



**RWSA BOARD OF DIRECTORS**  
**Minutes of Regular Meeting**  
**June 28, 2022**

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, June 28, 2022 at 2:15 p.m. via Zoom.

**Board Members Present:** Mike Gaffney, Michael Rogers, Brian Pinkston, Ann Mallek, Lauren Hildebrand, Gary O'Connell.

**Board Members Absent:** Jeff Richardson

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

**Attorney(s) Present:** Carrie Stanton.

**1. CALL TO ORDER**

Mr. Gaffney convened the June 28, 2022 regular meeting of the Board of Directors of the Rivanna Water and Sewer Authority at 2:15 p.m.

**2. STATEMENT FROM THE CHAIR**

Mr. Gaffney read the following statement aloud:

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

“I would like to call the June 28, 2022 meeting of the Board of Directors to order.

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

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

47  
48 Mr. Gaffney called the roll.

49  
50 Ms. Lauren Hildebrand stated she was located at 305 4th Street NW, Charlottesville.

51  
52 Ms. Ann Mallek stated she was located at 4826 Advance Mills Road, Earlysville.

53  
54 Mr. Gary O'Connell stated he was located at the Albemarle County Service Authority  
55 Headquarters, 168 Spotnap Road, Charlottesville.

56  
57 Mr. Brian Pinkston stated he was located in Clayton, Georgia.

58  
59 Mr. Michael Rogers stated he was located at City Hall, 605 Main Street, Charlottesville.

60  
61 Mr. Gaffney stated he was located at 3180 Dundee Road, Earlysville.

62  
63 **3. AGENDA APPROVAL**

64 Mr. Gaffney stated Ms. Stanton wanted to explain this new agenda item for the Board.

65  
66 Ms. Stanton explained that while this item was not required, it was a good practice to follow at  
67 the outset of each meeting. With approval of an agenda, it ensured the Chair can more easily  
68 follow and require others to follow the agenda. She stated otherwise, the agenda would be  
69 merely a suggestion, and individual members would be able to deviate. She stated the addition  
70 made the items to be discussed in the meeting more concrete.

71  
72 Ms. Stanton explained how the process would work. She stated someone would bring forward a  
73 motion to adopt the meeting agenda, and any amendments could be proposed and would carry  
74 with a majority vote. She stated the motion to adopt would be seconded and voted upon like  
75 other motions. She stated the item would be added to the beginning of each meeting in future  
76 meetings.

77  
78 Mr. Gaffney asked if there were comments or questions on the matter from the Board.

79  
80 **Ms. Mallek moved the Board to adopt the agenda as proposed. The motion was seconded**  
81 **by Mr. O'Connell and passed 6-0.**

82  
83 Mr. O'Connell stated he understood the Board was addressing a resolution for item 10-G. He  
84 asked if that needed to be formally added to the agenda.

85  
86 Ms. Stanton stated the presentation and vote on the resolution could be added to agenda item 10-  
87 G to be clear.

88  
89 Mr. Gaffney asked if that should be part of the motion.

90  
91 **Ms. Mallek moved to amend her motion as described by Mr. O'Connell. The motion was**  
92 **seconded by Mr. O'Connell and passed 6-0.**

93  
94 **4. MINUTES OF PREVIOUS BOARD MEETING**

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

96  
97 Mr. Gaffney asked if there were any changes to the Board minutes or comments any Board  
98 member would like to make.  
99

100 Ms. Mallek stated she did not have any comments, but she had sent in one correction that Ms.  
101 Anama had already taken care of. She stated she would move to adopt the minutes as corrected  
102 when they got to it.  
103

104 Mr. Gaffney asked if they needed to know what the change was.  
105

106 Ms. Mallek stated it was a word about “on a basement” instead of “in a basement” for raising the  
107 elevation of buildings. She stated she would have to find the line number.  
108

109 Ms. Anama stated it was line number 696.  
110

111 Mr. Gaffney asked if there were any other changes. He asked if there was a motion and a second  
112 to approve the minutes.  
113

114 **Mr. Rogers moved to adopt the Board minutes as corrected. The motion was seconded by**  
115 **Mr. O’Connell and passed 6-0.**  
116

117 **5. RECOGNITIONS**

118 There were none presented.  
119

120 **6. EXECUTIVE DIRECTOR’S REPORT**

121 Mr. Mawyer stated he would like to recognize David Bortner, a Water Operator Class II for  
122 RWSA. He stated Mr. Bortner had heard a “code red” emergency alert related to a missing  
123 person and coincidentally, he recognized the missing person on Route 250 near the Bellair  
124 Market and notified the police.  
125

126 Mr. Mawyer stated the General Assembly established June 30 as Virginia’s Annual Drinking  
127 Water and Wastewater Professionals Appreciation Day. He offered appreciation to the dedicated  
128 staff and to the Board in their efforts to provide outstanding drinking water and wastewater  
129 treatment services for the community.  
130

131 Mr. Mawyer reported that Austin Marrs had recently passed his Professional Engineer exam and  
132 would be licensed as a Professional Engineer in Virginia. He stated Mr. Marrs was a homegrown  
133 success and had been working full time with RWSA for four years, having previously interned  
134 with Rivanna.  
135

136 Mr. Mawyer stated related to operational optimization, the Virginia Department of Health  
137 (VDH) had a voluntary program that encouraged water treatment plants to exceed normal  
138 requirements on filtration, clarification, and backwashing. He stated they awarded various levels

of awards to water treatment plants (WTPs) in Virginia. He stated the North Rivanna, South Rivanna, Crozet, and Scottsville WTPs received the second highest award—silver—while the Observatory WTP received the highest award – gold. He congratulated Mr. David Tungate, Director of Operations, and Mr. Daniel Campbell, Water Manager, for these successes.

Mr. Mawyer reported that May 31 was Dam Safety Awareness Day, and June was National Safety Month. He stated in light of the recent unfortunate events in Richmond at Boshers Dam, where two women were killed while boating, the community should be reminded about the hazards surrounding reservoirs and dams. He stated people should be able to enjoy recreation at those sites, but they needed to follow the safety rules associated with the reservoirs.

Mr. Mawyer stated that boaters were not supposed to go beyond the safety buoys near the dams, and no boats were allowed on the Sugar Hollow Reservoir because of the rubber bladder on the dam, as the bladder could deflate and pull a boat across the top of the dam. He stated only electric motors were allowed at Ragged Mountain, South Rivanna, Totier Creek, and Beaver Creek reservoirs, and swimming was not allowed in any of the reservoirs.

Mr. Mawyer stated the Authority had been reauthorized for another 50 years until June 2072. He stated both the City and the County approved those authorizations earlier in June.

Mr. Mawyer stated there was community outreach to the Crozet Community Advisory Committee through a presentation on the annual update of projects in the Crozet Area, particularly the Beaver Creek Dam spillway project and the Crozet wastewater flow equalization tank project. He stated the community had good questions regarding water quality and emergencies and what would be done in response to emergencies.

Mr. Mawyer stated that Water Resources Manager, Andrea Bowles had given a presentation to a class from UVA on stream flows, water supply systems, and drought planning related to the reservoirs.

He stated the previous evening, there had been a meeting with the Buck Mountain neighborhood during which the Authority provided information and an update on what it was considering for the private road (Allen Farm Lane) and the bridge, as well as the plans for leasing and sale of one property, the Elliott House with 2.2 acres. He stated there were about 15 to 20 people in attendance at the meeting including Ms. Mallek.

Mr. Mawyer noted that there were no consent agenda items. Staff wanted to take the opportunity to do a short presentation on each report that was normally on the consent agenda. He stated he had requested each of the division directors and other staff to provide reviews of the reports since there were a number of new Board members.

Ms. Mallek stated in relation to dam safety, there used to be a chain that went between the buoys; she did not know if the chain was still there, but she found it reassuring to have it as a safety measure. She noted that she did not know how it could be done now. She stated later, she would like to report on the EPA meetings she attended over the weekend and the PFAS framework that was discussed.

185  
186 Mr. Mawyer asked if Ms. Mallek was referring to the South Rivanna Reservoir.

187  
188 Ms. Mallek responded that she was.

189  
190 Mr. Mawyer stated he believed the chains were gone, and some of the challenges involved debris  
191 flowing downstream pulling the chains out and destroying them. He stated if he were a boater, he  
192 would also like to be able to grab something, but the downside was that the stormwater and  
193 debris washed out the grab lines. He stated they were looking for good solutions to provide some  
194 sort of device to stop people from going over the dam.

195  
196 Mr. Gaffney stated Ms. Mallek could address her other points during the agenda item for other  
197 items from the Board or staff not on the agenda.

198  
199 **7. ITEMS FROM THE PUBLIC**

200 Mr. Gaffney asked speakers to state their full name and address and their organizational  
201 affiliation if they were commenting for a group. He stated comments should be limited to three  
202 minutes. He asked if there were members of the public wishing to speak.

203  
204 Mr. Hull stated Ms. Dede Smith was present to speak.

205  
206 Ms. Dede Smith stated she lived at 2652 Jefferson Park Circle, Charlottesville. She stated the  
207 Board would review an update on the Central Water Line with new information, and it was the  
208 same presentation shown to the Charlottesville City Council the previous week. She requested  
209 the Board pay particular attention to the second slide in the presentation that showed a chart on  
210 the various projects associated with the community water plan. She stated it looked familiar,  
211 except the cost and timelines kept changing.

212  
213 Ms. Smith noted the cost for the Central Water Line and stated that a year ago, the Board had  
214 approved a CIP project with a cost of \$13M for the Central Water Line. She stated a month ago,  
215 a CIP project was approved, and the cost for the Central Water Line was now \$31M. She stated  
216 within the last month, the cost of the Central Water Line had risen to \$41M—and there was no  
217 indication how high the costs would go.

218  
219 Ms. Smith stated later in the presentation, there would be a chart that displayed what would  
220 happen if the Central Water Line were to connect to the planned Emmet Street pipeline that was  
221 not yet in the CIP. She stated the connection would allow the Authority to achieve one and a half  
222 of the pipelines that were in the master plan—for less than the cost of running the Central Water  
223 Line through the southern corridor. She emphasized the proposed timelines that would be  
224 displayed on the second slide of the presentation.

225  
226 Ms. Smith stated the waterline was planned to be operative five years before the South Fork to  
227 Ragged Mountain raw water pipeline would be completed. She asked whether Rivanna planned  
228 to draw water from the Ragged Mountain Reservoir through the Observatory WTP for use other  
229 than drought and without a mechanism to refill it, or if they were planning on refilling any  
230 additional use from Ragged Mountain from the Moormans.

Mr. Hull stated there were no other members from the public who indicated they had a comment.

Mr. Gaffney closed the items from the public.

## **8. RESPONSES TO PUBLIC COMMENTS**

Mr. Mawyer stated that Ms. Smith was correct about the changing cost estimates for the Central Water Line project. Cost estimates were currently a challenge with inflation, supply issues, and material costs increasing constantly. He stated that this was why the engineers had a recent \$10M increase in the Central Water Line project. He stated the Consumer Price Index was at 8.6% for the past 12 months—the highest in 40 years. He noted with supply chain issues, it was harder to get quotes on materials. He stated the costs would continue to be monitored as the project moved forward to bidding by 2024, and the public should remain attentive to this. He noted that the prices could unfortunately change day-to-day.

Mr. Mawyer stated Ms. Smith was correct that the Central Water Line was five years ahead of another project—the South Rivanna to Ragged Mountain pipeline. He stated though they planned to construct the replacement pipeline from the Ragged Mountain Reservoir to the Observatory WTP concurrently with the Central Water Line with completion of both projects planned for 2028. He stated there would be raw water flowing to Observatory WTP through a new pipe, and there would be increased capacity at the WTP. He explained the Central Water Line would help transport treated drinking water from the plant to the distribution system for use by the community. He stated the Authority would still rely on the Sugar Hollow Reservoir to fill the Ragged Mountain Reservoir until the South Rivanna to Ragged Mountain pipeline was constructed.

Mr. Mawyer stated there was some consideration to request the Board to accelerate the South Rivanna to Ragged Mountain Reservoir pipeline. There may be an item before the Board during the next few months or in the next CIP cycle to accelerate the project. He stated further evaluation was needed before a final recommendation would be made. They were working on the timing of the entire project, and cost was definitely a factor.

Mr. Pinkston stated that delaying work would only add costs due to the construction environment.

Mr. Mawyer agreed.

Mr. Pinkston stated unintentional delays were one thing, but delaying just to delay added unnecessary costs.

Mr. Mawyer stated the new Consumer Price Index would be released the next month, and it had been nothing but bad news for the calendar year. He stated there was not a clear end to inflationary increases, and it was having a significant impact on construction projects. He stated all of the budgets would be challenged when the CIP was updated for FY 2024.

## **9. CONSENT AGENDA**

Items have been moved to Other Business.

## **10. OTHER BUSINESS**

### *a. Presentation and Vote on Approval: Staff Report on Finance*

Director of Finance and Administration, Lonnie Wood, stated that each month, the Board received a summary of the monthly financial statements. He noted that the first page was meant to provide a quick summary of the actual revenues and actual expenses. He stated the budget and financial statements were divided into two primary areas: operations (personnel, utilities, maintenance, chemicals) and debt service (how the CIP was funded through debt payments and how reserves were established).

Mr. Wood stated that the statements have the two main rate centers: urban water and urban wastewater. He stated there were four other rate centers: Crozet water, Scottsville water, Glenmore wastewater, and Scottsville wastewater. He stated the net results for the total Authority in the month of April were \$177,563, and there was detail provided on the total revenues and total expenses in the reports for each rate center similar to the consolidated report shown.

Mr. Wood explained that the next page of the summary provided financial comments related to some of the detailed line items he would discuss next. He stated the comments point out explanations of budget variances. The Authority had \$764K when they compared budgeted revenues versus actual revenues. He stated the report showed expenses are in a deficit of \$498K compared to budget. He stated there was a net difference of \$175K in actual and \$265K in budget vs. actual estimates.

Mr. Wood noted Item C was \$534K over budget, because there was a bond issuance in the middle of the year. He stated they had to pay for the bond issuance costs and did not budget for that. He noted that they had received enough bond proceeds to pay for the expense. He stated each rate-center had its own line item related to revenue versus expenses and budget versus actual analysis.

Mr. Wood stated that on the operating side, revenues are generated by flow for the Urban Rate Centers. He stated there would be a charge per 1,000 gallons of consumption. He stated the Board set the rate every year during the budget process. He stated urban water flow was fairly easy to predict, but urban wastewater was more difficult to predict because it was affected by weather and infiltration into the sewer system. He noted there was one month with a 40% change in volume.

**Mr. O'Connell moved to approve the Staff Report on Finance. The motion was seconded by Ms. Mallek and carried 6-0.**

### *b. Presentation and Vote on Approval: Reimbursement Resolution – Capital Improvement Plan (CIP) Funding*

Mr. Wood reported that every year after the CIP, Rivanna had passed a reimbursement

322 resolution. He explained that because they financed most of the projects with debt and the debt  
323 was most likely to be tax exempt municipal revenue bonds, the IRS rules for Rivanna to have the  
324 flexibility to pay itself back on the projects, depending on timing, meant there had to be a  
325 reimbursement resolution in place that stated the intent of the authority. He stated the resolution  
326 did not authorize debt to be issued, it stated that there was a CIP, and the Authority intended to  
327 issue an estimate of \$125M in debt to fund the program.

328  
329 Mr. Wood clarified that if the Authority were in a situation where it had to reimburse itself on  
330 any particular project, the resolution states they have the right to do that. He stated the \$125M  
331 was derived from the CIP; it was estimated that almost \$10M in reserves would be used to fund  
332 the CIP, and another \$121M in debt proceeds would be issued. He stated they had estimated up  
333 to \$125M to include debt issuance costs for paying for underwriters, bond trustees, lawyers, and  
334 financial advisors. He stated it was done every year routinely, and it provided the Authority  
335 flexibility to reimburse itself for some projects.

336  
337 Mr. Wood explained that for example, financing of the Ragged Mountain Dam project was  
338 delayed for 6–8 months. He stated if the reimbursement resolution had not been in place, they  
339 would have had to stop construction of the dam, but they were instead able to continue using  
340 cash reserves to pay for the construction while the legal process progressed. He stated Rivanna  
341 eventually reimbursed itself for a good portion of the costs. He stated there was usually an  
342 earmark of around 10% of the project cost to be funded with cash on hand, but at that time, they  
343 had used about half the cash on the one project.

344  
345 **Mr. Rogers moved to approve the staff report on Finance. The motion was seconded by**  
346 **Mr. O’Connell and carried 6-0.**

347  
348 *c. Presentation and Vote on Approval: Staff Report on Operations*

349 The Director of Operations, David Tungate, stated that the Operations Report was submitted to  
350 the Board monthly. He stated the first table was based on the water operations, and the average  
351 daily water production for the month was provided. He noted that the average daily production  
352 for May was 7.73 MGD from South Rivanna. He stated the first three WTPs were the urban  
353 ones—South Rivanna, Observatory, and North Rivanna—and the maximum daily production of  
354 the month was displayed alongside them.

355  
356 Mr. Tungate explained that as they moved through the warmer months, August and September  
357 usually had the highest production days in the urban system. He stated the same information was  
358 provided for Crozet, Scottsville, and Red Hill WTPs, and there was the average production total  
359 for all of the Rivanna plants. He stated the status of the reservoirs was provided on the right of  
360 the slide, and the figures were up to date as of June 22. He stated they were at 99.8% of total  
361 useable capacity due to the rain over the weekend.

362  
363 Mr. Tungate reported that with Ragged Mountain Reservoir being the largest in volume,  
364 everything else was full—but Ragged Mountain was down 0.23 feet, which brought the urban  
365 reservoir total below 100%. He added that the water treatment facilities were in regulatory  
366 compliance for the month of May.



Mr. Tungate reported that the first table on the slide showed some of the production and water quality from the wastewater plants. He noted the average effluent flow at Moores Creek was 10.3 MGD, which was close to the average for the overall water production. He stated Stone Robinson was the smallest of the plants, and now that school was not in session, they did not have any effluent coming out of Stone Robinson because there were not enough people to keep the bugs alive in the package treatment plant.

Mr. Tungate stated the second table on the slide showed the allocation of the nutrient discharges from Moores Creek. He stated on an annual basis, Rivanna was permitted to discharge 282,994 lbs. of nitrogen and 18,525 lbs. of phosphorous. He stated the values were divided by 12 to give an average monthly allocation, and the third column going to the right represented the actually discharge for the month.

Mr. Tungate stated the treatment performance was provided as a percentage of the monthly allocation, and the year-to-date performance was provided as a percentage of the annual allocation. He stated the performance came into play because at the end of the calendar year, the excess nutrient credits were sold through a nutrient exchange. He stated the revenue from the exchange ranged from \$80,000 to \$110,000 a year based on the performance of the water treatment plant.

Mr. Tungate provided a chart for useable urban water storage, noting that it was charted by month and went back two years. He stated they were at 99.8% capacity. He presented a graph that displayed water production, wastewater treatment volume, and rainfall totals. He stated the y-axis provided the daily average production or flows per month along with the inches of rain, and they were tracked together.

Mr. Gaffney commented that the nitrogen and phosphorous discharges for May seemed high compared to the normal allocations, and he asked if the runoff was from farms.

Mr. Tungate responded that it was not from farms. He stated they had been trying new processes in the aeration basins, and that was why the values were higher, but less than the average monthly allocation. He stated the phosphorous was higher than normal, and it was based on what was coming into the plant from the sewer system.

**Ms. Hildebrand moved to approve the Staff Report on Operations. The motion was seconded by Mr. O'Connell and carried 6-0.**

*d. Presentation and Vote on Approval: Staff Report on Ongoing Projects*

The Director of Engineering and Maintenance, Jennifer Whitaker, stated that each month, an ongoing projects report was brought to the Board. She stated it had taken various forms and formats over the years and was typically around 25 pages—primarily prepared by the engineering department as part of a collaborative effort. She noted that it included CIP projects as well as O&M projects and emergency repairs. She added that there was a link in the report, midway down on the first page, that was a link to the full CIP program.

Ms. Whitaker explained that the projects in the report were broken into four categories. She

414 stated there was the category for Projects Under Construction, noting that staff were involved in  
415 the office and field work. She stated the Under Construction category included projects with  
416 contractors onsite, and they frequently had impacts to operations. She stated that Design and  
417 Bidding was the second category, and these were projects that were ready to go to contractors or  
418 in a formulation phase. She pointed out that it was a large category.

419  
420 Ms. Whitaker stated that the third category was Planning and Studies, and those were the lower-  
421 dollar projects with higher levels of complexity, usually requiring more thought and input from  
422 stakeholders and customers. She reported that urgent and emergency repairs were listed under  
423 the fourth category of other Significant Projects, and a description was usually provided that  
424 explained the reason for the repair. She stated historically, Rivanna did not have a good program  
425 for urgent repairs, but they now performed proactive inspections and were able to identify issues  
426 before they were emergencies and could be performed as high-priority repairs.

427  
428 Ms. Whitaker noted that not every project was included in the report, but staff tried to include the  
429 key projects the Board may have questions about.

430  
431 Ms. Whitaker stated that under each one of the line items in the report, several bullets were  
432 listed. She stated they listed the design engineer, the construction contractor, the anticipated  
433 construction start date, a percentage complete, the base contract amount, any change orders that  
434 arose, the total construction project amount, and the most up-to-date completion timeline. She  
435 stated the timeline could change month to month, but they tried to consistently meet their  
436 schedules. She mentioned that the budget was also provided. She stated that it was usually the  
437 actual total capital project budget; but that in some cases, it was the anticipated total future  
438 budget for the effort. She state that while projects may not be fully funded, they tried to bring to  
439 the Board what they believed the total cost estimate to be.

440  
441 Ms. Whitaker stated they typically provided a one- or two-sentence update for the projects. She  
442 stated a paragraph of the project history was historically provided, but it had become too  
443 cumbersome to read. The history was moved to the back of the report. She stated the quick, two-  
444 sentence description would typically provide enough information to give an update.

445  
446 Mr. Gaffney commented that it was the best format they had in 20 years—the report was easy to  
447 read, it was complete, and the back of the report always provided more information. He  
448 suggested that in the under-construction section, it would be helpful to round the values to the  
449 nearest dollar for the change orders. He stated it looked confusing due to the amount of numbers.

450  
451 Mr. Pinkston stated that he appreciated the reports, and they provided a helpful and appropriate  
452 synopsis for the projects.

453  
454 Ms. Whitaker stated she welcomed the suggestions. She stated they had tried over the years to  
455 change formats based on reader interests.

456  
457 Mr. O'Connell asked if staff performed a project management timeline.

458  
459 Ms. Whitaker responded that they were in the process of implementing a new project

management software that would allow them to do that. She stated the software was called “Work Otter” and was being formatted such that each project would have a timeline of information and events, allowing them to roll up the project timeline for all projects together. She stated that it was currently done piecemeal, and that the goal was to have every project manager reporting up so that all of the projects could be added to a master schedule.

Mr. O’Connell stated once they had a roll-up summary, one should be provided to the Board, and seeing all of the projects at once would be helpful.

**Mr. Pinkston moved to approve the Staff Report on Ongoing Projects. The motion was seconded by Mr. Rogers and carried 6-0.**

*e. Presentation and Vote on Approval: Staff Report on Wholesale Metering*

Ms. Whitaker stated that she was filling in for Victoria Fort, who had a baby the week before and was unable to be present. She stated Ms. Fort prepared the report on a monthly basis, and it was presented to the Board as part of the 2012 Ragged Mountain Dam project agreement and the ancillary Water Cost Allocation Agreement. She explained that in the agreement between the ACSA, the City, and Rivanna, RWSA was tasked with developing a metering program to measure and identify water supplied from the treatment plants to the City and to ACSA.

Ms. Whitaker stated that it was to be done on a wholesale basis as opposed to a retail customer basis. She stated the Authority developed a wholesale water master metering program, and they installed 25 different remote-read meter vaults that circled the boundary of the City and its the border with the County. She provided a map of the locations of the meter vaults, noting that it was a net balance—three finished water meters were taken from the three urban plants, and then they either added or subtracted the boundary meters based on a master formula. This allocated the RWSA produced water between the City and ACSA. She stated nearly all of the locations were at the boundary where the waterlines cross into the City from the County.

Ms. Whitaker explained that each month, the net of the 28 meters was presented to the Board in this report. She noted City and ACSA usage by month and the daily average along with the flow split. She stated the 2012 agreement further required that the water metering and accounting was used to compare to an allocated amount against the actual usage. She stated if the water used ever reached the cap (for either party), there was a true-up and a repayment of debt service requirement. She noted that there was a complex formula that determined how the repayment was calculated, and that the metering program was done on a monthly basis in an effort to keep track of water production and usage.

Ms. Whitaker stated that each month, the individual points for water production for the past 12 months were reported—for both the City and ACSA. She noted there was a seasonal pattern, and year over year, the seasonal pattern was more prevalent, and additionally there were interesting patterns caused by the COVID-19 pandemic. She mentioned that the distribution between the City and the County varied.

Ms. Whitaker reported that they worked with ACSA staff and City staff to develop a formal process and program, which included operating costs such as digital remote readings. She stated

the meter vaults were large and could be 10 to 12 feet in width. She stated they used a third-party company to perform annual calibrations on the meters. She stated staff within engineering and maintenance worked on the meters—performing repairs, calibrations, checks, communications, and parts replacement.

Mr. Pinkston commented that there were essentially various larger transmission lines with meters at various critical points around the perimeter of the border between the County and the City.

Ms. Whitaker confirmed that this was correct, noting that it required a mass balance with calculation of what went into and out of the City.

Mr. Pinkston asked if the meters worked both ways.

Ms. Whitaker responded that most of the meters worked both ways because they were large-diameter meters and the mains could flow both directions. She noted that there were a few small meters that were unidirectional, and they were not necessarily on Rivanna mains. She stated historically, the system was developed as a unified system—and County, City, and Rivanna lines were not always segregated. She stated that they had been working to segregate the lines so each jurisdiction was responsible for its own infrastructure; there were places where a County and a City line joined, and that was where meters were located to monitor the flow of water.

Mr. Pinkston asked how often they had to adjust which party was paying the other.

Ms. Whitaker stated the true-up agreement—the repayment of debt service costs—only occurred when either party exceeded the maximum allocation. She stated the City had to reach 6.71 MGD or ACSA had to reach 11.99 MGD. She stated the meters had been in place since 2019, and they had yet to hit the limits.

Mr. Pinkston commented if they were to reach the maximums, then the water distribution projections had gone out of alignment.

Ms. Whitaker clarified that the meters were more of a tool to observe trends in water usage, and if they saw numbers suddenly rise, it would cause them to investigate why.

Mr. Gaffney noted that Ms. Whitaker had discussed the formula to determine the debt-service repayment. He stated Mr. Wood had drafted the formula, and it was the last link in the Community Water Supply Plan.

**Ms. Mallek moved the Board approve the Staff Report on Wholesale Metering. The motion was seconded by Mr. O’Connell and carried 6-0.**

Ms. Mallek stated the system was not easy to develop, but it was understandable by community members.

*f. Presentation and Vote on Approval: Staff Drought Monitoring Report*

Water Resources Manager, Andrea Bowles, stated that regarding drought, the Authority was in a

good place at the moment. She explained how the Authority monitored drought and daily reservoir levels, noting that they reviewed the U.S. Drought Monitoring report. She commented that the report was up to date as of June 22. She stated that she had reviewed the data before the meeting, and there were still no drought phases that had been initiated, with the County still in the normal zone. She stated the VDEQ Drought Status report was a daily map that changed based on drought status; it was still the same, showing a watch-level for groundwater, with the urban reservoirs 99.8% full. She stated they regularly examined several parameters to see what kind of drought status they were in.

Ms. Bowles explained that she sourced the precipitation data from the National Climatic Data Center. She stated that since the report was released, she had reviewed the precipitation data. She stated that the report showed that the departure total from January to May was 1.49 inches above normal, and the most up-to-date data showed they were up 1.16 inches above normal, which included the precipitation during June. She stated they had reviewed daily the different river gages located around the watersheds. She stated they were reviewed to determine how much water was coming in to the reservoirs, how it related to the median over time, and whether the volume was at, above, or below the median. She noted that they were above the median in most cases for the week, but they still continued to need periodic rainfall.

Ms. Bowles stated there was a Drought Response Committee that included the City, the County, and RWSA, and she would convene the committee later in the year if it became drier, to touch base and communicate any future coordinated efforts.

Mr. Pinkston asked what it meant for groundwater to be in a “watch” state.

Ms. Bowles responded that the state monitored different parameters, and groundwater level was one of them. She stated they did it based off of a groundwater meter, and it was considered to be in watch because of its level in comparison to the groundwater well level median level over time. She commented that it was trying to give a relative value, and if the groundwater level rose, then it would go off of the drought watch. She stated there could be a drought watch due to precipitation or reservoir levels; those were not active at the moment.

Mr. Gaffney mentioned that during the 2002 drought, the groundwater level was so low that when it would rain, it would pull the water out of the streams back into the ground.

Ms. Bowles confirmed that this was correct, and it was what would happen when the water level reached such a low level. She stated last year, they were negative in relation to precipitation—down almost eight inches at the end of the year. She noted that they had rebounded somewhat along with the groundwater table, but it still needed more time.

Ms. Mallek stated she believed it took months for the water table to come back, and it was lower in many places than anticipated. She stated in Louisa, there used to be a place called the Tyler Well that was used as a water indicator—it went dry in 2002 and had not been replaced. She stated it had taken many years for the water to recharge after the 2002 drought.

**Mr. Pinkston moved to approve the Staff Drought Monitoring Report. The motion was**

seconded by Mr. Rogers and carried 6-0.

*g. Presentation and Vote on Approval: Central Water Line Project*

Ms. Simpson introduced herself as a Senior Civil Engineer, and stated she would be presenting on the Central Water Line Project. She noted that she had given a presentation in January on this topic and had also touched on it briefly last month during the Finished Water Master Plan presentation. She stated there were some minor updates to the presentation that Mr. Mawyer had made, so it might not be exactly the same as what was in the Board packet.

Ms. Simpson stated on the slide was an overall map of their community water supply projects. She stated the South Rivanna Water Treatment Plant renovation was ongoing, and the plant was shown with a star at the top of the map. She stated project two is the Observatory Water Treatment Plant renovation, which was ongoing right now as well, was shown with the star at the bottom of the page. She stated they were upgrading the plant to a 10 million gallon per day capacity right now.

Ms. Simpson stated project three was the Ragged Mountain to Observatory Raw Water Pipe & Pump Station project, and that was the brown line from Ragged Mountain to Observatory. She stated the Central Water Line Project was the blue line in the middle of the page, and number five was the South Fork to Ragged Mountain Water Pipe, which was shown in purple. She stated the red section on the screen had already been constructed, which was the Birdwood Water Line Project. She stated project six in the yellow is to raise the Ragged Mountain water level by twelve feet.

Ms. Simpson stated that she would give an overview of the Central Water Line Project. She explained that the scope of work included approximately five miles of 24-inch to 30-inch water transmission mains, which were large water transmission mains that connected all the water plants and storage tanks in the system. She stated the water lines would be installed under the City streets in a segmented process, with the current schedule to construct between 2024 to 2028 and the cost allocation agreement to have 48% paid by the City and 52% paid by the ACSA.

Ms. Simpson reported that in 1987, there was a Southern Loop Agreement that outlined the project in two phases. She stated the western branch was already constructed from Observatory Water Plant down to the Avon Street tank, and the eastern branch was supposed to be constructed at a later date. She stated in 2017, they essentially picked up what was the conceptual eastern branch of the Southern Loop Project and started on some preliminary engineering of the Avon to Pantops Water Line.

Ms. Simpson stated at the August 2018 Board meeting, after a year of that work, the project was put on hold; they decided to move forward and complete the Finished Water Master Plan before proceeding. She stated they began work on that plan, and the 2020 Observatory Water Treatment Plant Agreement outlined some of the cost allocations for the improvements just discussed on the previous slide as part of the Community Water Supply Plan, and that also included the Central Water Line Project. She noted that in 2021, as the work on the Finished Water Master Plan was wrapping up, they did some work on the Central Water Line routing study to study the southern corridor a little more in depth.

644  
645 Ms. Simpson stated she would give some background on the Urban Finished Water Master Plan.  
646 She stated the goals of the Finished Water Master Plan were to address the operational and  
647 hydraulic inefficiencies in moving water across the distribution system and improve system  
648 flexibility. She stated on the map shown, the dark blue lines represented all of the existing  
649 transmission lines. She stated on the left of the page, the Observatory WTP was highlighted by a  
650 green star; moving below that was the Observatory tank, with the rest of the line being the  
651 Southern Loop Water Line. She stated that was the western branch and the Avon Street tank that  
652 were completed in 1989 as part of that original Southern Loop Agreement.

653  
654 Ms. Simpson stated on the right side of the page were all the water lines that came from the  
655 South Rivanna Treatment Plant, and the Pantops tank was on the far right of the page. She stated  
656 the Observatory WTP was hydraulically well-connected to the Southern Loop Water Line, so on  
657 the southwest side of the system everything was well-connected. She stated on the northeast side  
658 of the system, the South Rivanna WTP was well-connected to the Pantops tank and to those  
659 large-diameter water lines on the northeast side of the system, so there is a hydraulic gap in the  
660 system. She stated there were a lot of other City water mains and ACSA water mains that  
661 bridged those gaps, but there were no large-diameter transmission mains that Rivanna owned to  
662 fill in those gaps.

663  
664 Ms. Simpson stated that it was through much hydraulic modeling and the study in the Finished  
665 Water Master Plan that they determined these areas operated somewhat independently of each  
666 other, so the Observatory water supplied in those water transmission mains in the southwest, and  
667 the South Rivanna water supplied in the water mains in the northeast part of the system. She  
668 stated essentially, the water did not move well between those two independent pressure  
669 systems—even though it was all one system.

670  
671 Ms. Simpson stated in the results of the Master Plan, it was shown with modeling that they  
672 needed to close those gaps in the water transmission system to help the hydraulic connectivity  
673 between the two sides of the water system. She stated it was all one system, but the water did not  
674 move very efficiently, with reduced flexibility and efficiency in the system. She stated the  
675 primary recommendation for improving connectivity in the system was the Central Water Line,  
676 which was represented by the pink line shown on the screen. She stated the pink line would  
677 connect from the Observatory Water Plant to the Urban Water Line in the middle of the City,  
678 located at West Main and 10th Street, and would also connect over to the Pantops Water Line at  
679 East High and Long Street near Free Bridge.

680  
681 Ms. Simpson stated the goal of the Central Water Line was to connect those three major  
682 transmission lines and improve the connectivity across the system. She noted that part of the  
683 Finished Water Master Plan recommended the Emmet Street Water Line, which was  
684 improvement project for system redundancy. She stated that was a north-south connector line  
685 and would improve connectivity between the Observatory and South Rivanna plants, but it  
686 specifically provided redundancy to the other north-south lines in the system and some  
687 redundancy to the Central Water Line. She stated it was supposed to be constructed as  
688 opportunities arose—meaning that as other projects happened such as City Streetscape projects,  
689 UVA projects, or VDOT projects—they would create opportunities to complete sections of the

690 Emmet Street waterline.

691  
692 Ms. Simpson stated closing these gaps in the system will provide consistent supply and pressure  
693 to customers; reduce service disruptions when there were water main breaks and tank  
694 maintenance; support firefighting demands, improve system flexibility, efficiency, and  
695 redundancy; and help to utilize capacity of the Observatory upgrade. She stated that as Mr.  
696 Mawyer had mentioned earlier, when they upgraded the capacity of the Observatory WTP to 10  
697 MGD, they needed to be able to get that water out of Observatory, and there were currently not  
698 enough large capacity water lines to get that water away from Observatory and into the system.  
699 She emphasized that this was what the Central Water Line would do.

700  
701 Ms. Simpson stated that for community outreach for the Central Water Line, they had presented  
702 to City Council and the RWSA Board in January. She stated they set up a project website at the  
703 end of last year, on which a lot of this information could be found. She stated they mailed project  
704 flyers to approximately 480 property owners along the Southern Cherry Avenue route. She stated  
705 they presented to six neighborhood associations—Fry’s Spring, Fifeville, Little High, Martha  
706 Jefferson, Belmont-Carlton, and Woolen Mills—and some of those meetings were combined  
707 with several neighborhood associations.

708  
709 Ms. Simpson stated they also reached out to multiple other organizations, including Mt. Zion  
710 Baptist Church, the Piedmont Housing Alliance, Public Housing Area Residents, Region 10, the  
711 Charlottesville Redevelopment and Housing Authority, First Steps Infant Development Center,  
712 Charlottesville Day School, and others. She stated they would continue to have ongoing contact  
713 with these groups during design and before construction begins, as well as many other  
714 organizations along the route. She stated they had received a lot of feedback from different  
715 neighborhood meetings, and with that decided to go back to some of the original work done and  
716 reevaluate several of the existing alignments as well as several new alignments, which is what  
717 they would be discussing today.

718  
719 Ms. Simpson stated with the reevaluation work, they did some new field work, used VDOT  
720 traffic volume information, used GIS data and aerial photography, did additional hydraulic  
721 modeling, and coordinated with City utilities, City traffic, ACSA, Michael Baker, and RWSA  
722 engineers. She stated for criteria, they evaluated the water distribution benefits for these different  
723 alignments and looked at fire flow and the ability to fill the storage tanks, because they had to  
724 have good system connectivity to be able to fill the water storage tanks at night so that the water  
725 can flow back out during the day and supply customers.

726  
727 Ms. Simpson stated they needed to keep in mind that the water in all of their pipes flowed in  
728 different directions depending on the time of day and which water treatment plant is putting out  
729 different flows, so that all varied from day to day or from situation to situation. She stated they  
730 looked at average day traffic impacts and the different impacts to neighborhoods, businesses, and  
731 UVA; right-of-way widths; construction costs; pipe lengths; crossings and physical features such  
732 as railroad crossings and bridge crossings; different water features that may need to be crossed;  
733 opportunities to coordinate with other projects; underground and above-ground utility  
734 congestion; overall construction duration; and tree-clearing requirements.



Ms. Simpson stated they looked at five primary alignments, and there were some variations of each of them. She stated they looked at the Emmet Street and Route 250 Bypass alignment, where they started at Observatory, went up Emmet Street, then went on the bypass all the way down to Free Bridge. She stated option two was the Northern Preston line shown in purple, which would go from Observatory up Emmet Street, across Lambeth Field and up Rugby, over Grady to Preston, and then end up on East High Street. She stated the Middle alignment would essentially follow the Main Street Corridor in the central part of town. She stated the Southern Cherry alignment essentially went south of the City and followed JPA to Cleveland to Cherry to Elliott alignment, and then the Southern Harris alignment would go south of the City and follow JPA to Harris to 5th Street, then come up 5th Street and be in the same alignment as the Cherry Avenue alignment.

Ms. Simpson stated that the first alignment she would discuss in detail was the Emmet/Route 250 Bypass alignment. She stated this alignment was difficult to explain; however, it was a concept to put two projects together, which would be the Emmet Street project plus the Central Water Line Project. She stated they looked at this at a high level a long time ago, and Ms. Smith had been very insightful to also mention this project. She stated it did appear that there could be an opportunity to combine these two projects together, but when looking at it closer, it did not end up being one of the best options. She stated the concept was to tie into the Emmet Street project near the interchange of the bypass and follow the bypass to High Street. She stated in concept, it sounded good, but there were several projects that would need to be completed within the timeframe of the Central Water Line Project to actually complete that pipeline.

Ms. Simpson stated there were several other City projects that would be constructed within the timeframe of 2024 to 2028 for the Central Water Line: the Emmet streetscape phase one and the Barracks Road project north of that. She stated they were currently working with the City to design and construct the pieces of the Emmet Street Water Line with those two City projects. She stated those were the only two projects in the Emmet Street corridor that would be constructed within the construction timeframe for the Central Water Line. She stated there would be piping gaps if they completed the Central Water Line without advancing the Emmet Street Water Line.

Ms. Simpson stated to make a continuous water line from Observatory all the way over to the East High Street and Long Street connection, the gaps must be filled in. She stated the orange parts of the lines with the black dots were the advanced parts of the Emmet Street Water Line to fill in those gaps, so they would have a continuous water line from Observatory all the way over to Long Street and East High Street. She stated with constructing the Route 250 Bypass, they would require night work, so they would be constructing for years in the Route 250 Bypass at night because they would have very limited night work hours from 8 p.m. to 5 a.m., and they would have to cover that work back up every single night.

She stated that they would have limited work hours and then would have to finish the work early, cover it back up, backfill it, and repave every single night to work in the bypass. She stated that this extended the construction length time and would also have noise impacts to all the residents who lived along the Route 250 Bypass, and that section of water line was expected to take years because of the slow amount of progress they would be able to make due to the limited work

hours every night. She stated based on the long amount of the construction period and night work hours, the cost of that project would be about \$60 million. She noted that they looked at going through McIntire Park instead for that stretch shown in the upper right of the map, and that City Park alternative would be about \$7.5 million less because of less night work, less pavement replacement, and longer work hours—but would also require about 4.5 acres of tree clearing.

Ms. Simpson stated the second alignment considered was the Northern Preston alignment. She stated this alignment would essentially go up JPA to Emmet Street and through the Lambeth Field area, up Rugby and over to Grady, West High to East High, then to Free Bridge. She stated an alternative would be to go up McIntire Road and work in the bypass. She stated that alternative would be about 1,900 feet longer and \$3.1M higher. She stated that alternative also did not take advantage of the East High Street City Water Main Project, for which they were planning to co-locate their water lines, so they would lose that benefit as well. She stated for the Northern Preston alignment, the cost was \$39M; for that bypass alternative, there would be nightwork required, and there was also a chance that night work would be required on Emmet Street.

Ms. Simpson reported that one of their original alignments was the Middle alignment, which was originally thought to co-locate with the City's West Main Street streetscape project, but that project was now on hold. She stated this was one of the original alignments because it was one of the shortest, but now with the West Main Street project not going forward, this alignment had lost some of its benefits. She noted that this area was also congested with academic, hospital, medical, and business areas, and the roads themselves were actually highly congested with older underground utilities and abandoned utilities, such as older trolley tracks and bricks. She stated they knew this corridor was not only congested with businesses, buildings, and traffic, but it also had a lot of utility congestion and other conflicts. She stated it was a shorter route at around \$39M, but it would be a difficult route to construct.

Ms. Simpson stated the red alignment was the Southern Cherry alignment, which was the Stadium, Piedmont, Price, railroad crossing at Lewis Street, JPA, Cleveland, Cherry, Elliott, 6th Street SE, Avon, crossing the railroad into 10th Street NE, East Jefferson, 11th Street NE, and East High Street. She stated this alignment took advantage of co-locating with the City's East High Water Main Project and came in around \$41M. She added that this route had the lowest traffic count of all of the routes.

Ms. Simpson explained that the fifth alignment was the Southern Harris and 5th Street alignment, which started off the same and then took a variation of JPA to Harris, up 5th Street, then continuing to the east on Elliott, but it would also need to have a spur to go back and connect to the Urban Water Line at West Main Street. She stated that the Harris/5<sup>th</sup> Street and spur would be about \$8M higher and 3,700 feet longer. She stated the traffic on 5th Street is much higher, and she knew it was also an emergency access route from the interstate up to the hospital.

Ms. Simpson stated on the Southern Cherry route, they looked at multiple other variations. She stated there was the Shamrock alternative, which would change the location of the railroad crossing and instead of crossing at Lewis Street, they would cross at Shamrock. She stated that

alternative was about 1,800 feet shorter and about \$3M less. She stated that in speaking with the City traffic and utilities representatives, that route was much narrower in terms of the road, and Shamrock Road itself was curvy and narrower—so it would be much more difficult to install the water line at Shamrock versus the JPA, Cleveland, and Cherry route.

Ms. Simpson stated on the east side of town, they looked at East Market and Meade and East Water and Meade alignments; both of those were longer and more expensive. She stated they did not overlap with as much of the East High City water main project as the Southern Cherry alignment.

Ms. Simpson stated that the engineers at Michael Baker had put together a matrix, and with a summary table of the five primary alignments. She stated shown was overall pipe length, and that the Emmet and Route 250 Bypass and Southern Harris had the longest routes. She noted that Middle was the shortest route; the Northern and Southern were about the same. She stated the maximum traffic counts, especially on the bypass, were significantly higher than the other routes, and the Southern Cherry route had the lowest overall, with 32% of the route greater than 10,000 vehicles per day, and all the other routes were significantly higher.

Ms. Simpson stated that regarding overall duration, most of the alignments were within 4–6 years, and the Emmet Street Bypass was 8 years to construct, which was based on one crew working in segments. She stated to complete that within a 4-year timeframe, they would have to double up the crews and be working in multiple places along that route to meet the project goal of completion in 4 years.

Ms. Simpson stated the costs were separated based on cost for the Central Water Line Project and cost of what was originally considered as the Emmet Street Water Line Project. She stated that was only impacted on the Emmet Street and northern routes where those could be somewhat co-located and overlapped. She stated this essentially just divided the funding differently for those two projects, even though the entire project needed to be built as one continuous line and built all at one time. She stated the overall costs were shown, and generally the Northern, Middle, and Southern alignments were all very close in cost; the Southern 5th Street, and Emmet Street bypass alignments had the highest costs.

Ms. Simpson stated that for water system benefits, the Middle and Southern alignments had the higher water system benefits, based on overall reliability and redundancy; the Southern and Middle corridors had better connectivity to the southern portions of the system. She stated that something discussed previously was having better connectivity to the existing Southern Loop and the Avon Street tank, and with the alignment being in the southern part of the City, they had better connectivity to the Avon Street tank. She added that regarding ease of future operations and maintenance, it was rated high if it was in a lower traffic area—as it would be much more difficult to operate and maintain if it was in a higher traffic area.

Ms. Simpson stated that all alignments would have challenges. She stated they were working through an urban corridor and in public streets, and they targeted building all the alignments in the street so that fewer easements would be required. She noted that currently, there were just a handful of easements required on the Southern alignment based on the railroad crossings, and

otherwise, they planned to have all water lines within the public right-of-way. She stated not all alignments equally met RWSA operational and hydraulic goals; the Southern and Middle alignment performed the best as far as providing all of their goals, and the Southern Cherry alignment provided the greatest overall benefits with the higher water system advantages, customer benefits, lower impacts to traffic, lower estimated overall project cost, ease of future operations and maintenance efforts, greatest hydraulic advantage when paired with future Emmet Street Water Line improvements. She stated she would now take any questions.

Ms. Mallek asked to see the slide with the pink line for the Southern Cherry alignment. She stated it also had the Emmet Street and Urban Water lines coming down, and she wanted reassurance that they were still concerned with the east-west connectivity for delivery of services in case of operational failure. She stated the lack of redundancy east-west was one of the things from 10 years ago that managers were very concerned about because if there was a major failure, there would be no way to get water from one of the other treatment plants into the southern part of the City successfully. She stated the pink line seemed to answer that question if that was still an important element—and without the pink line, it was unclear if the north-south ones did the job. She reiterated that she wanted clarification on this.

Ms. Simpson stated the east-west was the intention of the original Southern Loop, and it could be seen where the western branch of the Southern Loop was meant to connect from east to west from Observatory over to the Pantops area, so it was more of an east-west connector. She stated the pink line did provide the east-west connection as well as some north-south connection because of its interconnections with the other north-south lines. She stated it definitely filled in those gaps from east to west that would not be provided with other alignments.

Mr. Rogers stated these big projects were not just about infrastructure but were also about people and how these projects affected people's lives in their work, home, and community. He asked to see the slide that discussed community engagement and stated to get the word out about this, they sent out a number of letters to homeowners.

Ms. Simpson clarified that they were property owners.

Mr. Rogers stated they had six neighborhood associations with 43 attendees. He asked if they had a sense of how many people would actually be affected by this project in that community. He asked what percentage of the total people those 43 people represented.

Ms. Simpson stated she did not have an answer to that.

Mr. Rogers stated he knew they tried to do the best they could and could only put it out there and offer information to people, but there was still a lot of comment and concern about the project. He stated this raised the question of whether they were as effective as they could have been in terms of connecting with the people in the community and getting their feedback and helping them to understand the benefits of this project and how in the long term it would be beneficial to the City overall. He asked if there was any comment on that and what more could they do.

Mr. Mawyer responded that he knew that all staff, especially Ms. Simpson, were trying to reach

920 out to everyone they could think of that they had heard from in Mr. Rogers' office, as well as  
921 others they should contact. He stated Ms. Smith even volunteered some suggestions of people  
922 they should contact; in the presentation, they listed many organizations they had contacted to  
923 provide as much information as desired about the project. He stated they had an extensive  
924 communication program to reach all who were interested and wanted to hear about the project.  
925 He stated they had not held anything back and had the Central Water Line information sheet that  
926 was part of the mailer sent to everyone affected, including along routes that Ms. Simpson and the  
927 team had evaluated. He noted that at the Fry's Spring neighborhood meeting, participants  
928 suggested trying the 5th Street corridor, so that was added to the list of routes to evaluate.

929  
930 Mr. Mawyer explained that at another meeting, participants suggested adding the Meade and  
931 Water Street alternatives at East High Street, so they were added to the list and were the alternate  
932 routes evaluated. He stated they tried to listen and consider what the neighborhoods had to say.  
933 They held private meetings with one resident who was concerned about the project and  
934 considered her suggestions, such as the Route 250 Bypass route. He stated he supposed they  
935 could do more, but they had put forth an extensive program to this point, and they intended to  
936 continue to communicate and keep everyone updated on progress. He added that they would  
937 provide information along the full route through all the neighborhoods again as they got closer to  
938 construction. They could introduce the contractor to the neighborhoods so that people knew  
939 specifically what trucks were going to be in their neighborhood and have their questions  
940 answered.

941  
942 Mr. Mawyer stated they tried to listen to the neighborhoods that pointed out specifics in their  
943 area, such as Buford School being on Cherry Avenue, and how they would deal with school  
944 traffic. He stated the First Steps Infant Center had a lot of questions about how the work would  
945 be done next to their play area. He stated they knew that the hospital was a part of the route on  
946 the east end of Cherry Avenue, and they recognized that going up Roosevelt Brown Boulevard  
947 would impact traffic going to the Medical Center. He stated they listened to the neighborhoods  
948 about their concerns of getting essential services through the construction zone, and they assured  
949 the residents they would do that. He stated with few exceptions, they would keep traffic going  
950 and access available—which was one of the reasons the Cherry Avenue route was preferred, as it  
951 was most complementary to those goals.

952  
953 Mr. Mawyer stated they had made a very reasonable effort to communicate with the community,  
954 and in January, one of the concerns was that the community did not know about the project. He  
955 acknowledged that was true, because they had been working with technical staff to introduce the  
956 project to City Council and their Board before rolling it out to the community. He stated that  
957 after those presentations were completed in January, they tried to have communication outreach  
958 with anyone who was willing to come to the meetings and listen to what they had to report, as  
959 well as mailing information to people who live along the Southern Cherry Avenue route.

960  
961 Mr. Rogers stated he had heard Mr. Mawyer say they looked at other alternatives as they met  
962 with some of the community associations and factored that into the final decision-making. He  
963 emphasized that this was the important point.

964  
965 Mr. Mawyer stated residents suggested the 5th Street route and changes at the east end of Cherry

Avenue near Meade Avenue and Water Street, and they took that input very seriously and evaluated those suggestions.

Mr. Rogers stated alright. He thanked Mr. Mawyer for his response.

Mr. Gaffney asked if there were other comments and questions.

Mr. Pinkston asked to see the slide with the matrix. He stated looking at this, cost was an important piece. He stated he was at the virtual meeting with the Fry's Spring neighborhood when they talked about going down 5th Street, and staff dutifully went through and processed the information and stated what would be involved, so he felt like this had been a responsive process on that side. He stated as he looked at this, they were about to spend somewhere around \$40M for a project that was going to take at least four years. He asked if this was cast iron pipe.

Mr. Mawyer confirmed that it would be ductile iron pipe.

Mr. Pinkston stated his point was that they were talking about an asset that was going to be in the ground for about 75 years. He asked if that sounded reasonable, noting that the line would be in use for at least 50 years.

Mr. Mawyer responded that they used 100 years as the anticipated life of the pipe.

Mr. Pinkston stated he was trying to err on the lower side. He stated they were basically talking about making an investment overall for the whole community—not just Charlottesville, but for the County as well—as a 100-year investment. He stated it was a once-in-a-generation event, so he had a really difficult time supporting anything when it came to the water system benefits that was not the highest possible. He stated they were about to spend a lot of money on something that would be in use for 100 years, so he wondered why would they do anything where they were not getting the biggest bang for their buck, particularly given the longevity of it.

Mr. Pinkston stated that another important aspect was the schedule duration, and the schedule for projects like this one almost always went over schedule. He stated he knew that with their team, they would do everything they could to keep it on schedule—but having the space, right-of-way, width of road, and reduced traffic counts was why they were talking about a 4-year project for Cherry versus 6 years for the Middle and 4.5 years for the Southern Harris route. He stated doing something that yielded the biggest return on their investment over the course of 100 years and minimized disruption to City and regional life was what compelled him to support the Southern Cherry route.

Mr. Gaffney thanked Mr. Pinkston. He asked if there were any other comments or questions.

Mr. Pinkston responded that his only question was about the resolution and asked if this was the resolution they would be approving.

Mr. Mawyer confirmed that it was and stated he would be happy to read it.

Mr. Gaffney stated that would be a great idea since it had been distributed so recently.

Mr. O’Connell commented that it also identified the benefits of the project, so it was a good idea to read it.

Mr. Mawyer stated Mr. O’Connell deserved credit for his suggestion that they have a resolution about this project, and they worked hard to get it done. He stated it came in today and was what was being voted on. He stated this was a resolution of the RWSA regarding the Central Water Line Project dated June 28, 2022, and he read the resolution aloud:

***“Resolution of the Rivanna Water and Sewer Authority Regarding the Central Water Line Project***

*June 28, 2022*

*WHEREAS, pursuant to an agreement between the City of Charlottesville (the “City”), the Albemarle County Service Authority (the “ACSA”), and the Rivanna Water and Sewer Authority (the “Authority,” and, collectively with the City and ACSA, the “Parties”) dated January 28, 2020 and identified as the “Observatory Water Treatment Plant, Raw Water Pumping and Piping Upgrade Cost and Capacity Allocation Agreement (the “2020 Agreement”), the Parties recognized that to receive the benefits of the infrastructure improvements planned for the Observatory Water Treatment Plant and the raw water lines supplying the plant, which infrastructure improvements will strengthen the Urban Area community drinking water system and enable the Authority to more easily and efficiently provide continuously reliable water service; that a future finished water distribution line in a different location than previously planned is necessary; and*

*WHEREAS, in the 2020 Agreement the Parties agreed that the necessary future finished water distribution line should be located more centrally through the City of Charlottesville, that the Authority would identify the exact location of such line upon completion of an Urban Finished Water Master Plan, and that the City and ACSA would cooperate fully to ensure the additional finished water distribution line is constructed expeditiously; and*

*WHEREAS, the planned future finished water distribution line is now referred to as the proposed “Central Water Line,” and*

*WHEREAS, the Central Water Line will provide benefits to all water customers of the City and the ACSA in the following ways:*

- Provide consistent drinking water supply and pressure to residential and business customers in both the City and County*
- Reduce service disruptions during water line breaks and storage tank maintenance*
- Support firefighting demands*
- Improve system flexibility, efficiency, and redundancy*
- Assist with maintaining water supply during times of drought by utilizing the increased capacity of the upgraded Observatory Water Treatment Plant; and*

*WHEREAS, the Urban Finished Water Master Plan prepared by the Authority’s engineering*

consultant Michael Baker International, Inc. identified multiple options for the alignment of the Central Water Line, and a detailed Central Water Line Routing Study also prepared by Michael Baker International, Inc. (the "Routing Study") summarized the alternative routes and further evaluated the Southern (Cherry Avenue) Corridor, all in consultation with the City's Utility and Traffic Departments and with ACSA, including each of their engineering staff;

WHEREAS, review of the Urban Finished Water Master Plan, the Routing Study, and additional investigations, a series of street alignments and their associated impacts were evaluated based on numerous factors, including the technical benefits to the drinking water distribution system, construction challenges and costs, projected impacts to the public and neighborhoods, projected impacts to traffic and adjacent areas, opportunities to coordinate with other necessary City utility projects, and future operation and maintenance requirements, among other factors; and

WHEREAS, following consideration of the assessments, public engagement with neighborhood associations along the potential routes, presentations to City Council, and further consultation with the City's Traffic Engineer, the City's Department of Utilities and ACSA, including the engineering staff from both, and Michael Baker International Inc., the Authority staff recommended the Southern (Cherry Avenue) alignment as generally planned to follow along the following route: Stadium Road, Piedmont Avenue, Price Avenue, Lewis Street, Jefferson Park Avenue, Cleveland Avenue, Cherry Avenue, Elliott Avenue, 6<sup>th</sup> Street SE, Avon Street, 10<sup>th</sup> Street NE, E. Jefferson Street, 11<sup>th</sup> Street NE, E. High Street, and Roosevelt Brown Boulevard (the "Southern (Cherry Avenue) Alignment"); and

WHEREAS, the Southern (Cherry Avenue) Alignment was selected based on its ability to provide the least amount of overall impacts to the surrounding community while also providing the greatest short-term and long-term benefits to the community's drinking water distribution system; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Rivanna Water and Sewer Authority that it hereby endorses the recommendation of the Authority staff and approves the Southern (Cherry Avenue) Alignment for the Central Water Line."

Mr. Gaffney thanked Mr. Mawyer and clarified that before them was a motion if a director would so support it. He suggested they put forth the motion, a second, and then have a discussion, unless Board members preferred to have the discussion first.

**Mr. Rogers moved the Board adopt the resolution. Mr. Pinkston seconded the motion, which carried 6-0.**

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

Ms. Mallek stated over the weekend, the local government advisory committee for the EPA had met, and she was a member of the water committee and the air committee. She stated there were several presentations about the PFAS family of chemicals, and the EPA was standing up a whole regulatory framework to cover these. She stated in the Q&A, she was very proud of their granular activated carbon (GAC) filtration system, and one of the senior staff came to her afterwards and stated they would anticipate there would be some special design for the GAC that



would be needed to fully optimize the way it removed the PFAS chemicals.

Ms. Mallek stated that was all she knew at the moment, but they would learn more as this word went forward and there was a lot of research happening. She stated that the Bipartisan Infrastructure Bill grants and wastewater availabilities were being discussed, and she was probably being a nuisance by passing along everything that came across her desk to Mr. Mawyer.

Mr. Gaffney thanked Ms. Mallek for serving on those committees because they were very important and stated it was great to get the notice early if Mr. Mawyer was not getting those.

Mr. Mawyer stated that regarding the PFAS issue, the EPA had provided advisories the previous week that the threshold used to be 70 parts per trillion, with parts per trillion being one drop of water in 27 Olympic-sized swimming pools, or over 18 million gallons. He stated they lowered their standards from 70 parts per trillion to a reporting standard of 4 parts per trillion. He stated he was pleased to say that they monitored their raw water and finished water, and for the two PFAS species—PFOS and PFOA—they had small detections that were below even the new EPA standard of 4 parts per trillion. He stated effectively, they had no PFAS.

Mr. Mawyer stated the question had emerged as to why they were applying for a grant from VDH to add more GAC. He explained that they had anticipated the EPA was going to do just what they did last week and lower the standards on PFAS. He stated there were thousands of different types of PFAS, so the future was unclear and they wanted to be prepared with the best GAC treatment filters to address whatever the EPA came up with for them in the future.

Ms. Mallek stated the 4 parts per trillion was the level at which they were able to test it right now, but they expected that the adverse effects were way down in the range of 0.2 parts per trillion—so more serious testing levels and detectability standards were coming, and she was grateful they were ahead of the game compared to many other communities.

Mr. Mawyer thanked Ms. Mallek.

Mr. Gaffney commented that it was appropriate to compliment the community, the City, the County, ACSA, and Rivanna for their wise decision a number of years ago to go to GAC—the more expensive way to treat their water—and it really was coming home to roost what a great choice that was. He asked if there were any other items from Board or staff not on the agenda.

Mr. Mawyer stated there were none from staff.

## **12. CLOSED MEETING**

There was no reason to have a closed meeting.

## **13. ADJOURNMENT**

**At 4:19 p.m., Ms. Mallek moved to adjourn the meeting of the Rivanna Water and Sewer Authority Board. Mr. O'Connell seconded the motion, which passed unanimously (6-0).**

1150 Respectfully submitted,

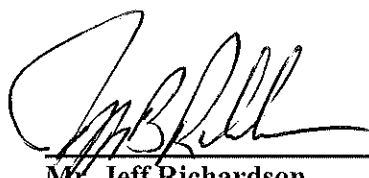
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A handwritten signature in black ink, appearing to read 'Jeff Richardson', is written over a solid horizontal line.

**Mr. Jeff Richardson**  
**Secretary - Treasurer**