190
21	20.28	Crozet Flow Equalization Tank	\$5,400,000	\$0	\$5,400,000	\$0					\$5,400,000	\$2,165,244
22	20.30	Crozet Pump Station 1, 2, 3 Rehabilitation	\$590,000	\$0	\$325,000	\$210,000	\$55,000	\$0			\$590,000	\$42,267

## CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
23	21.07	Interceptor Sewer and Manhole Repair - Phs 2	\$1,950,000	(\$985,000)	\$0	\$430,000	\$535,000				\$965,000	
24	20.34	Moore's Creek AWWRF Engineering and Administration Building	\$225,000	\$8,275,000	\$0	\$225,000	\$875,000	\$4,600,000	\$2,800,000		\$8,500,000	
25	20.36	Moore's Creek AWWRF Aluminum Slide Gate Replacements	\$1,350,000	\$0	\$1,305,000	\$45,000					\$1,350,000	\$284,337
26	20.39	Moore's Creek AWWRF Compost Shed Roof Rehabilitation	\$200,000	\$1,160,000	\$200,000	\$540,000	\$620,000				\$1,360,000	
27	20.40	Moore's Creek AWWRF Gas Sphere Rehabilitation	\$840,000	\$0	\$0	\$90,000	\$750,000				\$840,000	
28	20.67	Moore's Creek AWWRF Cogeneration Upgrades	\$1,865,000	\$280,000	\$1,865,000	\$280,000					\$2,145,000	
29	20.68	Moore's Creek AWWRF Operations and Maintenance Building	\$1,325,000	\$1,415,000	\$275,000	\$40,000	\$1,700,000	\$725,000			\$2,740,000	
30	20.69 21.06	Moore's Creek AWWRF Structural Modifications	\$900,000	\$0	\$0	\$110,000	\$790,000				\$900,000	
31	21.11 21.17	Moore's Creek AWWRF Meter and Valve Replacements	\$750,000	\$25,000	\$750,000	\$25,000					\$775,000	\$7,549
32	21.18	Moore's Creek AWWRF 5kV Electrical System Upgrade	\$4,600,000	\$450,000	\$600,000	\$2,830,000	\$1,620,000				\$5,050,000	\$122,141
33	22.11	Moore's Creek AWWRF Miscellaneous Concrete Repair	\$2,650,000	\$0	\$250,000	\$1,650,000	\$750,000				\$2,650,000	

## CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2021)
			Current CIP Adopted 5/2021	Proposed Changes	Current Capital Budget	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		
34	22.12	Moore's Creek AWWRF Digester Replacement/Repair	\$3,620,000	\$380,000	\$0	\$500,000	\$2,340,000	\$1,160,000			\$4,000,000	
35	23.12	Moore's Creek AWWRF Gravity Thickener Pumping and Chemical Feed	\$0	\$1,500,000	\$0	\$125,000	\$705,000	\$670,000			\$1,500,000	
36	21.12	Scottsville WRRF Whole Plant Generator and ATS	\$200,000	\$0	\$11,000	\$180,000	\$9,000				\$200,000	
37	20.42	Glenmore WRRF Influent Pump & VFD Addition	\$120,000	\$250,000	\$370,000	\$0					\$370,000	\$30,676
38	20.44	Radio Upgrades	\$600,000	\$0	\$600,000	\$0					\$600,000	\$280,607
39	20.45	Asset Management	\$1,180,000	\$0	\$915,000	\$97,000	\$168,000				\$1,180,000	\$441,104
40	20.46	Security Enhancements	\$2,730,000	\$80,000	\$2,106,000	\$304,000	\$400,000				\$2,810,000	\$727,020
41	20.47	IT Master Plan - Software	\$600,000	\$0	\$600,000	\$0					\$600,000	\$207,458
<b>Total</b>			\$156,238,000	\$48,882,000	\$70,789,000	\$25,817,000	\$28,522,000	\$32,545,000	\$29,947,000	\$17,500,000	\$205,120,000	\$20,860,549

# Water System Summary

	Summary			Projected Future Expenses by Year						
Urban Water System	Current CIP	Proposed Changes	Current Capital Budget	FY23	FY24	FY25	FY26	FY27	Recommended CIP	Work-in -Progress
<b>PROJECT COSTS</b>										
Community Water Supply Plan	\$ 25,895,000	\$ 6,170,000	\$ 3,696,000	\$ 3,704,000	\$ 1,065,000	\$ 6,100,000	\$ 8,800,000	\$ 10,200,000	\$ 33,565,000	\$ 1,566,796
Observatory WTP/Ragged Mtn/Sugar Hollow Systems	24,900,000	-	17,550,000	5,450,000	-	-	-	-	23,000,000	4,698,637
Finished Water Storage/Distribution - Urban System	21,828,000	20,922,000	9,278,000	3,957,000	8,915,000	6,000,000	7,300,000	7,300,000	42,750,000	461,410
South & North Fork Rivanna WTP and Reservoir System	23,250,000	(100,000)	18,310,000	2,800,000	90,000	2,300,000	(350,000)	-	23,150,000	10,202,371
<b>Total Projects Urban Water Systems</b>	<b>\$ 95,873,000</b>	<b>\$ 26,992,000</b>	<b>\$ 48,834,000</b>	<b>\$ 15,911,000</b>	<b>\$ 10,070,000</b>	<b>\$ 14,400,000</b>	<b>\$ 15,750,000</b>	<b>\$ 17,500,000</b>	<b>\$ 122,465,000</b>	<b>\$ 16,929,212</b>
<b>FUNDING SOURCES URBAN SYSTEM - TO DATE</b>										
Work-in-Progress			\$ 16,929,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,929,000	
Debt Proceeds - 2018 & 2021Bond			31,405,000	8,400,500	-	-	-	-	39,805,500	
Capital Funds Available			500,000	-	-	-	-	-	500,000	
<b>SUBTOTAL</b>			<b>48,834,000</b>	<b>8,400,500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>57,234,500</b>	
<b>FUNDING SOURCES URBAN SYSTEM - NEEDS</b>										
Future Cash reserve transfer to Capital Fund				\$ 1,000,000	\$ 1,000,000	\$ 500,000	\$ 500,000	\$ 1,000,000	\$ 4,000,000	
New Debt Needed			-	6,510,500	9,070,000	13,900,000	15,250,000	16,500,000	61,230,500	
<b>SUBTOTAL</b>			<b>-</b>	<b>7,510,500</b>	<b>10,070,000</b>	<b>14,400,000</b>	<b>15,750,000</b>	<b>17,500,000</b>	<b>65,230,500</b>	
<b>TOTAL URBAN WATER FUNDING</b>			<b>\$ 48,834,000</b>	<b>\$ 15,911,000</b>	<b>\$ 10,070,000</b>	<b>\$ 14,400,000</b>	<b>\$ 15,750,000</b>	<b>\$ 17,500,000</b>	<b>\$ 122,465,000</b>	
									\$122,465,000	
<b>Estimated Bond Issues</b>					<b>\$30,000,000</b>		<b>\$31,230,500</b>		<b>\$61,230,500</b>	

	Summary			Projected Future Expenses by Year						
Non-Urban Water System	Current CIP	Proposed Changes	Current Capital Budget	FY23	FY24	FY25	FY26	FY27	Recommended CIP	Work-in -Progress
<b>PROJECT COSTS</b>										
Crozet Water System	\$ 28,275,000	\$ 4,140,000	\$ 1,343,000	\$ 935,000	\$ 7,135,000	\$ 10,990,000	\$ 11,397,000	\$ -	\$ 31,800,000	\$ 757,810
Scottsville Water System	850,000	(125,000)	175,000	550,000	-	-	-	-	725,000	-
<b>Total Rural Water Systems</b>	<b>\$ 29,125,000</b>	<b>\$ 4,015,000</b>	<b>\$ 1,518,000</b>	<b>\$ 1,485,000</b>	<b>\$ 7,135,000</b>	<b>\$ 10,990,000</b>	<b>\$ 11,397,000</b>	<b>\$ -</b>	<b>\$ 32,525,000</b>	<b>\$ 757,810</b>
<b>Non-URBAN FUNDING SOURCES</b>										
Work in Progress			\$ 757,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 757,800	
Capital Funds Available			-	-	-	-	-	-	-	
Debt Proceeds - 2018 & 2021Bond			465,000	-	-	-	-	-	465,000	
Future Cash reserve transfer to Capital Fund			295,200	450,000	150,000	54,800	-	-	950,000	
New Debt Needed			-	1,035,000	6,985,000	10,935,200	11,397,000	-	30,352,200	
<b>TOTAL NON-URBAN WATER FUNDING</b>			<b>\$ 1,518,000</b>	<b>\$ 1,485,000</b>	<b>\$ 7,135,000</b>	<b>\$ 10,990,000</b>	<b>\$ 11,397,000</b>	<b>\$ -</b>	<b>\$ 32,525,000</b>	
<b>Estimated Bond Issues</b>				<b>\$ 8,020,000</b>			<b>22,332,200</b>		<b>\$ 30,352,200</b>	

## Wastewater System Summary

	Summary			Projected Future Expenses by Year						
Urban Wastewater System	Current CIP	Proposed Changes	Current Capital Budget	FY23	FY24	FY25	FY26	FY27	Recommended CIP	Work-in - Progress
<b>PROJECT COSTS</b>										
Wastewater Interceptor/Pumping Stations	\$ 14,345,330	\$ (697,000)	\$ 10,590,000	\$ 1,380,000	\$ 590,000	\$ -	\$ -	\$ -	\$ 12,560,000	\$ 3,173,458
Moores Creek WWTP	25,380,000	12,485,000	5,245,000	6,460,000	10,150,000	7,155,000	2,800,000	-	31,810,000	599,335
<b>Total Urban Wastewater Systems</b>	<b>\$ 39,725,330</b>	<b>\$ 11,788,000</b>	<b>\$15,835,000</b>	<b>\$7,840,000</b>	<b>\$10,740,000</b>	<b>\$7,155,000</b>	<b>\$2,800,000</b>	<b>\$0</b>	<b>\$44,370,000</b>	<b>\$3,772,793</b>
<b>FUNDING SOURCES URBAN SYSTEM - IN PLACE</b>										
Work-in-Progress			\$ 3,772,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,772,800	
Debt Proceeds - 2018 & 2021Bond			6,084,750	-	-	-	-	-	6,084,750	
Capital Funds Available			3,500,000	-	-	-	-	-	3,500,000	
<b>SUBTOTAL</b>			<b>13,357,550</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>13,357,550</b>	
<b>FUNDING SOURCES URBAN SYSTEM - NEEDS</b>										
Future Cash Reserves			\$ -	\$ 1,000,000	\$ 500,000	\$ 500,000	\$ 1,000,000	\$ -	\$ 3,000,000	
New Debt Needed			2,477,450	6,840,000	10,240,000	6,655,000	1,800,000	-	28,012,450	
<b>SUBTOTAL</b>			<b>2,477,450</b>	<b>\$7,840,000</b>	<b>10,740,000</b>	<b>7,155,000</b>	<b>2,800,000</b>	<b>-</b>	<b>31,012,450</b>	
<b>TOTAL URBAN WASTEWATER FUNDING</b>			<b>\$ 15,835,000</b>	<b>\$ 7,840,000</b>	<b>\$ 10,740,000</b>	<b>\$ 7,155,000</b>	<b>\$ 2,800,000</b>	<b>\$ -</b>	<b>\$ 44,370,000</b>	
<b>Estimated Bond Issues</b>					<b>\$ 19,557,500</b>		<b>\$ 8,455,000</b>		<b>\$ 28,012,500</b>	

	Summary			Projected Future Expenses by Year						
Non-Urban Wastewater System	Current CIP	Proposed Changes	Current Capital Budget	FY23	FY24	FY25	FY26	FY27	Recommended CIP	Work-in - Progress
<b>PROJECT COSTS</b>										
Glenmore WWTP	\$ 120,000	\$ 250,000	\$ 370,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 370,000	\$ 30,676
Scottsville WWTP	200,000	-	11,000	180,000	9,000	-	-	-	200,000	-
<b>Total Rural Wastewater Systems</b>	<b>\$320,000</b>	<b>\$250,000</b>	<b>\$ 381,000</b>	<b>\$ 180,000</b>	<b>\$ 9,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 570,000</b>	<b>\$ 30,676</b>
<b>FUNDING SOURCES RURAL SYSTEM - NEEDS</b>										
Work in Progress			\$ 30,700						30,700	
Debt Proceeds - 2018 & 2021Bond			\$ -	\$ -					-	
Future Cash Reserve			-	-	-	-	-	-	-	
New Debt Needed			350,300	180,000	9,000	-	-	-	539,300	
<b>TOTAL RURAL WASTEWATER FUNDING</b>			<b>\$ 381,000</b>	<b>\$ 180,000</b>	<b>\$ 9,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 570,000</b>	
<b>Estimated Bond Issues</b>					<b>\$ 539,300</b>					

## All Systems Summary

	Summary			Projected Future Expenses by Year						
Shared Projects - All Rate Centers	Current CIP	Proposed Changes	Current Capital Budget	FY23	FY24	FY25	FY26	FY27	Recommended CIP	Work-in - Progress
<b>PROJECT COSTS</b>										
Asset management/Security/IT Master Plan	\$ 5,110,000	\$ 80,000	\$ 4,221,000	\$ 401,000	\$ 568,000	\$ -	\$ -	\$ -	\$ 5,190,000	\$1,656,189
<b>Total Projects Urban Water Systems</b>	<b>\$ 5,110,000</b>	<b>\$ 80,000</b>	<b>\$ 4,221,000</b>	<b>\$ 401,000</b>	<b>\$ 568,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,190,000</b>	<b>\$1,656,189</b>
<b>FUNDING SOURCES</b>										
Work in Progress			\$ 1,656,189						\$ 1,656,189	
Possible Future Reserves			\$ 1,031,000	\$ 401,000	\$568,000				\$ 2,000,000	
New Debt Needed			\$ 1,533,811	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,533,811	
									-	
<b>TOTAL URBAN WATER FUNDING</b>			<b>\$ 4,221,000</b>	<b>\$ 401,000</b>	<b>\$ 568,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 5,190,000</b>	
<b>Estimated Bond Issues</b>					<b>\$1,533,811</b>					



Summary Information

	<b>2023 - 2027 <i>Proposed</i> <u>CIP</u></b>	<b>2022 - 2026 <i>Adopted</i> <u>CIP</u></b>	<b><u>Change \$</u></b>
<b><u>Project Cost</u></b>			
Urban Water Projects	\$ 122,465,000	\$ 95,873,000	\$ 26,592,000
Urban Wastewater Projects	44,370,000	39,725,330	4,644,670
Non-Urban Projects & Shared	38,285,000	34,555,000	3,730,000
<b>Total Project Cost Estimates</b>	<b><u>\$ 205,120,000</u></b>	<b><u>\$ 170,153,330</u></b>	<b><u>\$ 34,966,670</u></b>
<b><u>Funding in place</u></b>			
Work-in-Progress (paid for)	\$ 23,146,700	\$ 6,913,000	16,233,700
Debt Proceeds Available	46,355,250	19,755,100	26,600,150
Cash-Capital Available	4,000,000	4,688,000	(688,000)
	<u>\$ 73,501,950</u>	<u>\$ 31,356,100</u>	<u>\$ 42,145,850</u>
<b><u>Financing Needs</u></b>			
Possible Future Reserves	\$ 9,950,000	\$ 9,700,000	250,000
New Debt	121,668,050	129,097,230	(7,429,180)
	<u>\$ 131,618,050</u>	<u>\$ 138,797,230</u>	<u>\$ (7,179,180)</u>
<b>Total Funding</b>	<b><u>\$ 205,120,000</u></b>	<b><u>\$ 170,153,330</u></b>	<b><u>\$ 34,966,670</u></b>
Percentage of funding in place	35.8%	18.4%	
Ratio of debt to expense	93.2%	91.5%	
Ratio of cash to expense	6.8%	8.5%	

## Summary Information

Detail by Major Systems	<b>Total <i>Proposed</i> CIP</b>	<b>Urban Water Projects</b>	<b>Urban Wastewater Projects</b>	<b>Shared Projects</b>	<b>Water Non-Urban Projects</b>	<b>Wastewater Non-Urban Projects</b>
<b><u>Project Cost</u></b>						
Urban Water Projects	\$ 122,465,000	\$ 122,465,000	\$ -		\$ -	\$ -
Urban Wastewater Projects	44,370,000	-	44,370,000		-	-
Non-Urban Projects & Shared	38,285,000	-	-	5,190,000	32,525,000	570,000
<b>Total Project Cost Estimates</b>	<b>\$ 205,120,000</b>	<b>\$ 122,465,000</b>	<b>\$ 44,370,000</b>	<b>\$ 5,190,000</b>	<b>\$ 32,525,000</b>	<b>\$ 570,000</b>
<b><u>Funding in place</u></b>						
Work-in-Progress (paid for)	\$ 23,146,700	\$ 16,929,200	\$ 3,772,800	\$ 1,656,200	\$ 757,800	\$ 30,700
Debt Proceeds available	46,355,250	39,805,550	6,084,700	-	465,000	-
Cash-Capital Available	4,000,000	500,000	3,500,000	-	-	-
Subtotal	\$ 73,501,950	\$ 57,234,750	\$ 13,357,500	\$ 1,656,200	\$ 1,222,800	\$ 30,700
<b><u>Financing Needs</u></b>						
Possible Future Reserves	\$ 9,950,000	4,000,000	3,000,000	2,000,000	950,000	-
New Debt	121,668,050	61,230,250	28,012,500	1,533,800	30,352,200	539,300
Subtotal	\$ 131,618,050	\$ 65,230,250	\$ 31,012,500	\$ 3,533,800	\$ 31,302,200	\$ 539,300
<b>Total Funding</b>	<b>\$ 205,120,000</b>	<b>\$ 122,465,000</b>	<b>\$ 44,370,000</b>	<b>\$ 5,190,000</b>	<b>\$ 32,525,000</b>	<b>\$ 570,000</b>
Percentage of funding in place	35.8%	46.7%	30.1%	31.9%	3.8%	5.4%
Ratio of debt to expense	93.2%	82.5%	76.8%	29.6%	94.7%	94.6%
Ratio of cash to expense	6.8%	3.7%	14.6%	38.5%	2.9%	0.0%

Summary Information

	<u>Urban Water</u>	<u>Urban Wastewater</u>	<u>Non-Urban</u>	<u>Shared</u>	<u>Total</u>	<u>Current Adopted</u>
Adopted CIP 2022 - 2026	\$ 95,873,000	\$ 39,725,330	\$ 29,445,000	\$ 5,110,000	\$ 170,153,330	
<u>Changes:</u>						
Completed or closed projects	(1,900,000)	(8,143,330)	(615,000)	-	(10,658,330)	
Rollover from FY 2026 (roughly)	17,500,000	875,000	-	-	18,375,000	
Adjustments on existing projects	10,992,000	10,413,000	4,265,000	80,000	25,750,000	*
New projects	-	1,500,000	-	-	1,500,000	
New costs	10,992,000	11,913,000	4,265,000	80,000	27,250,000	
<b>Total Changes</b>	<b>26,592,000</b>	<b>4,644,670</b>	<b>3,650,000</b>	<b>80,000</b>	<b>34,966,670</b>	
Total Proposed CIP 2023 - 2027	\$ 122,465,000	\$ 44,370,000	\$ 33,095,000	\$ 5,190,000	\$ 205,120,000	170,153,330
Years 6 - 10 (FY 2028-32)					\$ 126,217,000	100,359,000
Years 11 - 15 (FY2033-37)					\$ 193,110,000	52,867,000
<b>TOTAL 15 YEAR CIP</b>					<b>\$ 524,447,000</b>	<b>\$ 323,379,330</b>

Rivanna Water and Sewer Authority  
CIP 2023-2027

1/24/2022

\*Budget and Charges were adjusted in October 2021

Summary Information																							
		FY 2021	FY 2022*	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032										
City of Charlottesville Charges																							
Urban Water																							
Operating Rate	Per 1000 gal.	2.095	2.346	2.648	2.807	2.975	3.154	3.343	3.544	3.756	3.982	4.221	4.474										
	% Change		12.0%	12.9%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%										
Debt Service Charge	Per month	\$ 193,580	\$ 246,188	271,545	303,004	334,553	358,523	390,038															
			27.2%	10.3%	11.6%	10.4%	7.2%	8.8%															
Revenue Requirements:				10.3%	11.6%	10.4%	7.2%	8.8%															
Operating Rate Revenue	Annual	\$ 3,630,500	\$ 3,906,000	\$ 4,408,818	\$ 4,673,348	\$ 4,953,748	\$ 5,250,973	\$ 5,566,032	\$ 5,899,994	\$ 6,253,993	\$ 6,629,233	\$ 7,026,987	\$ 7,448,606										
Debt Service Revenues	Annual	2,323,000	2,954,300	3,258,534	3,636,045	4,014,633	4,302,273	4,680,451	-	-	-	-	-										
Total		\$ 5,953,500	\$ 6,860,300	\$ 7,667,352	\$ 8,309,393	\$ 8,968,381	\$ 9,553,246	\$ 10,246,483	\$ 5,899,994	\$ 6,253,993	\$ 6,629,233	\$ 7,026,987	\$ 7,448,606										
	\$ Change		\$ 906,800	\$ 807,052	\$ 642,040	\$ 658,989	\$ 584,865	\$ 693,236	\$ 333,962	\$ 354,000	\$ 375,240	\$ 397,754	\$ 421,619										
	% Change		15.2%	11.8%	8.4%	7.9%	6.5%	7.3%															
Urban Wastewater																							
Operating Rate	Per 1000 gal.	2.369	2.517	2.662	2.848	3.019	3.200	3.392	3.596	3.812	4.040	4.283	4.540										
	% Change		6.2%	5.8%	7.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%										
Debt Service Charge	Per month	\$ 407,588	\$ 376,036	384,152	396,872	407,882	418,922	431,842															
			-7.7%	2.2%	3.3%	2.8%	2.7%	3.1%															
Revenue Requirements:																							
Operating Rate Revenue	Annual	\$ 3,936,500	\$ 4,096,900	\$ 4,247,915	\$ 4,545,269	\$ 4,817,986	\$ 5,107,065	\$ 5,413,489	\$ 5,738,298	\$ 6,082,596	\$ 6,447,551	\$ 6,834,405	\$ 7,244,469										
Debt Service Revenues	Annual	4,891,100	4,512,500	4,609,820	4,762,460	4,894,580	5,027,060	5,182,100	-	-	-	-	-										
Total		\$ 8,827,600	\$ 8,609,400	\$ 8,857,735	\$ 9,307,729	\$ 9,712,566	\$ 10,134,125	\$ 10,595,589	\$ 5,738,298	\$ 6,082,596	\$ 6,447,551	\$ 6,834,405	\$ 7,244,469										
	\$ Change		\$ (218,200)	\$ 248,335	\$ 449,994	\$ 404,836	\$ 421,559	\$ 461,464	\$ 324,809	\$ 344,298	\$ 364,956	\$ 386,853	\$ 410,064										
	% Change		-2.5%	2.9%	5.1%	4.3%	4.3%	4.6%															
Total all Rate Centers																							
Operating Rate Revenue		\$ 7,567,000	\$ 8,002,900	\$ 8,656,734	\$ 9,218,617	\$ 9,771,734	\$ 10,358,038	\$ 10,979,520	\$ 11,638,291	\$ 12,336,589	\$ 13,076,784	\$ 13,861,391	\$ 14,693,075										
Debt Service Revenues		7,214,100	7,466,800	7,868,354	8,398,505	8,909,213	9,329,333	9,862,551	9,862,551	9,862,551	9,862,551	9,862,551	9,862,551										
Total City All Revenues		\$ 14,781,100	\$ 15,469,700	\$ 16,525,088	\$ 17,617,122	\$ 18,680,947	\$ 19,687,371	\$ 20,842,071	\$ 21,500,842	\$ 22,199,140	\$ 22,939,335	\$ 23,723,942	\$ 24,555,626										
	\$ Change		\$ 688,600	\$ 1,055,388	\$ 1,092,034	\$ 1,063,825	\$ 1,006,424	\$ 1,154,700	\$ 658,771	\$ 698,297	\$ 740,195	\$ 784,607	\$ 831,683										
	% Change		4.7%	6.8%	6.6%	6.0%	5.4%	5.9%															
10-Year CIP Debt Service																							
Total Estimated Charge		\$ 14,781,100	\$ 15,469,700	\$ 16,525,088	\$ 17,715,917	\$ 19,022,007	\$ 20,421,969	\$ 22,108,082	612,134	828,449	566,917	225,230	92,283										
	% Change		4.7%	6.8%	7.2%	7.4%	7.4%	8.3%	1,878,145	2,706,593	3,273,511	3,498,741	3,591,024										
									\$ 23,378,987	\$ 24,905,733	\$ 26,212,846	\$ 27,222,683	\$ 28,146,650	\$ 12,676,950									
									5.7%	6.5%	5.2%	3.9%	3.4%	81.9%									
Additional Annual Revenues														\$ 1,270,905	\$ 1,526,746	\$ 1,307,113	\$ 1,009,837	\$ 923,967					
														5.7%	6.5%	5.2%	3.9%	3.4%					

## FY 2022\*

X:\RESTRICTED\Budget\Water & Sewer\FY 2023 W&S\Debt Service\Summary and Rate Analysis CIP 2023-2027 DRAFT 4.xlsx

Summary Information

	FY 2021	FY 2022*	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027		FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	
<b>RWSA</b>														
Operations Revenues														
Urban Water	\$ 7,118,600	\$ 7,971,500	\$ 8,997,669	\$ 9,537,529	\$ 10,109,781	\$ 10,716,368	\$ 11,359,350		\$ 12,040,911	\$ 12,763,366	\$ 13,529,168	\$ 14,340,918	\$ 15,201,373	
Urban Wastewater	8,033,600	8,535,200	9,026,898	9,658,781	10,238,308	10,852,606	11,503,763		12,193,988	12,925,628	13,701,165	14,523,235	15,394,629	
Other Rate Centers	2,229,100	2,303,900	2,559,900	2,713,494	2,876,304	3,048,882	3,231,815		3,425,724	3,631,267	3,849,143	4,080,092	4,324,897	
Total	\$17,381,300	\$ 18,810,600	\$ 20,584,467	\$ 21,909,804	\$ 23,224,393	\$ 24,617,856	\$ 26,094,927		\$ 27,660,623	\$ 29,320,261	\$ 31,079,476	\$ 32,944,245	\$ 34,920,899	
Change \$		1,429,300	1,773,867	1,325,337	1,314,588	1,393,464	1,477,071		1,565,696	1,659,637	1,759,216	1,864,769	1,976,655	
Change %		8.2%	9.4%	6.4%	6.0%	6.0%	6.0%		6.0%	6.0%	6.0%	6.0%	6.0%	
Debt Service Charge Revenues														
Urban Water	6,178,600	7,621,800	8,309,052	9,203,294	10,107,224	10,852,402	11,734,900							
Urban Wastewater	8,229,200	8,568,300	8,866,903	9,195,103	9,502,783	9,810,823	10,136,383							
Other Rate Centers	1,453,300	2,004,000	2,343,400	2,657,400	2,971,400	3,285,400	3,599,400							
Total	\$15,861,100	\$ 18,194,100	\$ 19,519,355	\$ 21,055,797	\$ 22,581,407	\$ 23,948,625	\$ 25,470,683		\$ 25,470,683	\$ 25,470,683	\$ 25,470,683	\$ 25,470,683	\$ 25,470,683	
Change \$		2,333,000	1,325,255	1,536,442	1,525,610	1,367,218	1,522,058							
Change %		14.7%	7.3%	7.9%	7.2%	6.1%	6.4%							
<b>Total RWSA Customer Revenues</b>	<b>\$33,242,400</b>	<b>\$ 37,004,700</b>	<b>\$ 40,103,822</b>	<b>\$ 42,965,601</b>	<b>\$ 45,805,800</b>	<b>\$ 48,566,481</b>	<b>\$ 51,565,610</b>		<b>\$ 53,131,306</b>	<b>\$ 54,790,944</b>	<b>\$ 56,550,159</b>	<b>\$ 58,414,928</b>	<b>\$ 60,391,582</b>	
Change \$		\$ 3,762,300	\$ 3,099,122	\$ 2,861,779	\$ 2,840,198	\$ 2,760,682	\$ 2,999,129		\$ 1,565,696	\$ 1,659,637	\$ 1,759,216	\$ 1,864,769	\$ 1,976,655	
Change %		11.3%	8.4%	7.1%	6.6%	6.0%	6.2%		3.0%	3.1%	3.2%	3.3%	3.4%	
<b>Additional for 10-Year CIP</b>														
Total Estimated Charge	\$33,242,400	\$ 37,004,700	\$ 40,103,822	\$ 43,213,153	\$ 46,727,426	\$ 50,670,443	\$ 55,340,981		5,783,469	8,224,090	9,895,458	10,889,083	11,506,817	
% Change		0.0%	8.4%	7.8%	8.1%	8.4%	9.2%		6.5%	7.0%	5.4%	4.3%	3.7%	
<b>Additional Annual Revenues</b>														
			\$ 40,103,822	\$ 43,213,153	\$ 46,727,426	\$ 50,670,443	\$ 55,340,981		\$ 58,914,775	\$ 63,015,034	\$ 66,445,617	\$ 69,304,011	\$ 71,898,399	
			\$ 3,099,122	\$ 3,109,331	\$ 3,514,272	\$ 3,943,018	\$ 4,670,538		\$ 3,573,794	\$ 4,100,259	\$ 3,430,583	\$ 2,858,394	\$ 2,594,388	
			8.4%	7.8%	8.1%	8.4%	9.2%		6.5%	7.0%	5.4%	4.3%	3.7%	
														\$ 34,893,699
														94.3%

# Proposed Capital Improvement Program FY 2023-2027

FOR THE BOARD OF DIRECTORS

BY BILL MAWYER, EXECUTIVE DIRECTOR

MAY 24, 2022



Ragged Mountain Reservoir



# Strategic Plan Goal

---

## “Infrastructure and Master Planning”



➤ “To plan, deliver, and maintain dependable infrastructure in a financially responsible manner.”



# FY 23 – 27

## Capital Improvement Program

---

41 Projects, \$205.1 M

### Water

Urban: \$122.5 M

Non-Urban & Shared W & WW:

### Wastewater

Urban: \$44.4 M

\$38.2 M

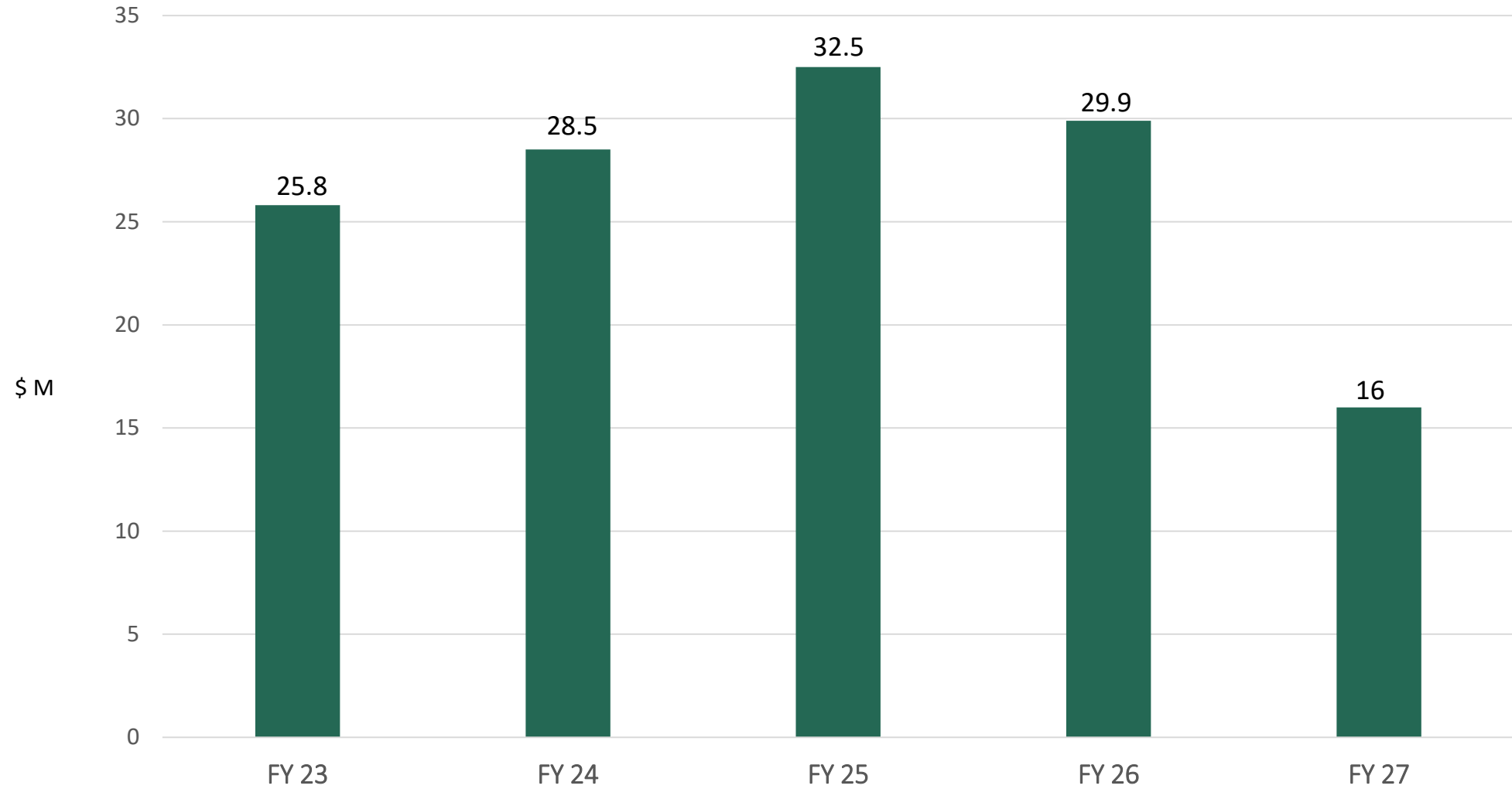
Use of Cash Reserves:

New CIP Debt Anticipated:

\$ 10 M

\$ 123 M

# Annual Capital Budgets



# Capital Assets: Facilities and Equipment

## \$390 M

### 5 Water Supply Reservoirs

- Buck Mtn Property

3.3 billion gallons  
1314 acres

### 6 Water Treatment Plants

- 3 Urban
- 3 Non-Urban

21.7 = 24 MGD by 2023  
2.25 MGD

### 4 Wastewater Treatment Plants

- 1 Urban
- 3 Non-Urban

15 MGD  
0.588 MGD

### 7 Wastewater Pump Stations

### 11 Water Pump Stations

- 7 Raw Water
- 4 Finished Water

### Water Distribution Pipe

68 miles

### Valves

117

### Wastewater Collection Pipe

44 miles

### Manholes

717

### Stormwater Impoundment

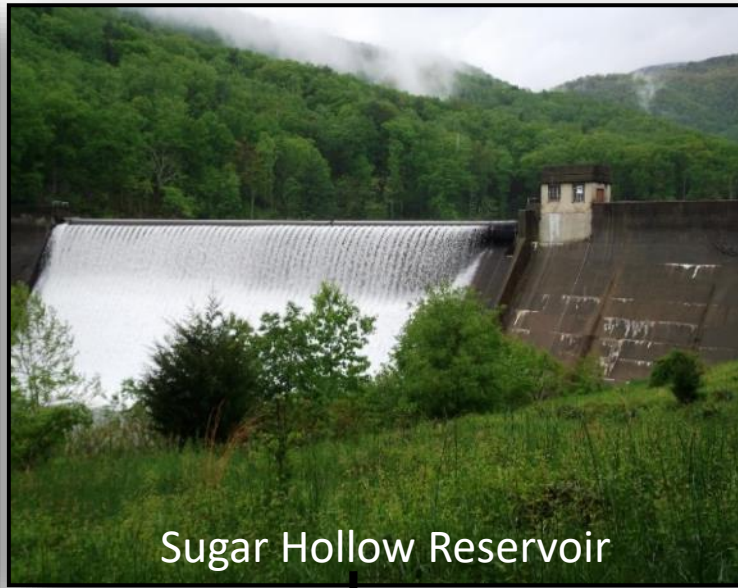
Lickinghole Creek Basin







South Fork Rivanna Reservoir



Sugar Hollow Reservoir



Ragged Mountain Reservoir



Beaver Creek Reservoir



Totier Creek Reservoir

Urban  
Area

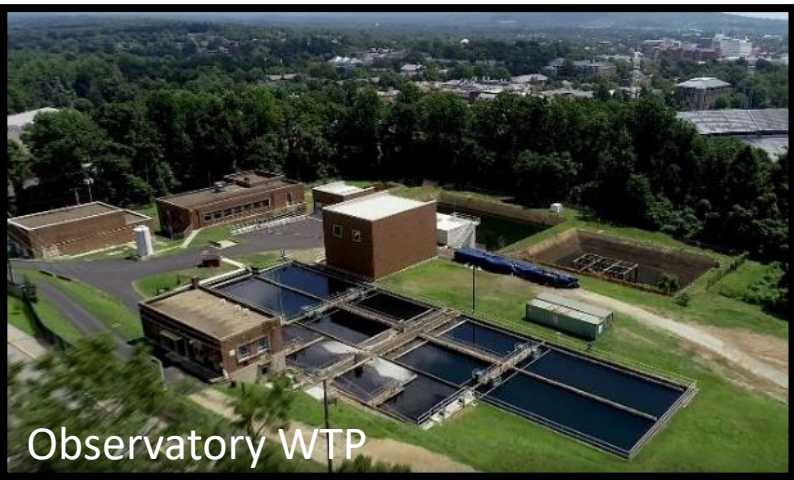
3.3 Billion Gallons

# 5 Water Supply Reservoirs

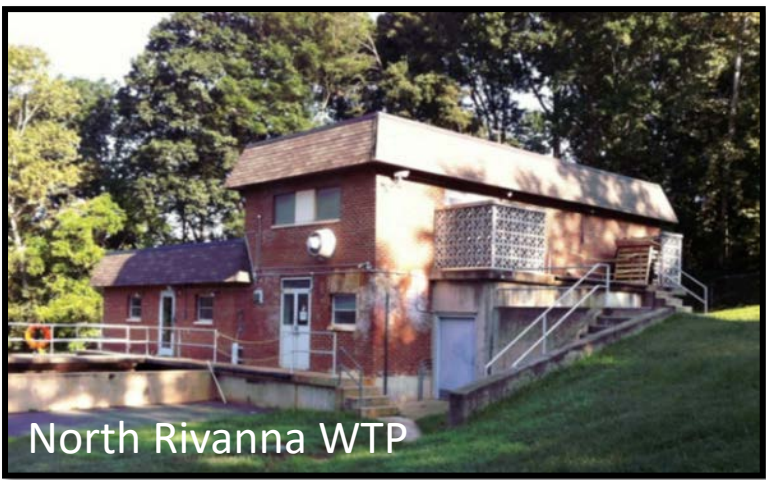




South Rivanna WTP



Observatory WTP



North Rivanna WTP



Crozet WTP



Red Hill WTP



Scottsville WTP

# 6 Water Treatment Plants





Moores Creek AWWRF



Scottsville WWTP



Glenmore WWTP



Stone Robinson WWTP

## 4 Wastewater Treatment Plants



# Major Programs and Projects

- **Upgrade Water Treatment Plants: \$43 M**

- South Rivanna
- Observatory

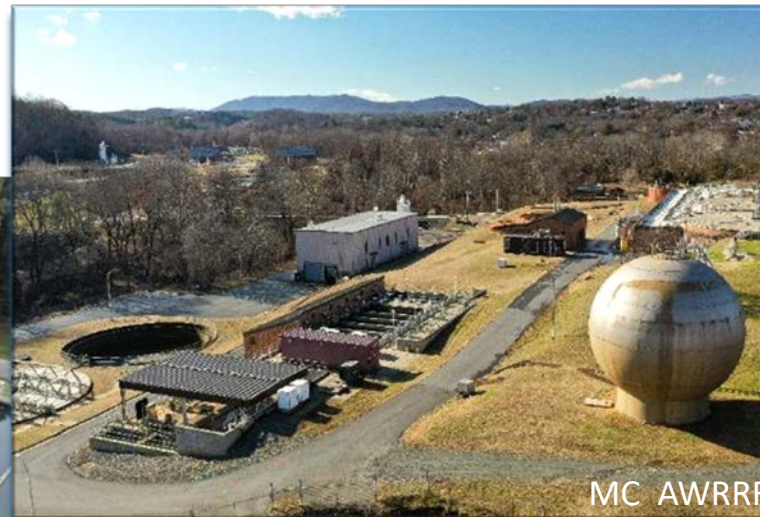
- **Reliability / Redundancy : \$82 M**

- Airport Road Water Pump Station and Piping
- RMR to OB WTP Piping and Pumping
- Central Water Line
- MC 5kv Electrical System Upgrade
- SR River Crossing
- Scottsville WWTP Emergency Generator



- **Operations and Maintenance / Safety: \$18 M**

- Security Enhancements
- WW Piping and MH Repairs
- MC Cogeneration / Sphere Repairs
- MC Digester Repairs
- MC Maintenance, Blower, Pumping Building Repairs
- MC Concrete Repairs, Basins and Holding Ponds
- MC Gravity Thickener Repairs



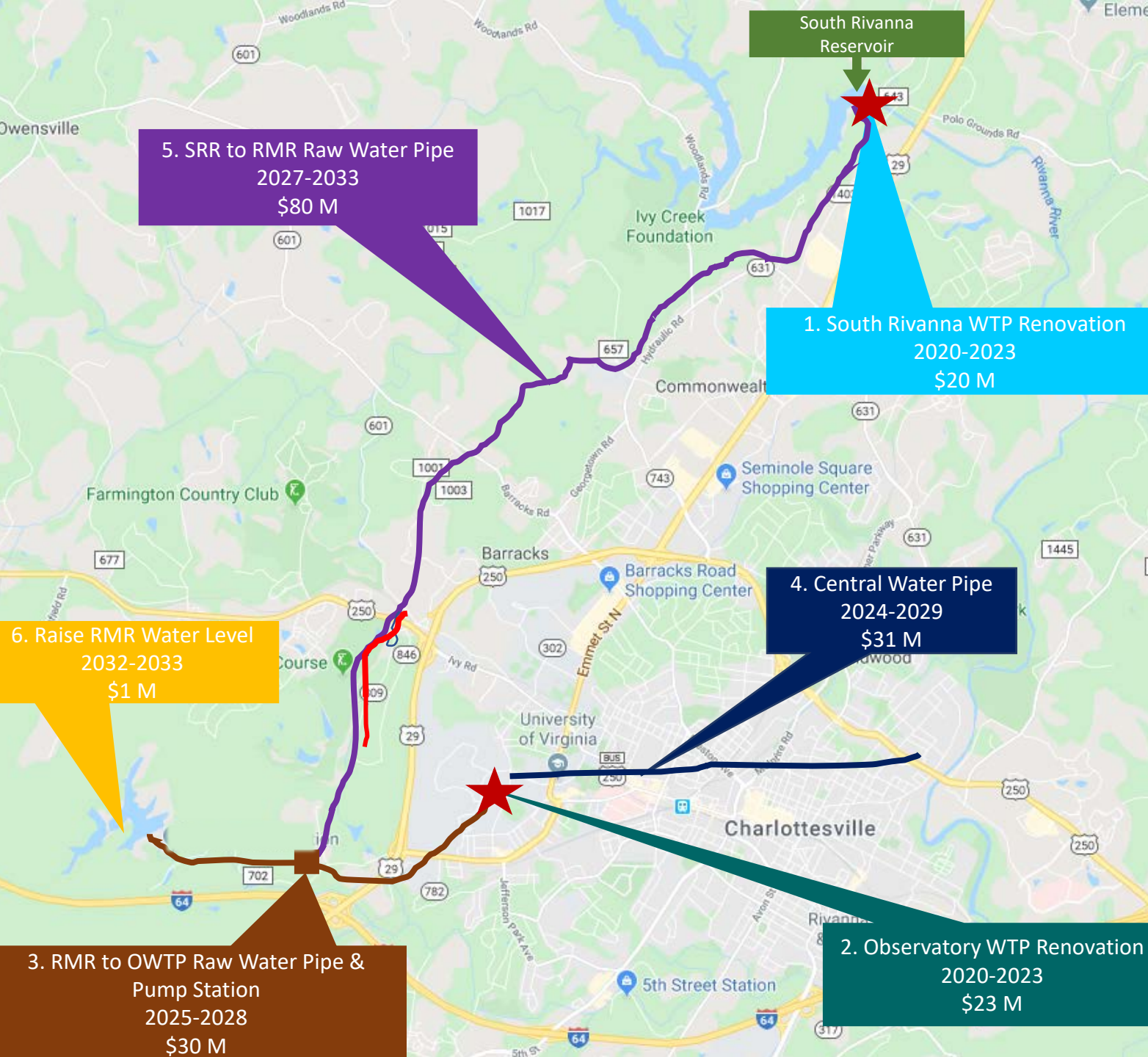
- **Regulatory: \$37 M**

- Beaver Creek Dam, Pump Station and Piping
- Crozet Flow Equalization Tank

- **Capacity: \$94 M**

- Upper Schenks Branch Interceptor
- Admin Building Renovation & Addition
- SRR to RMR Pipeline





# Community Water Supply Projects

(Jan 3, 2022)

1. SR WTP Renovation 2020-2023	\$20 M
2. OB WTP Renovation 2020-2023	\$23 M
3. RMR to OB WTP Raw Water Pipe & Pump Station 2025-2028	\$30 M
4. Central Water Line 2024-2029	\$31 M
5. SRR to RMR Raw Water Pipe 2027-2033	\$80 M
6. Raise RMR Water Level 2032-2033	\$1 M
\$185 M	



# 15 Year CIP Planning

---

- FY 23-27                      \$205.1 M
  - FY 28-32                      \$145.0 M
  - FY 33-37                      \$172.8 M
- \$522.9 M

# Summary FY 23 – 27 CIP

➤ 41 Projects, \$205.1 M

- Water
  - Urban: \$122.5 M
  - Non-Urban & Shared W & WW: \$38.2 M
- Wastewater
  - Urban: \$44.4 M
- Use of Cash Reserves: \$10 M
- New Debt: \$123 M
- RWSA Charge Increases (%):

FY	23	24	25	26	27
• City	6.8	7.2	7.4	7.4	8.3
• <u>ACSA</u>	9.5	8.1	8.7	9.2	9.9
◦ Combined	8.4	7.8	8.1	8.4	9.2
◦ ACSA w/ NRCS grant	8.3	7.1	7.8	8.5	9.3

## Notes:

1. RWSA will receive \$0.75 M in ARPA funding from Albemarle Co. for projects at Red Hill and Scottsville WTPs.
2. We are exploring additional federal and state grant opportunities.
  - Bipartisan Infrastructure Law
    - Applied for a \$21 M grant to remove emerging contaminants (PFAS) from drinking water (GAC)
  - FEMA State Homeland Security Program – Cyber and Physical Security Programs
    - Card access entrance gates with at Moores Creek; \$0.5 M, application in June
  - Building Resilient Infrastructure and Communities
    - Flooding of wastewater facilities at Moores Creek due to climate change and more intense storms, application in September

## Questions ?

## Action Requested:

Approve the FY 2023 – 2027 Capital Improvement Plan



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

434.977.2970  
434.293.8858  
[www.rivanna.org](http://www.rivanna.org)

## MEMORANDUM

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

**FROM: BILL MAWYER, EXECUTIVE DIRECTOR**

**SUBJECT: ADOPTION OF THE FISCAL YEAR 2022-2023 RATE SCHEDULE AND  
APPROVAL OF THE OPERATING BUDGET**

**DATE: MAY 24, 2022**

The proposed Fiscal Year 2022-2023 budget totaling \$41,851,000 was reviewed in detail with the Board during the March 2022 meeting, and will be briefly reviewed again today. The proposed budget includes \$22,152,000 for Operating expenses and \$19,699,000 for Debt Service charges, and represents a 7.45% increase above the current budget. The proposed budget includes resources required to manage our infrastructure, meet debt service obligations, comply with regulatory mandates, and invest in our workforce. Wholesale water and wastewater services will be provided to the City of Charlottesville and the Albemarle County Service Authority (ACSA) in a collaborative, effective, and fiscally responsible manner.

The proposed budget includes a \$1.6 million increase in Operating expenses primarily due to inflation-driven cost increases for biosolids transportation and disposal, wastewater odor and corrosion control, chemicals, and support for our workforce. Debt service costs will increase \$1,280,000 to support ongoing renovations to our water treatment plants (S. Rivanna and Observatory), as well as completion of the Crozet Flow Equalization Tank and the Beaver Creek Dam Improvements projects, both of which are required to meet regulatory standards for wastewater and dam safety, respectively. Charges to the City will increase 6.9%, and charges to the ACSA will increase 9.6% to support these essential services.

The Board will be asked at this meeting to conduct a public hearing before adopting the Fiscal Year 2022-2023 water and wastewater wholesale Rate Schedule, followed by approval of the Fiscal Year 2022-2023 Operating Budget. The attached Public Notice showing the proposed wholesale rates was advertised in the Daily Progress on April 11 and April 18, 2022, as required by Virginia law. The Board's final actions on the budget will be requested after the public hearing.

**Board Action Requested:**

Adopt the attached Rate Schedule with any revisions after conducting a Public Hearing, and approve the Fiscal Year 2022-2023 Operating Budget.

Attachments



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

434.977.2970  
434.293.8858  
www.rivanna.org

**RESOLUTION  
TO ADOPT THE RATE SCHEDULE  
FOR FISCAL YEAR 2022-2023, EFFECTIVE JULY 1, 2022  
BY THE RIVANNA WATER AND SEWER AUTHORITY**

**WHEREAS**, the Rivanna Water and Sewer Authority (the “Authority”) Board of Directors has reviewed the proposed Rate Schedule for Fiscal Year 2022-2023; and

**WHEREAS**, the Authority conducted a public hearing for the proposed Rate Schedule on May 24, 2022 after advertising the actual date fixed for the public hearing in the Daily Progress on April 11, 2022 and April 18, 2022, and

**NOW, THEREFORE, BE IT RESOLVED** that the Rivanna Water and Sewer Authority hereby adopts the Rate Schedule for Fiscal Year 2022-2023, to be effective on July 1, 2022.

**RATE SCHEDULE**

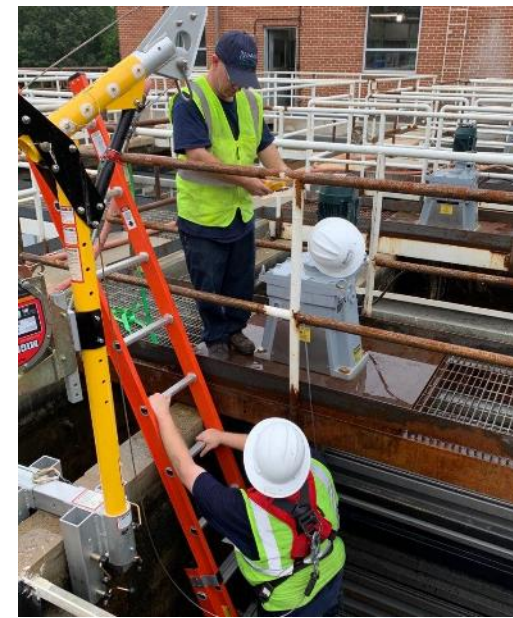
<b>URBAN RATE CENTERS</b>			<b>FY 2022</b>	<b>FY 2023</b>	<b>\$ Change</b>	<b>% Change</b>
<u>Operating Rates</u> (\$ per 1,000 Gallons)						
	Operations	Water	\$ 2,346	\$ 2,653	\$ 0.307	13.09%
	Operations	Wastewater	2,517	2,664	0.147	5.84%
<u>Debt Service Charges</u> (\$ Monthly Charge)						
<u>Water</u>						
	Debt Service	CITY	\$ 246,188	\$ 271,527	\$ 25,339	10.29%
	Debt Service	ACSA	388,956	420,325	31,369	8.06%
<u>Wastewater</u>						
	Debt Service	CITY *	\$ 376,036	\$ 384,637	\$ 8,601	2.29%
	Debt Service	ACSA *	337,983	355,205	17,222	5.10%
<b>OTHER RATE CENTERS (Monthly)</b>			<b>FY 2022</b>	<b>FY 2023</b>	<b>\$ Change</b>	<b>% Change</b>
<u>Crozet Water</u>						
	Operations		\$ 88,238	\$ 99,757	\$ 11,519	13.05%
	Debt Service		153,986	180,142	26,156	16.99%
<u>Scottsville Water</u>						
	Operations		\$ 42,892	\$ 47,463	\$ 4,571	10.66%
	Debt Service		11,574	12,525	951	8.22%
	<b>Water Total</b>		<b>\$ 296,690</b>	<b>\$ 339,887</b>	<b>\$ 43,197</b>	<b>14.56%</b>
<u>Glenmore Wastewater</u>						
	Operations		\$ 33,669	\$ 36,970	\$ 3,301	9.80%
	Debt Service		618	1,707	1,089	176.21%
<u>Scottsville Wastewater</u>						
	Operations		\$ 27,189	\$ 29,635	\$ 2,446	9.00%
	Debt Service		824	843	19	2.31%
	<b>Wastewater Total</b>		<b>\$ 62,300</b>	<b>\$ 69,155</b>	<b>\$ 6,855</b>	<b>11.00%</b>
<b>Total Monthly Other Rate Center Charges - ACSA</b>			<b>\$ 358,990</b>	<b>\$ 409,042</b>	<b>\$ 50,052</b>	<b>13.94%</b>

The Rivanna Water & Sewer Authority (Rivanna) was created by the City of Charlottesville (City) and the County of Albemarle to supply and treat water for drinking and to provide wastewater treatment. The above fees represent Rivanna's fees and charges to the City and the Albemarle County Service Authority (ACSA) for these services and are not the same as the City and ACSA charges to individual residents and businesses. Debt Service covers capital related project costs and are different for the City and ACSA reflecting terms of contractual agreements.

The City and the ACSA distribute drinking water and collect wastewater from individual residents and businesses and charge retail rates that combine charges from the above schedule to reflect their service costs, including Rivanna's costs.

Information about the budget may be obtained on the Rivanna website at [www.rivanna.org](http://www.rivanna.org). Please call 977-2970 ext. 0 or send e-mail to [info@rivanna.org](mailto:info@rivanna.org) with any questions you may have.

# Proposed Operating Budget Fiscal Year 2022 - 2023



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PRESENTED TO THE BOARD OF DIRECTORS  
BY BILL MAWYER, EXECUTIVE DIRECTOR  
MAY 24, 2022



# Strategic Plan Goals

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## OPERATIONAL OPTIMIZATION

To efficiently, reliably, and safely provide high quality services, assuring the best value for our customers



## ENVIRONMENTAL STEWARDSHIP

To be a leader in our community's environmental protection and education



## WORKFORCE DEVELOPMENT

To attract, develop, and retain a professional, highly skilled, dedicated, and versatile team



## COMMUNICATION AND COLLABORATION

To foster a culture that encourages open communications and strengthens partnerships



## INFRASTRUCTURE AND MASTER PLANNING

To plan, deliver, and maintain dependable infrastructure in a financially responsible manner



# Operating Budget Summary

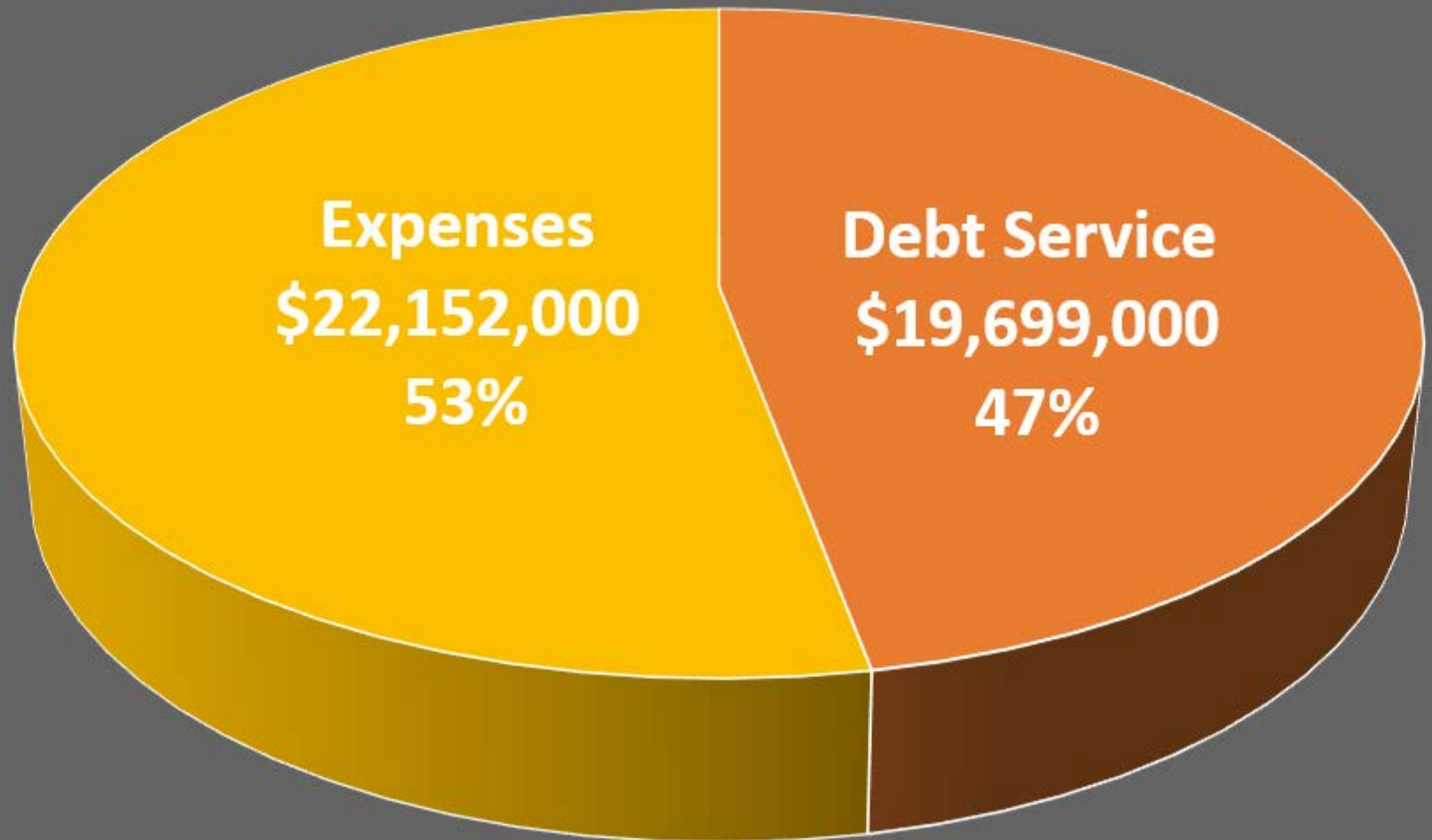
## Fiscal Year 2022 – 2023

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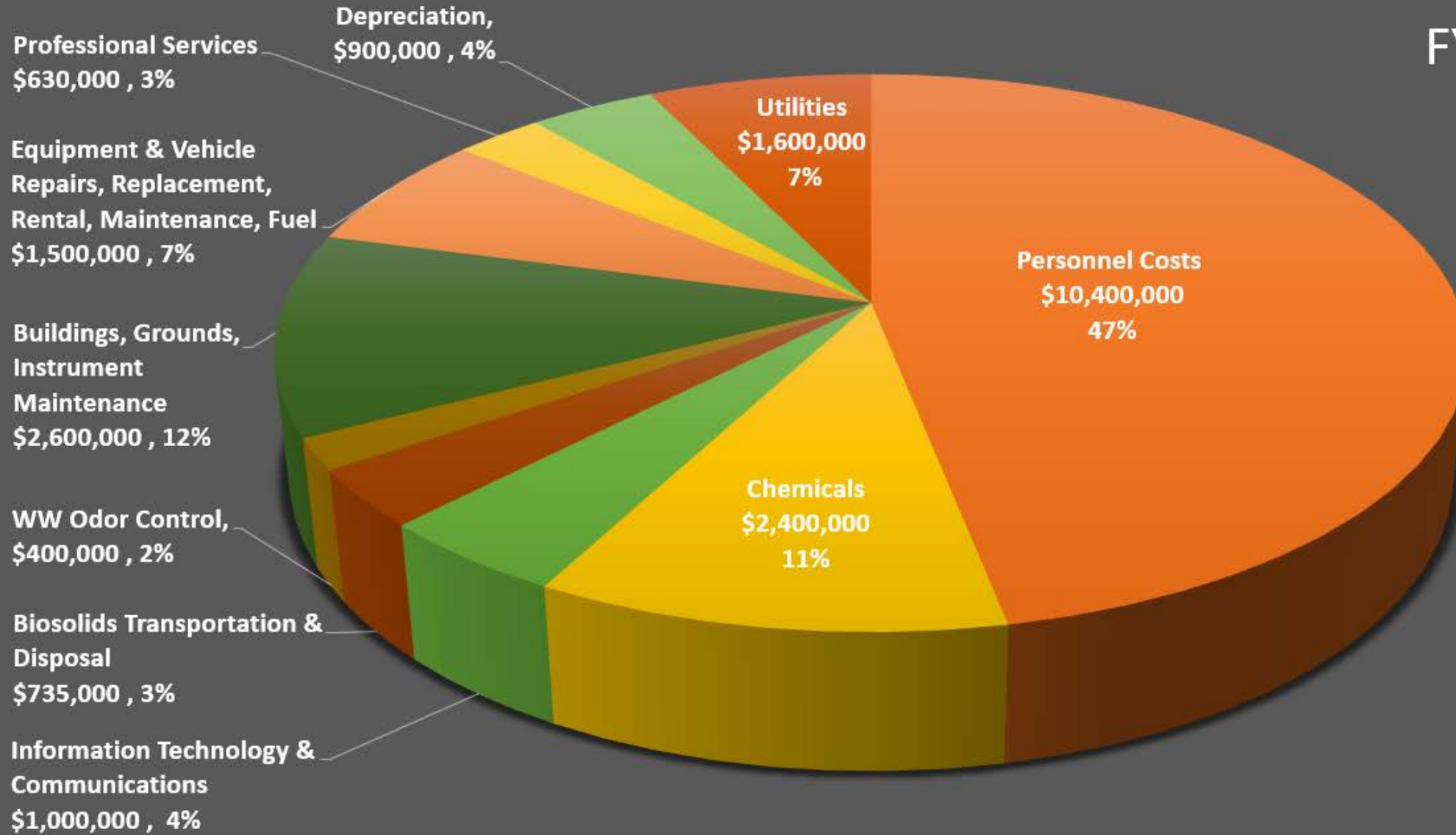
➤ Total Budget	\$41.8 m	\$2.9 m increase = 7.4%
1. Debt Service	\$19.7 m	\$1.3 m increase = 6.9%
2. Expenses	\$22.1 m	\$1.6 m increase = 7.8%
3. Use of Reserves	\$0.15 m	GAC support (last year for this)
➤ City Charges	\$16.5 m	\$1 m increase = 6.9%
➤ ACSA Charges	\$23.6 m	\$2 m increase = 9.6%

Fiscal Year 2022 – 2023  
Operating Budget

\$41.8 M



# FY 2022 –2023 Expenses \$22.1 M



# Major Projects in Fiscal Year 2022- 2023

- Water Treatment Plant Renovations\*
  - S. Rivanna and Observatory
- Airport Rd Water Pump Station Construction\*\*
- Birdwood to Old Garth RWL Construction\*\*\*
- Beaver Creek Dam, Pump Station and Piping Design\*\*
- Central Water Line Design \*
- Climate Change Considerations

\* 52% ACSA/48% City; \*\*100% ACSA allocation; \*\*\* 80% ACSA/20% City allocation





# *Expenses*

## *Investment and Inflation*

<u>Workforce:</u>	<u>\$830 k</u>	<u>Operations:</u>	<u>\$835 k</u>	<u>%</u>
• Merit Pool for Staff (4%)	\$255 k	• Chemicals	\$295 k	14
○ FY 22 mid-year COLA	\$385 k	• Biosolids Transp. & Disposal	\$165 k	27
• VRS, Taxes, Life Insurance	\$130 k	• WW Odor and Corrosion Control	\$45 k	13
• Health Insurance	\$60 k	• Technology	\$285 k	82
		<i>SCADA, Security, Asset Mgmt, Licenses, Support</i>		
• Additional Positions (none)	\$0	• Aeration Equip. Svcs. & CDL Training	\$90 k	New
		• Equipment Rental	<\$45>	

# Financial Forecast

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•RWSA Charge Increase (%):	<u>FY</u>	<u>23</u>	<u>24</u>	<u>25</u>	<u>26</u>	<u>27</u>
• City		6.9	7.2	7.4	7.4	8.3
• ACSA		9.6	8.1	8.7	9.2	9.9
•FY 23 Operating Budget		\$41.8 m				
•FY 23 Capital Budget		\$25.8 m				
•FY 23-27 CIP		\$250.1 m				
•New CIP Debt Anticipated		\$123 m				

# Budget Summary

Fiscal Year 2022 – 2023

---

➤ **Total Budget**                      \$41.8 m, \$2.9 m increase = 7.4%

1. Debt Service	\$19.7 m	\$1.3 m increase = 6.9%
2. Expenses	\$22.1 m	\$1.6 m increase = 7.8%
3. Use of Reserves	\$0.15 m	GAC support (last year for this)

➤ **City Charges**                      \$16.5 m, \$1 m increase = 6.9%

➤ **ACSA Charges**                      \$23.6 m, \$2 m increase = 9.6%

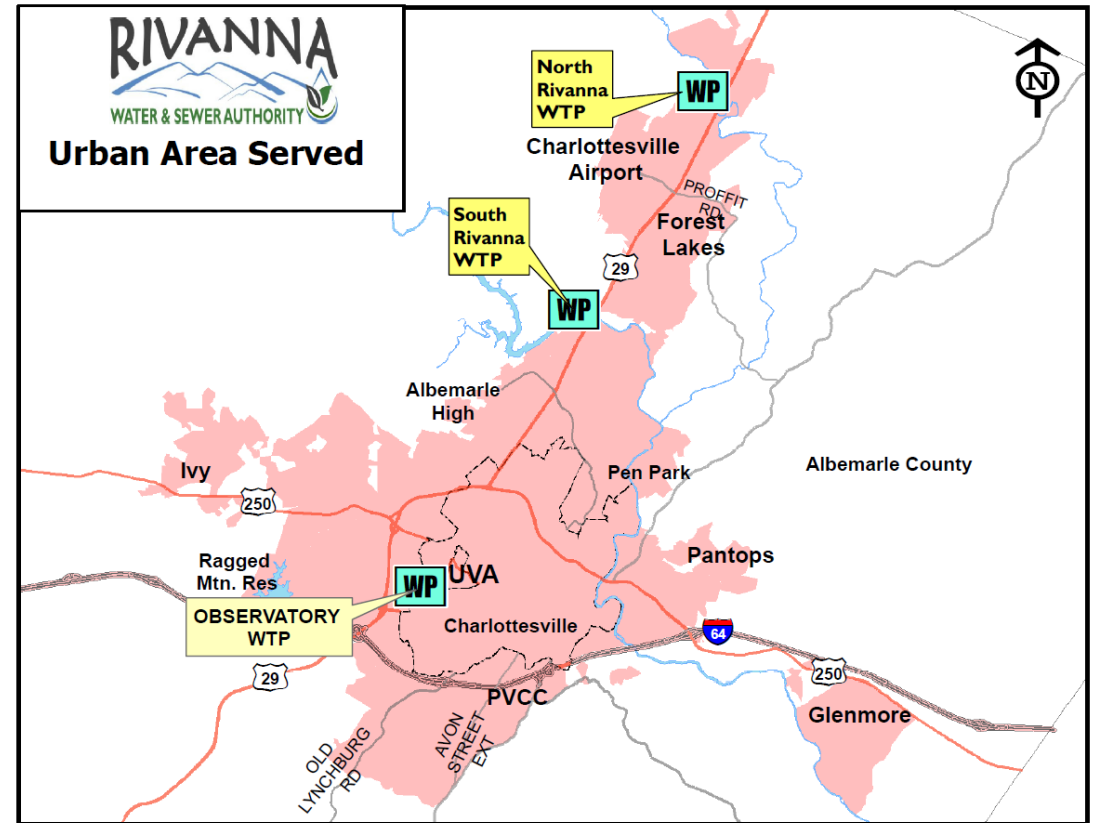
# Questions?

## Actions to be Considered by the Board:

1. Conduct a Public Hearing for the proposed Rate Schedule.
2. After considering any comments, approve the Fiscal Year 2022-2023 Rate Schedule and Operating Budget.



# Urban Finished Water Master Plan



*BOARD OF DIRECTORS MEETING*

*PRESENTED BY: MICHELLE SIMPSON, P.E. , RWSA SR. CIVIL ENGINEER*

*MAY 24, 2022*



# Strategic Plan Goal



- “Infrastructure and Master Planning”
  - “To plan, deliver, and maintain dependable infrastructure in a financially responsible manner.”

# UFWMP Goals:

- Identify improvements required to enhance water system efficiency, provide capacity to meet future demands, and increase operational flexibility
- Prepare schedule and cost estimates for completion of piping, pumping, and storage improvements



Stillhouse PS



Avon Street Tank

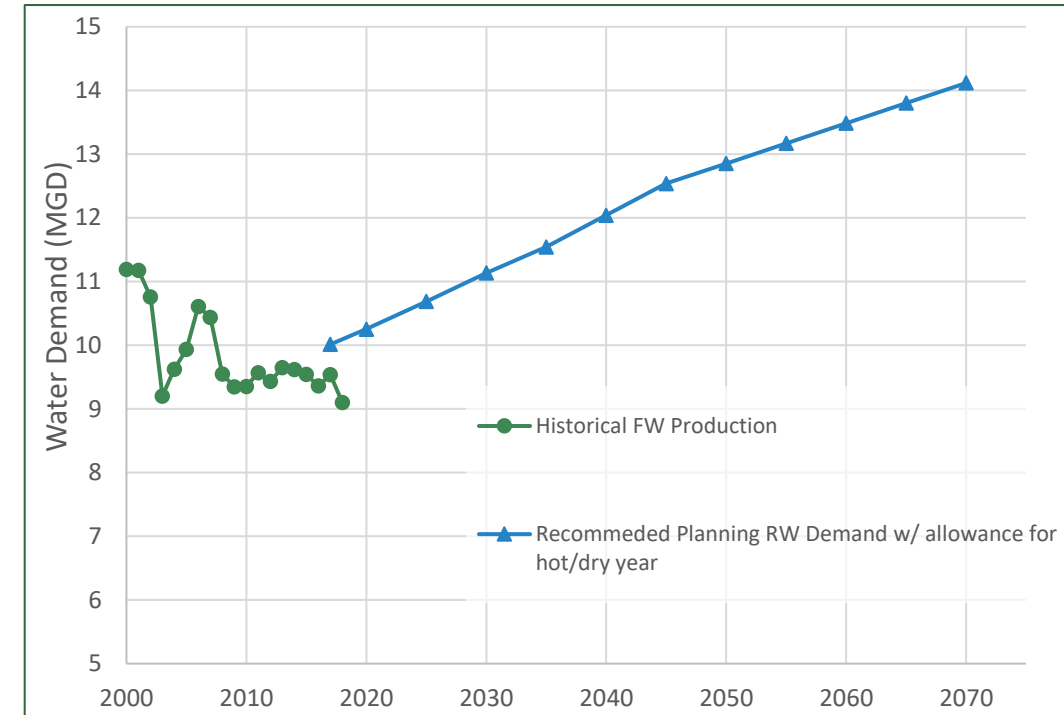


N. Rivanna Water Main Break at Camelot Dr.

# Water System Analysis:

- Baker updated and validated our hydraulic model from 2012
- System was modeled at various planning timeframes using water demand projections:
  - Existing Conditions (2020)
  - 10-year projection (2030)
  - 25-year projection (2045)
  - 50-year projection (2070)
- Needs were evaluated under various operational scenarios:
  - Maximum day demand
  - Imbalanced production at the water treatment plants
  - Water tank or transmission main out-of-service
  - Drought conditions
  - Fire flow

2020 Urban Water Demand Projections



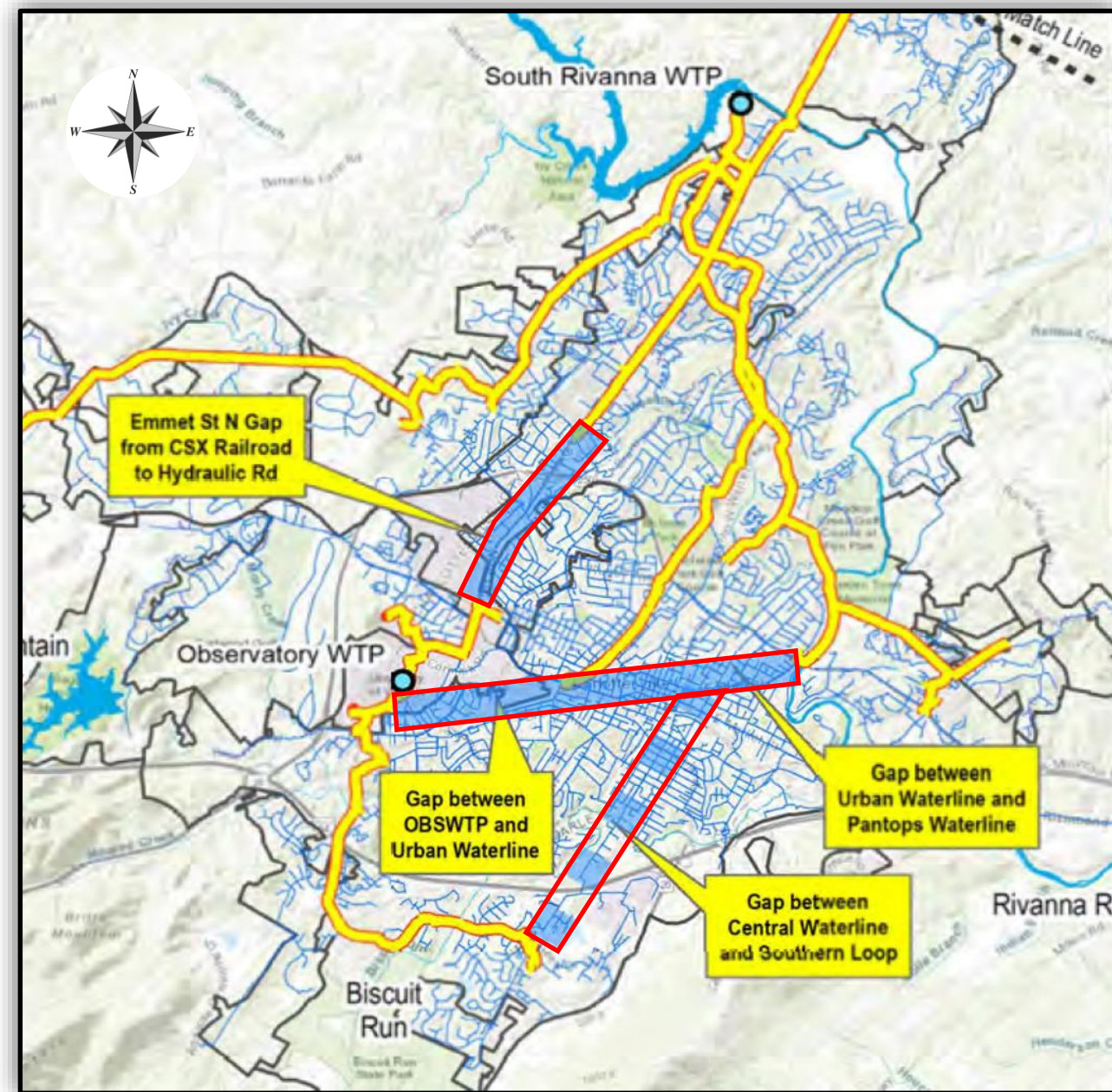


# Distribution System Results:

## *Conveyance Improvements*

**Results:** Gaps in the current transmission system indicated a lack of hydraulic connectivity across the Urban Service Area.

**Goals:** Address operational and hydraulic inefficiencies in moving water across transmission system and improving system flexibility.

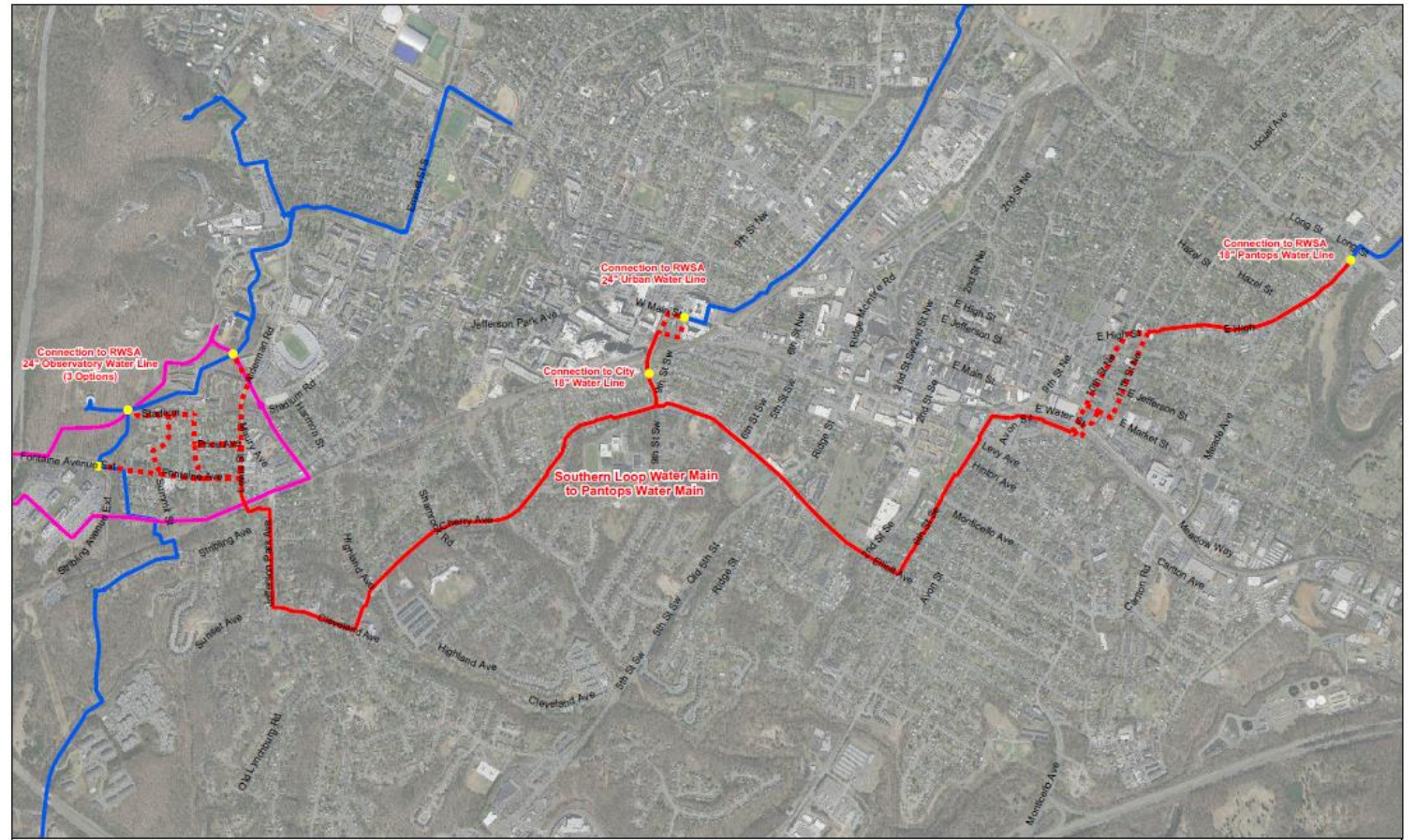




# Central Waterline

- 5 miles of 24" – 30" transmission main
- Incorporates replacement of City's East High Street main into plans

**Timeline: by 2030 (2028)**  
**Est. Cost: \$31 M**



## Key Project Benefits:

- Significantly improves hydraulic connectivity between OBWTP, Observatory Tank, Avon Street Tank, and Pantops area
- Mitigates hydraulic restrictions so the full 10 MGD capacity at OBWTP can be utilized



# Berkmar/Airport Road Waterline

- Phase 1: 3,800 LF 24" main from SRWTP to ARPS; 900 LF 16" main from ARPS to Timberwood Boulevard
- Phase 2: 800 LF of 16" main from ARPS to Airport Road when VDOT completes extension of Berkmar Drive

**Timeline (Ph 1):**  
**by 2025**

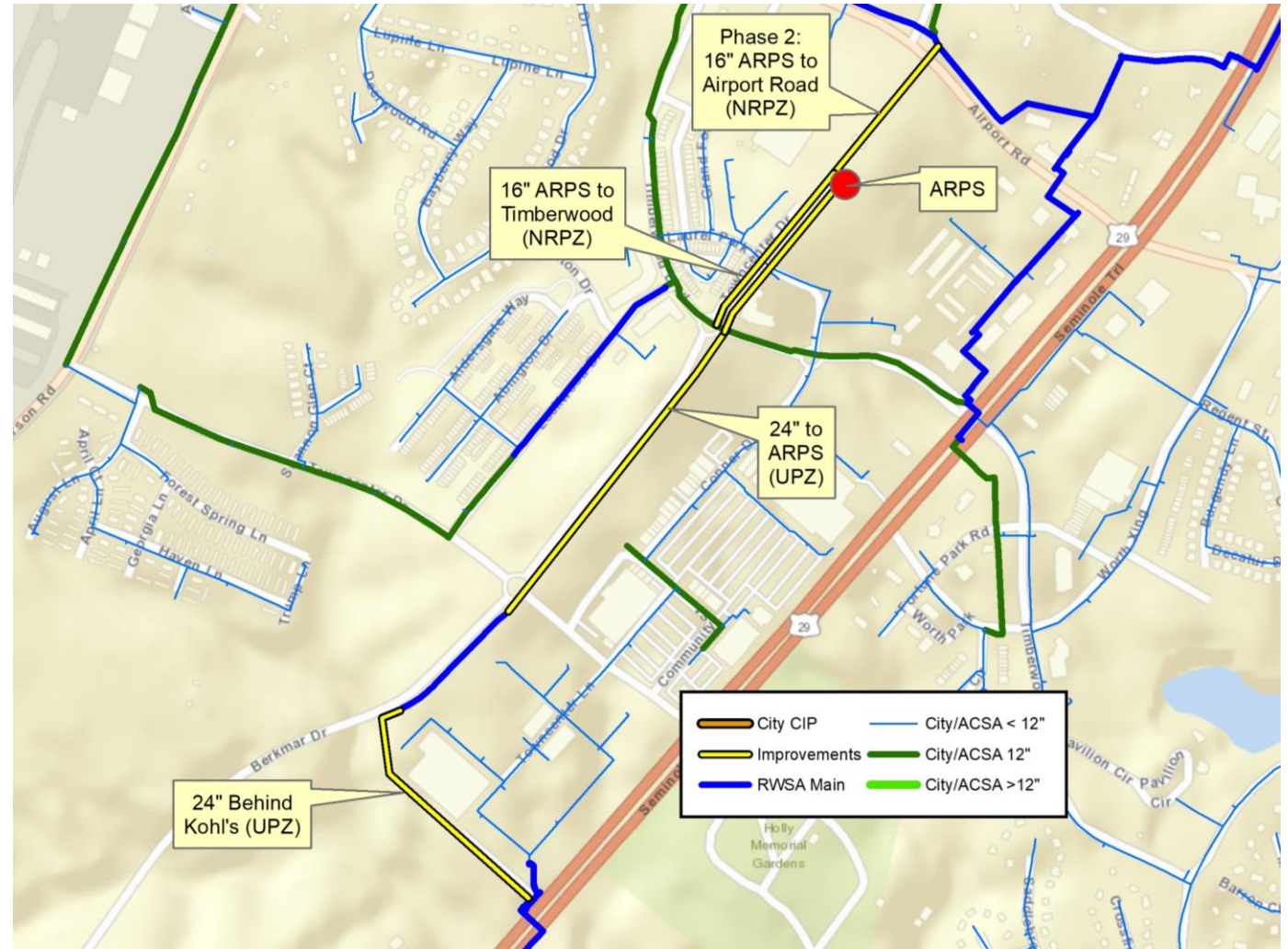
**Est. Cost: \$6 M**

**Timeline (Ph 2):**  
**by 2030**

**Est. Cost: \$1.4 M**

## **Key Project Benefits:**

- Provide dependable redundant supply to the North Rivanna Pressure Zone
- Provide reliable service to the NRPZ once the NRWTP is retired





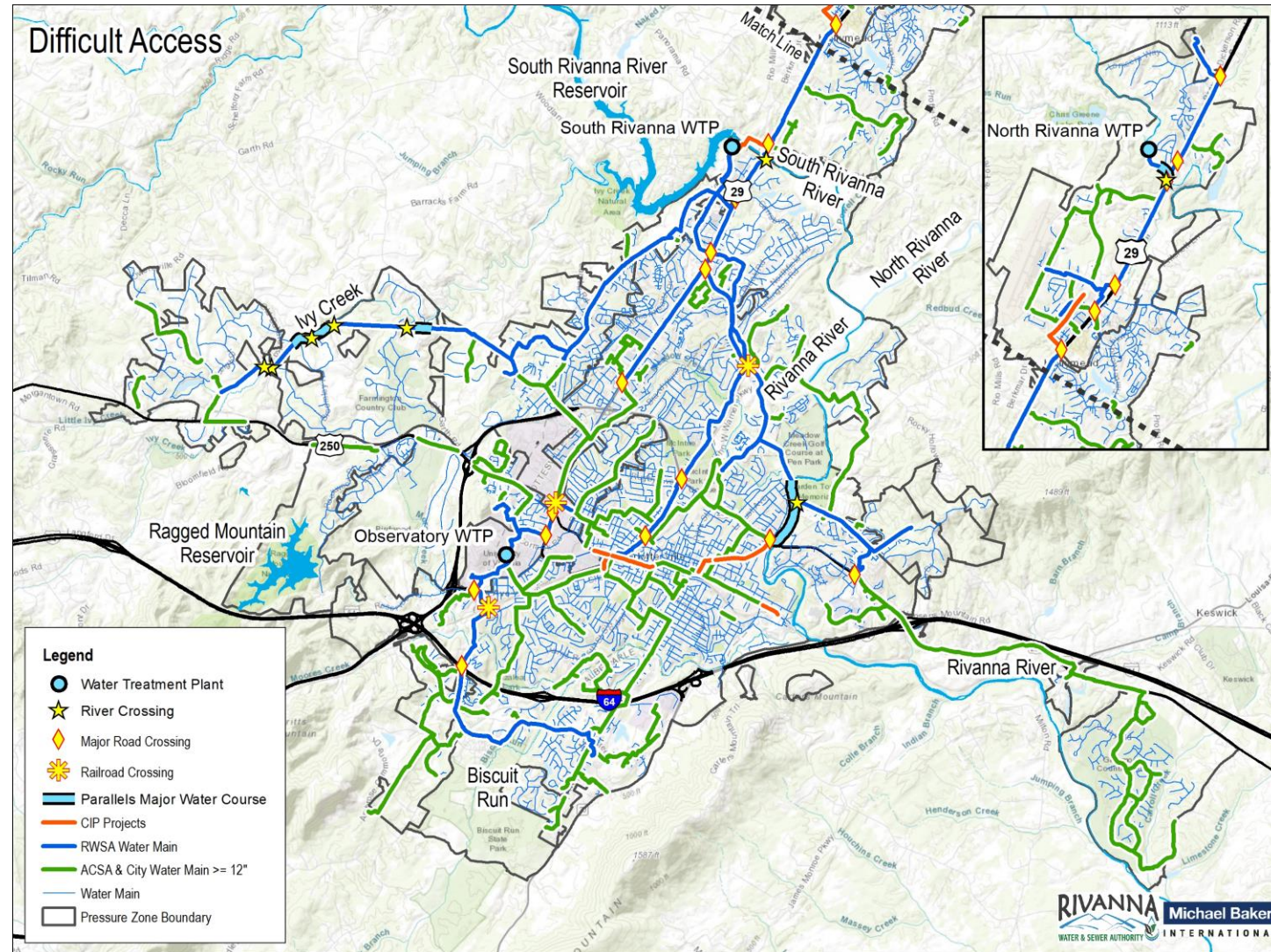
# Distribution System Results:

## *Reinforcement and Redundancy Improvements*

**Results:** Multiple vulnerable pipes:

- Railroad Crossings
- Highway/Major Roadway Crossings
- River Crossings
- Parallel to River
- High pressure mains

**Goals:** Address critical assets with difficult access and aging infrastructure to improve redundancy and resiliency





# Emmet St Waterline

- 14,000 feet of pipe to connect waterlines between SRWTP and OBWTP
- Coordinate with near-term UVA, VDOT, and City streetscape projects (phase as opportunities arise)
- Prioritize “gap” between Lambeth and Hydraulic Road – approx. 8,500 LF of 24”

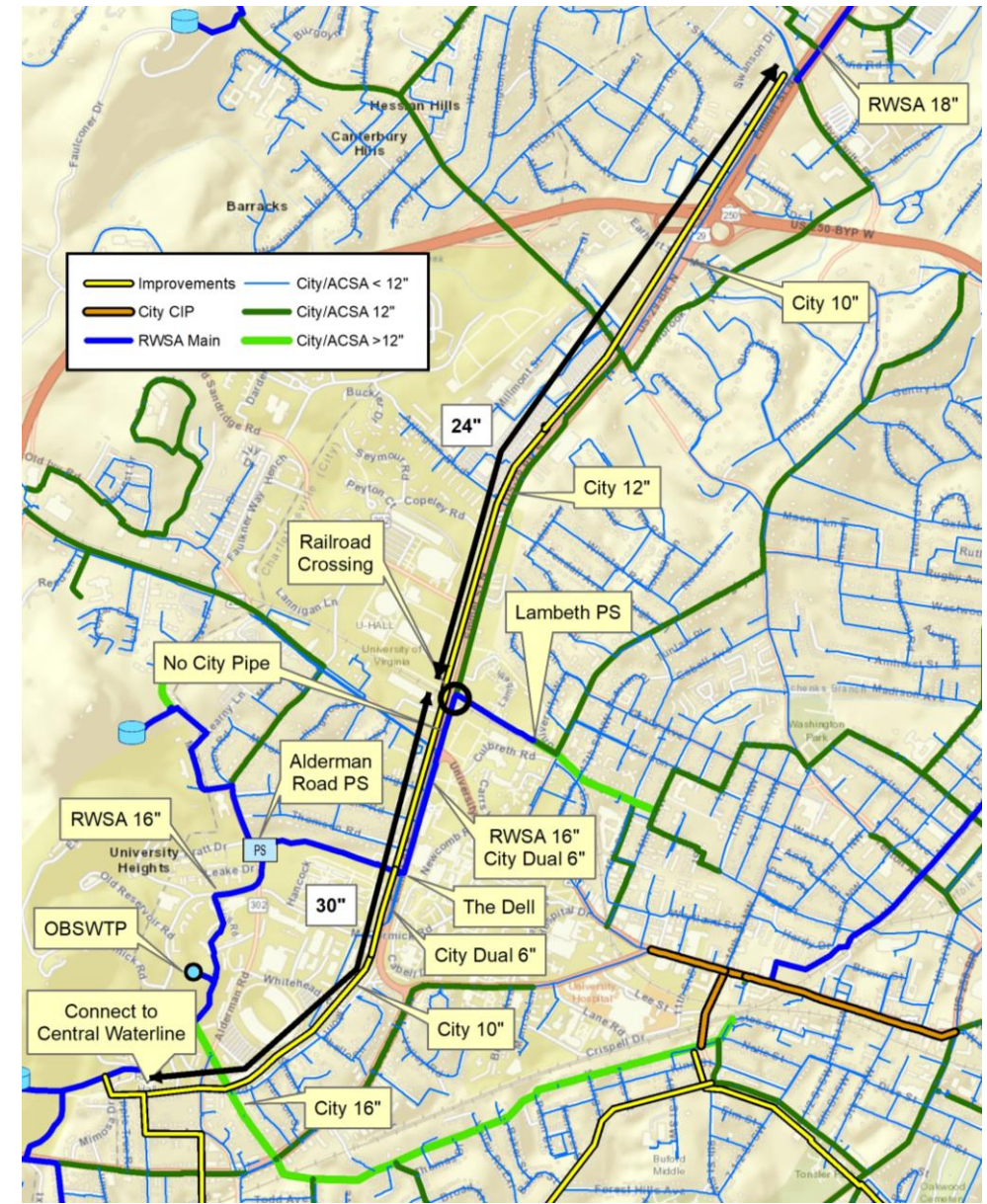
**Key Project Benefit:** Provide redundancy to Central Waterline and additional reliability between OBWTP and SRWTP

**Timeline: 24” “Gap”  
by 2030**

**Est. Cost: \$8.5 M**

**Timeline: 30” CWL  
connection by 2035**

**Est. Cost: \$9.5 M**



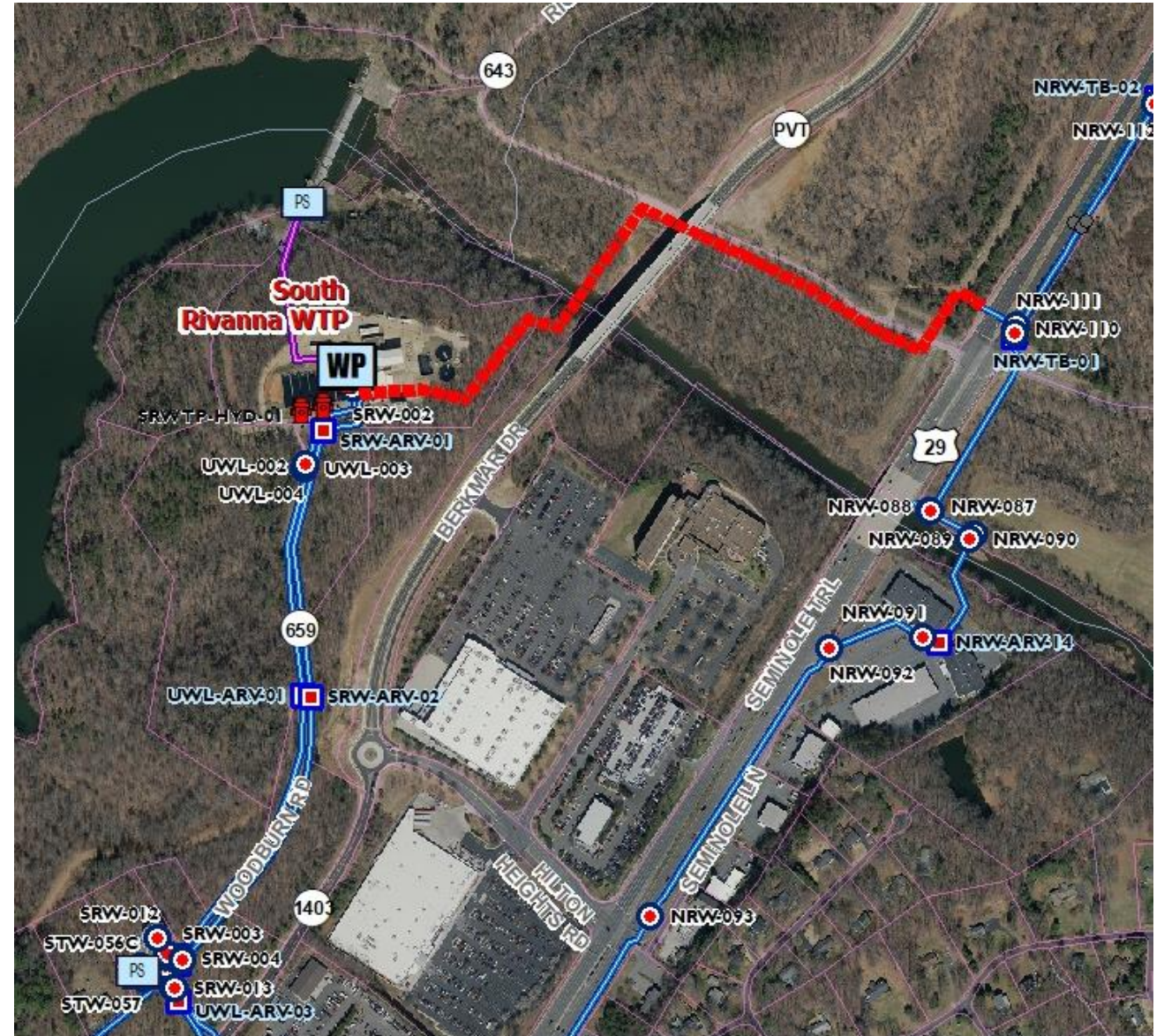


## Second South Rivanna River Crossing

- 2,500 LF of 24" water main and 150 LF river crossing
- currently under design

**Key Project Benefit:** Provides redundancy to existing 12" crossing and supports full capacity of Airport Road Pump Station

**Timeline: by 2025**  
**Est. Cost: \$5.8 M**

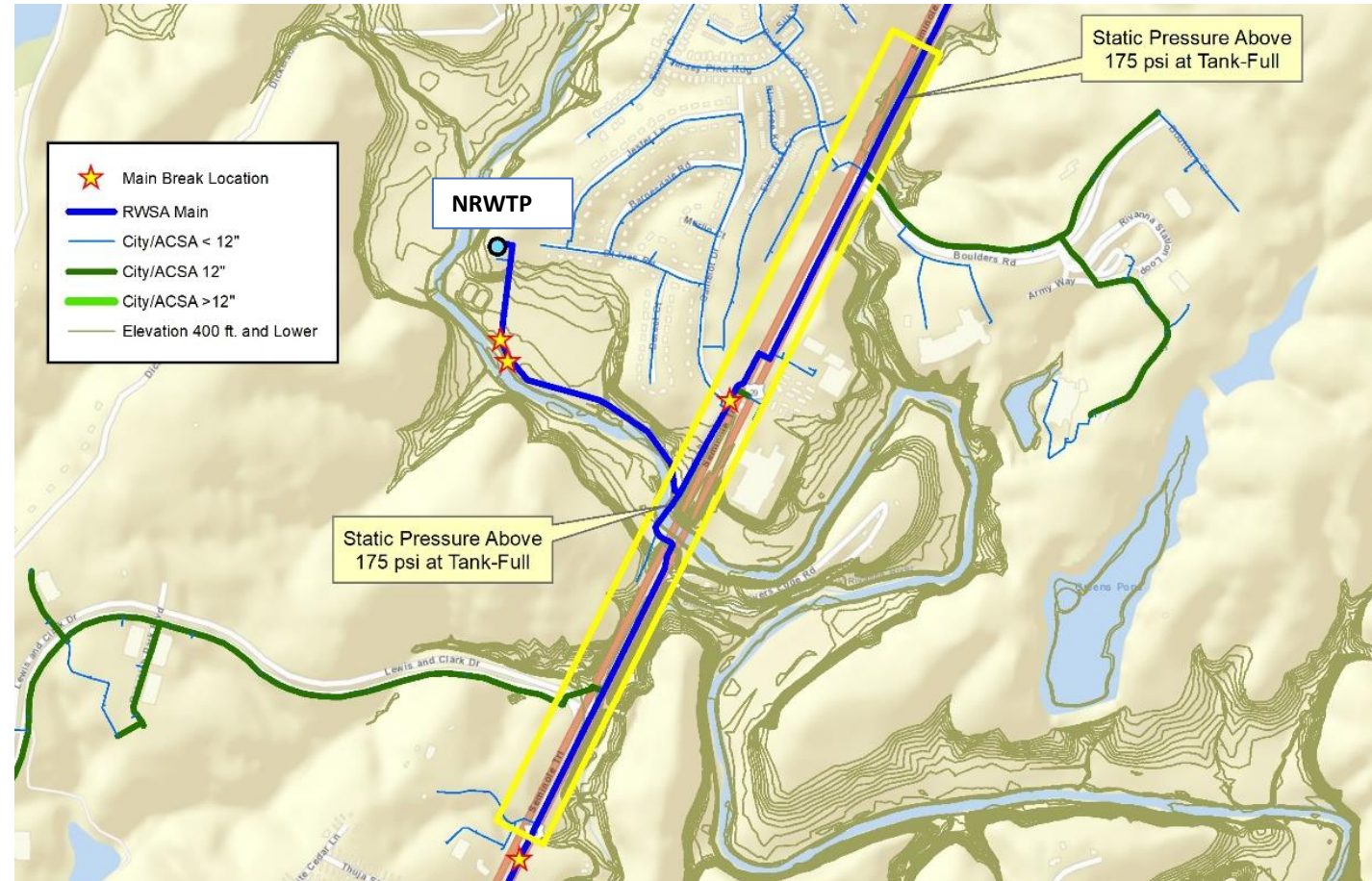




# Second North Rivanna River Waterline Crossing and Reinforcement

- Area has been impacted by multiple main breaks
- Upgrade low-elevation pipe at high pressure
- Replace 1 mile of 12" cast iron with 18" ductile iron pipe
- River Crossing: 600 LF of 12" ductile iron pipe

**Key Project Benefit:** Provides redundancy to existing 12" river crossing and reinforces the single feed to Piney Mt Tank



**WL Reinforcement:**  
**Timeline:** by 2030  
**Est. Cost:** \$4.3 M

**Second River Crossing:**  
**Timeline:** by 2030  
**Est. Cost:** \$1.2 M

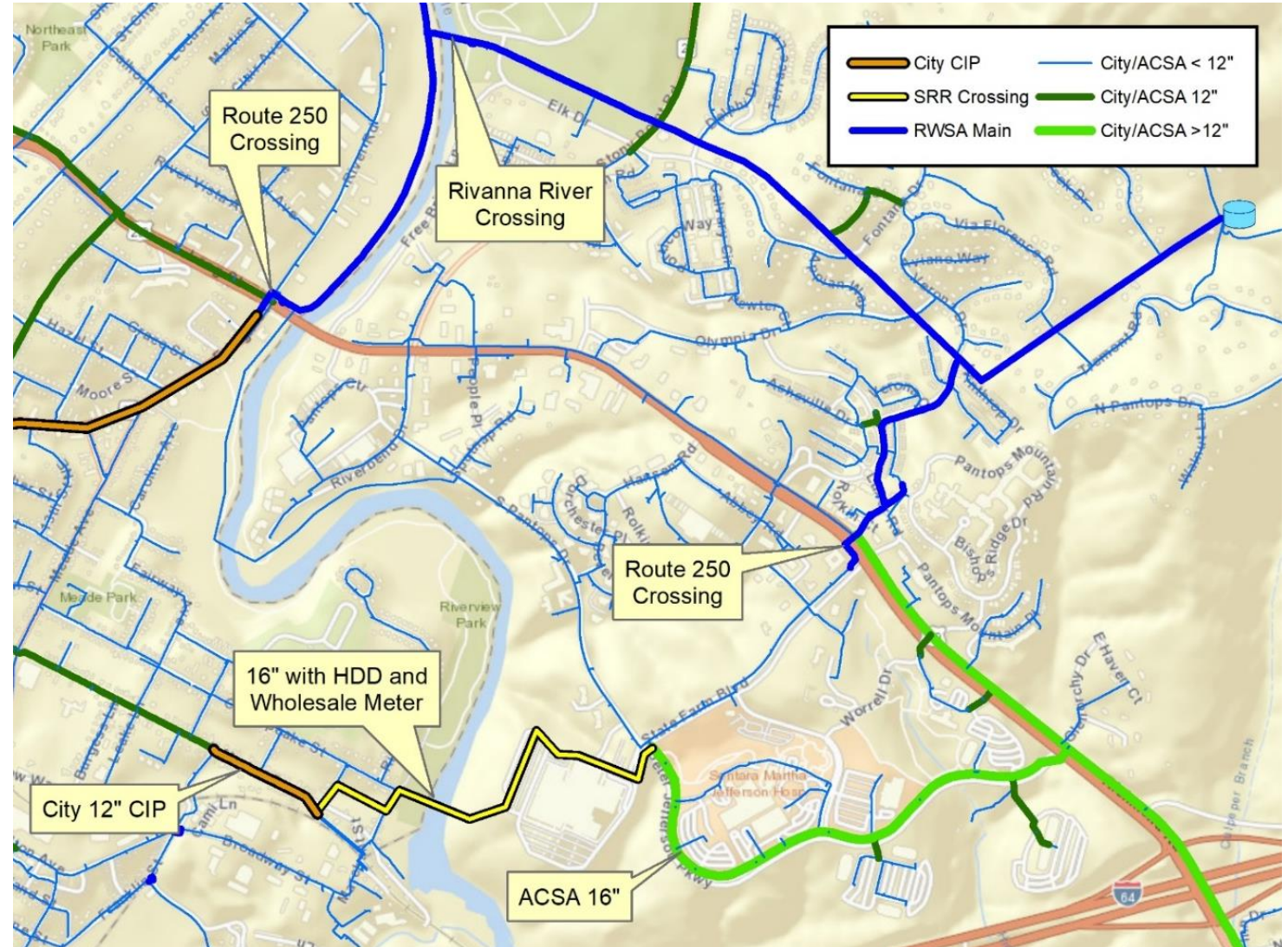


# Rivanna River Crossing (Pantops Area)

- 4,200 LF of 16" ductile iron pipe, and 200 LF of river crossing
- Interconnect future City and existing ACSA large-diameter mains
- Install wholesale meter

**Key Project Benefit:** Provides redundancy to existing RWSA 24" river crossing

**Timeline:** by 2045  
**Est. Cost:** \$4.8 M

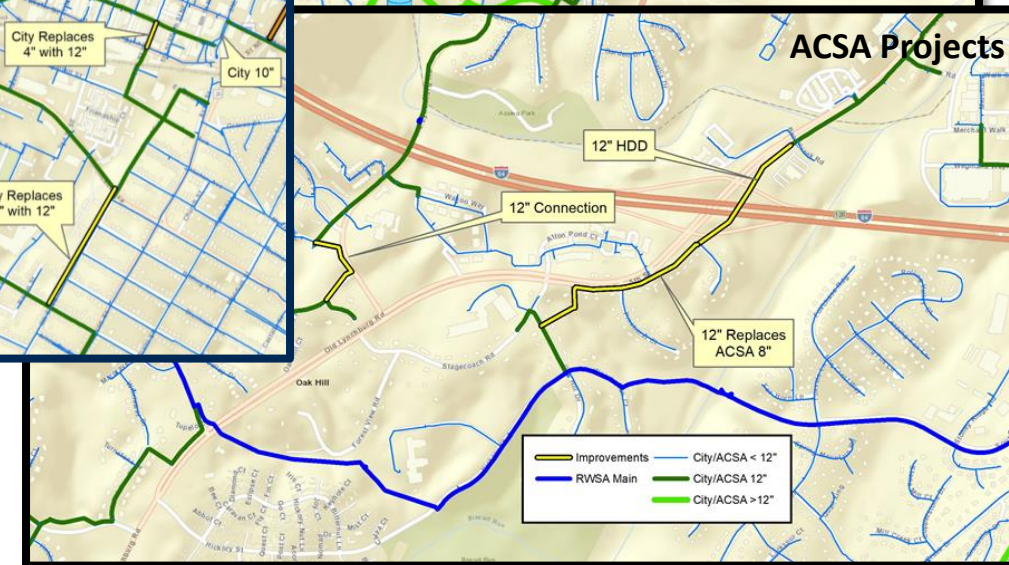
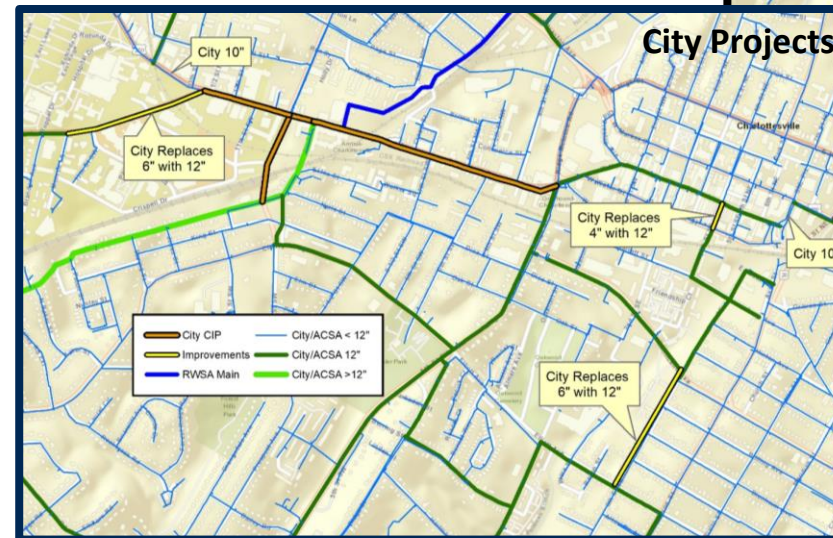
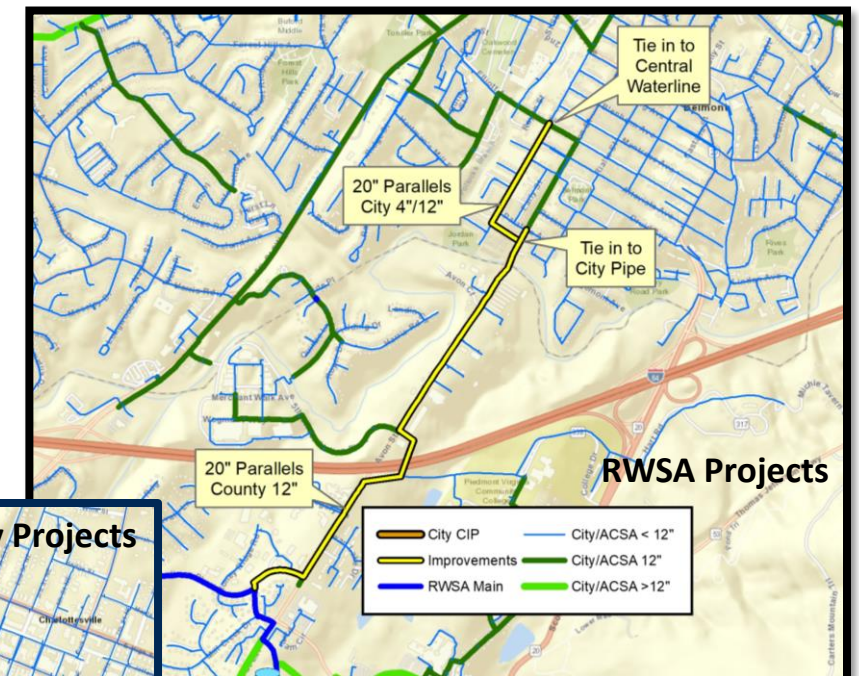




# Southern Loop & CWL Redundancy

- RWSA, ACSA, and City install larger pipes to close gaps and improve connectivity between Avon Street Tank and Central Waterline
- Construct segmentally as opportunities arise
- Redundancy to railroad and interstate crossings

**Key Project Benefit:** Provides redundancy to Central Waterline and improves connection to Avon Street Tank



**Timeline: by 2055**  
**Est. Cost: \$10.3 M**  
**(RWSA Projects)**

**Timeline: by 2070**  
**Est. Cost: \$3.9 M**  
**(ACSA Projects)**

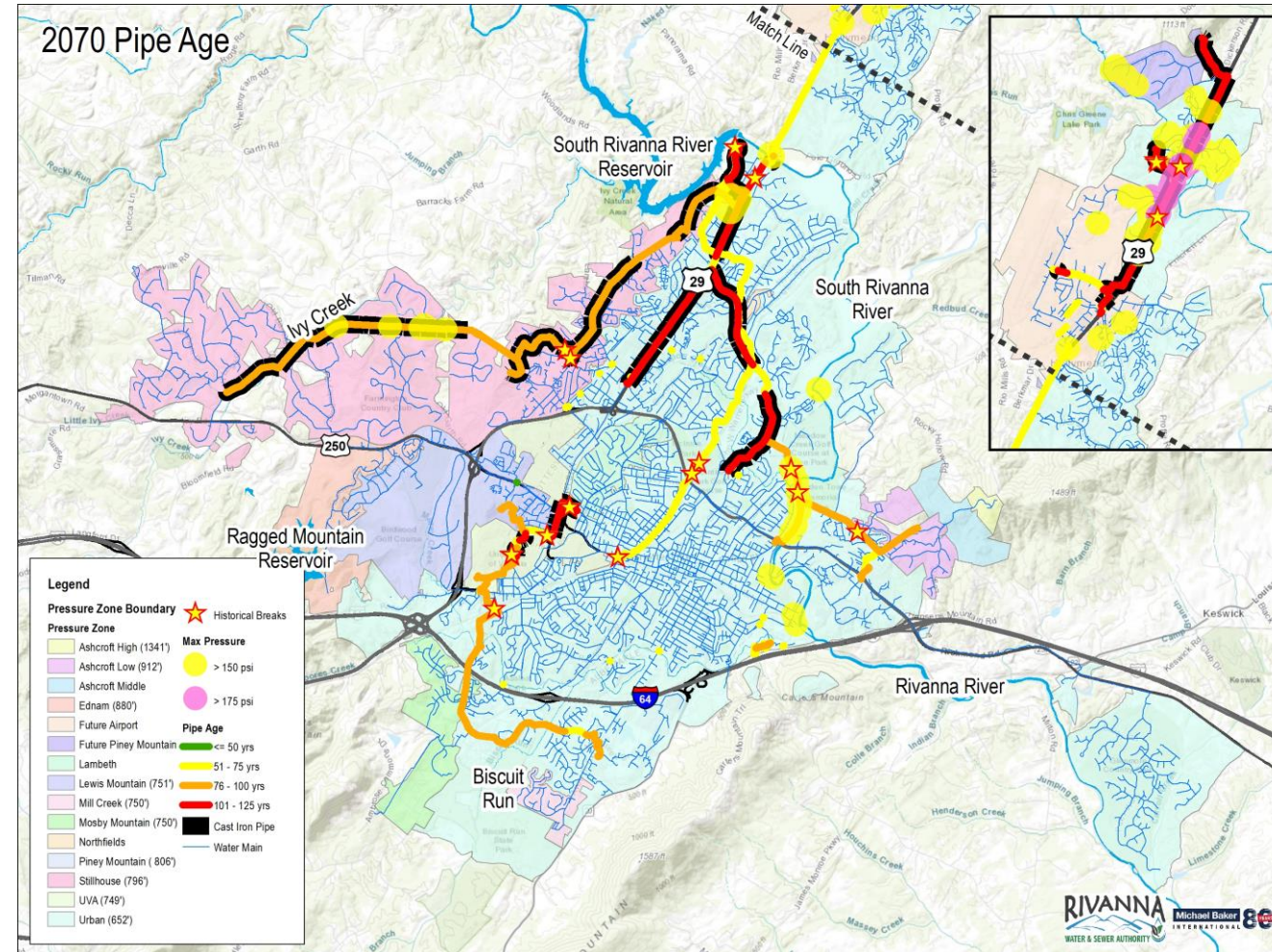
**Timeline: by 2070**  
**Est. Cost: \$2 M**  
**(City Projects)**



# Distribution System Results:

## *Replacement Improvements*

- **Goals:** Replace aging cast iron pipe based on condition assessments, frequent maintenance issues, or single main feeds
- Replacement sections (assume 100 years useful life):
  - **Observatory Waterline** (built 1949), 2,100 LF from OBWTP to Alderman Road PS, and Lambeth area: **\$1.9 M Cost, 2045-50**
  - **South Rivanna Waterline** (built 1963), 22,000 LF from SRWTP to Park Street via Rio Road East: **\$27.6 M Cost, 2055-60**
  - **South Rivanna Waterline** (built 1963), 9,000 LF along Seminole Trail between Rio and Hydraulic Road: **\$9.6 M Cost by 2070**
  - **North Rivanna Waterline** (built 1969), 15,200 LF along Seminole Trail: **\$10.6 M Project Cost, 2065-70**



## Distribution Improvement Benefits:

- Closes gaps across the Urban Service Area
- Addresses operational inefficiencies
- Improves system flexibility and redundancy
- Moves more water across the transmission system
- Enhances hydraulic connectivity





# Storage System Results:

**Results:** A large amount of storage is not usable

## Goals:

- Increase usable storage in existing system
- Add storage if needed to improve operations
- Increase water turnover and reduce water age





# Urban Zone Storage

- **Short term:**
  - Investigate ability to recover unusable storage by addressing high-elevation customers
- **Long term:**
  - Relocate Pantops Tank uphill when replaced
  - Install elevated tank when Avon Street Tank replaced
  - New tanks overflow at higher elevation to match Observatory Tank

**Est. Cost: \$9.0 M**  
**At end of useful life**  
**(assume 2070)**



# Stillhouse Tank

- Install second 50-ft. diameter tank 50 feet high (0.7 MG) on existing site
- Increase operating range while maintaining fire suppression storage

## **Key Project Benefits:**

- Reduce Stillhouse Pump Station cycling
- Redundancy to existing tank when a tank is off-line for maintenance

**Timeline: by 2030**  
**Est. Cost: \$2 M**





# Lewis Mountain Storage

- Second 0.5 MG tank on the same site
- Increase operating range while maintaining fire suppression storage

## **Key Project Benefits:**

- Reduce Alderman Road Pump Station cycling
- Redundancy to existing tank when tank is off-line for maintenance

**Timeline: by 2030**

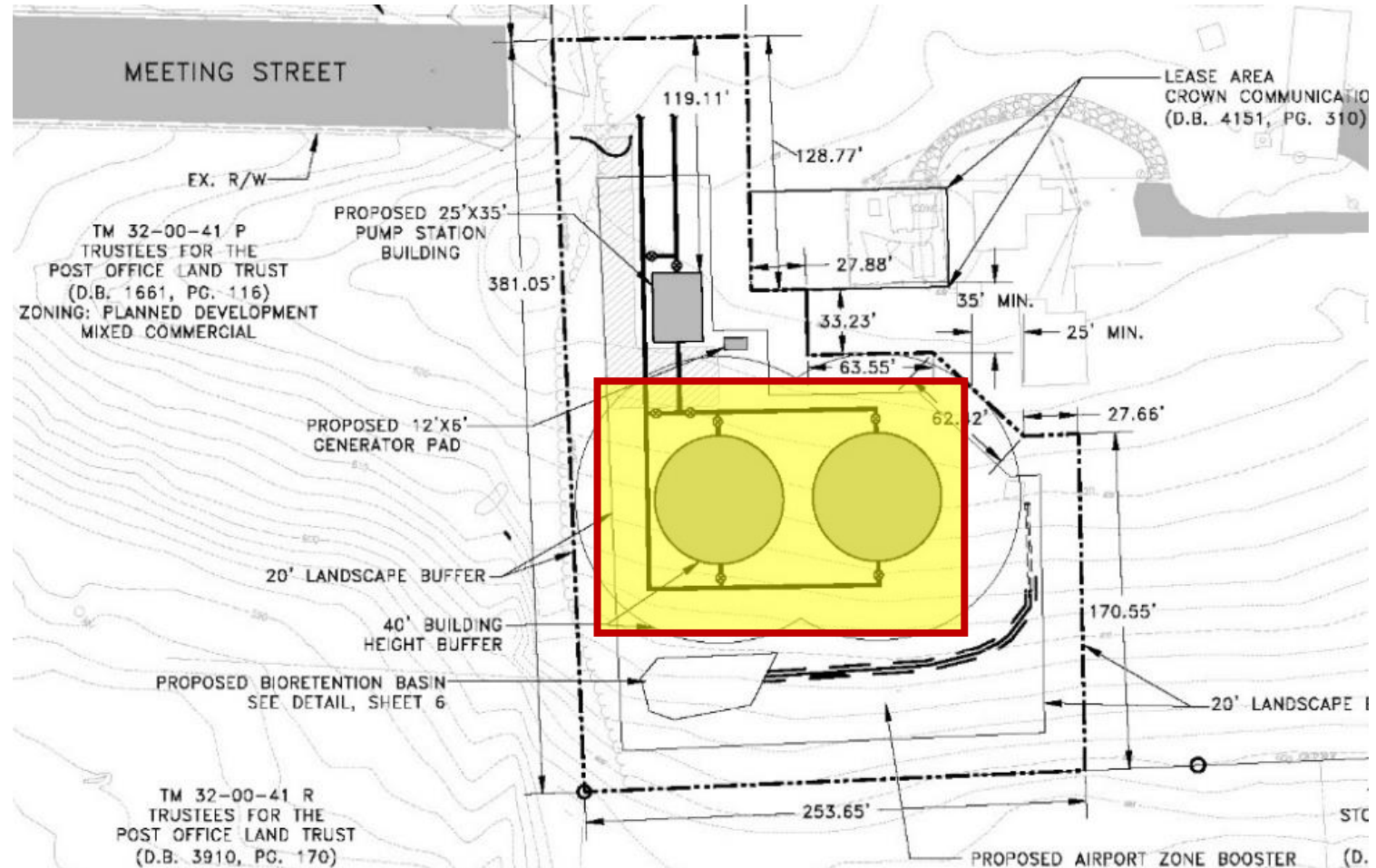
**Est. Cost: \$0.9 M**



# Airport Road Storage

- Two 1 MG ground storage tanks at the ARPS site, if/when needed
- Re-evaluate at each master plan update cycle
- Phase installation as demand increases

**Timeline: by 2070**  
**Est. Cost: \$1.4 M**





# Pump Station Results:

**Results:** Existing pump stations are adequately sized and only one new pump station is needed thru 2070

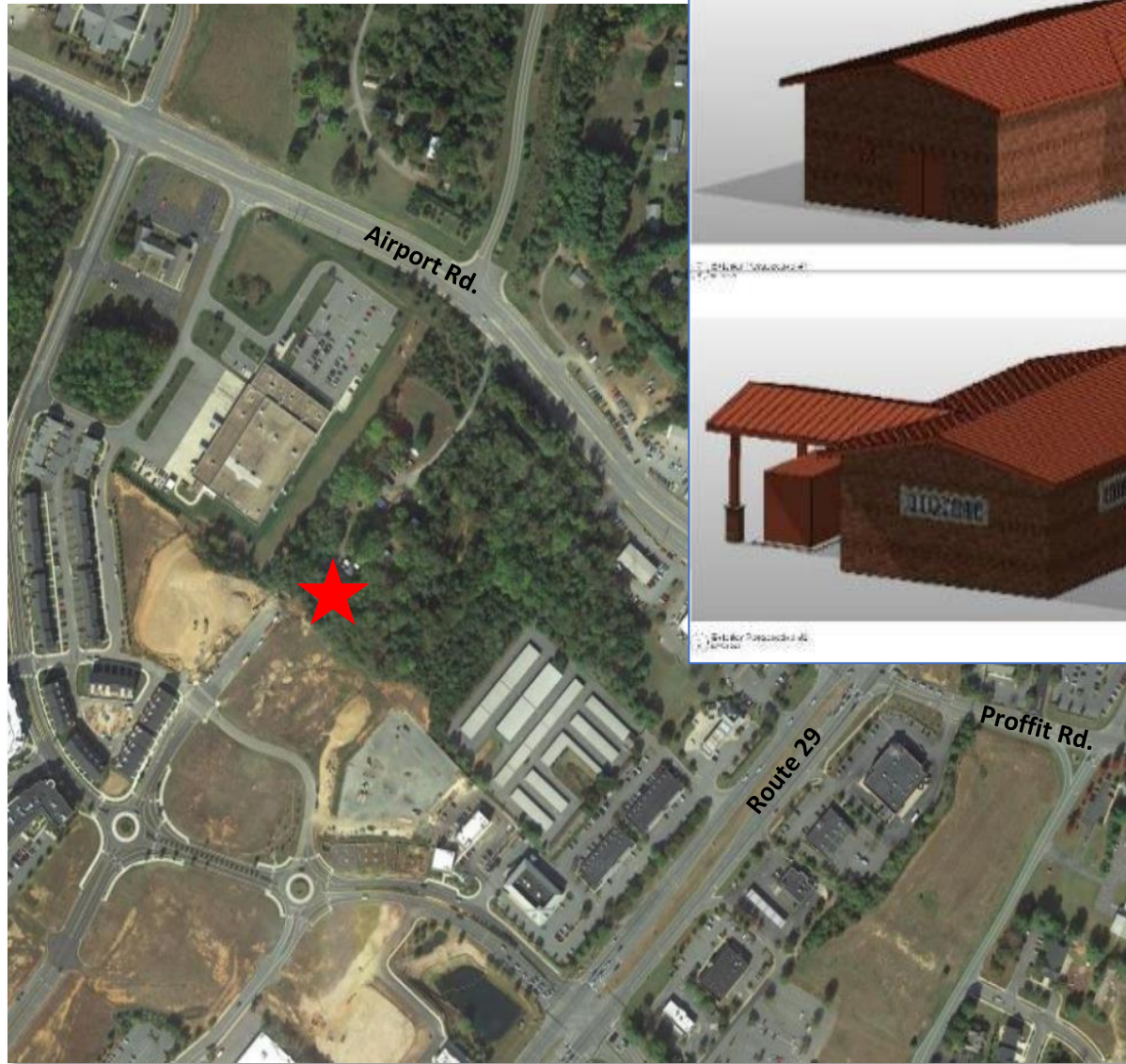
## Airport Road Pump Station

- 1.5 MGD VFD pumps maintain discharge pressure
- Supports North Zone to refill Piney Mtn. Tank and for fire flow events

### **Key Project Benefit:**

- Provides redundancy to NRWTP
- Replaces NRWTP when decommissioned

**Timeline: by 2025**  
**Est. Cost: \$4 M**



# Additional Operational Studies

## By 2030:

Waterline Condition Assessment

Pump Facility Condition Assessment

Pressure Surge Investigation/Mitigation

Hydraulic Model Calibration

Storage/Operations Evaluation

# Timeline and Budget for Recommendations

Project	By (year)	Total (\$M)	2025	2030	2035	2040	2045	2050	2055	2060	2065	2070
South Rivanna River Second Crossing	2025	5.8										
Airport Road Pump Station	2025	4.0										
Airport Road Waterline Phase 1	2025	6.0										
Airport Road Waterline Phase 2	2030	1.4										
Central Waterline	2030	31.0										
Stillhouse Tank	2030	1.7										
Lewis Mtn. Operations	2030	0.2										
Lewis Mtn. Tank	2030	0.9										
North Rivanna Waterline Reinforcement	2030	4.3										
North Rivanna River Second Crossing	2030	1.2										
Pressure Surge Mitigation	2035	0.7										
Emmet/Seminole Waterline	2035	18.0										
Alderman Interconnection Meter	2045	0.4										
Single-Feed Bypasses	2045	1.3										
Rivanna River Second Crossing to Pantops	2045	4.8										
Observatory Waterline OBSWTP to Lambeth PS	2050	1.9										
Replace South Rivanna Waterline in Seminole	2060	27.6										
Avon Street Waterline	2055	10.3										
Replace North Rivanna Waterline	2070	10.6										
South Rivanna Waterline Rio to Hydraulic	2070	9.6	As opportunities arise (betterment, repair, etc.)									
Replace Pantops and Avon Street Tanks	2070	8.9										
Airport Road Storage Tanks	2070	2.8										
Waterline Condition Assessment	2030	0.8										
Surge Investigation	2030	0.1										
Electro-Mechanical Condition Assessment	2030	0.2										
Hydraulic and Water Quality Model Calibration	2030	0.4										
Storage/Operations Evaluation	2030	0.4										
Total		155.3	29.4	38.4	9.3	1.1	5.4	1.9	16.0	15.2	14.8	23.8
LEGEND	Timeline for Project			Needed By					Possible (Need, Opportunity)			

## Summary:

- 50-year comprehensive plan costs \$155.3M
- Enhances hydraulic connectivity, addresses operational inefficiencies and increased water demands
- Programs replacement of aging infrastructure
- Improves system flexibility and redundancy







# Questions?

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