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**RWSA BOARD OF DIRECTORS**  
**Minutes of Regular Meeting**  
**November 19, 2024**

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, November 19, 2024 at 2:15 p.m. at Rivanna Administration Building, (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

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

**Board Members Absent:** none

**Rivanna Staff Present:** Bill Mawyer, David Tungate, Lonnie Wood, Jennifer Whitaker, Betsy Nemeth, Scott Schiller, Austin Marrs, Victoria Fort, Michelle Simpson, Stephanie Deal, Leah Beard, Annie West, Deborah Anama, Jacob Woodson

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

**1. CALL TO ORDER**

Mr. Gaffney convened the November 19, 2024 regular meeting of the Board of Directors of the Rivanna Water and Sewer Authority at 2:55 p.m.

**2. AGENDA APPROVAL**

There were no comments or questions on the agenda.

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

**3. MINUTES OF PREVIOUS BOARD MEETING ON OCTOBER 22, 2024**

There were no comments on or questions regarding the minutes for the meeting held on October 22, 2024.

**Ms. Mallek moved that the Board approve the minutes from the meeting held on October 22, 2024. Mr. Pinkston seconded the motion, which carried unanimously (7-0).**

**4. RECOGNITION**

There was none.

**5. EXECUTIVE DIRECTOR'S REPORT**

47 Bill Mawyer, Executive Director, stated that he would like to introduce the new Deputy  
48 Executive Director, David Tungate. He stated that Mr. Tungate had been their Operations  
49 Director and Water Manager for the last 12 years, and after a competitive national search, in  
50 which Mr. Gaffney participated on the selection committee, David Tungate was selected to be  
51 their first Deputy Executive Director of the Rivanna Authorities.

52  
53 Mr. Tungate thanked everyone and said he looked forward to serving in this position.

54  
55 Mr. Mawyer stated that the Deputy Director position was supported by the Board in FY 23 as  
56 part of the proposed succession management plan and was approved in the FY 25 budget. He  
57 stated that they were moving forward with succession management planning and getting  
58 positions in place to ensure a smooth transition for those who would retire in the coming years.  
59 He stated that they were thrilled about successfully implementing the succession plan.

60  
61 Mr. Mawyer stated that moving forward in their Workforce Development strategic plan priority,  
62 he would like to congratulate several of their mechanics who had invested significant time in  
63 training programs, including Steve Minnis, Matt Walker, Josh Powell, Tyrone Hughes, and  
64 Garrett Carver, all of whom had received certificates from Valley Career and Technical Center.  
65 He stated that they also recognized the efforts of Leah Beard, their HR Manager, and Betsy  
66 Nemeth, Director of Administration and Communications, who had obtained additional graduate  
67 certificates in employment and human resource management.

68  
69 Mr. Mawyer stated that Ms. Beard was a SHRM Senior Certified Professional, and Ms. Nemeth  
70 held a SHRM Professional Human Resources certification. He stated that he would like to extend  
71 his appreciation to these individuals for their hard work. He stated that they also celebrated  
72 Employee Appreciation Day for their Water and Sewer staff, with lunch in the parking lot,  
73 service awards, and recognition of staff members with 5, 10, 20 (Michelle Simpson), and 25  
74 years of service (Lonnie Wood).

75  
76 Mr. Mawyer stated that as part of their strategic plan Communication and Collaboration priority,  
77 they were still working on the Imagine a Day Without Water art contest with the City and the  
78 Service Authority, which closed on December 4. He stated that they would evaluate the  
79 nominations from school children on how to conserve water. He stated that Jennifer Whitaker,  
80 their Director of Engineering and Maintenance, had recently presented to the UVA fourth-year  
81 capstone class about her experiences as a public sector engineer. He stated that they appreciated  
82 her participation with that group.

83  
84 Mr. Mawyer stated that he also attended the Virginia Municipal Drinking Water Association  
85 meeting in Short Pump on Thursday and served on the Board of Directors for that organization.  
86 He stated that they had a board meeting on Friday, which provided an opportunity to network  
87 with other larger utilities, including Fairfax and Newport News. He stated that they maintained  
88 close ties with regulatory issues and the politics of the General Assembly, as well as the  
89 department heads of State Agencies. He stated that Chris Pomeroy of AquaLaw kept them  
90 informed and served as their conduit to those agencies.

91  
92 Mr. Mawyer stated that they had previously discussed the pipe break at Sugar Hollow as a

consequence of Hurricane Helene, and repair of the pipe had now been added to the Federal Emergency Management Agency (FEMA) Disaster Assistance Grant Program. He stated that they plan to apply for grant money to help restore the affected area.

Mr. Mawyer stated that they had previously applied for a Virginia Water Protection Permit for Beaver Creek Reservoir in 2022, and last week they had concluded discussions with DEQ, and finalized all terms of the permit. He stated that this permit would allow them to withdraw 2.2 million gallons per day from the Beaver Creek Reservoir and provided authorization to construct a larger spillway and a new pump station.

Mr. Mawyer stated that the permit would be advertised in newspapers for public comment, and if no objections were received, it would be implemented. He stated that this was a 15-year permit, which was previously a grandfathered withdrawal from Beaver Creek Reservoir. He stated that they had begun withdrawing water from Beaver Creek Reservoir before 1989, so it was not under a VDEQ permit. He stated that since they wanted to increase their withdrawals, that was why a permit was required.

Mr. Mawyer stated that the proposed project included a labyrinth spillway that would be constructed through the middle of the Beaver Creek Dam, a concrete structure with a metal bridge that would convey traffic on Browns Gap Turnpike. He stated that over the next five years, they hoped to see this project constructed, and they were expecting funding of about \$20 million from the Department of Agriculture's Natural Resources Conservation Service to help fund the project.

Mr. Gaffney asked if the 15 years was the limit for what was allowed.

Mr. Mawyer stated that 15 years was the extent of the permit. He stated that DEQ was balancing the needs of water withdrawal with the protection of a finite resource. He stated that 15 years was the longest permit the DEQ would grant, so they were balancing the needs of the many utilities who requested water from a finite water resource. He stated that they carefully reviewed all the calculations and required justification for any withdrawal, taking into consideration the required releases to the stream, which was a major issue at Beaver Creek. He stated that this included not only the amount of water needed for the project, but also the amount that must be released for downstream uses.

Mr. Mawyer stated that this was why they had to obtain the permit. He stated that regarding the purpose of the 15-year limit, it was a balancing act, as DEQ did not want to allocate too much water to one utility, but they also did not want to under-allocate to them. He stated that the DEQ had established this 15-year limit on permits to make withdrawals, and at the end of that period, applicants must revisit and justify their water usage for a permit renewal.

Mr. Mawyer stated that the DEQ aimed to ensure that the allocated water was being used effectively. He stated that completion of this permit for Beaver Creek Reservoir was a significant achievement, thanks to Jennifer Whitaker and her team, who worked closely with DEQ to develop this plan. He stated that they viewed this as an adequate water supply for Crozet until a time between 2045 and 2070, when additional water supply may be needed to serve the Crozet

community.

Mr. Mawyer stated that every 10 years, they assessed their water supply by measuring the reservoirs to ensure they had enough water. He stated that they collaborated with Weldon Cooper, the University, the County, the City, and the Albemarle County Service Authority to assess water demand in our service area and compare it to the available water supply, ensuring they had enough water for the community in the short and long term. He stated that the next update was scheduled for 2030.

Ms. Mallek asked if 2.2 million gallons per day was the grandfathered amount that was proposed to be allowed to continue.

Mr. Mawyer stated that this was a new total amount allowed by the permit for the next 15 years.

Ms. Mallek stated that this was based upon the water demand estimated for the Crozet community.

Mr. Mawyer confirmed that was correct.

Ms. Mallek asked if afterwards, there would be a subsequent process for determining what would be released after the labyrinth project was completed. She stated that she wanted to clarify the timing of the reduction or increase in stream release. She stated that at some point, a reduction was anticipated. She stated that she was trying to determine where in the process this change occurred, whether it was currently in effect or would be implemented in the future.

Jennifer Whitaker, Director of Engineering and Maintenance, stated that the permit process involved several phases. She stated that the first phase was the current-day condition, taking into account the existing infrastructure. She stated that the second condition considered the infrastructure they currently had with the dam under construction. Ms. Whitaker stated that the third condition was when they had all the new infrastructure built, and release elements were required throughout that process, which essentially allowed them to lower the water level while building the new dam. She stated that the agency provided some relief during this process. She stated that the final phase was the implementation strategy, once the dam was built, which was all part of this program.

Ms. Mallek stated that they had essentially done the homework for the next 15 years.

Ms. Whitaker confirmed that yes, they had.

Ms. Mallek stated that she knew what to anticipate after the labyrinth was finished. She stated that currently, they were treating 800,000 to 1 million gallons per day in Crozet. She stated that there was a significant amount of cushion built in here. She stated that the Crozet residents were probably hoping that the same growth rate would not continue because there was very little available open space that had not already been developed in the growth area. She stated that they had had a very significant increase in consumption over the last 15 years. She stated that it was challenging to predict exactly how much it would continue to grow. She stated that she was very

185 hopeful that it would remain stable.

186  
187 Mr. Pinkston asked what the capacity was at the Crozet Water Treatment Plant.

188  
189 Mr. Mawyer stated that recent construction had increased the capacity from approximately 1 to 2  
190 million gallons per day.

191  
192 Mr. Pinkston asked where the treatment plant was located.

193  
194 Mr. Mawyer stated that it was on Route 240, not far from the reservoir. There was a pipe that  
195 transported water from the reservoir up Route 240 and then to the water treatment plant. He  
196 stated that they planned to build a new spillway for the reservoir dam. He stated that the area to  
197 the right was the current grass spillway, but the Department of Conservation and Recreation had  
198 determined that it was not sufficient to safely pass 31 inches of rain over 24 hours.

199  
200 Mr. Mawyer stated that to address this, RWSA developed a concept for a new spillway, a  
201 labyrinth concrete structure with tooth-like devices which would allow the water to pass from out  
202 of the reservoir and then down a chute to the stream below. He stated that the current water  
203 pump station was located at the foot of the dam, but they planned to relocate it to the bank of the  
204 reservoir to allow construction of the new spillway.

205  
206 Mr. Mawyer stated that they were currently working with the County to secure a lease or  
207 purchase agreement for the property for the pump station on the bank of the Beaver Creek  
208 Reservoir, which was owned by the County. He stated that the new intake structure would be  
209 placed in the water, and the water would be pumped out of the reservoir and transported thru a  
210 new pipe up Route 240 to the Crozet Water Treatment Plant.

211  
212 Ms. Mallek stated that the labyrinth would not be used on a daily basis.

213  
214 Ms. Whitaker stated that was correct; it would only activate at the very highest flood levels.

215  
216 Ms. Mallek stated that she was examining the compression of this narrowing and thinking that  
217 there was a lot of velocity going down there.

218  
219 Ms. Whitaker indicated there was an energy dissipating structure at the bottom of the spillway.

220  
221 Mr. Mawyer stated that he serves on DEQ's Grandfathered Withdrawals Committee, which aims  
222 to review concerns from DEQ about over-allocated water resources in the state. He stated that  
223 the DEQ is examining watersheds and requesting that every utility disclose their current water  
224 withdrawals and projected future withdrawals. He stated that they are particularly focused on  
225 addressing the grandfathered withdrawals, which they say have increased nine-fold since 1989.

226  
227 Mr. Mawyer stated that the issue is central to their efforts to regulate the amount of water  
228 authorities can take. He stated that the committee has been working to understand the  
229 grandfathering process and its implications. He stated that Rivanna had three grandfathered  
230 withdrawals to serve Crozet, Scottsville, and the North Rivanna Water Treatment Plant. He

231 stated that they intend to decommission the North Rivanna Water Treatment Plant and  
232 potentially relinquish its grandfathering. He stated that other utilities, such as the City of  
233 Richmond, have large withdrawals that are grandfathered due to their King's Grant, which  
234 allocates all water passing through the City of Richmond to the City itself.

235  
236 Mr. Mawyer stated that this raised concerns, as the DEQ is grappling with the need to balance  
237 economic development with water conservation. He stated that the Grandfathered Withdrawals  
238 Committee he works on, and Victoria Fort has been assisting with, are working with DEQ to  
239 understanding the state code and the meaning of grandfathering. He stated that they have been  
240 meeting with the DEQ to discuss their interpretation of the code and the implications of the  
241 surface water management areas provision.

242  
243 Mr. Mawyer stated that if an area is declared a "surface water management area" due to drought,  
244 it can limit grandfathered withdrawals. He stated that the DEQ has sent a survey to all utilities,  
245 requesting information on their current and 1989 water withdrawals. He stated that the  
246 committee has encouraged the DEQ to analyze this data to better understand the scope of the  
247 issue. He stated that they questioned if this issue was statewide or limited to specific watersheds.  
248 He stated that if it was the latter, conservation measures could be implemented in those  
249 watersheds to address the issue, rather than affecting the entire state.

250  
251 Mr. Gaffney stated that it was unclear whether the DEQ would ever fully comprehend that  
252 removing 10 million gallons of water per day from the system resulted in the same amount of  
253 water being reintroduced back in through Moores Creek.

254  
255 Mr. Mawyer replied that yes, they had asked about that, and DEQ stated that their calculations  
256 took that into account.

257  
258 Mr. Gaffney stated that in that case, it was kind of a wash.

259  
260 Mr. Mawyer stated that it appeared that way. He stated that it would be interesting to see the  
261 numbers from the utilities in the survey.

262  
263 Ms. Mallek stated that she was recalling the 19-agency meeting from 2006 or 2007, when it was  
264 already stated that they were not receiving James River water.

265  
266 Mr. Mawyer stated that he had previously discussed renovating the administration building, and  
267 they were continuing to pursue that project. He stated that within a month or so, they expected to  
268 issue a request for construction bids. He stated that one of the primary reasons for the renovation  
269 was that their laboratory was outdated and required updating. He stated that they analyze nearly  
270 all of their wastewater and water samples in-house.

271  
272 Mr. Mawyer stated that they had located a rental space in the City for laboratory space and  
273 intended to issue a letter of intent to rent the property. He stated that this space was currently on  
274 the market, but it was competitive, and they were hopeful of securing it. He stated that if they  
275 were successful, they planned to relocate their lab staff and operations to the rental property  
276 while the renovation took place there. He stated that they had previously considered relocating

the lab and staff to trailers on site, which had received a lukewarm response at times. He stated that if there were no objections, they would be pursuing a lease on that space in the City.

Mr. Gaffney stated that they should acknowledge that their engineers had been working in trailers for 15 or 20 years.

Mr. Mawyer stated that was right; they had been there for about 20 years. He stated that they all looked forward to the renovation, but during the renovations, it would be painful to determine where they would conduct business. He stated that they were trying to work through that.

Mr. Pinkston asked if there would be a phasing plan.

Mr. Mawyer stated they would as much as possible. He stated that ideally, they would build the addition, move into it, and then renovate the existing building. He stated that however, they had heating, cooling, and electrical systems that needed to be integrated, making it an inefficient and costly approach to complete in phases. He stated that instead, they were considering abandoning the building and allowing the contractors to work on it. He stated that they were currently working through the requirements of that plan, and once they awarded a construction contract, they would have more details.

Mr. Sanders asked if they had the lease yet.

Mr. Mawyer stated that they did not currently have one, but they would issue a letter of intent and inspect the property to ensure it met their needs. He stated that if the owner was agreeable, they would make a firm offer on the lease for the proposed site in the City.

He stated that he wanted to address the ongoing topic of fluoride. As a reminder, their current level of fluoridation was 0.7 milligrams per liter, which was a recommended level set by the Virginia Health Department and the Environmental Protection Agency (EPA). He stated that recently, a federal court in California had ruled that it was reasonable to reassess this level, citing concerns about its impact on younger children. He stated that the court had not found evidence of injury, but rather directed the EPA to reevaluate the fluoridation level.

Mr. Mawyer stated that this had sparked a discussion, and he recalled Mr. Lunsford receiving a comment from a customer regarding potential changes to the fluoridation level. He stated that currently, they were not planning to make any changes. He stated that they were waiting for recommendations from VDH and EPA, and if they suggested modifications, staff would be happy to implement them. He stated that they were not medical or public health professionals and therefore could not determine the correct level of chemicals, including fluoride. He stated that they relied on VDH's guidance on all chemicals, including fluoride.

Mr. Mawyer stated that as previously discussed, they intended to sell the Morris house and 2 acres at Buck Mountain Road. He stated that since then, they had conducted inspections, and found significant disrepair of the house. He stated that at this point, if there were no objections, they planned to demolish the house and sell the two-acre parcel. He stated that they were hesitant to allow prospective bidders to enter the property due to its condition.

Mr. Pinkston asked if the Board needed to vote on that matter.

Mr. Mawyer stated that staff did not think it was necessary, but the Board certainly could if they thought it was appropriate.

Mr. Mawyer stated that they had the 2025 Board meeting schedule, which was scheduled for every fourth Tuesday of the month next year, except for November and December. He stated that it was included on the consent agenda. He stated that they had proposed adding December 26 to staff holidays as the 13th holiday, as it fell on a Friday after Christmas on Thursday. He stated that otherwise, they had standing holidays, which included 12 and a half days, with some floating holidays where they were open for business, but staff could take vacation with permission or receive credit for vacation time.

Ms. Mallek stated that she noticed during the Rivanna Solid Waste Authority meeting that there were six stars for holidays in which the facilities were closed. She stated that she would like for that information to be disseminated in a newsletter for the public's benefit.

Mr. Mawyer stated that the six holidays when Solid Waste facilities were closed included New Year's Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

Mr. Lunsford asked if the repairs to the Sugar Hollow transfer pipe were still on schedule.

Mr. Mawyer stated yes; Faulconer Construction was moving forward with the work. He stated that they had ordered the pipe and secured the permits.

Mr. Lunsford asked if the grant would slow that down.

Mr. Mawyer stated that it would not. He stated that the grant provided after completion reimbursement for the work.

## **6. ITEMS FROM THE PUBLIC**

### *Matters Not Listed for Public Hearing on the Agenda*

There were none.

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

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

## **8. CONSENT AGENDA**

### *a. Staff Report on Finance*

### *b. Staff Report on Operations*



- c. *Staff Report on CIP Projects*
- d. *Staff Report on Administration and Communications*
- e. *Staff Report on Wholesale metering*
- f. *Staff Report on Drought Monitoring*
- g. *Approval of Board Meeting Schedule for Calendar Year 2025*
- h. *Approval of the Holiday Schedule for Calendar Year 2025*
- i. *Approval of Term Contract for Professional Commissioning Services for Utility Buildings and Facilities – Facility Dynamics Engineering*
- j. *Approval of Term Contracts for Commissioning Services for Industrial Controls Integration, Management and Inspection Services – E-Merge and Short Elliot Hendrickson*

Mr. Pinkston asked if staff could provide further information on Item J.

Mr. Mawyer stated they would be working with two consultants: Short Elliot Hendrickson and E-Merge. E-Merge was not a professional firm as defined by the Virginia Public Procurement Act, but they possessed expertise in technology and controls. He stated that Mr. Wood and his staff planned to utilize both firms to ensure controls were installed properly and tested, and to complete post-occupancy inspections after a project was completed to verify effectiveness.

Mr. Pinkston asked if this would apply to their Supervisory Control and Data Acquisition (SCADA) systems.

Mr. Mawyer stated yes. He stated that the SCADA system controlled their chemical inputs and pumps, and operational status, including when they were running and when they were not.

Mr. Pinkston asked if they had dedicated industrial controls companies they relied on.

Mr. Mawyer stated that they had historically received the industrial installer through the competitive bid process, and it was whoever the construction contractor decided to team with. He stated that they would have a specification which would outline their requirements, including the pumps, but they did not fully detail a wiring diagram to show the exact installation process. He stated that they may specify the need for a PLC or motor control in certain locations, but it was a design-build approach that the specialty control subcontractor would wire and install.

Mr. Pinkston asked if the commissioning agent would come after that.

Mr. Mawyer stated that was right. He stated that they would add value by reviewing the design and installation.

Mr. Pinkston stated that this information would be beneficial for the public to know, considering what happened with the pumping station this year. He stated that this was another response they were putting together and they were applying best practice for having someone put these systems through their paces. He thanked them for doing this.

Ms. Mallek asked if the commissioning person looked at the plan beforehand and was not waiting until it was installed to determine its effectiveness. She asked if there would be an initial review before the system was brought online.

Mr. Mawyer stated that they would participate in the design process, from the outset, to help determine what they specified was appropriate, including products and contract specifications. He stated that the contractor then submitted a variety of submittals, detailing what he intended to provide, and the commissioning consultant verified that these products met our requirements functionally.

Mr. Mawyer stated that after installation, they ensured that the products worked as intended. He stated that their design engineer handled this process, but having this second or third set of expert review provided an added layer of oversight, allowing them to better support staff with specialized needs. He stated that this expansion of their program came with some costs, but avoiding pump station submergence made it well worth the investment.

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

## **9. OTHER BUSINESS**

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

Bill Mawyer, Executive Director, stated that as they embarked on long-range planning, he was pleased to move beyond budgeting and facts to explore the thinking and planning aspects of their work. He stated that today, he would focus on thinking ahead. He said that as Ben Franklin once stated, "When the well is dry, we know the worth of water." He stated that he would like to thank Ms. Anama for bringing that quote to their attention. He stated that they had discussed this topic before, and he would like to revisit it.

Mr. Mawyer stated that the earth's water was a finite resource, and they must consider its availability. He stated that interestingly, 70% of the earth's surface was covered by water, but only 3% was freshwater, and a mere 0.5% was in lakes and rivers. He stated that the majority of freshwater was tied up in ice caps and groundwater. He stated that when they looked at the water on Earth, only about 0.5% was available in lakes and rivers, which may seem small, but it was a significant amount.

Mr. Mawyer stated that for example, the Great Lakes held six quadrillion gallons of water, a staggering amount. He stated that research by Colorado State suggested that nearly half of the

freshwater basins may not be able to meet monthly demand by 2070. He stated that the United Nations had also reported that two-thirds of the world would face a month of water shortage by 2050. He stated that this was a serious issue, as they saw other localities and states struggling to maintain adequate drinking water supplies.

Mr. Mawyer stated that their thinking and planning were driven by capacity, regulations, emerging contaminants, technology, sustainability, and affordability. He stated that they were fortunate to have a university in their local economy, which provided jobs and growth. He stated that in their 2020 Service Area Water Urban Demand Study, they had met with the university, Weldon Cooper, and City and County planning staff to project the community's water demand.

Mr. Mawyer stated that by 2070, the population of Charlottesville was projected to be approximately 65,000 people. He stated that the Albemarle County Service Authority, which served the County's public water system, was expected to serve around 106,000 people. He stated that considering the County's utility customers, Rivanna needed to serve about 170,000 people in 2070. He stated that by 2030, they were anticipated serving 135,000 people, which meant an additional 35,000 people would require drinking water over the next 35 years. He stated that this growth seemed reasonable.

Mr. Mawyer stated that they also needed to consider the impact of climate change, which may lead to rising sea levels, coastal migration, and more frequent droughts. He stated that the 2002 drought, lasting 18 months, was a prime example. He stated that regarding the intense rain they had experienced, it was likely they could expect more severe storms in the future. He stated that as part of their planning, they were addressing these challenges. He stated that locally, they had been working on water supply projects to ensure their community had a sufficient drinking water supply.

Mr. Mawyer stated that recently, the Board had awarded a contract for the Ragged Mountain to Observatory raw water line project, which tied into the Birdwood line. He stated that they would be advertising for construction bids for the Central Water Line next month, which would distribute finished water along Jefferson Park Avenue and Cherry Avenue to the Long Street Bridge area. He stated that they had a smaller project planned for the following summer to clear the perimeter of the Ragged Mountain Reservoir, allowing them to add 700 million gallons of water.

Mr. Mawyer stated that they were working on a larger project to build a pipeline from Rivanna Reservoir to Route 250 at Birdwood, completing the piping system and enabling them to transfer water between Rivanna Reservoir, Ragged Mountain Reservoir, and the South Rivanna and Observatory Water Treatment Plants. He stated that this addition would be substantial, with a price tag of at least \$200 million. He stated that they were hopeful that it would be financially feasible for the community. He stated that when he mentioned the differing costs between the County and the City, they had provided the funding formulas that were agreed upon in various past agreements.

Mr. Mawyer stated that for example, the pump station along Reservoir Road was 80% funded by the Service Authority. He stated that these calculations had been done by Ms. Hildebrand, Mr.

O'Connell, and himself a few years ago. He stated that in the case of the Rivanna to Ragged pipeline, the Service Authority was funding 80% of the project, as per the terms of the Ragged Mountain Dam project agreement.

Ms. Mallek asked if the timbering done in the next year was within the Rivanna umbrella, as far as covering the costs and generating revenue from selling the timber. Mr. Mawyer replied yes. He stated that to ensure that they could raise the water level, they needed to clear the perimeter.

Mr. Mawyer discussed the new Regional Planning Unit that had been established, which included Greene, Louisa, Fluvanna, and Buckingham Counties, along with Albemarle County, ACSA, Town of Scottsville, and City of Charlottesville to form the Middle James area. Mr. Mawyer stated that this Middle James area represented the five counties that bordered and used water from the James River. He stated that the James River watershed spanned from West Virginia to the Bay, and their planning unit would consist of the five counties, five incorporated towns, three authorities, and one planning district, the Thomas Jefferson Planning District Commission, as well as the City.

Mr. Mawyer stated that by December 8, each member of the planning unit was required to provide a contact to the DEQ for their representative to the water supply planning committee. He stated that they could reply directly to the DEQ or let Rivanna know, and they would respond on behalf of the entire area. He stated that Jennifer Whitaker would serve as Rivanna's representative.

Mr. Pinkston asked if there was a request right now.

Mr. Mawyer replied no; but they could inform Mr. Sanders or Mr. Richardson who could let him know. He stated that if they wanted to let him know their chosen representative, that was fine as well.

Mr. Pinkston asked if he would like them to put together folks from the ACSA and City informally.

Mr. Mawyer stated that he was letting Mr. Sanders and Mr. Richardson know that the localities needed representatives and needed to notify DEQ by December 8 who that representative and the alternate would be on this regional planning team. He stated that they could designate Rivanna if they wanted to, but they could have their own representative if they preferred.

Mr. Gaffney asked if the Regional Planning Unit (RPU) members were representatives of these 15 different entities.

Mr. Mawyer stated that was his understanding. He stated that it included five counties, five incorporated towns, three authorities, one City, and one planning district commission.

Mr. Gaffney asked if they joined in with them, they would get four or five votes. He asked if it made more sense for everyone to show up the first time.

Mr. Mawyer stated that he was unsure if it was a well-formulated plan, even with DEQ being involved. He stated that during his conversation with the DEQ person who would be assisting them, it became clear that they planned to set up an initial meeting, after which the group would be expected to manage itself. He stated that over the course of a five-year period, they were supposed to develop a comprehensive water supply plan for the entire water planning unit.

Mr. Gaffney asked if there would be five individual plans.

Mr. Mawyer stated that it depends. He stated that the theme was encouraging cross-jurisdictional projects, providing water for everyone. He stated that Albemarle, Charlottesville, and Scottsville had a water plan that expired, and it was time to renew it. He stated that the state advised them to wait until they established a new planning unit. He stated that it was assumed that every locality in the state had a water supply plan. He stated that nevertheless, it seemed to him that the theme was to empower localities with the capability of supplying water to assist those who did not, at the very least, help them develop a plan.

Ms. Mallek stated that if she understood correctly, every one of these jurisdictions would have a designated person. She stated that they should not give up any of these seats in the planning unit by consolidating. She stated that they needed to ensure that every decision was made with one of their people in the right position.

Mr. Mawyer stated that he would think so. He stated that if they delegated it to Rivanna, they would not take their proxy. He stated that there would still be three votes as opposed to one.

Mr. Richardson stated that he would like to discuss the logic behind delegating the RWSA to be their representative. He stated that in terms of checks and balances, he wondered how this process would work and what safeguards were in place to ensure that their interests were being represented effectively.

Mr. Mawyer stated that as the responsible water supplier of the County and City, they managed that issue for the community. Because this was a water supply issue, they could be at the forefront of addressing it. He stated that however, it was also a political process, particularly if it involved another County or an extension of the growth area within the County. Mr. Mawyer stated that was the County's prerogative or the City's to decide, not Rivanna's. He stated that even if they were to represent the interests of the County or City, they would still need to coordinate closely with them and determine whether the City or County supported the proposed plan. He stated that he believed the DEQ was hoping for a consensus, as the ordinance indicated. He stated that the minority or opposing views would also be expressed in the plan.

Mr. Mawyer stated that this process was supposed to be completed over five years, and the DEQ had an extensive list of data that required the planning unit to provide, including information on their water demand, the number of houses and businesses, and the amount of public water used. He stated that DEQ stated that if they did not have this data, they did not have to create it, and instead, they should rely on existing data. He stated that this was a deference to smaller localities, allowing them to avoid spending money to gather the necessary information.

Mr. Pinkston asked if Virginia DEQ would support this initiative with project management or some type of facilitation of the process.

Mr. Mawyer stated that DEQ had designated a person to oversee the start of the process. He stated that if they had issues or challenges, they would defer to DEQ to help them move forward.

Mr. Pinkston stated that it seemed that there should be an assigned person to lead this effort.

Ms. Mallek stated that in the early communications, they were offering \$20,000 and stated it would not be a financial burden on the localities. She stated that she was not sure if that was per jurisdiction.

Mr. Mawyer stated that they were waiting for DEQ to issue further guidance regarding this committee.

Mr. Pinkston asked if their state senators and delegates were aware of this.

Mr. Mawyer stated that the amendment was approved by the General Assembly, so presumably, they were aware of the situation. He stated that Katrina Callsen had been made aware of what they had been asked to do, but it would not hurt to continue the discussion with those representatives.

Ms. Mallek stated that Delegate Amy Laufer was on the State Water Commission.

Mr. Mawyer stated that they would deal with this committee and planning process and report back to the Board. He stated that he was certain there would be lots of questions moving forward.

Mr. Pinkston stated that it was interesting that Louisa got stitched onto them when they were not in their actual watershed.

Mr. Mawyer stated that the James River Water Authority had a withdrawal from the James River. He stated that they were an authority serving Louisa, and they were building an intake on the James River to serve Fluvanna and Louisa.

Mr. Richardson asked if this work was due to begin in April of next year.

Mr. Mawyer stated that the first meeting was supposed to occur in April.

Mr. Richardson stated that this group would not meet again before the December 8 deadline to inform DEQ of their representatives. He asked if Ms. Mallek would be comfortable delegating their representation to Rivanna, with any updates being reported back to the Board of Supervisors for discussion.

Mr. Gaffney stated that if Louisa County, the Town of Louisa, and James River Water Authority attended the meetings with three voting representatives, they should have five for Albemarle,

Charlottesville, Scottsville, ACSA, and RWSA. He stated that everyone should show up with separate representatives for the first meeting and decide how it would work, then consult further about the future delegations. He stated that Ms. Mallek would be a good County representative for this group.

Mr. Richardson stated that he understood.

Mr. Mawyer stated that over the next five years, PFAS issues would become more prominent. He stated that more information would be shared on the topic. He stated that moving forward, they were aware of the new regulation from the EPA on PFAS and drinking water, which was implemented in April. He stated that the American Water Works Association, the American Wastewater Association, and several other business organizations had filed a lawsuit to challenge the maximum contaminant level limits. He stated that specifically, they suggested that these current limits of 4 should be at least 10 parts per trillion.

Mr. Mawyer stated that the challenge was that the EPA had not followed the proper administrative process to issue the regulations. He stated that this issue was ongoing, and they would see how it unfolded with the new federal administration. He stated that additionally, there was concern about wastewater. He stated that they had detected PFAS in their wastewater, and if there was ever a regulation requiring its removal, it would require an expansion of our CIP.

Mr. Mawyer stated that biosolids were the end product of wastewater treatment, and they transported them to McGill Environmental daily. He stated that they had tested the PFAS levels in their wastewater six times in 2021 and planned to conduct further tests. He stated that currently, PFOS levels ranged from 5.9 to 8.7, while PFOA levels were at 0.6 and 0.5.

Mr. Lunsford asked what contributed to the increase to 8.7 in period five.

Mr. Tungate stated that they collected six samples over six different days. He stated that the data they generated, approximately five tons per night, were representative of the graph. He stated that they repeated the process six times to gather some insight.

Mr. Mawyer stated that they made approximately 545 trips each year to transport biosolids to McGill Environmental compost facility in Waverly. He stated that land application was another option for biosolids disposal. He stated that land application was not always well-received, and landfilling was also an option, although the state and country lacked sufficient landfill space to consider this as a long-term solution. He stated that incineration was another method, but it came with the added concern of air pollution.

Ms. Mallek stated that they would install scrubbers to clean it out. She stated that the Blue Plains facility in Northern Virginia had invested \$50 million in a 10-year cost recovery plan, which had allowed them to stop shipping high-quality materials to this area.

Mr. Mawyer stated that when discussing emerging contaminants, the EPA required them to participate in the Unregulated Contaminant Monitoring Rule, specifically Rule #5. He stated that they were currently studying 30 unregulated contaminants, collecting samples, and reporting the

690 results to the EPA. He stated that the EPA then reviewed the national results to determine if a  
691 contaminant warranted regulation.

692  
693 Mr. Mawyer stated that currently, they were monitoring 29 additional PFAS compounds, as well  
694 as lithium, fluoride, nanoparticles, microplastics, and other potential endocrine and interrupters  
695 that may pose future issues. He stated that previously, they had discussed PFAS, which were the  
696 waterproofing agents found in certain cookware, waterproof clothing, and fast food containers,  
697 preventing oils and grease from seeping through. He stated that it was worth noting that most  
698 humans had PFAS in their bodies.

699  
700 Mr. Gaffney stated that he recently saw a pan in a store that stated on the packaging that it  
701 contained PFAS. He stated that they had not made anything illegal yet.

702  
703 Mr. Mawyer stated that he wanted to bring up another point. He stated that they removed PFAS  
704 from their drinking water through Granular Activated Carbon (GAC) filters, and then  
705 regenerated the media with heat. He stated that he was unsure about what happened to the PFAS  
706 during the regeneration process. He stated that it would potentially become an issue in the future.  
707 He stated that the GAC filters would lose some of their effectiveness in removing PFAS,  
708 potentially diminishing their current performance. He stated that they did not currently have a  
709 clear answer to this question, but it could be a concern.

710  
711 Mr. Lunsford asked if there were any plans to handle the leachate differently in the future,  
712 considering the regulations on wastewater treatment for PFAS releases.

713  
714 Mr. Mawyer stated that there were no regulations in place regarding PFAS removal from  
715 wastewater. He stated that if they were to obtain a PFAS removal requirement for wastewater, it  
716 would also impact solid waste management, as they may need to limit PFAS-contaminated waste  
717 and there would be high costs to pay for the necessary filters. He stated that this would result in a  
718 significant increase to the Solid Waste Authority, as well as other industries in the community  
719 that may be contributing PFAS. He stated that if they started having high PFAS test results, they  
720 would attempt to identify the source of the contamination.

721  
722 Mr. Gaffney stated that he was curious to know if there was any current information on whether  
723 the maximum allowable levels of PFAS in wastewater would be set at a higher level than those  
724 in drinking water.

725  
726 Mr. Mawyer stated that PFAS levels in wastewater would be lower than those in drinking water.  
727 Although, others might debate that wastewater could become drinking water after it was  
728 processed. He stated that they had previously discussed the issue of microplastics, particularly in  
729 plastic water bottles.

730  
731 Mr. Mawyer stated that technology and artificial intelligence (AI) were also emerging concerns.  
732 He stated that on the one hand, AI offered numerous benefits, such as real-time process  
733 applications and enhanced SCADA capabilities, which could enable them to operate more plants  
734 and input points. He stated that however, AI also raised cybersecurity concerns, as malicious  
735 actors could exploit AI in an attempt to breach their systems.



736  
737 Mr. Mawyer stated that he would like to provide more insight into data centers and their  
738 significant water and power consumption. He stated that data centers were among the top 10  
739 water-consuming commercial activities in the United States, with some facilities consuming  
740 millions of gallons of water per day. He stated that an average-sized data center used  
741 approximately 300,000 gallons of water daily, while large data centers could consume up to 1 to  
742 5 million gallons per day.

743  
744 Mr. Mawyer stated that furthermore, data centers often consisted of multiple buildings, which  
745 could significantly increase their water consumption. He stated that given Virginia's high  
746 concentration of data centers, particularly in Loudoun County, Prince William County, Stafford,  
747 Spotsylvania, Caroline, and other areas, there were concerning implications. He stated that the  
748 presence of multiple data centers in the state, with over 300 facilities, raised questions about their  
749 environmental impact.

750  
751 Mr. Mawyer stated that additionally, Dominion Power had reported that it would take four to  
752 seven years to generate enough power to serve these data centers, which was not a sufficient  
753 timeframe to address the issue. He stated that he came across a report suggesting that Amazon  
754 was considering bringing its own power for data centers with a small nuclear reactor.

755  
756 Mr. Mawyer stated that although Amazon had not specified how they planned to find the  
757 necessary water, they could create a strain on water systems across the state and country,  
758 including if a data center was developed here.

759  
760 Mr. Mawyer stated that sustainability was a top priority, and they were constantly working  
761 towards it. He stated that they had been coordinating with Ms. Hildebrand and the City on  
762 renewable natural gas and exploring ways to utilize wastewater biogas in the City's gas system.  
763 He stated that high-efficiency vehicles were also on their radar.

764  
765 Mr. Mawyer stated that reusing treated wastewater to produce potable water was a topic that  
766 would likely gain more attention in the future as water resources became increasingly scarce. He  
767 stated that Dominion Power had also been exploring the use of solar panels at the landfill. He  
768 stated that he would like to thank the Board for considering their Sustainability and Grants  
769 Coordinator position, which had been an asset in helping them address these issues.

770  
771 Mr. Mawyer stated that affordability would continue to be a concern as prices rose for refuse,  
772 water, and wastewater services. He stated that when examining their locality's map, they saw  
773 scattered wastewater sites and water treatment plants scattered around. He stated that he believed  
774 they should look for opportunities to consolidate services in the long term.

775  
776 Mr. Mawyer stated that they had previously proposed and the Board had approved  
777 decommissioning North Rivanna WTP and combining its services with South Rivanna and  
778 Observatory. He stated that they also planned to convert the Glenmore Wastewater Treatment  
779 Plant into a pump station and combine the small package plant at Stone Robinson Elementary  
780 School, bringing the wastewater back to Moores Creek for a better treatment process and  
781 improving those communities with consolidation. He stated that these consolidations would

improve their wastewater and water supply system's affordability.

Mr. Mawyer stated that Scottsville was far away from all other facilities, so they did not have any current solutions for them, but within the water supply planning unit, Buckingham was nearby, and Scottsville had excess capacity, potentially offering opportunities for a cross-community project to supply Buckingham. He stated that Red Hill, as a groundwater system, would be a candidate for future improvements as well.

Mr. Mawyer stated that the Board had decided to retain the Buck Mountain property. He stated that he believed that this was wise, as it would be a prime location for a future reservoir. He stated that they had discussed and approved the lease at Observatory WTP, securing a 50-year agreement. He stated that additionally, they had a 50-year lease option if it was renewed, which was in the distant future.

Mr. Mawyer stated that they had recently expanded the Observatory and improved South Rivanna WTPs, but by 2045, they may need to expand South Rivanna from 12 to 16 million gallons per day and Observatory may require an expansion to 20 million gallons per day by 2070.

Mr. Mawyer stated that this was their long-term plan for 2050 and beyond. He stated that to summarize, population growth and the positive aspects of their community would continue to drive water and wastewater demand. He stated that regulations would necessitate more treatment. He stated that there may be opportunities for local and regional collaboration to optimize resources and minimize costs. He stated that a long-term strategic plan was essential to guide their decisions. He stated that he would like to thank the Board for their efforts and appreciated their dedication.

Ms. Mallek stated that she had a couple of minor points to bring to their attention. She stated that in slide 12, she understood that there was a significant effort to minimize the impact of parts per trillion of PFAS in drinking water, but she believed the health consequences were something that people needed to consider, as individual families were currently bearing the health consequences of contaminants in the water across the country. She stated that she was fairly dismayed that they were not being addressed adequately.

Ms. Mallek stated that although the amount of PFAS may be small, such extremely toxic substances could not be ignored. She stated that moving on to the data center issue, she was pleased to see that some facilities had closed-loop water systems. She stated that she hoped that as localities developed ordinances, they would require this feature, as it would be a cost-effective way to ensure safe drinking water for regular people was not made totally unaffordable.

Ms. Mallek stated that in the future, she would like to learn more about the idea of consolidating treatment plants, as the cost of building a pipeline from Glenmore to the Moores Creek location seemed excessive, potentially saving only a fraction of the original cost. She stated that consolidating treatment plants seemed like a viable option.

Ms. Mallek stated that additionally, she was concerned about the history of sewage sludge

production in the Buck Mountain area, which had a lasting impact on the environment. She stated that according to the map provided, the northwest part of the County had been used for biosolids applications, which were concentrated in steep, mountainous areas that drained directly into Buck Mountain Creek.

Mr. Mawyer stated that they would certainly consider those points.

Mr. Gaffney asked if the County could control the biosolids applications.

Ms. Mallek stated that they did not have the authority to do so. Those were controlled by VDEQ.

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

There were no items to discuss.

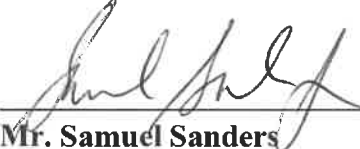
#### **11. CLOSED MEETING**

There was none.

#### **12. ADJOURNMENT**

At 4:00 p.m., Mr. Sanders moved to adjourn the meeting of the Rivanna Water and Sewer Authority. Mr. Pinkston seconded the motion, which carried unanimously (7-0).

Respectfully submitted,

  
\_\_\_\_\_  
Mr. Samuel Sanders  
Secretary-Treasurer

