



Board of Directors Meeting

July 25, 2023

2:15pm



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

434.977.2970



434.293.8858



www.rivanna.org



BOARD OF DIRECTORS

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

DATE: JULY 25, 2023

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

TIME: 2:15 p.m.

AGENDA

1. CALL TO ORDER

2. AGENDA APPROVAL

3. MINUTES OF PREVIOUS BOARD MEETING ON JUNE 27, 2023

4. RECOGNITION

Resolution of Appreciation for Mr. Michael Rogers

5. EXECUTIVE DIRECTOR'S REPORT

6. ITEMS FROM THE PUBLIC

Matters Not Listed for Public Hearing on the Agenda

7. RESPONSES TO PUBLIC COMMENTS

8. CONSENT AGENDA

a. Staff Report on Finance

b. Staff Report on Operations

c. Staff Report on CIP Projects

d. Staff Report on Wholesale Metering

e. Staff Report on Drought Monitoring

f. Approval to Increase Design Contingency – Airport Road Water Pump Station and Piping Project – Short Elliot Hendrickson (SEH) Engineers

9. OTHER BUSINESS

(Joint Session with the RSWA)

- a. *Presentation: Strategic Plan Update*
Deborah Anama, Executive Assistant

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

11. CLOSED MEETING - SECURITY UPDATE and PERSONNEL REVIEW

(Motion, second and roll call vote to enter into a joint closed session to discuss confidential information related to cybersecurity and the security of the authorities' physical premises as permitted by the public safety exemptions at Section 2.2-3711-A(19) of the Code of Virginia and confidential performance evaluations, goals and objectives of specific personnel as permitted by the personnel exemption at Section 2.2-3711-A(1) of the Code of Virginia).

Motion:

I move that the Rivanna Water & Sewer Authority enter into a joint closed session with the Rivanna Solid Waste Authority to discuss confidential information related to cybersecurity and the security of the authorities' physical premises as permitted by the public safety exemptions at Section 2.2-3711-A(19) of the Code of Virginia and confidential performance evaluations, goals and objectives of specific personnel as permitted by the personnel exemption at Section 2.2-3711-A(1) of the Code of Virginia.

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

Motion:

The Rivanna Water and Sewer Authority hereby certifies by recorded vote that, to the best of each member's knowledge, only public business matters lawfully exempted from the open meeting requirements of the Virginia Freedom of Information Act and identified in the motion authorizing the closed meeting were heard, discussed or considered in the closed meeting to which this certification resolution applies.

(Complete and close the RWSA meeting, then complete and close the RSWA meeting)

12. ADJOURNMENT

GUIDELINES FOR PUBLIC COMMENT AT RIVANNA BOARD OF DIRECTORS MEETINGS

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

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

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

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

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

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

Rev. September 7, 2022



RWSA BOARD OF DIRECTORS
Minutes of Regular Meeting
June 27, 2023

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, June 27, 2023 at 2:15 p.m. in the 2nd floor conference room, Moores Creek Administration Building, 695 Moores Creek Lane, Charlottesville, VA.

Board Members Present: Mike Gaffney, Jeff Richardson, Michael Rogers, Brian Pinkston arrived at 2:22 p.m., Ann Mallek, and Quin Lunsford attending as an alternate for Gary O'Connell.

Board Members Absent: Lauren Hildebrand and Gary O'Connell.

Rivanna Staff Present: Bill Mawyer, Lonnie Wood, David Tungate, Deborah Anama, Jacob Woodson, Daniel Campbell, Andrea Bowles, student interns Owen White, Logan Holsapple, Hannah Kaczorowski, Kathryn Shelton, and Caleb Bearly.

Attorney(s) Present: Valerie Long.

1. CALL TO ORDER

Mr. Gaffney convened the June 27, 2023 regular meeting of the Board of Directors of the Rivanna Water and Sewer Authority at 2:15 p.m.

2. AGENDA APPROVAL

There were no comments on or questions for the agenda.

Ms. Mallek moved to approve the agenda. Mr. Rogers seconded the motion, which carried unanimously (4-0).

3. MINUTES OF PREVIOUS BOARD MEETING

a. Minutes of Regular Board Meeting on May 23, 2023

There were no comments on or questions regarding the minutes for the meeting held on May 23, 2023.

Ms. Mallek moved the Board to approve the minutes from the meeting held on May 23, 2023. Mr. Richardson seconded the motion, which passed unanimously (4-0).

4. RECOGNITIONS

Drinking Water and Wastewater Professionals Day

Mr. Gaffney read the recognition from the Governor's Office recognizing the Drinking Water and Wastewater Professionals Day.

47 **Certificate of Recognition**

48 *By virtue of the authority vested by the Constitution in the Governor of the Commonwealth of*
49 *Virginia, there is hereby officially recognized:*

50 ***Drinking Water and Wastewater Professionals Day***

51 **WHEREAS**, the health, safety, and well-being of all Virginians is of utmost importance to the prosperity and livelihood of our Commonwealth's families and communities; and

WHEREAS, without reliable drinking water and wastewater treatment, the United States would suffer thousands of deaths each year due to waterborne diseases; and

WHEREAS, conscientious regulation and operation of both public and private drinking water treatment plants and distribution systems helps prevent contamination and other avoidable incidents that threaten the health and well-being of Virginia's more than 8.6 million residents; and

WHEREAS, the Commonwealth produces an average of more than 817 million gallons of wastewater each day, the proper treatment of which protects the ecological health of Virginia's surface waters, such as the James and Potomac Rivers, and the Chesapeake Bay; and

WHEREAS, thousands of water and wastewater industry professionals in the Commonwealth's public and private sectors dedicate their careers to keeping drinking water and treated wastewater clean and free of substances harmful to both humans and the environment; and

WHEREAS, the Virginia General Assembly passed House Joint Resolution 88 in 2016 designating June 30 as Drinking Water and Wastewater Professionals Day in Virginia;

NOW, THEREFORE, I, Glenn Youngkin, do hereby recognize June 30, 2023, as DRINKING WATER AND WASTEWATER PROFESSIONALS DAY in our COMMONWEALTH OF VIRGINIA, and I call this observance to the attention of all our citizens.

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53
54 **Mr. Rogers moved the Board to approve the Recognition for Drinking Water and**
55 **Wastewater Professionals Day. Ms. Mallek seconded the motion, which passed**
56 **unanimously (5-0).**

57
58 ***5. EXECUTIVE DIRECTOR'S REPORT***

59 Mr. Mawyer noted that they almost did not hold the meeting at Moores Creek because the power
60 was out at the building on the prior day. He stated that they had a circuit breaker which tripped
61 three times in the last five days. He stated staff found a refurbished replacement breaker in North
62 Carolina for \$20K. He stated that the supplier was able to deliver the circuit breaker at 2 a.m.
63 that morning, and staff, along with Pyramid Construction, installed the breaker. He stated that
64 shortly after 7 a.m., the power was restored.

65
66 Mr. Mawyer stated that there was a CIP project to replace the breaker, but the product was on
67 order. He stated that once they received the breaker from the CIP project, it would serve as the
68 primary breaker with the breaker purchased in North Carolina as a backup.

69
70 Mr. Mawyer recognized Drew Prothero, who passed his state licensing to attain a Wastewater

71 Operator Class III level. He stated Mr. Prothero had worked for the Authority for about one year,
72 and he was a James Madison University graduate. He stated that June was National Safety
73 Month. He stated that each week of the month, there was a theme related to safety. He stated that
74 as part of the leadership training, Mr. Tungate attended the Local Government Advisory Council
75 tabletop exercise on PFAs. He stated that Ms. Whitaker would participate in the Charlottesville
76 Chamber of Commerce leadership lab program, which would start in September and last for nine
77 months.

78
79 Mr. Mawyer stated that there was a team building event for staff held in the parking lot in May.
80 He introduced the five interns who were working at the Authority for the summer.

81
82 Owen White stated he was the chemist intern. He stated he attended the University of Mary
83 Washington.

84
85 Kathryn Shelton stated she attended the University of Virginia to study environmental science.
86 She stated she was the water resources intern.

87
88 Hannah Kaczorowski stated she attended the University of Virginia, and she was the
89 sustainability intern.

90
91 Caleb Bearly stated he attended Minnesota North College, and he was the wastewater operations
92 intern.

93
94 Logan Holsapple stated he attended the University of Virginia, and he was the engineering
95 intern.

96
97 Mr. Mawyer stated that in terms of drought concerns, they were 14 inches low over the last 29
98 months, about 14% below normal. He explained that last year, local streams were flowing at
99 close to normal levels. He stated that from June 10 through June 16, 2023, the flow was about
100 80% below normal, and they were getting concerned about the conditions. He stated that in June
101 2022, the flow in the South Rivanna River was 162mgd, and in June 2023, it was 27mgd.

102
103 Mr. Mawyer stated that they had received rain, and from June 20 through June 26, 2023, the flow
104 had increased significantly and gone above the average. He noted that the drought concerns had
105 not passed, but they had been mitigated. He stated that the Rivanna to Ragged Mountain pipeline
106 would help capture and convey water from the Rivanna to Ragged Mountain reservoir during
107 times of high stream flow after significant precipitation.

108
109 Ms. Mallek stated that they were not out of the woods by any means. She stated that they should
110 not feel complacent about the concerns. She stated that the rainfall had been spotty.

111
112 Mr. Gaffney asked whether there was information about the water table.

113
114 Ms. Bowles stated that the State drought monitoring report was still on a “watch” level for
115 groundwater, and they would complete readings again on Thursday.

116

Ms. Mallek asked how granular the reading was, because people in the northern part of the County were frustrated with the watch levels not fully reflecting conditions.

Ms. Bowles stated that there was a drought monitoring taskforce report, and the last time they met was June 15, but the summary had not yet been posted. She stated that the taskforce was meeting on Thursday, and they met about every two weeks. She stated that she was regularly in touch to provide feedback.

Ms. Mallek asked whether rainfall was being measured in multiple places.

Ms. Bowles responded that for the region, the State brought together multiple professionals to discuss precipitation, geology, groundwater, and other topics. She stated that there were four different factors that were evaluated—groundwater, precipitation, stream flow, and reservoir levels. She stated that for our Middle James region, reservoir data from our local reservoirs and from Lake Moomaw is used.

Mr. Mawyer stated they had come to an agreement with the University Foundation regarding the location and cost of easements and property purchases on the Westover and Fox Haven properties. He stated that they expected to have the signed documents soon. He stated that they were purchasing 1.1 acres near Reservoir Road to build the pump station.

Mr. Mawyer stated that they would continue to work with the University on the Fontaine area. He stated that the University had located a cemetery that conflicted with the development plans and waterline location. He stated that the central waterline project was expected to have 60% design plans by the end of the month, and they would coordinate with the City and ACSA to review the plans. He stated they expect construction to start next June.

Mr. Mawyer stated that the Allen Farm bridge repairs at Buck Mountain began yesterday. He stated that weather permitting, the repairs to the concrete pillars would be completed next week. He stated they participated last week in an EPA drinking water contamination drill with the ACSA and City utility staff. He explained that the scenario included a chemical tanker that was leaking into the Rivanna reservoir, infiltrating the Rivanna WTP and distribution system. He stated that in the drill scenario, the problem became apparent when people started showing up at the hospital, sick.

Mr. Mawyer stated that they invited specialists from the FBI to review the cybersecurity system and familiarize them with our facilities. He stated that a local agent who lived in Crozet attended along with a critical infrastructure expert. He stated that he spoke to the Land Use and Environmental Planning Committee about the community water supply plan and the South Rivanna River crossing project. He stated that he attended the Hydraulic Area CAC meeting and discussed the community water supply plan.

6. ITEMS FROM THE PUBLIC

Matters Not Listed for Public Hearing on the Agenda

There were none.

163 **7. RESPONSES TO PUBLIC COMMENTS**

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

165
166 **8. CONSENT AGENDA**

167 *a. Staff Report on Finance*

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169 *b. Staff Report on Operations*

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171 *c. Staff Report on CIP Projects*

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173 *d. Staff Report on Wholesale Metering*

174
175 *e. Staff Report on Drought Monitoring*

176
177 *f. Approval of Term Contract for Professional Water Treatment Plant Engineering*
178 *Services*

179
180 *g. Approval of Capital Improvement Plan Budget Amendment – South Fork Rivanna*
181 *Reservoir to Ragged Mountain Reservoir Water Line Right of Way*

182
183 *h. Approval of Engineering Services – Moores Creek Pump Station Slide Gates, Valves,*
184 *Bypass, and Septage Receiving Upgrades – Design, Bidding and Construction*
185 *Administration – Hazen and Sawyer*

186
187 *i. Adoption of 2023 Thomas Jefferson Planning District Commission Natural Hazard*
188 *Mitigation Plan*

189
190 **Ms. Mallek moved to approve the consent agenda. Mr. Rogers seconded the motion, which**
191 **carried unanimously (5-0).**

192
193 **9. OTHER BUSINESS**

194 *a. Presentation: Water Treatment Facilities Overview*
195 *Dave Tungate, Director of Operations*

196 Mr. Tungate introduced Daniel Campbell, manager of the water department. Mr. Tungate stated
197 that currently, there was a pipeline to transfer water from Sugar Hollow to Ragged Mountain, but
198 in the future, as the pipeline from Ragged Mountain to South Fork Rivanna was installed, the
199 Sugar Hollow pipeline would be put out of service. He stated that the Beaver Creek Reservoir
200 fed the Crozet WTP which only supplied the Crozet area.

201
202 Mr. Tungate stated that the Red Hill WTP was a small groundwater system that served 9
203 customers including Red Hill School, and it was the only groundwater system they maintained
204 and operated. He stated that the Observatory, North Rivanna, and South Rivanna WTPs formed
205 the urban water system. He stated that at the southern end of the County, there was the
206 Scottsville WTP which sourced water from Totier Creek and Totier Creek Reservoir.

207
208 Mr. Tungate stated that they had a permitted capacity at South Rivanna of 12 MGD, and the

average production in 2022 was about 8 MGD. He stated that the Observatory WTP was permitted for 7.7 MGD, but after the upgrade, it would be able to produce 10 MGD. He stated that the North Rivanna WTP was permitted for 2 MGD, and its average production in 2022 was 0.43 MGD. He stated that the urban total permitted capacity was 21.7 MGD, and the average Urban Water production was 9.32 MGD.

Mr. Tungate stated that the permitted capacity at the Crozet WTP and finished water pump station was 1.6 MGD. He stated that Scottsville was the smallest permitted surface water facility, and it was able to process 0.25 MGD. He noted that the average production was 0.059 MGD.

Ms. Mallek asked whether there was a stream release requirement for the North Fork Rivanna WTP.

Mr. Tungate responded that they did not have a minimum stream flow requirement. He stated that they were monitoring the flow and taking daily pictures. He stated that USGS had a gauging station upstream of the intake, which allows RWSA Water Operations staff to keep a record of the amount of water headed to the North Rivanna WTP intake on the North Fork Rivanna River.

Mr. Tungate explained that there were five steps to a conventional surface water treatment plant. He stated the steps included coagulation, flocculation, sedimentation, filtration, and disinfection. He stated that the source water quality could change, especially from heavy rain or precipitation in the water shed. He stated that South Rivanna WTP had six sedimentation basins, and two new filters had been added to the filtration plant in the most recent water treatment plant upgrades.

Mr. Tungate showed an aerial photo of the South Rivanna WTP and described the water treatment facility shown in the photo. The water administration staff was housed in the administration building at the South Rivanna WTP. There are separate buildings at the South Rivanna WTP for the various water treatment chemicals. In the aluminum sulfate (Alum) and fluoride building, there are 2 separate rooms. One room is for Alum and it can store 24,000 gallons in two 12,000 gallon tanks. The other room is for fluoride and it can store 6,000 gallons. The Sodium Hypochlorite building has two 10,000 gallons tanks. It is used as a disinfectant. Mr. Tungate stated that the Alum and Fluoride building was added during the recent facility upgrade. He identified the filter press building, which is where the residual solids are de-watered from the South Rivanna WTP.

Mr. Tungate explained that they used aluminum sulfate as a coagulant. He stated they used liquid lime to adjust the pH. He stated they used sodium hypochlorite to disinfect the water, orthophosphate to control pipe corrosion, and hydrofluorosilicic acid (fluoride) for dental health. He stated that after water was pumped from the reservoir to the water treatment plant, alum and lime are added to help flocculate the dirt particles. The sedimentation basins were designed so the water with the flocculated particles flows through them with low velocity to allow the flocculated particles to settle to the bottom. These solids are removed twice a day by a mechanical device to limit the amount of solids in the sedimentation basins.

Mr. Tungate explained that frequently, the chemical doses could be tricky to determine, such as

255 after a rain or temperature change. He stated that water department staff can run water treatment
256 jar tests at the water plant to help determine the best chemical doses. He stated that after the
257 sedimentation basins, the next step was filtration in the gravity filters. He stated that there were
258 six gravity filters at South Rivanna. A slide was shown with Giardia and Cryptosporidium on it.
259 He stated that giardia was removed from the water via chemical oxidation , and cryptosporidium
260 was removed through filtering. He stated that filter turbidimeters were used to determine the
261 effectiveness of the filters. He stated that the turbidimeters took continuous samples. He stated
262 that every 12-hour shift, water operations staff calibrated and confirmed readings from the online
263 instruments, including turbidimeters and free chlorine analyzers.

264
265 Mr. Tungate stated that finished water pumps were used once the water was treated to deliver the
266 water to the distribution systems. He stated that two kinds of activated carbon are used at the
267 water treatment plants. Powder activated carbon and granular activated carbon. Powder
268 activated carbon (PAC) had a one-time use and is settled in the solids found in the sedimentation
269 basins. He stated that granulated activated carbon (GAC) was used in large vessels called
270 contactors. He stated that PAC was fed into the mixing basins. He stated that water samples
271 were taken from the GAC contactor vessels to determine how much GAC is left that can be used.
272 Each GAC vessel or contactor holds 40,000 lbs. of GAC at the three Urban Water Plants (South
273 Rivanna, Observatory, and North Rivanna).

274
275 Mr. Tungate stated that GAC contactors were installed at all of the surface WTPs. He stated that
276 South Rivanna had eight contactors (320,000 pounds of GAC) with an 8 MGD treatment
277 capacity. He stated that at Observatory, there were six contactors (240,000 pounds of GAC) or 6
278 MGD of treatment capacity. He stated there was a project to add a third contactor to the Crozet
279 facility and a contactor to Red Hill. He stated that the Crozet contactors could hold 20k lbs of
280 GAC. He stated that at Scottsville WTP, there were two 6k lb. contactors or 0.25 MGD
281 treatment capacity.

282
283 Mr. Pinkston asked whether the GAC contactors were needed for well water.

284
285 Mr. Tungate stated that it depended on what was detected and if there was contamination present
286 in the water. The GAC contactors at the surface water treatment plants were installed for
287 disinfection by-product precursor removal and these constituents are not usually present in
288 groundwater.

289
290 Ms. Mallek asked if there was ongoing testing of the plume from the old gas station at Red Hill.

291
292 Mr. Tungate stated he did not know. He stated they discussed the matter with DEQ, and at times
293 they had sampled monitoring wells and residences that were not hooked into the Red Hill water
294 system. He stated that there were stop boxes and service lines in the right-of-way if residences
295 had detected contamination in their private wells.

296
297 Mr. Tungate stated that they renovated the filters at Observatory WTP, and they had five new
298 filters. He stated that the original Observatory WTP had four sedimentation basins with a
299 capacity of 7.7 MGD, and after the project is complete there will be two sedimentation basins
300 with a capacity of 20 MGD.

Mr. Pinkston clarified that the UVA water storage tanks on Observatory Hill acted as a buffer for the UVA system.

Mr. Tungate responded that at the Alderman pump station, half of the pumps were operated by Rivanna and the other half by UVA. He stated that on the UVA side of the station, their pumps put water into the water system and water that was not consumed was stored in the UVA water storage tanks.

Mr. Tungate stated that the water department had to submit monthly reports of operations by the 10th of every month to the Virginia Dept. of Health. He stated that information in the reports included the volume of water pumped, chemical dosages, filter turbidity, chlorine residuals, total coliform sampling, and any data related to the Safe Drinking Water Act.

Mr. Tungate stated that the water department operating budget was \$25M. He explained that \$13M was for debt service, and there was \$3M budgeted for central support (Human Resources, Information Technology, Finance). He stated that \$2.5M went toward employee salaries, \$2M was for water treatment chemicals, and \$900K of that allocation was for GAC. He stated \$1M was budgeted for operations and maintenance, and \$700K was budgeted for utility costs.

Mr. Tungate stated they produced 3.8 billion gallons of drinking water at a cost of \$0.01 per 1.5 gallons. He stated that there were 27 staff positions in the water department. He stated there were 22 water operators, including three relief operators, a water quality specialist, and four management staff.

Ms. Mallek asked if the disinfection tests were related to the GAC removing the disinfection byproducts.

Mr. Tungate responded that the more disinfectant byproduct they removed, the less they would have in the system.

Mr. Mawyer responded that they performed disinfection testing in the distribution system.

b. Presentation: Long Range Utility Concepts

Bill Mawyer, Executive Director

Mr. Mawyer explained that only 3% of the water on Earth was freshwater, and of that freshwater, 70% was contained in ice caps and glaciers, 29% was contained in groundwater, and 1% was easily accessible in lakes and rivers—1% of 3%. He stated that the US had 4.3% of the world population but 7% of the global, renewable freshwater resources. He stated that the US had the largest freshwater lake system in the world, the Great Lakes, which held 6 quadrillion gallons of water.

Mr. Mawyer stated Colorado State University found that by 2071, half of the freshwater basins in the US would be unable to meet monthly water demands. He stated that the UN found 5 billion people, or two-thirds of the global population, would experience water shortages by 2050 due to climate change impacts.

Mr. Mawyer stated that emerging contaminants included PFAS, dioxane, perchlorate, microplastics, endocrine interrupters, and cyanotoxins. He stated that PFAS was a forever-chemical used as a water repellent, stain resister, grease-proofer, and friction reducer. He stated that microplastics were likely to be regulated in the future. He stated that cyanotoxins were blue-green algae that created odor and taste problems.

Mr. Mawyer stated that technology would continue to change and influence the drinking water and wastewater industry. He stated that capacity was an issue everywhere, and our area would continue to see a growing population due to climate change. He stated that by 2025, they estimated the City would have 50k water customers, and the ACSA would have about 72k customers in the urban area. He stated that by 2070, the population was expected to increase by 40% in the urban area. He noted that the projection was updated every 10 years.

Mr. Mawyer stated that they considered sustainability measures, such as solar facilities, carbon emissions reduction, and water reuse. He stated that in the future, they may require more reservoirs, and they may consider unified local systems. He stated that in the future, there could be an opportunity to eliminate the Glenmore and Stone Robinson WWTPs by extending a pipe to the Moores Creek facility. He noted that there were odor, noise, and light issues at Glenmore associated with the wastewater treatment plant.

Mr. Mawyer stated that they could consider ways to unify local water treatment and distribution systems, as well as regional customers, to improve affordability. He stated that new regulations would likely increase the cost of water and wastewater treatment. He stated that beyond 2070, the Board had discussed retaining the Buck Mountain property because of the potential for coastal population migration and the need to build another reservoir.

Mr. Mawyer stated that the Observatory WTP lease would expire in 2069, but it had a 50-year renewal option. He stated that expansion of South Rivanna and Observatory WTPs would be considered in the next 50 years. He stated that the Beaver Creek Reservoir appeared to have adequate water supply for the next 50 years, but there would need to be a plan to serve growth in Crozet past 2070.

Mr. Mawyer stated that additional reservoirs would be the likely solution to achieve a greater supply of drinking water. He stated that regulations would continue to emerge to address known and unknown contaminants. He stated that unification of local and regional systems would help manage affordability. He stated that our long-term strategic plan provided an enormous benefit to the Authorities, and the planning should be continued.

10. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA

Ms. Mallek stated that the original environmental impact statement for the Western Bypass planned for when a tanker would overturn, not if. She stated that the tabletop tests were incredibly important.

11. CLOSED MEETING

There was no reason for a closed meeting.

393

394 **12. *ADJOURNMENT***

395

396 **At 3:18 p.m., Ms. Mallek moved to adjourn the meeting of the Rivanna Water and Sewer**
397 **Authority. Mr. Rogers seconded the motion, which passed unanimously (5-0).**

DRAFT



**RIVANNA SOLID WASTE AUTHORITY
RIVANNA WATER & SEWER AUTHORITY
BOARDS OF DIRECTORS**

Resolution of Appreciation for Mr. Michael Rogers

WHEREAS, Mr. Rogers has served as a member of the Rivanna Water & Sewer Authority and Rivanna Solid Waste Authority Boards of Directors since February 2022; and

WHEREAS, over that same period Mr. Rogers has demonstrated leadership in water and sewer, solid waste and recycling services, and has been a valuable member of the Boards of Directors and a resource to the Authorities; and

WHEREAS, Mr. Rogers' understanding of the water, sewer, solid waste and recycling operations of the City of Charlottesville, the Water & Sewer Authority and the Solid Waste Authority has supported a strategic decision-making process that provided benefits to the customers served by the City of Charlottesville as well as the community as a whole. During Mr. Rogers' tenure, major initiatives and projects were completed for the Authorities including:

- a 5-year Strategic Plan
- major renovations at the South Rivanna and Observatory Water Treatment Plants
- a plan to increase the community's drinking water supply by accelerating construction of the raw water pipeline to connect the South Rivanna and Ragged Mountain Reservoirs
- a new Southern Albemarle Convenience Center for collection of recyclable materials and household refuse
- approval of a route to construct a major drinking water pipeline through the City, the "Central Water Line" through extensive communications with adjacent neighborhoods

NOW, THEREFORE, BE IT RESOLVED that the Rivanna Water & Sewer Authority and the Rivanna Solid Waste Authority Boards of Directors recognize, thank, and commend Mr. Rogers for his distinguished service, efforts, and achievements as a member of the Rivanna Water & Sewer Authority and the Rivanna Solid Waste Authority, and present this Resolution as a token of esteem with best wishes in his future endeavors.

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

Michael Gaffney, Chairman
Jeff Richardson
Jim Andrews
Lauren Hildebrand
Ann Mallek
Gary O'Connell
Brian Pinkston
Stacey Smalls
Lance Stewart



MEMORANDUM

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

FROM: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: EXECUTIVE DIRECTOR'S REPORT

DATE: JULY 25, 2023

STRATEGIC PLAN PRIORITY: OPTIMIZATION AND RESILIENCY

Financial Reporting Award

The Government Finance Officers Association of the United States and Canada has awarded the Certificate of Achievement for Excellence in Financial Reporting to the Rivanna Water and Sewer Authority for its annual comprehensive financial report for the fiscal year ended June 30, 2022.

The Certificate of Achievement is the highest form of recognition in the area of governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management. We want to thank our Director of Finance & Information Technology, Lonnie Wood, and his staff for their efforts recognized by this award.

STRATEGIC PLAN PRIORITY: ENVIRONMENTAL STEWARDSHIP

PFAS at the North Rivanna Water Treatment Plant

Levels of per- and polyfluorinated alkyl substances, or PFAS, which exceeded standards proposed by the federal Environmental Protection Agency were detected in the drinking water produced by the North Rivanna Water Treatment Plant (NRWTP) in a sample taken on May 24, 2023.

Out of an abundance of caution, production of drinking water from the NRWTP was discontinued on July 6 when the test results were received. The NRWTP will remain out of service until additional testing indicates production may be resumed. Additional drinking water samples from the NRWTP have been collected and sent to specialized labs in Indiana and Michigan for testing. We expect to have those results by early August.

Drought Watch

Precipitation: about 14.5 inches low (14% low) over the last 30 months

Charlottesville Precipitation				
Year	Month	Observed (in.)	Normal (in.)	Departure (in.)
2021	Jan - Dec	33.82	41.61	-7.79
2022	Jan - Dec	43.53	41.61	+1.92
2023	Jan - Jun	11.92	20.57	-8.65

Source: National Weather Service, National Climatic Data Center.

STRATEGIC PLAN PRIORITY: PLANNING AND INFRASTRUCTURE

Major Projects

We continue to work with UVA to acquire the final easement on the following major water piping projects:

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

Status: Negotiations with UVAF have been completed. The documents are being finalized for signatures.

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

Status: We are coordinating with UVA on an alternate pipeline alignment north of Fontaine Ave to avoid a potential conflict with a cemetery.

3. Central Water Line: 5 miles of 24” and 36” water pipe primarily along Cherry Ave

Status: Engineering plans and specifications are 60% complete and under review. Construction is expected to begin in June 2024. An extensive communication effort will be completed with the communities adjacent to the project before construction begins. Efforts to obtain easements are underway.

MEMORANDUM

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

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

REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: MAY 2023 MONTHLY FINANCIAL SUMMARY – FY 2023

DATE: JULY 25, 2023

Financial Snapshot

May ended with an overall net deficit of \$1.2 million year-to-date, or 2.8% above the annual budget of \$41.8 M. Total operating rate revenues for the first eleven months of this fiscal year are above average. Operating expenses are currently \$2.3 million over the prorated annual budget. Total revenues are \$1.9 million over prorated budget estimates, and total expenses are \$3.1 million over budget. Urban Water flows and operating rate revenues are slightly (0.44%) below budget estimates through May, and Urban Wastewater flows and operating rate revenues are 7% over budget.

Revenues and expenses are summarized in the table below:

	Urban Water	Urban Wastewater	Total Other Rate Centers	Total Authority
Operations				
Revenues	\$ 8,520,949	\$ 9,569,061	\$ 2,398,951	\$ 20,488,961
Expenses	(9,172,017)	(10,154,608)	(2,573,441)	(21,900,066)
Surplus (deficit)	\$ (651,068)	\$ (585,547)	\$ (174,490)	\$ (1,411,105)
Debt Service				
Revenues	\$ 8,123,134	\$ 8,780,387	\$ 2,196,073	\$ 19,099,594
Expenses	(8,054,172)	(8,676,454)	(2,179,358)	(18,909,984)
Surplus (deficit)	\$ 68,962	\$ 103,933	\$ 16,715	\$ 189,610
Total				
Revenues	\$ 16,644,083	\$ 18,349,448	\$ 4,595,024	\$ 39,588,555
Expenses	(17,226,189)	(18,831,062)	(4,752,799)	(40,810,050)
Surplus (deficit)	\$ (582,106)	\$ (481,614)	\$ (157,775)	\$ (1,221,495)

A more detailed financial analysis is in the following monthly report which reviews more closely actual financial performance compared to budgeted estimates. There are comments listed that reference the applicable line items in the financial statement for each rate center and each support department in the

following pages. Please refer to the Budget vs. Actual financial statements when reviewing these comments.

Detailed Financials

The Authority's actual operating revenues through May are \$856,000 over the prorated annual budget estimate, and operating expenses exceed budget by \$2,267,000. The following comments help explain most of the other budget vs. actual variances.

- A. Annual and Quarterly Transactions - Some revenues and expenses are over the prorated year-to-date budget due to one-time receipts of revenues for the year and quarterly or annual payments of expenses. These transactions appear to have a significant impact on the budget vs. actual monthly comparisons but usually even out as the year progresses. Septage receiving support revenue of \$109,440 is billed to the County annually in July. Annual payments are made for leases, health savings account contributions, and certain maintenance agreements. Insurance premiums are paid quarterly.
- B. Personnel Costs (Urban Water, All Wastewater, Engineering – pages 2, 5, 6, 7, 11) – Salaries are higher than budgeted for some rate centers due to pay increases for plant operators who achieved higher licenses. Urban Wastewater salaries are also high due to salary overlap in one position and payout of accumulated leave upon leaving employment.
- C. Professional Services (Crozet Water, Urban Wastewater, Glenmore Wastewater, Administration – pages 3, 5, 6, 8) – Crozet Water, Urban Wastewater, and Glenmore Wastewater have spent \$18,000, \$78,700, and \$15,000, respectively, on unbudgeted engineering and technical services for various surveys and studies. The Administration department incurred \$97,300 of unbudgeted engineering and technical services for grant program strategy and application development.
- D. Other Services & Charges (All Water, Urban Wastewater – pages 2, 3, 4, 5) – Utilities are running high for Urban Wastewater and all Water rate centers. Urban Water has spent \$50,000 in unbudgeted Watershed Management expenses for stream erosion repairs.
- E. Information Technology (Urban Water, Urban Wastewater, Scottsville Wastewater, Administration – pages 2, 5, 7, 8) – The Administration department has spent \$486,700 more than its annual budget in this category for computer hardware, software, and support costs. Urban Wastewater and Scottsville Wastewater are over budget \$49,000 and \$10,000, respectively, on SCADA Standard Graphics Rollout costs. Urban Water incurred \$10,000 in unbudgeted expenditures for computer hardware.
- F. Communications (Urban Wastewater, Administration – pages 5, 8) – The Administration department is \$44,000 over the annual budget in this category, due to switching to a new telephone system in August which was not included in the budget.
- G. Operations and Maintenance (All Water departments, Urban Wastewater, Maintenance – pages 2, 3, 4, 5, 9) – All of the water departments are over the prorated budget for chemicals due to carbon exchanges. Urban Wastewater has spent \$346,700 more than the annual budget on chemicals costs (primarily due to price increases), and \$133,700 on unbudgeted repair costs. The Maintenance department is over budget on repairs, supplies and fuel costs.

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

Consolidated
Revenues and Expenses Summary

<i>Budget</i>	<i>Budget</i>	<i>Actual</i>	<i>Budget</i>	<i>Variance</i>
<i>FY 2023</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	\$	20,614,425	\$	18,896,556	\$	19,446,008	\$	549,452	2.91%
Lease Revenue		85,000		77,917		111,837		33,920	43.53%
Admin., Maint. & Engineering Revenue		656,000		601,333		672,546		71,213	11.84%
Other Revenues		639,036		585,783		645,050		59,267	10.12%
Use of Reserves-GAC		150,000		137,500		150,000		12,500	9.09%
Interest Allocation		7,170		6,573		136,065		129,493	1970.22%
Total Operating Revenues	\$	22,151,631	\$	20,305,662	\$	21,161,506	\$	855,844	4.21%

Expenses

Personnel Cost	B	\$	10,494,727	\$	9,620,166	\$	9,671,346	\$	(51,180)	-0.53%
Professional Services	C		629,900		577,408		720,137		(142,729)	-24.72%
Other Services & Charges	A, D		3,427,460		3,141,838		3,664,588		(522,750)	-16.64%
Communications	F		200,342		183,647		232,072		(48,425)	-26.37%
Information Technology	E		816,626		748,574		1,366,452		(617,878)	-82.54%
Supplies			39,950		36,621		42,373		(5,753)	-15.71%
Operations & Maintenance	A, G		5,222,531		4,787,320		5,820,780		(1,033,460)	-21.59%
Equipment Purchases			420,100		385,092		229,861		155,230	40.31%
Depreciation			900,000		825,000		825,000		-	0.00%
Total Operating Expenses		\$	22,151,636	\$	20,305,666	\$	22,572,611	\$	(2,266,945)	-11.16%
Operating Surplus/(Deficit)		\$	(5)	\$	(4)	\$	(1,411,105)			

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue		\$	19,522,929	\$	17,896,018	\$	17,896,021	\$	3	0.00%
Septage Receiving Support - County	A		109,440		100,320		109,440		9,120	9.09%
Buck Mountain Lease Revenue			1,600		1,467		6,101		4,634	315.95%
Trust Fund Interest			990		908		176,761		175,853	19377.76%
Reserve Fund Interest			64,230		58,878		911,272		852,395	1447.74%
Total Debt Service Revenues		\$	19,699,189	\$	18,057,590	\$	19,099,595	\$	1,042,005	5.77%

Debt Service Costs

Total Principal & Interest		\$	16,165,241	\$	14,818,138	\$	14,818,138	\$	-	0.00%
Reserve Additions-Interest			64,230		58,878		911,272		(852,395)	-1447.74%
Debt Service Ratio Charge			725,000		664,583		664,583		-	0.00%
Reserve Additions-CIP Growth			2,744,717		2,515,991		2,515,991		-	0.00%
Total Debt Service Costs		\$	19,699,188	\$	18,057,589	\$	18,909,984	\$	(852,395)	-4.72%
Debt Service Surplus/(Deficit)		\$	1	\$	1	\$	189,611			

Summary

Total Revenues	\$	41,850,820	\$	38,363,252	\$	40,261,101	\$	1,897,849	4.95%
Total Expenses		41,850,824		38,363,255		41,482,595		(3,119,340)	-8.13%
Surplus/(Deficit)	\$	(4)	\$	(4)	\$	(1,221,495)			

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Urban Water Rate Center
Revenues and Expenses Summary

Budget FY 2023	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
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Operating Budget vs. Actual

		Notes								
Revenues										
Operations Rate Revenue		\$	9,014,863	\$	8,263,624	\$	8,226,924	\$	(36,701)	-0.44%
Lease Revenue			60,000		55,000		81,289		26,289	47.80%
Miscellaneous			-		-		6,405		6,405	
Use of Reserves-GAC			150,000		137,500		150,000		12,500	9.09%
Interest Allocation			3,000		2,750		56,331		53,581	1948.40%
Total Operating Revenues		\$	9,227,863	\$	8,458,874	\$	8,520,949	\$	62,074	0.73%
Expenses										
Personnel Cost	B	\$	2,234,714	\$	2,048,488	\$	2,038,000	\$	10,488	0.51%
Professional Services			222,000		203,500		174,503		28,997	14.25%
Other Services & Charges	A, D		716,300		656,608		859,725		(203,117)	-30.93%
Communications			100,920		92,510		93,578		(1,067)	-1.15%
Information Technology	E		104,950		96,204		114,539		(18,335)	-19.06%
Supplies			5,400		4,950		7,131		(2,181)	-44.07%
Operations & Maintenance	G		2,511,396		2,302,113		2,668,344		(366,231)	-15.91%
Equipment Purchases			16,000		14,667		19,524		(4,857)	-33.12%
Depreciation			300,000		275,000		275,000		-	0.00%
Subtotal Before Allocations		\$	6,211,680	\$	5,694,040	\$	6,250,343	\$	(556,303)	-9.77%
Allocation of Support Departments			3,016,183		2,764,835		2,921,675		(156,840)	-5.67%
Total Operating Expenses		\$	9,227,863	\$	8,458,874	\$	9,172,017	\$	(713,143)	-8.43%
Operating Surplus/(Deficit)		\$	(0)	\$	(0)	\$	(651,069)			

Debt Service Budget vs. Actual

Revenues						
Debt Service Rate Revenue		\$ 8,302,224	\$ 7,610,372	\$ 7,610,372	\$ -	0.00%
Trust Fund Interest		400	367	64,694	64,328	17543.92%
Reserve Fund Interest		31,000	28,417	441,967	413,550	1455.31%
Lease Revenue		1,600	1,467	6,101	4,634	315.95%
Total Debt Service Revenues		\$ 8,335,224	\$ 7,640,622	\$ 8,123,134	\$ 482,512	6.32%
Debt Service Costs						
Total Principal & Interest		\$ 6,964,724	\$ 6,384,330	\$ 6,384,330	\$ -	0.00%
Reserve Additions-Interest		31,000	28,417	441,967	(413,550)	-1455.31%
Debt Service Ratio Charge		400,000	366,667	366,667	-	0.00%
Reserve Additions-CIP Growth		939,500	861,208	861,208	-	0.00%
Total Debt Service Costs		\$ 8,335,224	\$ 7,640,622	\$ 8,054,172	\$ (413,550)	-5.41%
Debt Service Surplus/(Deficit)		\$ -	\$ -	\$ 68,962		

Rate Center Summary

Total Revenues	\$ 17,563,087	\$ 16,099,496	\$ 16,644,083	\$ 544,586	3.38%
Total Expenses	17,563,087	16,099,496	17,226,190	(1,126,693)	-7.00%
Surplus/(Deficit)	\$ (0)	\$ (0)	\$ (582,107)		
Costs per 1000 Gallons	\$ 2.72		\$ 2.96		
Operating and DS	\$ 5.17		\$ 5.56		
Thousand Gallons Treated	3,397,700	3,114,558	3,100,989	(13,569)	-0.44%
or					
Flow (MGD)	9.309		9.257		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Crozet Water Rate Center
Revenues and Expenses Summary

<i>Budget FY 2023</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	\$ 1,197,084	\$ 1,097,327	\$ 1,097,327	\$ -	0.00%
Lease Revenues	25,000	22,917	30,548	7,632	33.30%
Interest Allocation	400	367	7,620	7,253	1978.08%
Total Operating Revenues	\$ 1,222,484	\$ 1,120,610	\$ 1,135,495	\$ 14,885	1.33%

Expenses

Personnel Cost	\$ 352,559	\$ 323,179	\$ 323,770	\$ (591)	-0.18%
Professional Services	C 22,900	20,992	41,021	(20,029)	-95.42%
Other Services & Charges	D 118,700	108,808	132,334	(23,526)	-21.62%
Communications	17,600	16,133	20,033	(3,899)	-24.17%
Information Technology	4,950	4,538	13,039	(8,502)	-187.37%
Supplies	1,500	1,375	1,097	278	20.24%
Operations & Maintenance	G 358,500	328,625	360,622	(31,997)	-9.74%
Equipment Purchases	3,000	2,750	3,485	(735)	-26.74%
Depreciation	60,000	55,000	55,000	-	0.00%
Subtotal Before Allocations	\$ 939,709	\$ 861,400	\$ 950,401	\$ (89,001)	-10.33%
Allocation of Support Departments	282,780	259,215	272,756	(13,541)	-5.22%
Total Operating Expenses	\$ 1,222,489	\$ 1,120,615	\$ 1,223,157	\$ (102,542)	-9.15%
Operating Surplus/(Deficit)	\$ (5)	\$ (5)	\$ (87,662)		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 2,161,704	\$ 1,981,562	\$ 1,981,562	\$ -	0.00%
Trust Fund Interest	80	73	15,025	14,951	20388.13%
Reserve Fund Interest	1,200	1,100	17,314	16,214	1474.01%
Total Debt Service Revenues	\$ 2,162,984	\$ 1,982,735	\$ 2,013,901	\$ 31,165	1.57%

Debt Service Costs

Total Principal & Interest	\$ 1,217,280	\$ 1,115,840	\$ 1,115,840	\$ -	0.00%
Reserve Additions-Interest	1,200	1,100	17,314	(16,214)	-1474.01%
Reserve Additions-CIP Growth	944,500	865,792	865,792	-	0.00%
Total Debt Service Costs	\$ 2,162,980	\$ 1,982,732	\$ 1,998,946	\$ (16,214)	-0.82%
Debt Service Surplus/(Deficit)	\$ 4	\$ 4	\$ 14,955		

Rate Center Summary

Total Revenues	\$ 3,385,468	\$ 3,103,346	\$ 3,149,396	\$ 46,050	1.48%
Total Expenses	3,385,469	3,103,347	3,222,103	(118,756)	-3.83%
Surplus/(Deficit)	\$ (1)	\$ (1)	\$ (72,707)		
Costs per 1000 Gallons	\$ 6.03		\$ 6.17		
Operating and DS	\$ 16.70		\$ 16.26		
Thousand Gallons Treated	202,697	185,806	198,111	12,305	6.62%
Flow (MGD)	0.555		0.591		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Scottsville Water Rate Center
Revenues and Expenses Summary

<i>Budget FY 2023</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	\$ 569,556	\$ 522,093	\$ 522,093	\$ -	0.00%
Interest Allocation	200	183	3,538	3,354	1829.65%
Total Operating Revenues	\$ 569,756	\$ 522,276	\$ 525,631	\$ 3,354	0.64%

Expenses

Personnel Cost	\$ 212,797	\$ 195,064	\$ 197,310	\$ (2,246)	-1.15%
Professional Services	5,000	4,583	13,442	(8,859)	-193.29%
Other Services & Charges	27,100	24,842	36,221	(11,379)	-45.81%
Communications	6,400	5,867	6,452	(585)	-9.98%
Information Technology	4,400	4,033	9,326	(5,293)	-131.22%
Supplies	100	92	190	(98)	-106.73%
Operations & Maintenance	97,925	89,765	118,744	(28,979)	-32.28%
Equipment Purchases	1,600	1,467	2,799	(1,332)	-90.83%
Depreciation	40,000	36,667	36,667	0	0.00%
Subtotal Before Allocations	\$ 395,322	\$ 362,379	\$ 421,150	\$ (58,771)	-16.22%
Allocation of Support Departments	174,433	159,897	164,225	(4,328)	-2.71%
Total Operating Expenses	\$ 569,755	\$ 522,276	\$ 585,375	\$ (63,099)	-12.08%
Operating Surplus/(Deficit)	\$ 1	\$ 1	\$ (59,744)		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 150,300	\$ 137,775	\$ 137,775	\$ -	0.00%
Trust Fund Interest	10	9	1,591	1,582	17254.62%
Reserve Fund Interest	850	779	11,847	11,067	1420.41%
Total Debt Service Revenues	\$ 151,160	\$ 138,563	\$ 151,212	\$ 12,649	9.13%

Debt Service Costs

Total Principal & Interest	\$ 148,726	\$ 136,332	\$ 136,332	\$ -	0.00%
Reserve Additions-Interest	850	779	11,847	(11,067)	
Reserve Additions-CIP Growth	1,589	1,457	1,457	-	
Total Debt Service Costs	\$ 151,165	\$ 138,568	\$ 149,635	\$ (11,067)	-7.99%
Debt Service Surplus/(Deficit)	\$ (5)	\$ (5)	\$ 1,577		

Rate Center Summary

Total Revenues	\$ 720,916	\$ 660,840	\$ 676,843	\$ 16,003	2.42%
Total Expenses	720,920	660,844	735,010	(74,166)	-11.22%
Surplus/(Deficit)	\$ (4)	\$ (4)	\$ (58,167)		
Costs per 1000 Gallons	\$ 33.07		\$ 33.25		
Operating and DS	\$ 41.84		\$ 41.75		
Thousand Gallons Treated or Flow (MGD)	17,230	15,794	17,607	1,813	11.48%
	0.047		0.053		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Urban Wastewater Rate Center
Revenues and Expenses Summary

<i>Budget FY 2023</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		\$	9,033,662	\$	8,280,857	\$ 8,867,009 7.08%
Stone Robinson WWTP			39,036		35,783	17,567 (18,216) -50.91%
Septage Acceptance			500,000		458,333	581,949 123,616 26.97%
Nutrient Credits			100,000		91,667	39,129 (52,538) -57.31%
Miscellaneous Revenue			-		-	- -
Interest Allocation			3,300		3,025	63,406 60,381 1996.08%
Total Operating Revenues		\$	9,675,998	\$	8,869,665	\$ 9,569,061 \$ 699,396 7.89%
Expenses						
Personnel Cost	B	\$	1,325,384	\$	1,214,935	\$ 1,338,518 (123,583) -10.17%
Professional Services	C		75,000		68,750	155,660 (86,910) -126.41%
Other Services & Charges	A, D		2,276,980		2,087,232	2,408,833 (321,601) -15.41%
Communications	F		1,900		1,742	12,024 (10,282) -590.36%
Information Technology	E		110,400		101,200	159,695 (58,495) -57.80%
Supplies			1,200		1,100	810 290 26.35%
Operations & Maintenance	A, G		1,698,660		1,557,105	2,179,122 (622,017) -39.95%
Equipment Purchases			143,000		131,083	45,833 85,250 65.03%
Depreciation			470,000		430,833	430,833 (0) 0.00%
Subtotal Before Allocations		\$	6,102,524	\$	5,593,980	\$ 6,731,328 (1,137,348) -20.33%
Allocation of Support Departments			3,573,476		3,275,686	3,423,280 (147,594) -4.51%
Total Operating Expenses		\$	9,675,999	\$	8,869,666	\$ 10,154,608 (1,284,942) -14.49%
Operating Surplus/(Deficit)		\$	(1)	\$	(1)	\$ (585,547)

Debt Service Budget vs. Actual

Revenues						
Debt Service Rate Revenue		\$	8,878,107	\$	8,138,265	\$ 8,138,262 \$ (3) 0.00%
Septage Receiving Support - County	A		109,440		100,320	109,440 9,120 9.09%
Trust Fund Interest			500		458	95,274 94,816 20687.05%
Reserve Fund Interest			31,000		28,417	437,411 408,994 1439.28%
Total Debt Service Revenues		\$	9,019,047	\$	8,267,460	\$ 8,780,387 \$ 512,927 6.20%
Debt Service Costs						
Total Principal & Interest		\$	7,808,347	\$	7,157,651	\$ 7,157,651 \$ - 0.00%
Reserve Additions-Interest			31,000		28,417	437,411 (408,994) -1439.28%
Debt Service Ratio Charge			325,000		297,917	297,917 - 0.00%
Reserve Additions-CIP Growth			854,700		783,475	783,475 - 0.00%
Total Debt Service Costs		\$	9,019,047	\$	8,267,460	\$ 8,676,454 \$ (408,994) -4.95%
Debt Service Surplus/(Deficit)		\$	-	\$	-	\$ 103,933

Rate Center Summary

Total Revenues	\$	18,695,045	\$	17,137,125	\$	18,349,447	\$	1,212,323	7.07%
Total Expenses		18,695,046		17,137,126		18,831,062		(1,693,936)	-9.88%
Surplus/(Deficit)	\$	(1)	\$	(1)	\$	(481,615)			
Costs per 1000 Gallons	\$	2.85			\$	3.05			
Operating and DS	\$	5.51			\$	5.66			
Thousand Gallons Treated or Flow (MGD)		3,390,400		3,107,867		3,328,457		220,590	7.10%
		9.289				9.936			

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Glenmore Wastewater Rate Center
Revenues and Expenses Summary

<i>Budget FY 2023</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	\$ 443,640	\$ 406,670	\$ 406,670	\$ -	0.00%
Interest Allocation	150	138	2,857	2,720	1978.09%
Total Operating Revenues	\$ 443,790	\$ 406,808	\$ 409,527	\$ 2,720	0.67%

Expenses

Personnel Cost	B \$ 115,815	\$ 106,164	\$ 117,660	\$ (11,496)	-10.83%
Professional Services	C 5,000	4,583	20,082	(15,498)	-338.14%
Other Services & Charges	35,750	32,771	38,374	(5,603)	-17.10%
Communications	-	-	3,447	(3,447)	
Information Technology	4,425	4,056	10,723	(6,666)	-164.35%
Supplies	-	-	-	-	
Operations & Maintenance	134,950	123,704	99,206	24,498	19.80%
Equipment Purchases	3,800	3,483	3,483	(0)	0.00%
Depreciation	10,000	9,167	9,167	0	0.00%
Subtotal Before Allocations	\$ 309,740	\$ 283,929	\$ 302,141	\$ (18,212)	-6.41%
Allocation of Support Departments	134,045	122,874	121,913	961	0.78%
Total Operating Expenses	\$ 443,785	\$ 406,803	\$ 424,054	\$ (17,251)	-4.24%
Operating Surplus/(Deficit)	\$ 5	\$ 5	\$ (14,526)		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 20,484	\$ 18,777	\$ 18,777	\$ -	0.00%
Trust Fund Interest	-	-	-	-	
Reserve Fund Interest	80	73	911	838	1142.57%
Total Debt Service Revenues	\$ 20,564	\$ 18,850	\$ 19,688	\$ -	0.00%

Debt Service Costs

Total Principal & Interest	\$ 18,717	\$ 17,157	\$ 17,157	\$ -	0.00%
Reserve Additions-CIP Growth	1,761	1,614	1,614	-	0.00%
Reserve Additions-Interest	80	73	911	(838)	-1142.57%
Total Debt Service Costs	\$ 20,558	\$ 18,845	\$ 19,683	\$ (838)	-4.45%
Debt Service Surplus/(Deficit)	\$ 6	\$ 6	\$ 6		

Rate Center Summary

Total Revenues	\$ 464,354	\$ 425,658	\$ 429,216	\$ 3,558	0.84%
Total Expenses	464,343	425,648	443,736	(18,089)	-4.25%
Surplus/(Deficit)	\$ 11	\$ 10	\$ (14,521)		
Costs per 1000 Gallons	\$ 10.72		\$ 11.50		
Operating and DS	\$ 11.22		\$ 12.03		
Thousand Gallons Treated or Flow (MGD)	41,401	37,951	36,884	(1,067)	-2.81%
	0.113		0.110		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Scottsville Wastewater Rate Center
Revenues and Expenses Summary

<i>Budget FY 2023</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	\$	355,620	\$	325,985	\$	325,985	\$	-	0.00%
Interest Allocation		120		110		2,313		2,203	2002.85%
Total Operating Revenues	\$	355,740	\$	326,095	\$	328,298	\$	2,203	0.68%

Expenses

Personnel Cost	B	\$	115,795	\$	106,146	\$	117,660	\$	(11,514)	-10.85%
Professional Services			5,000		4,583		3,053		1,530	33.38%
Other Services & Charges			26,650		24,429		27,996		(3,567)	-14.60%
Communications			3,770		3,456		3,440		16	0.46%
Information Technology	E		4,125		3,781		14,413		(10,632)	-281.17%
Supplies			-		-		-		-	
Operations & Maintenance			52,000		47,667		38,519		9,147	19.19%
Equipment Purchases			3,800		3,483		3,483		(0)	0.00%
Depreciation			20,000		18,333		18,333		(0)	0.00%
Subtotal Before Allocations		\$	231,140	\$	211,879	\$	226,898	\$	(15,019)	-7.09%
Allocation of Support Departments			124,604		114,220		113,957		264	0.23%
Total Operating Expenses		\$	355,744	\$	326,099	\$	340,855	\$	(14,756)	-4.52%
Operating Surplus/(Deficit)		\$	(4)	\$	(4)	\$	(12,556)			

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$	10,110	\$	9,268	\$	9,273	\$	6	0.06%
Trust Fund Interest		-		-		177		177	
Reserve Fund Interest		100		92		1,823		1,731	1888.36%
Total Debt Service Revenues	\$	10,210	\$	9,359	\$	11,272	\$	1,913	20.44%

Debt Service Costs

Total Principal & Interest	\$	7,447	\$	6,826	\$	6,826	\$	-	0.00%
Reserve Additions-Interest		100		92		1,823		(1,731)	-1888.36%
Estimated New Principal & Interest		2,667		2,445		2,445		-	0.00%
Total Debt Service Costs	\$	10,214	\$	9,363	\$	11,094	\$	(1,731)	-18.49%
Debt Service Surplus/(Deficit)	\$	(4)	\$	(4)	\$	179			

Rate Center Summary

Total Revenues	\$	365,950	\$	335,454	\$	339,571	\$	4,116	1.23%
Total Expenses		365,958		335,462		351,948		(16,487)	-4.91%
Surplus/(Deficit)	\$	(8)	\$	(7)	\$	(12,378)			
Costs per 1000 Gallons	\$	15.05			\$	18.79			
Operating and DS	\$	15.48			\$	19.40			
Thousand Gallons Treated		23,643		21,673		18,138		(3,535)	-16.31%
or									
Flow (MGD)		0.065				0.054			

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Administration

<i>Budget FY 2023</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		\$	654,000	\$	599,500	\$	614,500	\$	15,000	2.50%
Bond Proceeds Funding Bond Issuance Costs			-		-		-		-	
Miscellaneous Revenue			2,000		1,833		21,822		19,989	1090.30%
Total Operating Revenues		\$	656,000	\$	601,333	\$	636,322	\$	34,989	5.82%
Expenses										
Personnel Cost		\$	2,450,092	\$	2,245,918	\$	2,220,191	\$	25,727	1.15%
Professional Services	C		170,000		155,833		262,943		(107,109)	-68.73%
Other Services & Charges			162,600		149,050		131,486		17,564	11.78%
Communications	F		24,780		22,715		68,854		(46,139)	-203.12%
Information Technology	E		404,876		371,136		891,588		(520,451)	-140.23%
Supplies			23,000		21,083		27,524		(6,441)	-30.55%
Operations & Maintenance			67,850		62,196		57,590		4,606	7.41%
Equipment Purchases			13,100		12,008		12,008		(0)	0.00%
Depreciation			-		-		-		-	
Total Operating Expenses		\$	3,316,298	\$	3,039,940	\$	3,672,184	\$	(632,244)	-20.80%

Department Summary

Net Costs Allocable to Rate Centers		\$	(2,660,298)	\$	(2,438,607)	\$	(3,035,862)	\$	597,255	-24.49%
<u>Allocations to the Rate Centers</u>										
Urban Water	44.00%	\$	1,170,531	\$	1,072,987	\$	1,335,779	\$	(262,792)	
Crozet Water	4.00%	\$	106,412		97,544		121,434		(23,890)	
Scottsville Water	2.00%	\$	53,206		48,772		60,717		(11,945)	
Urban Wastewater	48.00%	\$	1,276,943		1,170,531		1,457,214		(286,682)	
Glenmore Wastewater	1.00%	\$	26,603		24,386		30,359		(5,973)	
Scottsville Wastewater	1.00%	\$	26,603		24,386		30,359		(5,973)	
	100.00%	\$	2,660,298	\$	2,438,607	\$	3,035,862	\$	(597,255)	

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Maintenance

<i>Budget FY 2023</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		-		-		2,162		2,162
Total Operating Revenues	\$	-	\$	-	\$	2,162	\$	2,162

Expenses

Personnel Cost	\$	1,477,565	\$	1,354,435	\$	1,283,840	\$	70,595	5.21%
Professional Services		-		-		4,207		(4,207)	
Other Services & Charges		33,600		30,800		15,238		15,562	50.53%
Communications		24,500		22,458		14,066		8,393	37.37%
Information Technology		32,500		29,792		21,036		8,755	29.39%
Supplies		2,500		2,292		657		1,634	71.31%
Operations & Maintenance	G	104,900		96,158		136,484		(40,326)	-41.94%
Equipment Purchases		212,600		194,883		117,883		77,000	39.51%
Depreciation		-		-		-		-	
Total Operating Expenses		\$ 1,888,165		\$ 1,730,818		\$ 1,593,413		\$ 137,405	7.94%

Department Summary

Net Costs Allocable to Rate Centers		\$ (1,888,165)	\$	(1,730,818)	\$	(1,591,251)	\$	(135,244)	7.81%
<u>Allocations to the Rate Centers</u>									
Urban Water	30.00%	\$ 566,450	\$	519,246	\$	477,375	\$	41,870	
Crozet Water	3.50%	66,086		60,579		55,694		4,885	
Scottsville Water	3.50%	66,086		60,579		55,694		4,885	
Urban Wastewater	56.50%	1,066,814		977,912		899,057		78,855	
Glenmore Wastewater	3.50%	66,086		60,579		55,694		4,885	
Scottsville Wastewater	3.00%	56,645		51,925		47,738		4,187	
	100.00%	\$ 1,888,165	\$	1,730,818	\$	1,591,251	\$	139,567	

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Laboratory

<i>Budget FY 2023</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

Revenues Notes

N/A

Expenses

Personnel Cost	\$ 415,324	\$ 380,714	\$ 376,683	\$ 4,031	1.06%
Professional Services	-	-	-	-	
Other Services & Charges	11,780	10,798	6,232	4,566	42.29%
Communications	1,700	1,558	877	681	43.72%
Information Technology	1,000	917	1,165	(248)	-27.05%
Supplies	1,250	1,146	1,267	(121)	-10.54%
Operations & Maintenance	121,050	110,963	115,629	(4,667)	-4.21%
Equipment Purchases	1,700	1,558	1,653	(95)	-6.10%
Depreciation	-	-	-	-	
Total Operating Expenses	\$ 553,804	\$ 507,654	\$ 503,506	\$ 4,148	0.82%

Department Summary

Net Costs Allocable to Rate Centers		\$ (553,804)	\$ (507,654)	\$ (503,506)	\$ (4,148)	0.82%
<u>Allocations to the Rate Centers</u>						
Urban Water	44.00%	\$ 243,674	\$ 223,368	\$ 221,543	\$ 1,825	
Crozet Water	4.00%	22,152	20,306	20,140	166	
Scottsville Water	2.00%	11,076	10,153	10,070	83	
Urban Wastewater	47.00%	260,288	238,597	236,648	1,949	
Glenmore Wastewater	1.50%	8,307	7,615	7,553	62	
Scottsville Wastewater	1.50%	8,307	7,615	7,553	62	
	100.00%	\$ 553,804	\$ 507,654	\$ 503,506	\$ 4,148	

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2023

Engineering

<i>Budget FY 2023</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	\$	-	\$	-	\$	34,062	\$	34,062
<i>Total Operating Revenues</i>	\$	-	\$	-	\$	34,062	\$	34,062

Expenses

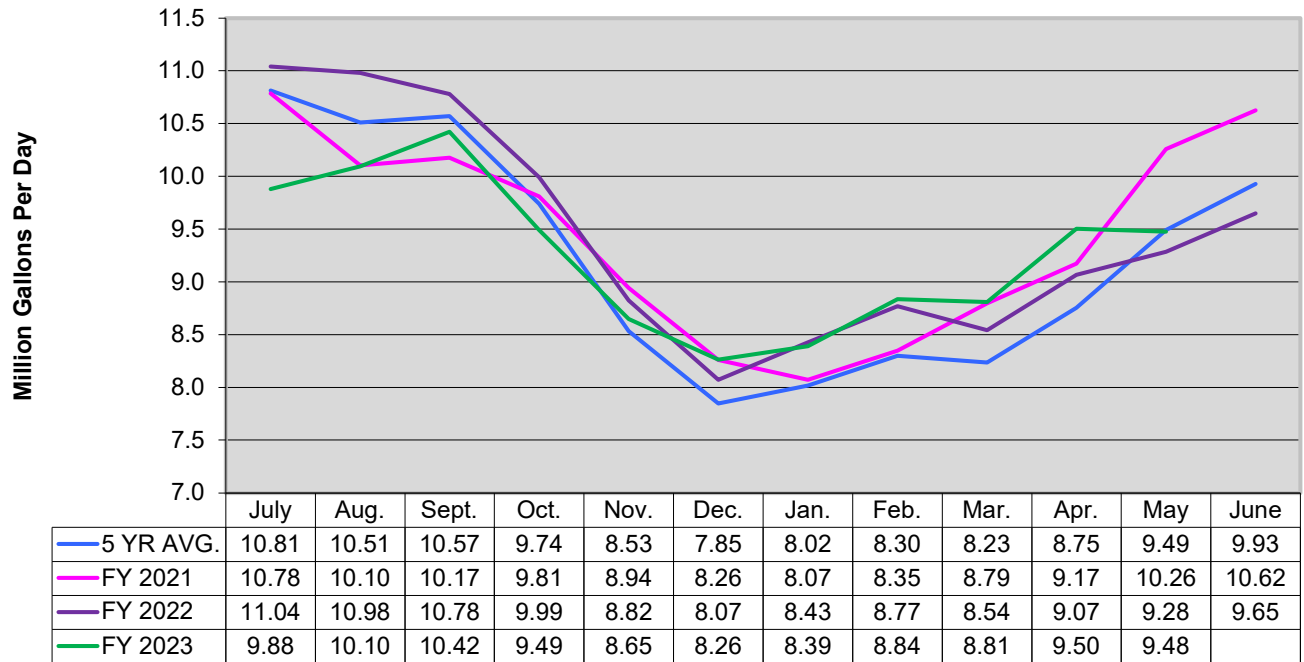
Personnel Cost	B	\$	1,794,680	\$	1,645,123	\$	1,657,715	\$	(12,592)	-0.77%
Professional Services			125,000		114,583		45,226		69,357	60.53%
Other Services & Charges			18,000		16,500		8,150		8,350	50.61%
Communications			18,772		17,208		9,303		7,905	45.94%
Information Technology			145,000		132,917		130,928		1,988	1.50%
Supplies			5,000		4,583		3,697		886	19.33%
Operations & Maintenance			75,300		69,025		46,520		22,505	32.60%
Equipment Purchases			21,500		19,708		19,708		0	0.00%
Depreciation			-		-		-		-	
<i>Total Operating Expenses</i>		\$	2,203,252	\$	2,019,648	\$	1,921,248	\$	98,400	4.87%

Department Summary

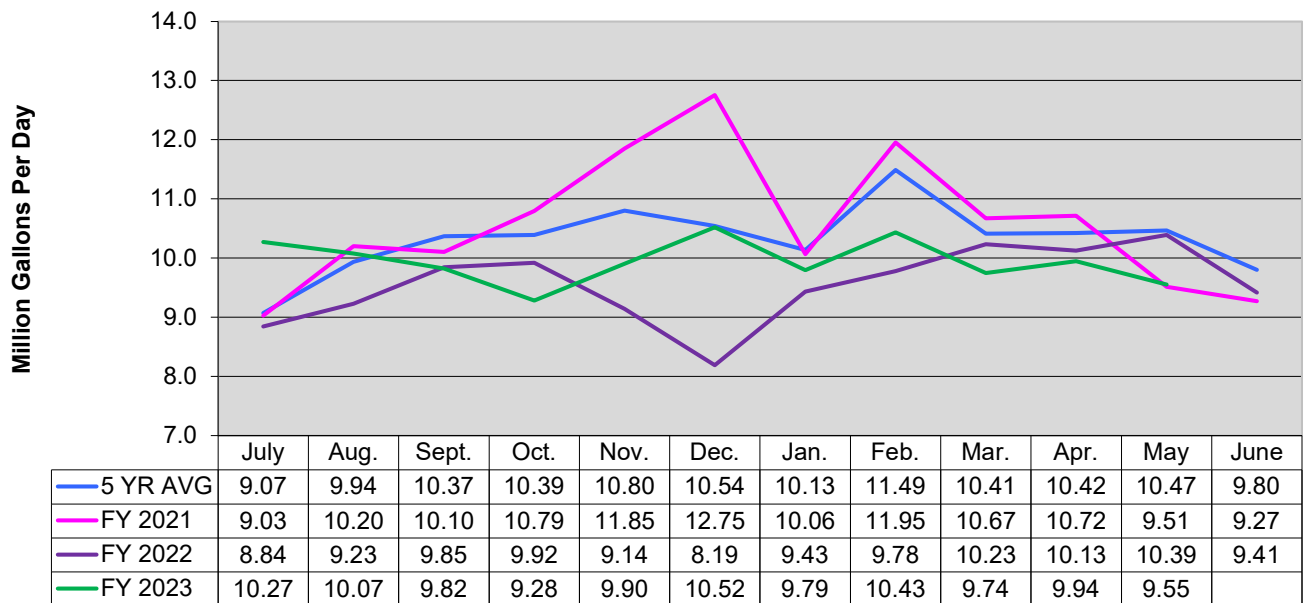
Net Costs Allocable to Rate Centers		\$	(2,203,252)	\$	(2,019,648)	\$	(1,887,185)	\$	(64,337)	3.19%
<u>Allocations to the Rate Centers</u>										
Urban Water	47.00%	\$	1,035,528	\$	949,234	\$	886,977	\$	62,257	
Crozet Water	4.00%		88,130		80,786		75,487		5,298	
Scottsville Water	2.00%		44,065		40,393		37,744		2,649	
Urban Wastewater	44.00%		969,431		888,645		830,362		58,283	
Glenmore Wastewater	1.50%		33,049		30,295		28,308		1,987	
Scottsville Wastewater	1.50%		33,049		30,295		28,308		1,987	
	100.00%	\$	2,203,252	\$	2,019,648	\$	1,887,185	\$	132,462	

**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 & ENVIRONMENTAL
SERVICES**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: OPERATIONS REPORT FOR JUNE 2023

DATE: JULY 25, 2023

WATER OPERATIONS:

The average and maximum daily water volumes produced in June 2023 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	8.05	9.04 (6/14/2023)
Observatory	1.12	2.16 (6/2/2023)
North Rivanna	<u>0.51</u>	<u>0.67 (6/14/2023)</u>
<i>Urban Total</i>	9.68	11.14 (6/2/2023)
Crozet	0.67	0.92 (6/16/2023)
Scottsville	0.05	0.090 (6/16/2023)
Red Hill	<u>0.0019</u>	0.005 (6/5/2023)
<i>RWSA Total</i>	10.40	-

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

Status of Reservoirs (as of July 19, 2023):

- Urban Reservoirs are 98% of Total Useable Capacity
 - Ragged Mountain Reservoir is 97% full
 - Sugar Hollow Reservoir is 100% full
 - South Rivanna Reservoir is 100% full
- Beaver Creek Reservoir (Crozet) is 100% full
- Totier Creek Reservoir (Scottsville) is 100% full

WASTEWATER OPERATIONS:

All RWSA Water Resource Recovery Facilities (WRRFs) were in regulatory compliance with their effluent limitations during June 2023. Performance of the WRRFs in June was as follows compared to the respective VDEQ permit limits:

<i>WRRF</i>	<i>Average Daily Effluent Flow (MGD)</i>	<i>Average CBOD₅ (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>
Moores Creek	9.93	<QL	9	0.67	22	0.41	2.2
Glenmore	0.123	2.3	15	4.2	30	NR	NL
Scottsville	0.05	1.5	25	6.2	30	NR	NL
Stone Robinson	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 June 2023.

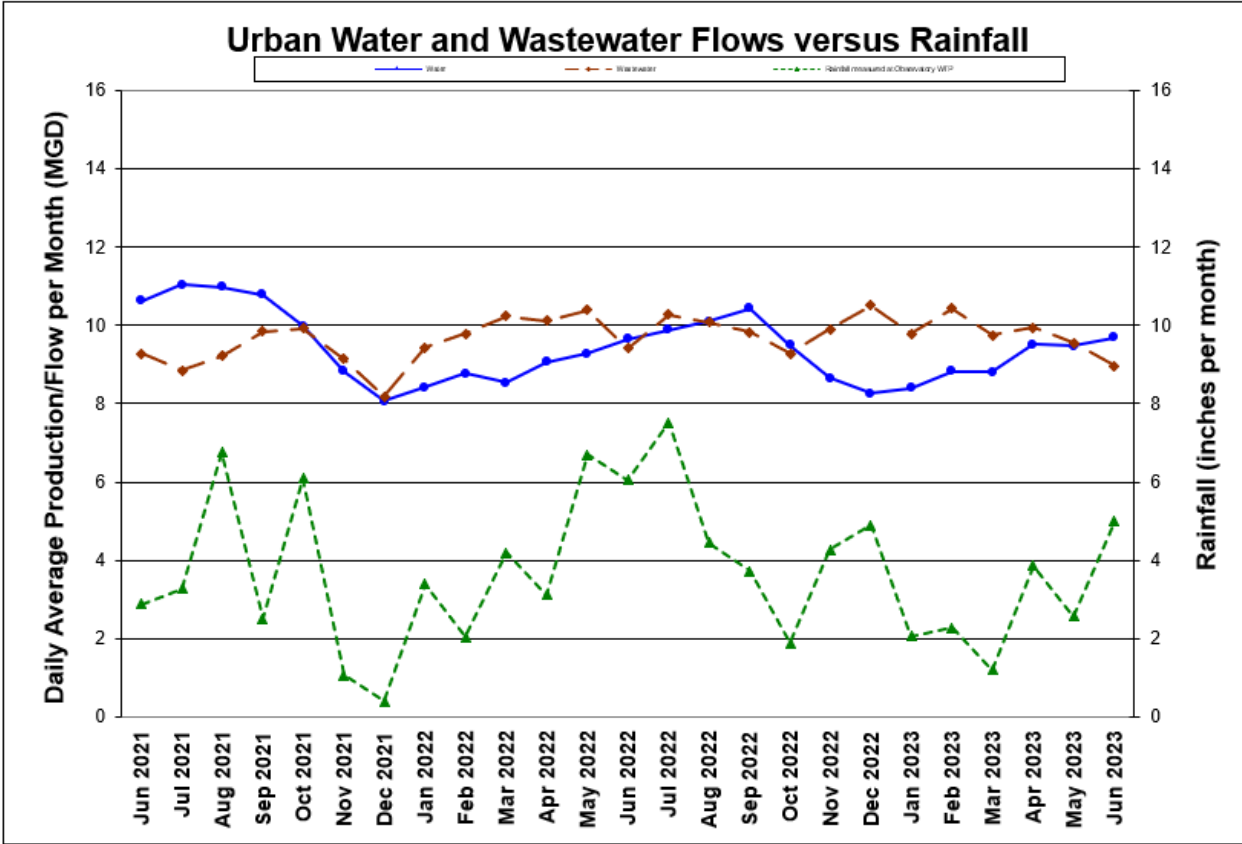
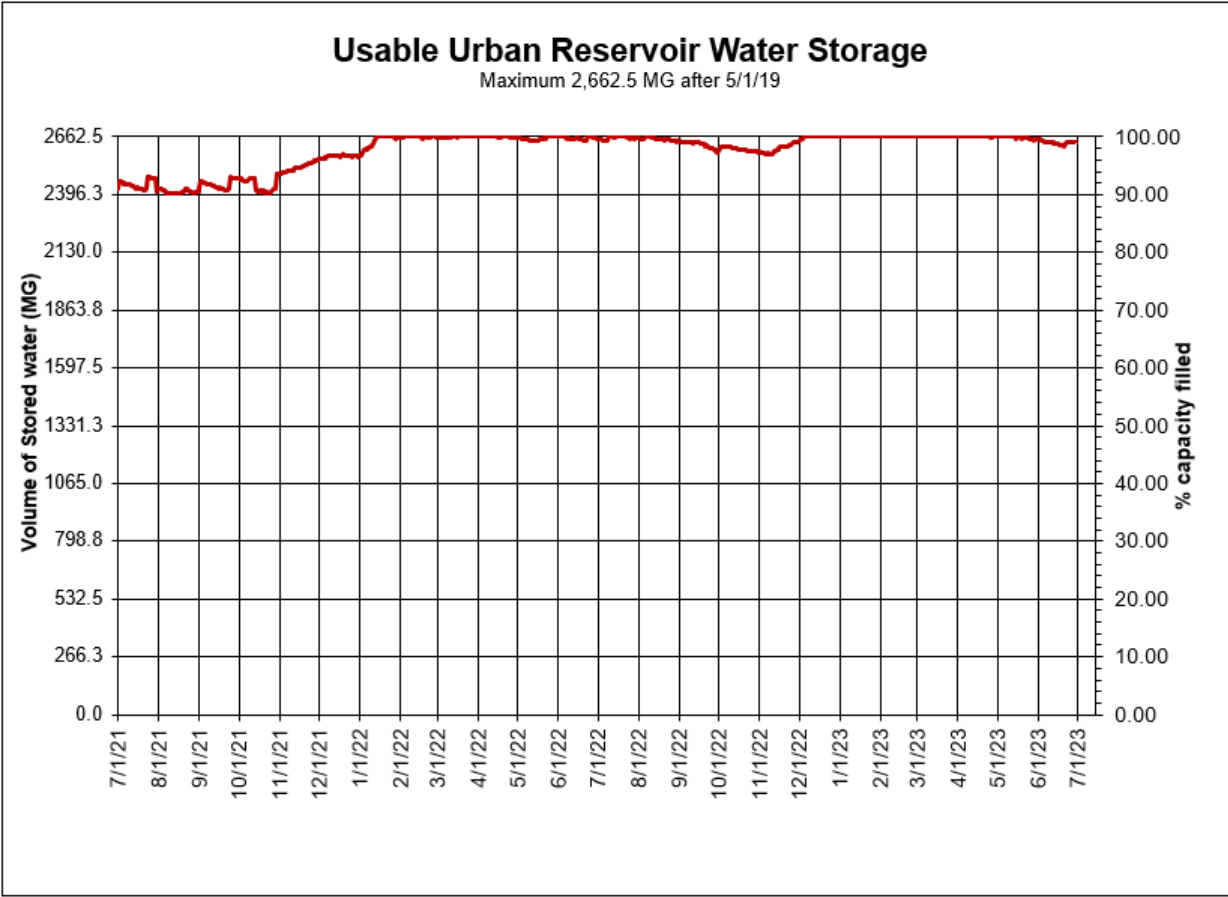
<i>State Annual Allocation (lb./yr.) Permit</i>		<i>Average Monthly Allocation (lb./mo.) *</i>	<i>Moores Creek Discharge June (lb./mo.)</i>	<i>Performance as % of monthly average Allocation*</i>	<i>Year to Date Performance as % of annual allocation</i>
Nitrogen	282,994	23,583	9,645	41%	20%
Phosphorous	18,525	1,544	689	45%	13%

*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: CIP PROJECTS REPORT

DATE: JULY 25, 2023

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

For the current CIP and additional project information, please visit: <https://www.rivanna.org/wp-content/uploads/2023/06/2024-2028-CIP-FINAL-DRAFT-1.pdf>

Summary

	Project	Bid Advertise Date	Construction Completion Date
1	SRWTP and OBWTP Renovations	November 2019	October 2023
2	Airport Rd. Water Pump Station and Piping	September 2021	September 2024
3	MC 5kV Electrical System Upgrades	December 2021	December 2024
4	South Fork Rivanna River Crossing	December 2023	December 2025
5	Red Hill Water Treatment Plant Upgrades	September 2023	November 2024
6	Central Water Line	March 2024	December 2028
7	Scottsville WRRF Whole Plant Generator and ATS	December 2023	June 2025
8	MC Administration Building Renovation and Addition	January 2024	June 2026
9	RMR to OBWTP Raw Water Line and Pump Station	April 2024	December 2028
10	MC Building Upfits and Gravity Thickener Improvements	April 2024	December 2025
11	Emmet Street Water Line Betterment	January 2024	July 2026
12	MC Structural and Concrete Rehabilitation	September 2024	June 2026
13	Crozet Pump Stations Rehabilitation	November 2024	December 2026
14	Crozet WTP GAC Expansion – Phase I	December 2024	May 2026
15	Beaver Creek Dam, Pump Station and Piping	July 2025	January 2029
16	SFRR to RMR Pipeline, Intake, and Facilities	December 2025	December 2030
17	Upper Schenks Branch Interceptor, Phase II	TBD	TBD

Under Construction

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

Design and Bidding

4. South Fork Rivanna River Crossing
5. Red Hill Water Treatment Plant Upgrades
6. Central Water Line
7. Scottsville WRRF Whole Plant Generator and ATS
8. MC Administration Building Renovation and Addition
9. RMR to OBWTP Raw Water Line and Pump Station
10. MC Building Upfits and Gravity Thickener Improvements
11. Emmet Street Water Line Betterment
12. MC Structural and Concrete Rehabilitation
13. Crozet Pump Stations Rehabilitation
14. Crozet WTP GAC Expansion – Phase I
15. Beaver Creek Dam, Pump Station, and Piping
16. SFRR to RMR Pipeline, Intake, and Facilities
17. Upper Schenks Branch Interceptor, Phase II

Planning and Studies

18. Asset Management Plan
19. SFRR to RMR Pipeline – Pretreatment Pilot Study
20. MCAWRRF Biogas Upgrades
21. North Rivanna Water Treatment Plant Decommissioning

Other Significant Projects

22. Urgent and Emergency Repairs
23. 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:	90%
Base Construction Contract + Change Orders to Date = Current Value:	\$36,748,500 + \$1,329,762 = \$38,078,262
Completion:	October 2023
Budget:	\$43,000,000

Current Status: With the OBWTP back in normal operation, improvements continue at that plant including completion of the new Chemical Building, GAC Building Expansion, and the retaining wall. At the SRWTP, lead paint abatement work has been completed, and raw water and sludge pump improvements continue.

2. Airport Road Water Pump Station and Piping

Design Engineer:	Short Elliot Hendrickson (SEH)
Construction Contractor:	Anderson Construction, Inc. (ACI) (Lynchburg, VA)
Construction Start:	December 2021
Percent Complete:	50%
Base Construction Contract + Change Order to Date = Current Value:	\$8,520,312
Completion:	September 2024
Budget:	\$10,000,000

Current Status: The pump station roof has been installed and work has begun on interior process piping. Installation of two parallel water lines is on-going along Berkmar Drive between the pump station site and Timberwood Blvd. Production has been slow due to the amount of rock encountered.

3. MCAWRRE 5kV Electrical System Upgrades

Design Engineer:	Hazen and Sawyer (Hazen)
Construction Contractor:	Pyramid Electrical Contractors (Richmond, VA)
Construction Start:	May 2022
Percent Complete:	17%
Base Construction Contract + Change Order to Date = Current Value:	\$5,180,000 - \$863,767 = \$4,316,233
Completion:	December 2024
Budget:	\$5,050,000

Current Status: All major site-related work, including underground electrical ductbank, equipment pads, and curb and gutter replacements, is now complete. The electrical equipment for this project is still in a substantial delivery delay, with the majority of the equipment scheduled to arrive in the Fall/Winter.

Design and Bidding

4. South Fork Rivanna River Crossing

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2020
Project Status:	90% Design
Construction Start:	May 2024
Completion:	December 2025
Budget:	\$7,000,000

Current Status: Easement acquisition work is on-going and a draft easement package for the work in Brookhill Park was sent to the County in March 2023. A required easement on the south side of the

river is on a remnant property from the VDOT Berkmar Bridge project and we cannot finalize that easement until the property transfer back to the original property owner is complete. Water Protection Ordinance plans were submitted to the County for review in May and comments were received on July 10th.

5. Red Hill Water Treatment Plant Upgrades

Design Engineer:	Short Elliot Hendrickson (SEH)
Project Start:	July 2022
Project Status:	95% Design
Construction Start:	November 2023
Completion:	November 2024
Budget:	\$800,000

Current Status: GAC contactors and rehabilitation of the existing hydropneumatic tank have been incorporated into the design. This project received ARPA grant funding from Albemarle County.

6. Central Water Line

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	45% Design
Construction Start:	June 2024
Completion:	December 2028
Budget:	\$41,000,000

Current Status: Delivery of 60% design documents to the stakeholders took place on July 10th and a design review workshop will follow in early August. Soil borings and utility test pits along the alignment are anticipated in August and September. Easement acquisitions will begin over the next few months.

7. Scottsville WRRF Whole Plant Generator and ATS

Design Engineer:	Wiley Wilson
Project Start:	December 2021
Project Status:	100% Design
Construction Start:	April 2024
Completion:	June 2025
Budget:	\$520,000

Current Status: Project is awaiting grant funding approval and processing prior to advertisement. Documents are being developed to begin the easement acquisition process with the County as needed for electrical conduit/duct bank installation.

8. Moores Creek Administration Building Renovation and Addition

Design Engineer:	SEH
Project Start:	October 2022
Project Status:	30% Design

Construction Start:	May 2024
Completion:	June 2026
Budget:	\$17,000,000

Current Status: The Water Protection Ordinance application has been submitted to the County. A sustainability workshop was held on July 10th and a 30% plan and cost update review is scheduled for July 31st.

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

Design Engineer:	Kimley-Horn
Project Start:	August 2018
Project Status:	75% Design
Construction Start:	September 2024
Completion:	December 2028
Budget:	\$44,000,000

Current Status: Preparation of engineering plans and specifications continues. Design of the pump station is underway. Waterline design has reached 90% completion between the Ragged Mountain Reservoir and Fontaine Avenue.

10. MCAWRRF Building Upfits and Gravity Thickener Improvements

Design Engineer:	Short Elliot Hendrickson (SEH)
Project Start:	March 2023
Project Status:	Preliminary Engineering
Construction Start:	August 2024
Completion:	December 2025
Budget:	\$5,000,000

Current Status: The Building Program has been submitted as part of the overall needs assessment, detailing recommended square footage for the space needs. Asbestos and lead paint abatement surveys have been completed.

11. Emmet Street Water Line Betterment

Design Engineer:	Whitman, Requardt & Associates (WRA)
Project Start:	September 2021
Project Status:	Ivy Corridor Public Realm – Complete Contemplative Commons – Complete Emmet Streetscape – Preliminary Design Hydraulic/29 – Preliminary Design
Completion:	July 2026, Phase I
Budget:	\$2,900,000

Current Status: RWSA is coordinating with the City for design of a 24-30” water main in Emmet Street from Ivy Road to Arlington Boulevard as part of the City’s Emmet Streetscape Phase I project.

RWSA has initiated discussion with VDOT on potential pipe routing in the upcoming design-build Hydraulic/29 project.

12. MCAWRRF Structural and Concrete Rehabilitation

Design Engineer:	Hazen and Sawyer (Hazen)
Project Start:	April 2023
Project Status:	Preliminary Engineering
Completion:	June 2026
Budget:	\$13,550,000

Current Status: Preliminary engineering work is continuing. Subsurface utility engineering investigations will begin in late July.

13. Crozet Pump Stations Rehabilitation

Design Engineer:	Wiley Wilson
Project Start:	July 2023
Project Status:	5% Design
Construction Start:	January 2025
Completion:	December 2026
Budget:	\$10,350,000

Current Status: Design of engineering plans and specifications is underway.

14. Crozet GAC Expansion – Phase I

Design Engineer:	SEH
Project Start:	July 2023
Project Status:	0%
Completion:	May 2026
Budget:	\$6,550,000

Current Status: SEH is preparing a scope and fee for the preliminary engineering report, design, and construction administration/inspection services. Cornwell Engineering is currently completing a PFAS analysis of the Granular Activated Carbon influent water to determine required Empty Bed Contact Time and most viable media for treatment use.

15. Beaver Creek Dam, Pump Station and Piping Improvements

Design Engineer:	Schnabel Engineering (Dam)
Design Engineer:	Hazen & Sawyer (Pump Station)
Project Start:	February 2018
Project Status:	Work Authorization Development
Construction Start:	November 2025
Completion:	January 2029
Budget:	\$43,000,000

Current Status: A Joint Permit Application and supporting documents were submitted to VDEQ in October 2022, and are under review. The Plan-Environmental Assessment for the Beaver Creek Dam spillway upgrades was approved by NRCS in April of 2023. Federal funding from USDA-NRCS has been awarded for final design of the spillway upgrades in the amount of \$980,250. Design of the spillway upgrades and of the new Raw Water Pump Station and Intake are anticipated to start this fall in accordance with the NRCS dictated schedule.

16. SFRR to RMR Pipeline, Intake, and Facilities

Design Engineer:	Kimley Horn/SEH
Project Start:	July 2023
Project Status:	2% Design
Construction Start:	June 2026
Completion:	December 2030
Budget:	\$79,700,000

Current Status: Staff continue to work with CSX railroad on the draft permit documents. Topographic survey for the pipeline alignment is underway and nearing completion. Staff are also working on the final phases of the SFRR-RMR Nutrient Analysis, with the necessary equipment needed to complete study efforts scheduled to arrive in the Fall, and final report published in the Winter.

17. 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 regional coordination meeting to discuss the project was held on May 2, 2023. The design team is gathering additional information to assist the County in continuing the easement acquisition process.

Planning and Studies

18. Asset Management Plan

Design Engineer:	GHD, Inc.
Project Start:	July 2018
Project Status:	CMMS Implementation – 99% Complete AMP Implementation – 60% Complete
Completion:	CMMS Implementation – April 2023 AMP Implementation – 2024
Budget:	\$1,180,000

Current Status: Assistance with Cityworks training and implementation continues with the software now in place and work orders being generated. Work continues to fully implement the Asset Management program across all applicable Authority facilities with development of management

strategy group assignments and attributes for both vertical and horizontal assets, preparation for condition assessments and consequence of failure determination workshops.

19. MCAWRRF Biogas Upgrades

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

Current Status: This project now includes the Methane Sphere Rehabilitation, in addition to the Cogeneration Upgrades. RWSA and City staff continue to discuss all available options to reuse the biogas, with further investigation and analysis ongoing.

20. North Rivanna Water Treatment Plant Decommissioning

Design Engineer:	SEH
Project Start:	July 2019
Project Status:	Work Authorization Development
Completion:	March 2027
Budget:	\$2,425,000

Current Status: SEH is preparing a scope of work for design of the plant decommissioning. Staff is also pursuing funding and administrative assistance for removal of the North Fork Rivanna low head dam from the U.S. Fish and Wildlife Service through their Partners for Fish and Wildlife Program.

Other Significant Projects

21. Urgent and Emergency Repairs

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

Project No.	Project Description	Approx. Cost
2022-02/05/12	Miscellaneous MCI/PCI/RVI MH Repairs	\$70,000
2023-01	Finished Water System ARV Repairs	\$150,000
2023-02	WWM 32-02 Valve Replacement	\$50,000

- Miscellaneous MCI/PCI/RVI MH Repairs: Over the past several months, staff have identified issues with various manholes on the Moores Creek, Powell Creek, and Rivanna Interceptors (MCI, PCI, and RVI, respectively). These include one manhole on MCI that needs to be raised, as it was historically buried but found in Summer 2021 by the RWSA Maintenance & Engineering Departments, one manhole on RVI that needs a failing HDPE liner to be removed and cementitious mortar to be installed, and one manhole each on PCI and MCI that need to be coated with cementitious mortar due to root intrusion and groundwater infiltration. This work will be

performed through the On-Call Maintenance contract with Digs, and staff visited the site with the Contractor on July 15th. The appropriate MH on MCI was raised on November 1st, 2022. The remaining coating efforts were completed during the week of January 30th. Two additional small MH repairs are being planned for the summer, including one additional MH coating and height adjustment of one MH.

- RWSA Finished Water ARV Repairs: RWSA Engineering staff recently met with Maintenance staff to identify a list of Air Release Valves (ARVs) that need to be repaired, replaced, or abandoned. Several of these locations will require assistance from RWSA On-Call Maintenance Contractors, due to the complexity of the sites (proximity to roadways, depth, etc.). The initial round will include six (6) sites, all along the South Rivanna Waterline, and will be completed starting this Summer.
- WWM 32-02 Replacement: An 8” gate valve at RWSA’s Wholesale Water Meter site 32 was identified as defective during a recent meter calibration effort. Staff is coordinating the replacement efforts for this valve for the Summer time period with its On-Call Maintenance Contractor, as well as ACSA and the RWSA Water & Maintenance Departments. Due to the amount and critical nature of customers that would be impacted in a potential shutdown, RWSA will be utilizing an insertion valve in this location.

22. Security Enhancements

Design Engineer:	Hazen & Sawyer
Construction Contractor:	Security 101 (Richmond, VA)
Construction Start:	March 2020
Percent Complete:	99% (WA5), 0% (WA6), 0% (WA7)
Based Construction Contract +	
Change Orders to Date = Current Value:	\$718,428 (WA1) + \$611,764 (WA2-7)
Completion:	October 2022 (WA5), August 2023 (WA6)
Budget:	\$2,810,000

Current Status: WA5, which authorizes card access installation at Glenmore Water Resource Recovery Facility (GWRRF), Scottsville Water Resource Recovery Facility (SVWRRF), and Red Hill Water Treatment Plant (RHWTP), began during the week of June 20th, 2022. Work is substantially complete, with only programming at SVWRRF remaining. WA6 will include card access installation at RWSA’s remote sites, including all dams and pump stations. This work was authorized in August 2022, with completion scheduled for August 2023, due to significant lead times on equipment. Work started during the week of June 26th. WA7, which includes a pilot of a program that will test electronic padlocks at several RWSA facilities, has been authorized. These electronic padlocks have the potential to add an extra layer of security to unmanned facilities such as tanks, dams, and other facilities. If the pilot is successful, wide scale implementation of this technology is possible. Staff also kicked off final design of a project with Hazen & Sawyer to improve the front entrance of MCAWRRF and install additional fencing, gates, and card access. This will allow staff to better control access to the facility and provide staff with the means to vet access by visitors, vendors, consultants, and contractors. Design is underway, with discussions with Dominion Energy also ongoing, as relocation of existing electrical infrastructure will be required. This relocation process will need to be finalized prior to the project proceeding to the permitting phase. As these discussions are ongoing, staff is working on appropriate permitting submittals with Albemarle County.

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 JUNE 2023

DATE: JULY 25, 2023

The monthly and average daily Urban water system usages by the City and the ACSA for June 2023 were as follows:

	<i>Month</i>	<i>Daily Average</i>	
City Usage (gal)	132,494,420	4,416,481	45.6%
ACSA Usage (gal)	158,285,129	5,276,171	54.4%
Total (gal)	290,779,549	9,692,652	

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 July 2022), and that usage relative to the maximum allocation for each party (6.71 MGD for the City and 11.99 MGD for ACSA). Completed in 2019 for a cost of about \$3.2 M, our Wholesale Metering Program consists of 25 remote meter locations around the City boundary and 3 finished water flow meters at treatment plants.

Note: Staff detected a read issue with Meter Site 20 – Trader Joe’s in June and replaced the register. Staff is troubleshooting to get the meter back online with the new register, but at this point the meter is still not reporting data. Should this issue persist, meter replacement may be necessary.

Figure 1: City of Charlottesville Monthly Water Usage and Allocation

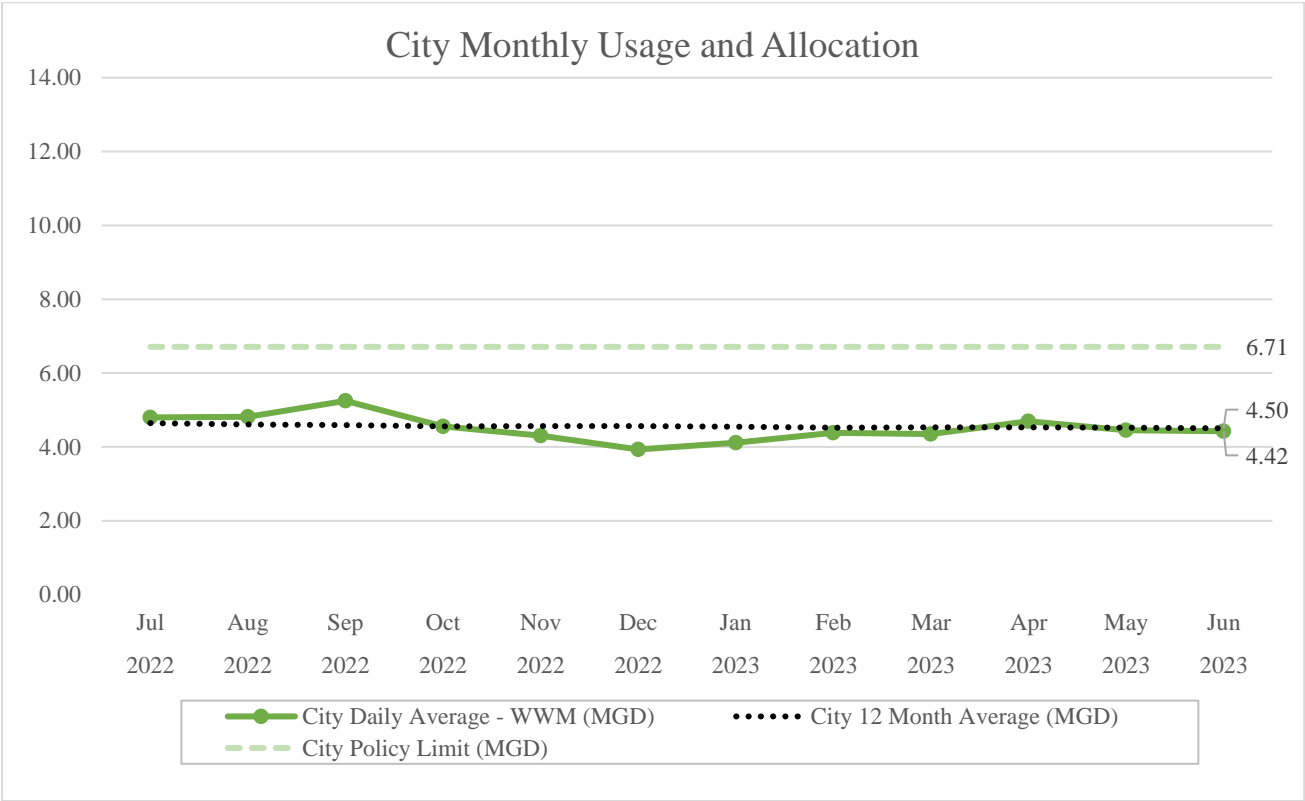
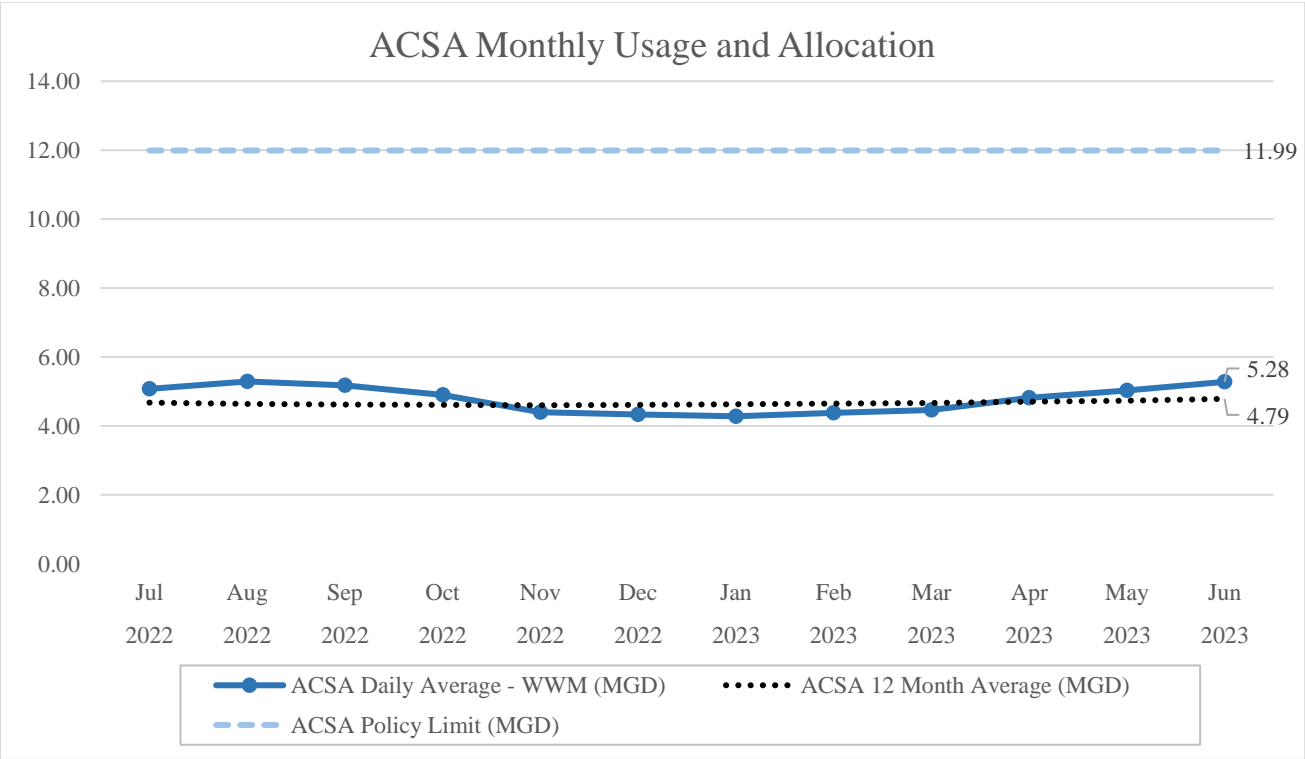

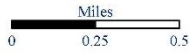


Figure 2: Albemarle County Service Authority Monthly Water Usage and Allocation



Meter Locations for the Wholesale Water Metering Project





 Date: 4/21/2017



695 Moores Creek Lane
 Charlottesville, VA 22902
 p.434-977-2970
www.rivanna.org
www.rivannagis.org

Meter Site Locations - WWMP
 01, Pepsi Place
 02, Michael Pl / Wilson Ct
 03, Wilder Dr
 06, Long St / River Rd

08, Franklin St / Carlton Ave / Broadway St
 09, Moores Creek Ln
 11, Avon St
 12, Loma Ln / Harris Rd
 14, Old Lynchburg Rd
 15, Ivy Rd / Colonnade Dr

16, Ricky Rd / Barracks Rd
 17, Ricky Rd (near Wayne Ave)
 18, North Berkshire Rd
 19, Hydraulic Rd / Inglewood Dr
 20, Trader Joes
 22, Rio Rd @ Church of Our Savior

23, Greenbrier Dr / Rio Rd
 24, Greenbrier Ter
 25, University Heights Apts
 26, Seminole Trl
 28, Rio Rd / Melbourne Rd
 29, Pen Park Ln

30, Darden Towle Park
 31, Stribling Ave
 32, Fontaine Ave



695 Moores Creek Lane | Charlottesville, Virginia 22902

434.977.2970

434.293.8858

www.rivanna.org

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

**FROM: ANDREA BOWLES, WATER RESOURCES MANAGER
JENNIFER WHITAKER, DIRECTOR OF ENGINEERING &
MAINTENANCE**

REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: DROUGHT MONITORING REPORT

DATE: JULY 25, 2023

State and Federal Drought Monitoring, as of July 10, 2023:

- U.S. Drought Monitoring Report: Indicates Charlottesville and most of Albemarle County have no drought conditions. The area along the western portion of Albemarle County is identified as being in an “Abnormally Dry” status.
- VDEQ Drought Status Report: Our region is listed as being in a “Watch” level for groundwater. Levels of severity increase from “Watch” to “Warning” to “Emergency.” All other drought indicators are normal.

Precipitation & Stream Flows

Charlottesville Precipitation				
Year	Month	Observed (in.)	Normal (in.)	Departure (in.)
2021	Jan - Dec	33.82	41.61	-7.79
2022	Jan - Dec	43.53	41.61	+1.92
2023	Jan - Jun	11.92	20.57	-8.65

Source: National Weather Service, National Climatic Data Center

USGS Stream Gaging Station Near the Urban Area (July 3-9)				
Gage Name	Rolling 7-day Avg. Stream Flow		Median Daily Streamflow	
	cfs	mgd	cfs	mgd
Mechums River	75.0	48.5	41	26.5
Moormans River	95.8	62.0	29	18.7
NF Rivanna River	38.9	25.1	28	18.1
SF Rivanna River	189.2	122.2	102	65.9

Median daily flow: July 9th for the period of record (approx. 30 - 80 years)

Drought History in Central Virginia

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



MEMORANDUM

TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS

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

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: APPROVAL TO INCREASE DESIGN CONTINGENCY –
AIRPORT ROAD WATER PUMP STATION AND PIPING
PROJECT – SHORT ELLIOT HENDRICKSON (SEH)
ENGINEERS

DATE: JULY 25, 2023

This request is to authorize an increase in the SEH engineering contingency from 10% to 25% (from \$47,000 to \$117,500 = an increase of \$70,500) based on the original work authorization amount (\$470,000). This increase in engineering services is requested due to construction delays from unforeseen underground conditions and material deliveries which have utilized the majority of the original 10% contingency for additional engineering field services. With this increase, the project remains within the total approved CIP project budget of \$10 M.

Background

The Route 29 Pipeline and Pump Station master plan was developed in 2007. The plan originally envisioned a multi-faceted project that reliably connected the North and South Rivanna water pressure bands, reduced excessive operating pressures, and developed a new Airport water pressure zone to better serve higher elevations located near the Airport and Hollymead Town Center. The master plan was updated in 2018 to reflect current changes in the system and water demands. This project, along with the associated water mains, will initially provide a reliable and redundant finished water supply to the North Rivanna area and ultimately allow the North Rivanna Water Treatment Plant to be decommissioned. The pump station was designed to serve system demands at the current high pressure and will be expandable to address future low-pressure conditions that will include a storage tank and the eventual creation of the Airport pressure zone.

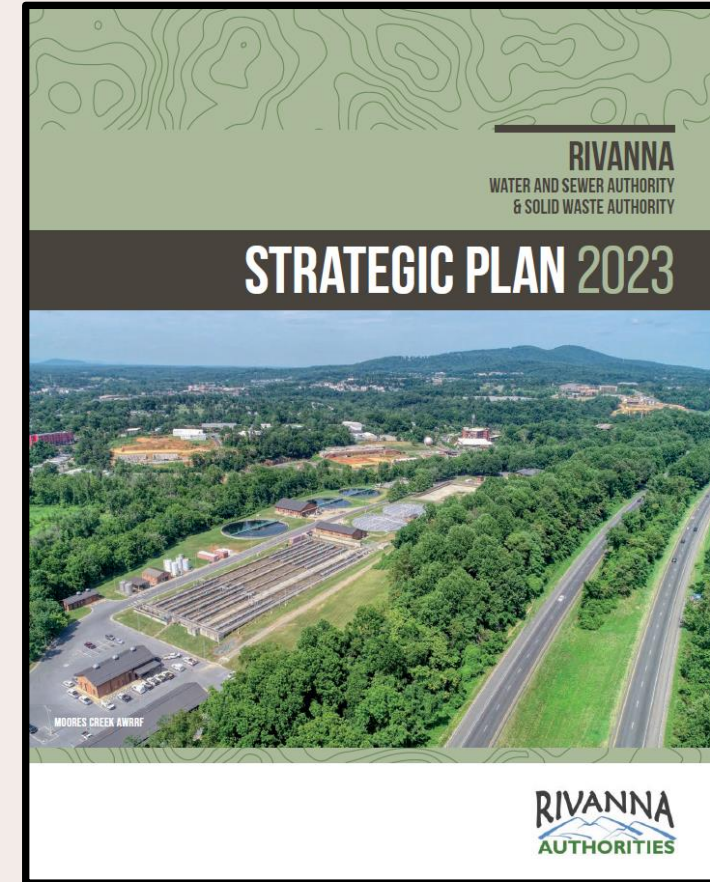
To take this project from the master planning phase through construction, staff negotiated a scope, fee and schedule with SEH under the firm's term contract to perform preliminary engineering, final design, bidding, and construction administration services. Since the project began, various construction change orders have been issued to address unforeseen underground rock conditions and material delivery delays which have commensurately increased the services required by the Engineer.

Board Action Requested:

Authorize an increase in SEH's total engineering work authorization contingency from 10% to 25% of the original contract amount of \$470,000 for the Airport Road Water Pump Station and Piping Project.

Rivanna Authorities Strategic Plan Update

Presented to the RSWA and RWSA Boards of Directors
By Deborah Anama, Executive Assistant
July 25, 2023



Strategic Framework

Vision

To serve the community as a recognized leader in environmental stewardship by providing exceptional water and solid waste services.

Mission

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

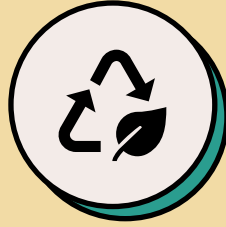
Values

- Integrity
- Teamwork
- Respect
- Quality

Priorities



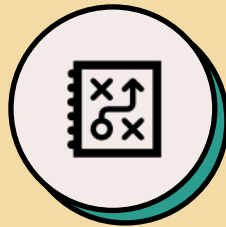
Communication and Collaboration



Environmental Stewardship



Workforce Development



Optimization and Resiliency



Planning and Infrastructure

Communication and Collaboration

To elevate awareness of the Authorities' impact and value through proactive communication, effective partnerships, and community involvement.



Outreach and Partnerships

Volunteer Time Off Policy –
Fix A Leak



Education

Student Tours – Social Media



Community Involvement

Grand Opening – Newsletters
Press Releases



Communications

Brand Identity – Team Building
Uniform Staff Signatures

Environmental Stewardship

To demonstrate and promote best practices in sustainability, resources conservation, and environmental education.



"No Mow"
Initiative
Sustainability



Community
Partnerships
Relationships – Resources



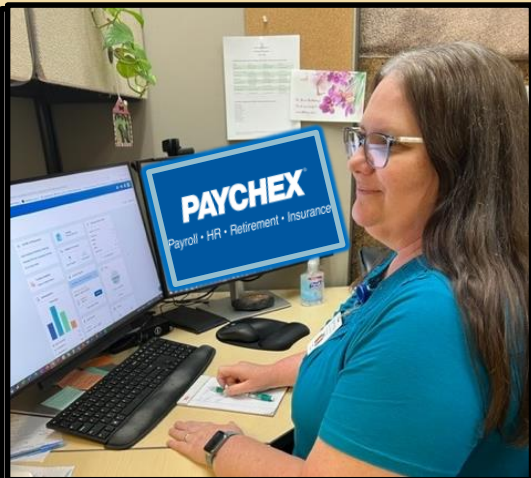
Environmental
Engagement
RiverFest



Resource
Conservation
Fuel Savings – Solar Options

Workforce Development

To attract, develop, and retain a professional, highly skilled, engaged, and diverse team.



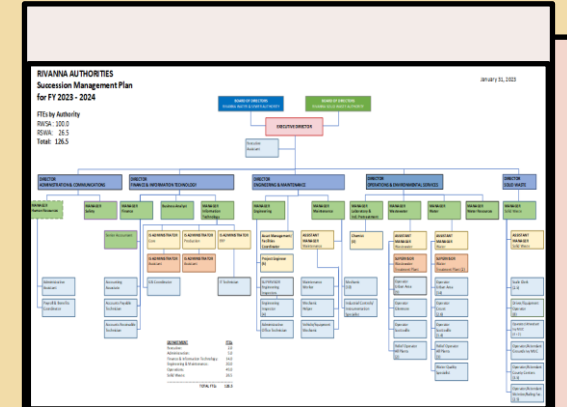
Human Resource
Information System
Expanding HR Recruitment



Professional
Training
Leadership Development Program



Employee
Retention
Less than 10% Turnover



Staffing Master
Plan
Updated 5 Year Plan

Optimization and Resiliency

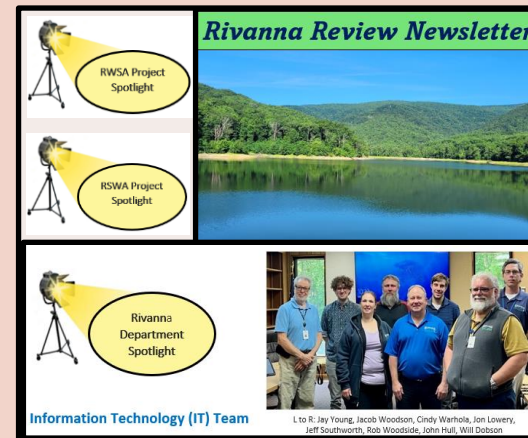
To empower a culture of innovative and collaborative thinking that advances efficient operational processes, technology modernization, and risk mitigation.



Standard Operating Procedures
44 New Video SOPs



Operational Optimization
Zeta-Meter



Cross-Departmental Awareness
Newsletter Spotlight



Employee Safety Training
CPR - First Aid – Safety Mondays

Planning and Infrastructure

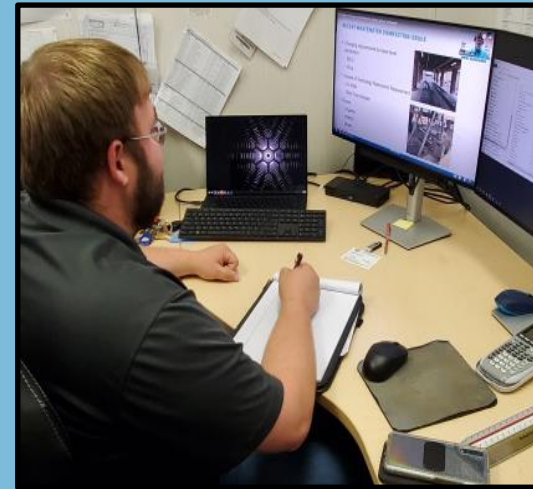
To address evolving needs by planning, delivering, and maintaining dependable infrastructure and facilities in a financially responsible manner.



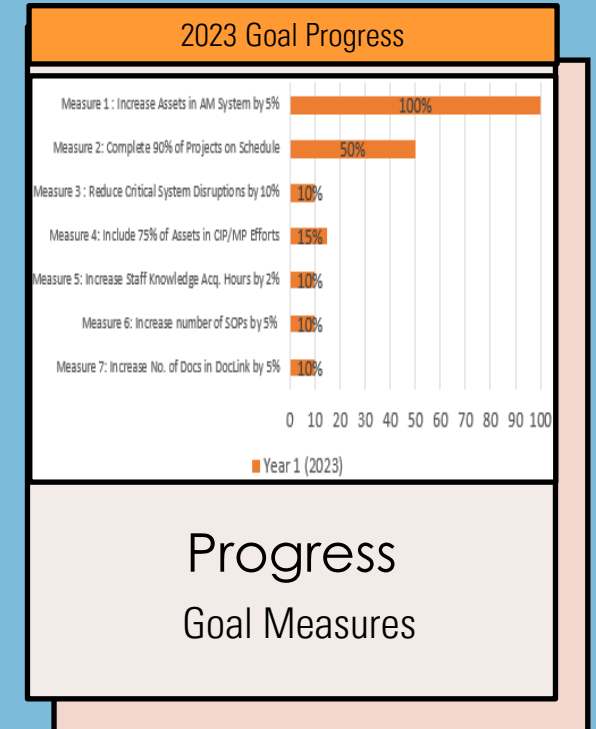
Asset Management
Planning



Project
Management
WorkOtter software – DocLink



Knowledge and
Education
Training – SOPs – Conferences





Providing high-quality water, wastewater, refuse and recycling services to the Charlottesville, Albemarle, and UVA community.

www.rivanna.org

Questions!