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RWSA BOARD OF DIRECTORS
Minutes of Regular Meeting
February 25, 2025

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, February 25, 2025 at 2:15 p.m. at the Rivanna Administration Building, (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

Board Members Present: Mike Gaffney, Jeff Richardson, Sam Sanders (arrived at 2:20 p.m.), Ann Mallek (arrived at 2:25 p.m.), Brian Pinkston, Quin Lunsford, Lauren Hildebrand.

Board Members Absent: none.

Rivanna Staff Present: Bill Mawyer, David Tungate, Lonnie Wood, Jennifer Whitaker, Betsy Nemeth, Daniel Campbell, Scott Schiller, Michelle Simpson, Austin Marrs, Victoria Fort, Brad Puffenbarger, Westley Kern, Debra Hoyt, Deborah Anama, Jacob Woodson.

Attorney(s) Present: Valerie Long

1. CALL TO ORDER

Mr. Gaffney convened the February 25, 2025 regular meeting of the Board of Directors of the Rivanna Water and Sewer Authority at 2:15 p.m.

2. AMENDED AGENDA APPROVAL

Mr. Pinkston moved the Board to adopt the amended agenda as presented. Mr. Richardson seconded the motion, which carried unanimously (5-0). (Mr. Sanders and Ms. Mallek were absent.)

3. MINUTES OF PREVIOUS BOARD MEETING ON JANUARY 28, 2025 – AS AMENDED

Mr. Gaffney stated that there were a number of edits to the previous meeting minutes. He listed them as follows: Line 372 “rolling” to “rowing,” line 542” “RWSA” to “RCC – Rivanna Rowing Club,” line 872 add “a little” knowledge can be a dangerous thing, line 875 “she was doing” to “Ms. McIlwee was doing,” line 878 “the effort she was putting into” to “the effort Ms. McIlwee was putting into,” line 1024 “Rising” to “Raising.”

Mr. Pinkston moved the Board to approve the January 28, 2025 meeting minutes as amended. Mr. Lunsford seconded the motion, which carried unanimously (5-0). (Mr. Sanders and Ms. Mallek were absent.)

4. RECOGNITION

There was none.

5. EXECUTIVE DIRECTOR'S REPORT

Bill Mawyer, Executive Director, stated that he wanted to recognize three team members. He stated that first was Brad Puffenbarger, who had recently been promoted to be their new Water Department Manager, a position that oversaw all six of their water treatment plants and 26 employees who worked there. He stated that Mr. Puffenbarger had been with them for 13 years and had always been part of the Water Department. He stated that they would like to extend their congratulations to Mr. Puffenbarger on his promotion and looked forward to the opportunities that came with it.

Mr. Mawyer stated that they would also like to extend a warm welcome to Westley Kern, their newly hired Communication and Outreach Coordinator. He stated that Mr. Kern was a graduate of James Madison University. He stated that previously, he worked for Charlottesville Area Transit (CAT) and completed an apprenticeship in the HVAC field.

He stated that their Lab Manager, Patricia Defibaugh, had taken a planned medical leave for an extended period, so Deborah Hoyt will be serving as their Interim Manager during this time. Mr. Mawyer thanked Ms. Hoyt for stepping in and assuming the responsibilities while Ms. Defibaugh was on leave for a couple of months.

He stated that they would like to extend their congratulations to Cynthia Dunham, who had successfully passed her Class 2 Water Operator License, and Conrad Wilson, who has passed his Class 3 Wastewater License.

Mr. Mawyer stated that he wanted to thank Deborah Anama, Executive Assistant, for organizing a Super Bowl team-building event as part of their employee and workforce development program. He stated the event featured a cook-off contest, with Katie McIlwee winning the soup contest with her "New Year's Day Soup" and Leah Beard winning the chili contest with her "Chili Con Carne." He stated that this event helped their team build camaraderie and get to know one another.

Mr. Mawyer stated that last week, they celebrated National Engineers' Week, and they would like to recognize and thank their six engineers for their hard work in managing the design and construction of their projects, private development in the community, and utility locations in the community. He stated that they were proud to note that all seven of their engineers, including himself, are registered Professional Engineers in Virginia. He stated that this was a unique achievement for our organization, and they appreciate the dedication and expertise they bring to their team.

Mr. Mawyer stated that last week, the management team met with the Board's subcommittee to discuss the FY26 budget. He stated that Mr. Lunsford and Ms. Hildebrand, along with their staff, joined them to review the proposed budget, which includes debt service for the Capital Improvement Plan (CIP), and operating expenses. He stated that they will present this to the full Board in March. He stated that today they would begin their FY26 budgeting process, and they had the CIP budget to share with the Board. He stated that this five-year plan outlines construction projects that are essential to maintain the Authority's momentum to complete the

community’s water supply plan developed in 2012.

Mr. Mawyer noted that this was a dynamic budgeting process, and their numbers had changed since they initially issued the budget package last week. He stated that the staff continued to look for ways to minimize expenses including recent construction bid prices. Mr. Mawyer stated that the subcommittee's discussion last week provided valuable insights, which staff had incorporated into the proposed budget.

He stated that regarding their Capital Improvement Plan, he would like to comment on the most critical project in our 5-year CIP, the Central Water Line project. Mr. Mawyer stated that this was brought up during public comment last month by Ms. Smith, and he would like to provide an overview of the project and its significance. He stated that the budget for this project had increased from $40 million to almost $80 million. He showed a project diagram. He stated that the history of this project dated back to 1987 and the Southern Loop Agreement, when the City and the Rivanna agreed to strengthen the water distribution piping system. The western branch of the southern loop was built, and the plan was to extend the line to connect near Pantops with the eastern branch of the southern loop. Mr. Mawyer stated that the eastern branch was not built. He stated that in 2021, RWSA conducted a study, which was recommended by the Board, to reevaluate the location of the eastern water line. He stated that the study determined that having a major water distribution line only along the urban perimeter would not be effective in supporting the urban water system. He stated that as a result, a new route for the water line was developed and approved by City Council and the RWSA Board in June 2022. He stated that the new location of the water pipe connected to existing piping near Free Bridge and provided a direct route for water to move from the Observatory Water Treatment Plant to the Pantops Water Tank, and thereafter to northern parts of Albemarle and the South Rivanna Water Treatment Plant.

Mr. Mawyer stated that they were currently planning for the Emmett Street Betterment project as a partnership with the City, UVA and VDOT. He stated that as projects were completed along Emmett Street in the future, RWSA would install their pipe to connect with existing water in the northern section of Emmett Street. Mr. Mawyer stated that the selected route along Cherry Ave would strengthen the water distribution system within the urban area. He stated that the City's distribution system would be improved. He recalled Mr. Sanders comments at the recent Chamber of Commerce meeting about the three-legged stool concept. Mr. Mawyer emphasized the importance of having all three water components: supply, treatment, and distribution to have an effective water system. Mr. Mawyer stated that the utility had made significant strides in water supply, including the construction of a new dam at Ragged Mountain. He stated that a plan was underway to build a pipe from the South Rivanna Reservoir to Ragged Mountain to fill the new reservoir, which would enhance the water supply. He stated that they had also completed treatment improvements at the Observatory and South Rivanna Treatment Plants. Mr. Mawyer stated that the Central Water Line was a critical component of their water distribution plan, enabling them to deliver drinking water to all parts of the City and County while maintaining water levels in their storage tanks. He stated that the tanks, in turn, helped maintain pressure throughout the entire distribution system. He stated that by pumping water into the tanks, they created pressure that was essential for the entire system to function properly.

Mr. Pinkston asked how this affected Fire Department services.

Mr. Mawyer stated that with millions of gallons of water stored in tanks, they could support the fire departments in the event of a fire. He stated that the principle behind the old chemistry experiment, where water rises to the same level in a U-tube, applied here. He stated that if they could get water into the tank, it would create the same pressure throughout their system, helping to reach higher elevations, such as the second or third floor of a house.

Mr. Mawyer stated that they had successfully completed construction of a new dam at Ragged Mountain and a renovation of the South Rivanna and Observatory Water Treatment Plants. He stated that they had invested close to $100 million in those projects. Construction of a new pipe from Ragged Mountain to Observatory was currently under construction. He stated that the Observatory Water Treatment Plant was limited by hydraulic constraints due to the small size of the pipes leaving the plant. This limitation would be corrected by the Central Water Line project. Mr. Mawyer stated that they could process approximately 10 million gallons per day at the Observatory Treatment Plant, but the urban system's demand was typically around 10 million gallons per day. He stated that unfortunately, they could only convey about 7 million gallons from Observatory due to the piping limitation, and they required the Central Water Line to utilize the maximum capacity of 10 million gallons per day. He stated that this meant that they needed both the Observatory and the South Rivanna Water Treatment Plants to operate simultaneously to meet the urban system's water demands. Mr. Mawyer stated that currently they relied on both plants to supply water to the urban system, but once the Central Water Line was completed, they would be able to serve the entire urban area solely from the Observatory Treatment Plant or the South Rivanna Treatment Plant. He stated that the importance of this redundancy was evident in the recent incident on January 25 of this year, when a plane crashed on Monacan Drive, just a stone's throw from the South Rivanna Water Treatment plant. Mr. Mawyer stated that the South Rivanna Dam and Reservoir were essentially located at the end of the runway of the Charlottesville-Albemarle Airport. He stated that when visiting the reservoir, one could see planes flying overhead frequently. Mr. Mawyer stated that if a plane were to impact the South Rivanna Plant, dam, or reservoir, they would rely on the Observatory Treatment Plant. He stated that currently, they also received water production from the North Rivanna Treatment Plant.

Mr. Mawyer stated that if the South Rivanna Plant and/or South Rivanna reservoir were unavailable, all of Charlottesville and most of Albemarle's developed areas would be impacted. He stated that reflecting on 2022, after determining the best alignment for this pipe, they presented five alternatives to City Council in June 2022, showcasing all routes. He stated that the Cherry Avenue route, known as the southern route, was recommended due to its high water system benefits, ease of construction and maintenance.

Mr. Mawyer stated that the Cherry Ave route had a very preliminary estimated construction cost of $41 million, primarily for reference purposes to evaluate the alternatives. He stated that building five miles of major 24-inch and 30-inch piping along Cherry Ave was deemed the recommended route, and City Council, as well as the RWSA Board, approved it.

Mr. Pinkston asked if the blue at the end of that section was the recent modified route that they had discussed.

Mr. Mawyer stated that yes, this was a change they had to make in the last year or so. He stated that initially, they were planning to proceed down East High Street and partner with the City on a piping project in that location, but the subsurface investigation encountered numerous underground utilities that made it impractical our large pipe in this location. He stated that as a result, they had altered the alignment in the E. High Street area.

Mr. Mawyer stated that this was their current plan for construction of the Central Water Line. He stated that in 2024, they received bids for the Ragged Mountain to Observatory Water Treatment Pipeline project, which indicated that the initial estimate of $41 million was significantly under budget. He stated that they subsequently increased their Central Water Line budget from $41 million to $67 million based on updated costs. Mr. Mawyer stated that the bid was 30% above their initial linear footage estimate, and they factored in the challenges of working within an urban environment to arrive at a revised estimate of $67 million.

Mr. Gaffney stated that all the estimates for the various Central Water Line options would also have increased in equivalent.

Mr. Mawyer stated that this was a market change that would have applied to any pipe location. He stated that through their collaboration with the City's engineering team over the past year, they realized that the design for the pipe was not deep enough in certain areas and would conflict with some of the City's utilities. He stated that initially, they estimated they would need to lower the entire pipe, which would have resulted in a total budget of approximately $82 million.

Mr. Mawyer stated that more recently, they continued to work with City staff and found that only about 75% of the pipe needed to be lowered, while 25% could remain at a higher elevation. He stated that this revised estimate lowered their overall project cost to around $77 million. He stated that although the project had already been advertised, they had paused the procurement process to resolve this issue with the City. Mr. Mawyer stated that they anticipated the procurement would receive bids in late March or early April, with the cost shared between the Albemarle County Service Authority (ACSA) at 52% and the City at 48%. He stated that this gave a glimpse into the collaborative process with City staff.

He stated that the next slide was a plan view of Cherry Avenue, looking down at Station 121. Mr. Mawyer stated that the red line represented the existing sewer pipe running down the middle of the street, while the blue line showed their proposed Central Water Line. He stated that they could see buildings on both sides of the street, including houses with sewer laterals that needed to be connected to the sewer line in the middle of the street. He stated that their engineer initially expected that the sewer laterals would connect to the existing sewer line at a 45-degree angle and cross over top of the new water pipe. The Central Water Line would be about a foot and a half below the laterals and five feet below the surface.

Mr. Mawyer stated that they had recently obtained better subsurface information that suggested these sewer laterals may not be installed at the 45-degree angle consistently and may have a flatter angle resulting in conflicts with the new water pipe. He stated that as a result, they decided to lower the pipe an additional 1.5 feet.

Mr. Mawyer stated that this adjustment would place the water line approximately seven feet below grade, providing sufficient space for future laterals to be constructed without being impacted by the location of their water line. He stated that this design would also accommodate gravity flow connections from various types of buildings, including houses, apartment buildings, and commercial buildings, ensuring adequate vertical space for connections without interference from the water line.

Mr. Pinkston asked for clarification on what would happen during the construction process. He stated that he wanted to know whether the large pipe would be threaded underneath the laterals, or whether the laterals would be removed and the pipe dropped in place.

Mr. Mawyer stated that this was a question that they were still working on. He stated that the original design anticipated installing the new water pipe under the existing sewer laterals. He stated that however, they had at least 75 laterals to cross along this five-mile stretch of pipe, making it a significant issue. Mr. Mawyer stated that the existing sewer laterals must be supported to prevent them from breaking, and if they were to break, they must be repaired. He stated that they were currently discussing this with Ms. Hildebrand and her staff to determine whether threading the pipe under the laterals was the best solution, or if they should plan to cut and repair the sewer lateral pipes or replace the entire lateral, and how this might impact the project cost.

Ms. Hildebrand stated that typically, the joints were made of terracotta, which meant they had only two-foot joints. She stated that this must be taken into consideration.

Ms. Mallek asked if the terracotta were approximately 50 or 70 years old.

Ms. Hildebrand stated yes, but terracotta was a really good pipe unless it was uncovered.

Mr. Mawyer stated that typical of urban utilities, the infrastructure they were dealing with was older. He stated that as the City developed and redeveloped, they wanted to ensure there was space for new laterals for new buildings, and that had been part of the discussion. He stated that he was aware that they may need to go deeper. He stated that they were looking at putting the water pipe deeper due to better and newer information, although with a higher cost.

Mr. Mawyer stated that their consultants based project estimates on recent, similar construction bids, and regionalized those costs for our high-cost area. He stated that some consultants may still use traditional estimating manuals which provided costs for labor, equipment, rentals, and material. Mr. Mawyer stated that estimating could be more art than science, influenced by supply and demand, contractors' labor and materials, and factors like major federal grant programs. For example, they had received approximately $10 million in funding, and they were hoping for more. Their community, including UVA and UVA Foundation, had significant construction programs, with one report indicating UVA has $1 billion in current construction projects. Mr. Mawyer stated that their area had a low unemployment rate of 2.2%. He stated that additionally, regional and national disasters could impact costs. The hurricane that affected Southwest Virginia and North Carolina, as well as floods in Tennessee and Kentucky, and fires in California, all created significant demand for materials and labor which could impact project

costs. Mr. Mawyer stated that the widespread circumstances made it challenging for their consultants to estimate costs. He stated that additionally, when staff prepared the CIP, they typically took 18 to 24 months after completing the CIP before soliciting bids. He stated that as a result, prices had already increased due to the factors mentioned earlier.

Mr. Mawyer stated that their budget became effective on July 1. He stated that however, they had begun their CIP development program in August of last year. He stated that when a project was approved and started in July of 2025, it may not be until spring of 2026 before they requested bids. He stated that he would not debate whether estimating project costs could be improved. He stated that in his 45 years as an engineer, estimating project costs was often challenging. He stated that they updated their budgets almost monthly and reflected these changes in the CIP report, which they included in the Board packet. He stated that they were aware of the potential price increases and would address them in subsequent CIP presentations.

Mr. Mawyer stated that they did not request CIP amendments every time the budget increased; instead, they waited until a bid was received, at which point they could determine if the actual cost had increased. He stated that this was their standard process. He stated that the Central Water Line project in June 2022 had been initially estimated to cost $1,500 per foot equaling $41 million for five miles of pipe. He stated that in October 2024, they had received a bid for the Ragged Observatory pipe, which indicated a price of $1,900 per foot for a cross-country project in a rural area. Mr. Mawyer stated that they had decided that this price was too low for an urban project with asphalt, sidewalks, and traffic control requirements, so they escalated the bid to $2,500 per foot. He stated that at this new price, the estimated cost for the five-mile project had increased to $67 million. He stated that they then examined the deeper trench and found that if the entire pipe were lowered by two feet, the cost would be $82 million. He stated that now they expect only about four miles of the pipe needs to be lowered. Mr. Mawyer stated that at an additional $500 per foot, this portion of the project would cost $10 million. He stated that they were currently at a point where they were trying to find the most efficient way to complete the project.

Mr. Gaffney asked if they were still working on getting the four miles at two feet, or if it was less than four miles.

Ms. Hildebrand stated that was where they were.

Mr. Mawyer stated that Ms. Hildebrand had agreed with lowering about four miles of the pipe with about 1 mile that did not require the full seven feet of depth.

Mr. Pinkston asked if they anticipated rock.

Mr. Mawyer stated that they did anticipate rock. He stated that was part of the additional $500 per foot cost.

Mr. Pinkston stated that another factor to consider was the growing number of data centers being built in Virginia, which was also impacting construction prices.

Mr. Mawyer stated that was a cost factor, as Virginia had the most data centers in the world.

Mr. Mawyer stated that they had successfully repaired and restored the pipe which transferred water from Sugar Hollow to Ragged Mtn reservoir.

Mr. Gaffney asked how old that pipe was.

Ms. Mallek stated the pipe was installed in 1913.

Mr. Pinkston stated that he wanted to express his gratitude to Mr. Mawyer for his presentation on the Central Water Line. He stated that they would discuss this further in the context of the Capital Improvement Plan, but he wanted to acknowledge the challenge this project posed for all of them. He stated that this was a significant undertaking, as it would run directly through the heart of the City.

Mr. Pinkston stated that it was crucial that this project was completed, and he was thankful that Mr. Gaffney had provided him with the foundation documents the previous night. He stated that this project aligned with the long-term goal of the urban water plan, which had been approved by Council in 2019. He stated that although the specific routing had not been approved at that time, the City had committed to this project through this central location. He stated that they had actually signed agreements on this matter in 2019, and it was clear that the City recognized the importance and necessity of this project.

Mr. Pinkston stated that he would like to have an honest discussion about potential ways to mitigate some of these costs. He stated that he appreciated the thoughtful approach and acknowledged that everyone had been acting in good faith. He stated that however, when they had significant budget exceedances, it became a concern that needed to be addressed.

Mr. Gaffney stated that the project was not yet over budget; rather, there had been an increase in the preliminary estimated costs.

Mr. Sanders stated that they now knew the project budget in advance of receiving construction bids, rather than afterwards.

Ms. Mallek stated that knowing the higher project budget three years ago would have provided more significant advance notice.

Mr. Mawyer stated that the new budget was essentially the advance notice. Staff had also applied the new pricing from the Ragged to Observatory project to the South Rivanna to Ragged Pipeline project, which was seven miles long. When they multiplied the new cost per foot, it increased the project budget from $80 to almost $120 million.

Mr. Mawyer stated that upon reviewing the CIP projects, they considered the possibility that many might be under budget and decided to increase them by 20%. He stated that this was a major factor in the significant increase in their 5-year CIP budget, which went from $370 million last year to $550 million this year. He stated that this proactive approach to the proposed budget

was intended to mitigate the impact of the potential cost increases.

6. ITEMS FROM THE PUBLIC

Matters Not Listed for Public Hearing on the Agenda

Dede Smith stated that she would like to address what was just stated about the Central Water Line. She stated that she would like to thank Mr. Mawyer for clarifying, and the map also confirmed that this project would primarily benefit Pantops and the northern part of the urban system. She stated that she would also like to thank him for clarifying that the Emmett Street pipeline would be built, as it was previously stated to be a barrier.

Ms. Smith stated that this pipeline provided many cheaper and more direct options to Pantops than the southern route. She stated that she would also like to correct Mr. Mawyer, when he mentioned the initial estimate of $41 million. She stated that it was actually $31 million when they had all the comparative options that he presented. She stated that it was now $77 million and was likely to go higher. She stated that she would also like to address the issue he brought up about the airplane going down.

Ms. Smith stated that she would also like to remind them that I-64, which carries large trucks with hazardous materials, directly crossed Ragged Mountain Reservoir. She stated that therefore, discussing hazards to South Fork was not relevant. She stated that she would also like to comment on his mention of certified engineers.

Ms. Smith stated that they were now placing water lines below sewer lines, a practice that was once viewed skeptically. She stated that however, they were now implementing it. She stated that, in the past, this Central Water Line would never have been considered, and it was primarily being placed in the City's Black and Brown areas; this was simply true.

Ms. Smith stated that lastly, when they discussed the water plan with Mr. Pinkston, they may want to remind him that, in September, after the plan was approved, the pipe between South Fork and Ragged Mountain was deemed too expensive due to its impact on water rates, it was nothing compared to the current capital project costs are now. She stated that when discussing capital projects, she would appreciate it if they could also talk about water rates.

7. RESPONSE TO PUBLIC COMMENTS

Mr. Sanders asked if Mr. Mawyer had a response to Ms. Smith’s concern about placing water lines beneath the sewer lines. He asked why they were proceeding with the project if there was this concern.

Mr. Mawyer stated that Ms. Smith was correct that it was not advisable to have sewer lines over top of water lines. However, the central water line pipes were bolted together at the ends of the pipe joints to prevent infiltration of any sewer leak. He stated that it was highly unlikely that they would encounter a situation where sewage would get into the water pipes. He stated that when they had an existing four-inch diameter sewer pipe at three feet of depth, there was no way to get a three-foot diameter water pipe installed above the sewer pipe.

Mr. Mawyer stated that according to the Virginia Wastewater regulations, there were specific standards for this type of installation. He stated that they would follow these standards so they could ensure proper construction of the water pipes below much smaller sewer lateral pipes. He stated that they could also install separation membranes, concrete, or other barriers where the sewer and water lines crossed to protect the water system from the sewer.

Mr. Pinkston stated that another point he would like to bring up was that the sewer lines in question were gravity-fed, which meant they were not under pressure.

Mr. Mawyer stated that was correct.

Ms. Hildebrand stated that in addition, these lines were serving a customer, which was why they were considered lateral sewer lines. She stated that in their professional opinion, it would be worse if they were located under the Central Water Line, as they would be more difficult to replace. She stated that this was because the household or commercial business responsible for maintaining them would have to navigate the Central Water Line to access the lateral sewer line, making the replacement process more complicated.

Mr. Mawyer stated that he did not recall an estimate of $31 million for the Central Water Line.

Mr. Gaffney stated that when the Southern Water Line was first proposed, he believed it was estimated to be around $2 or $3 million in 1987. He stated that it was likely that the cost had increased over the years.

Mr. Pinkston asked to see the chart with the various data for the Central Water Line.

Mr. Gaffney stated that ten years ago, it was certainly less. He stated that although it may have still been the beginning of the Central Water Line discussion, prices at that time were lower due to the overall economic conditions.

8. CONSENT AGENDA

a. Staff Report on Finance

b. Staff Report on Operations

c. Staff Report on CIP Projects

d. Staff Report on Administration and Communications

e. Staff Report on Wholesale Metering

f. Staff Report on Drought Monitoring

g. Approval of Engineering Services – Glenmore WRRF Upgrades Project – Short Elliot Hendrickson Inc.

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

9. CLOSED MEETING

Mr. Pinkston moved that the Rivanna Water and Sewer Authority enter into a closed session to discuss or consider the acquisition of real property for a public purpose, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the Rivanna Water and Sewer Authority, as permitted by subsection (3) of section 2.2-3711(A) of the Code of Virginia, and to discuss the award of a public contract involving the expenditure of public funds, including discussion of the terms or scope of such contract, where discussion in an open session could also adversely affect the bargaining position or negotiating strategy of the Rivanna Water and Sewer Authority, as permitted by subsection (29) of section 2.2-3711(A) of the Code of Virginia.

Ms. Mallek seconded the motion, which carried unanimously (7-0).

10. CERTIFY CLOSED MEETING

Mr. Pinkston moved that the Rivanna Water and Sewer Authority certify by recorded vote that the closed session was to discuss or consider the acquisition of real property for a public purpose, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the Rivanna Water and Sewer Authority, as permitted by subsection (3) of section 2.2-3711(A) of the Code of Virginia, and to discuss the award of a public contract involving the expenditure of public funds, including discussion of the terms or scope of such contract, where discussion in an open session could also adversely affect the bargaining position or negotiating strategy of the Rivanna Water and Sewer Authority, as permitted by subsection (29) of section 2.2-3711(A) of the Code of Virginia.

Ms. Mallek seconded the motion, which carried unanimously (7-0).

11. OTHER BUSINESS

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

Jennifer Whitaker, P.E., Director of Engineering and Maintenance, stated that she would like to spend a few minutes reviewing the Capital Improvement Plan development which started in August. She stated that typically, this process spanned from July to May, with a month-long break before starting again. She stated that the capital program presented today covered five years from Fiscal Year 26 through 30.

Ms. Whitaker stated that the Authority had five goals in its strategic plan. She stated that the

Authority was established in 1972 to focus on capital asset planning and guidance. She stated that therefore, planning and infrastructure were fundamental for the Authority. She stated that this capital improvement plan aimed to address the five key priorities they had identified.

She stated that first, they were working to complete the community water supply plan, which had been a topic of discussion for several years. Ms. Whitaker stated that second, they were ensuring that they could provide water service to the entire service area, both currently and in the future. She stated that notable projects included the Central Water Line, the Airport Road Water Storage Tank, and the North Rivanna River Crossing. She stated that these projects focused on the Authority's ability to provide water throughout the community and to specific areas for future growth. Ms. Whitaker stated the third priority was maintaining water treatment to meet or exceed all regulatory requirements. She stated that the Authority had a proven track record of meeting current and future regulatory needs. She stated that fourth, they were addressing wastewater treatment to ensure they met or exceeded environmental regulatory requirements, including potential issues like per- and polyfluoroalkyl substances (PFAS), microplastics, and biosolids disposal requirements. She stated that fifth and finally, they were prioritizing environmental stewardship and fiscal responsibility.

Ms. Whitaker stated that the proposed capital plan included 71 projects totaling $551 million. She stated that out of the 71 projects, 63 were construction-related, four were studies, and four were operational, focusing on IT asset management and business operations. Ms. Whitaker stated that of the $551 million, $313.5 million, or 57% was allocated to urban water projects, aligning with their original goals and objectives for this capital plan which focused on developing a community water supply plan. She stated that the total budget of $551 million was comprised of $378 million allocated to the Service Authority, as allocated via service and cost share agreements, and $173 million for the City, representing 31% of the total. She stated that from a funding perspective, they had $21 million already paid, $93 million in existing debt proceeds, $41 million in grants and insurance reimbursements, and $383 million in new debt.

Ms. Whitaker stated that as a capital asset organization, RWSA was designed to carry debt for the entire community, allowing them to build, bond, maintain, and operate large water and wastewater assets, thereby relieving individual retail customer organizations of the burden of bond debt service. She stated that this unique structure enabled RWSA to maintain a wide range of assets, including dams, water supply reservoirs, finished water tanks, treatment plants, and three categories of pump stations. Ms. Whitaker stated that they had 68 miles of water pipeline, typically larger diameter. She stated that they also had 44 miles of wastewater pipeline, again typically the larger diameter pipelines. She stated that in addition, they operated the stormwater impoundment at Lickinghole. She stated these assets were what they aimed to renew, repair, and rehabilitate in the Capital Improvement Program. She stated that their program was designed to ensure the long-term maintenance of these assets for the entire community.

Ms. Whitaker stated that these assets were tracked in their Asset Management System and were improved, rehabilitated, or replaced via their Capital Improvement Program. She presented a graphic identifying the underlying need and justification for each capital project.

Ms. Whitaker stated that they were working on capacity projects on both the water and sewer systems to ensure they could serve all areas of the community. She stated that operations, maintenance, safety, and sustainability, were in a broad category. She further stated that at its core, their program was about asset renewal, which included tasks such as tank painting, manhole inspection, and reducing inflow and infiltration to keep existing assets in good condition.

Ms. Whitaker stated that they also had several regulatory compliance driven projects, which they would discuss in more detail later. She stated that as operated in a heavily regulated environment, they often had projects that were years in the making or required short notice to meet regulatory requirements.

Ms. Whitaker stated that finally, they had been discussing the issue of reliability and redundancy for a number of years, which had become increasingly urgent due to climate change and adverse weather conditions. She stated that they strive to ensure that RWSA facilities could continue to operate even under adverse conditions.

Ms. Whitaker stated that they had six water treatment plants. She stated that the three that served the urban service area included Observatory, South Rivanna, and North Rivanna. She stated that the other three plants served smaller portions of their community, including Scottsville, Red Hill, and Crozet. She stated that on the wastewater side, they had a slightly different approach. Ms. Whitaker stated that they had one large wastewater treatment plant, located at Moores Creek, which served the urban community as well as Crozet. She stated that they also had three smaller plants, one serving Glenmore, one serving Scottsville, and a small plant serving Stone Robinson Elementary School, which they contracted operations for the Service Authority and maintained on behalf of the Albemarle County school system.

Ms. Whitaker stated that they had five water supply reservoirs. She stated that they operated 10 dams, with five water supply reservoirs. She stated that the three largest reservoirs, South Fork, Sugar Hollow, and Ragged Mountain, served the urban system. She stated that they had two reservoirs, one in Crozet and one in Scottsville, that served the outlying communities within their service area.

Ms. Whitaker stated that the largest portion of their Capital Improvement Plan was dedicated to water supply projects. She stated that they had completed the Ragged Mountain Dam construction and were upgrading the Observatory and South Rivanna water treatment plants. She stated that they were currently constructing the Ragged to Observatory water line and pump station.

Ms. Whitaker stated today they were discussing the Central Water Line, both Phase 1 and Phase 2, which was the line that crossed through the City. She stated that they hoped to award this project in May, with a 52%/48% cost split between the Service Authority and the City, and an estimated cost range of $77 to $79 million.

Ms. Whitaker stated that the next project was to raise the Ragged Mountain reservoir water

level. She stated the dam was originally constructed to reach 12 feet higher than the normal pool level, so this project would raise the water level 12 feet and perform all the associated ancillary work. She stated that they were hoping to award this project in June of this year, with an estimated cost of $5.5 to $6 million, split 80%/20% between the Service Authority and the City.

Ms. Whitaker stated that the third project listed here was the South Rivanna to the Ragged Mountain Raw Water Pipeline, Pump Station, and Intake Facility. She stated that this project's estimated cost was $117 million, also split 80%/20% between the Service Authority and the City. Ms. Whitaker stated that finally, they had water quality treatment projects in both Ragged Mountain and South Fork Rivanna Reservoirs. She stated that these included aeration in South Rivanna and a hypolimnetic oxygenation (HLOS) system in Ragged Mountain, which involved introducing oxygen at lower elevations within the reservoir. She stated that these projects helped improve water quality and reduce algae growth.

Ms. Whitaker stated that they were considering awarding this project potentially in early 2028, with an estimated cost of $9 million, split 52%/48% between the Service Authority and the City. She stated that overall, the current estimate for these water supply and quality projects totaled $211 million, with the Service Authority's portion being $144 million and the City's portion being $67 million.

Mr. Pinkston asked if the water quality project was relatively recent.
Ms. Whitaker replied no; it had been in the CIP for a long time, but it had not been highlighted here.

She stated that given that a significant portion of the CIP was comprised of Community Water Supply Plan projects, they thought it would be useful to briefly review the timeline of how they arrived at this point. She stated that if the Board recalled, in 2001 and 2002, the area experienced an 18-month drought of record, which prompted them to begin working on the Community Water Supply Plan in 2003 to ensure the community had a reliable water supply. Ms. Whitaker stated that they worked on this project from 2003 to 2008. She stated that although they had initially received permit approval from VDEQ, ongoing community debate delayed full adoption until 2012, when they finally reached a community agreement and a major permit modification. She stated that by 2012, they were able to begin work on the construction of the Ragged Mountain Dam, which was completed in 2014.

Ms. Whitaker stated that in 2018, the Board approved moving forward with the South Rivanna to Ragged Mountain Pipeline project, with a scheduled completion date of 2027 to 2035. She stated that in 2023, staff worked on the VWP permit renewal, which had expired in 2023 due to the Department of Environmental Quality's (DEQ) delayed review process. Ms. Whitaker stated that they received a draft permit at the end of last week, which they would review and move forward. She stated that they were nearing completion of the South Rivanna and Observatory Treatment Plant improvements. She stated that in 2024, the Board adopted a new completion date for the South Fork to Ragged Pipeline project, moving it up five years from the original 2027 to 2035 timeline to a 2025 to 2030 completion window.

Ms. Whitaker stated that they were currently under construction on the Ragged Mountain to Observatory Pipeline and Pump Station, with a planned completion date of 2029. She stated that as currently planned, the entire water supply plan was expected to be completed by 2030. She noted that they had a 28- to 30-year time window from the drought to the completion of the Community Water Supply Plan projects.

Ms. Whitaker stated that it was essential to consider the charge increases associated with this CIP. Specifically, Fiscal Year 2026 took the City to a 12.9% charge increase and the Service Authority to a 20.6% charge increase. She stated that the subsequent years' increases were also outlined in this table. She stated that listed were all the assumptions that went into the rate model, which Mr. Wood could elaborate on if needed. She stated that this table provided a detailed explanation of the funding mechanisms and operating assumptions.

Ms. Whitaker stated that last year, the Board had adopted 64 projects for $371 million. She stated that the mid-year added authorizations were an additional $41 million, bringing the total adopted CIP budget to $412 million, compared to the $551 million budget presented today. She stated that to understand how they arrived at this number, they would begin by reviewing projects completed last year. She stated that they had finished $15 million worth of projects, which were fully capitalized. She stated that they rolled in approximately $30 million of project funding in Fiscal Year 30. She stated that this year, they brought forward one year's worth of funding and added five new projects and four new studies, as well as accounting for market inflation and additions, which totaled around $110 million. She stated that this breakdown illustrated how they reached the current CIP budget.

Mr. Pinkston asked if the $111 million for market inflation additions was based on actual bids that were submitted, or if they were based on comparable estimates.

Ms. Whitaker indicated that several projects were increased based on actual bids on comparable projects. The remaining cost increases were predominantly inflation driven, with relatively small scope changes within the projects.

Mr. Pinkston asked if the data were based on comparable information from another project rather than the actual bids received for those specific projects.

Ms. Whitaker stated that yes, because if the projects had not been bid yet, then they could only rely on projections and comparable projects. She stated that this was similar to the Rivanna to Ragged Mountain pipe project. She stated that as Mr. Mawyer had mentioned, they had added $40 million to the overall budget. She stated that out of the $111 million, $40 million was specifically allocated for the South Rivanna to Ragged Mountain Pipeline. She stated that an additional $20 million was designated for the Central Water Line. When adding these numbers, Ms. Whitaker stated that it did not take long to reach the total of $111 million.

Mr. Pinkston stated that he was wondering if they could get lucky and not get up to the $111 million.

Ms. Whitaker stated that they frequently discussed this topic. She stated that unfortunately, what they were seeing in the construction market was that Charlottesville was becoming increasingly specialized, and as a result, they paid a premium for construction services in this area.

Mr. Mawyer stated that if they were lucky, the impact would be reflected in next year's budget; they would not need to borrow as much because they would not have spent as much this year.

Ms. Whitaker stated that if bids came in lower, they would reduce those projects line items within the capital plan. She stated that, in fact, at least two projects in the CIP of the 71 had reductions in cost. She stated that the South Rivanna River Crossing project saw a reduction of approximately $1.25 million due to lower-than-expected bids. She stated that this was possible, although rare in the current bidding environment.

Ms. Whitaker stated that when discussing capital projects, one of the obvious targets for cost reduction is the elimination of new items. She stated that it was essential to explain why they needed the new projects and why they were requesting new funding when they already had a substantial budget. She stated that they currently had nine new projects, down from the original 11. Ms. Whitaker stated that the four studies listed were mandated by agreement between the Albemarle County Service Authority, the City, and Rivanna. She stated that these studies were required at certain fiscal years to project future needs and ensure RWSA was planning projects to meet the community's needs.

Ms. Whitaker stated that two of the projects were permit compliance projects. She stated that the first was a disinfection upgrade at the Crozet Water Treatment Plant. She stated that as they were completing the granular activated carbon (GAC) design work, the designers reviewed chlorine contact time, a disinfection criterion used by the Health Department. Ms. Whitaker stated that they were compliant, but they found themselves very close to the limit, which made it challenging to operate the plant at higher flow rates or perform maintenance. She stated that by improving the ability to meet the disinfection requirement, they could ensure the plant's ability to perform under all circumstances. She stated the other permit-driven compliance project was the Scottsville WRRF modifications. She stated that they recently received a new permit from the Department of Environmental Quality, which included some new conditions. Ms. Whitaker stated that to meet those conditions reliably, they needed to make some upgrades at the plant. She stated that additionally, there were three other projects, two of which aimed at improving their infrastructure reliability. She stated that one of these was the South Rivanna Water Treatment Plant's flocculation basin improvements. Ms. Whitaker stated that the flocculator replacements were anticipated to be part of a future upgrade at the South Rivanna Water Treatment Plant, scheduled to begin design in 2030. She stated that the flocculators need a more immediate upgrade, and as such, they were moving forward as an independent project. Ms. Whitaker stated that they were also working on a steel repair project at Stone Robinson Elementary School wastewater plant. She stated that they were collaborating with the school system to address these repairs. She stated that the final new project on the list was the Airport Road Tank No. 1, which was aimed at providing ongoing service to the northern part of Albemarle County, a need

identified in the finished Water Master Plan several years ago. Recent review of information for the Northern Area Master Plan determined it was time to move forward with this project.

Mr. Gaffney asked if the tank also supplied pressure to the urban water system.

Ms. Whitaker confirmed that was correct; that was why the 90% Service Authority cost allocations were in place. She stated that it served to maintain the hydraulic grade line and pressure within the system, which allows them to take the South Rivanna Plant offline for maintenance. This is currently a challenge due to the need to keep both the South Rivanna and Observatory Plants online. She stated that by placing the tank at the northern end of the system, they can maintain pressure in the northern end of the system.

Ms. Whitaker presented a 15-year planning horizon table, highlighting the anticipated costs for future projects and potential regulations over five-year increments.

Mr. Lunsford asked if the $120 million they had listed for the FY 31 to 35 was accurate for that time period, or if there were additional projects that needed to be included.

Ms. Whitaker stated that it was accurate based on current information. She stated that the previous slide presented nine new projects for the current fiscal year. She stated that each year, new projects can be identified through master planning, regulatory changes, or identified safety and maintenance concerns. We continue to make every attempt to identify projects as far ahead of their needs as possible. Ms. Whitaker stated they needed to consider new regulatory items that had not been anticipated before. She stated that it was possible that during a period of lower capital expenditures, there could be additional projects added to the plan. She stated that it was essential to include some cushion in the process to account for unforeseen circumstances.

Mr. Mawyer stated that PFAS and micronutrients were key regulatory uncertainties they faced. He stated that they were able to treat drinking water for PFAS, but now EPA was exploring the possibility of removing PFAS from wastewater. He stated that this concern could be costly in the future.

Ms. Whitaker stated that they had significant wastewater dollars in the CIP, which was why the numbers from FY 36 to 40 were rising rapidly. She stated that this was due to anticipation of a major overhaul of the wastewater plant at that time.

Ms. Whitaker stated that they had already discussed the Community Water Supply Plan multiple times, so she would proceed to the next slide. She stated that the Red Hill Water Treatment Plan upgrade had already been awarded by the Board and was currently under construction. She stated that it was originally a well house that was converted into a water treatment plant, requiring additional space to function fully. She stated that this project was 100% funded by the Service Authority and had a budget of approximately $2 million.

She stated that the Crozet Pump Station rehabilitation project involved repair, replacement, and improvements to a series of pump stations that brought wastewater from Crozet into the

urban system. Ms. Whitaker stated that these pump stations were built to replace an earlier process that resulted in discharging wastewater from the treatment plant in Crozet which flowed into the South Rivanna Reservoir. She stated that the practice was discontinued as part of a eutrophication project to prevent contamination of the drinking water supply. She stated that these pump stations were nearing the end of their useful life, so they were rehabilitating them as part of this project. She stated that this project had already been awarded and construction would begin shortly, with a total budget of $12.35 million.

Ms. Whitaker stated that next was the Upper Schenks Branch Sewer Pipe Replacement Project, which was replacing a 21-inch clay and concrete sewer pipe along McIntire Road and John Warner Parkway. She stated that they were currently in Phase 4 or 5, and the final section that needed to be completed was the Upper Schenks Branch Phase 2 project. She stated that this project spanned from the recycling center along McIntire Road to Preston Avenue. She stated that the project was entirely funded by the City Utilities budget, with a total cost of the RWSA section of $6.4 million.

Ms. Mallek stated that it had been mentioned multiple times in previous reports as being under negotiation. She stated that from the County's perspective, negotiations had been completed. She stated that the Board had met numerous times prior to Mr. Richardson's arrival to address this issue. She stated that therefore, there needed to be a significant amount of information shared about what was currently in flux regarding this matter.

Ms. Whitaker stated that Ms. Wall, Deputy County Executive, was coordinating with staff on this project. She stated that she believed they were close to resolving that matter and answering any outstanding questions. She stated that she would briefly address the next three projects, as they had freestanding Board reports in the Board packet today. She stated that the Moores Creek Structural and Concrete Rehab project, which involved rehabilitating significant amounts of steel and concrete throughout the plant. She stated that the pictures demonstrated the age and condition of the structures, requiring rehabilitation work.

Ms. Whitaker stated that she would like to next provide some details on the Moores Creek Building Upfits and Gravity Thickener Improvements project. She stated that the gravity thickeners were a crucial step in consolidating sludge before sending it to the digester, where biological sludge was heated for higher degradation efficiency. She stated that the current chemical feed system was temporary and located outdoors, which was less than ideal due to weather conditions.

Ms. Whitaker stated that they were replacing this set-up with a new chemical addition facility as part of this project. She stated that every other picture on the right side of the slide showed existing conditions, including the maintenance department's locker room, which served 16 people and lacked facilities for multiple genders. She stated that the oil and lubricant storage facility was also in need of upgrade to meet higher fire code standards due to its proximity to working spaces.

Ms. Whitaker stated that their operator work area for the facility was in the electrical room, which could be seen in the bottom right picture. She stated that unfortunately, it did not meet

modern fire code and other standards. She stated that the middle picture showed a sanitary sewer pump station that was housed within the building, where their maintenance staff worked.

Ms. Whitaker stated that during the summer months, the pump station released hydrogen sulfide into the building, causing unpleasant odors and potentially hazardous working conditions. She stated that these facilities were substandard, and she wanted to show them the current state of their facilities, rather than just the renderings of the proposed upgrades. She stated that the left-hand picture showed 50% of the building, with a wall separating the existing space from the proposed workspace.

Ms. Whitaker stated that by enclosing the existing space, installing walls, changing the floor, and building a new workspace, they could create a more functional and safe area for their staff. She stated that they were currently moving forward with the granular activated carbon project in Crozet, which aimed to expand the treatment capacity of the plant. She stated that this project was estimated to cost around $10 million. She stated that they had received approximately $7 million in grant funding so far. She stated that if federal grant funding was withdrawn, they would need to revisit this project.

Ms. Mallek stated that this would double the output capacity from 1 to 2 million gallons per day. She stated that she would like to know if the water supply coming in meets the 1 to 2 MGD ratio.

Ms. Whitaker stated that they have the capability to produce two million gallons of water per day instantaneously, but they cannot maintain this level of production every day, all the time. She stated that this allows them to optimize their operations, enabling them to run shorter periods and perform maintenance during off cycles, which provides a great deal of flexibility. She stated that this also meant they could release more treated water into the system.

Ms. Whitaker stated that there is sufficient water supply to meet the needs of the community until sometime between 2045 and 2070. She stated they completed the Crozet Drinking Water Infrastructure Plan in 2019. Ms. Whitaker stated that they updated it in 2020 due to significant changes in demand in Crozet that year, largely attributed to the shift to remote work and COVID-19. She stated that in 2021, the County adopted the small area plan for Crozet, prompting another update. She stated that around the same time, they were discussing with DEQ the possibility of bringing the Beaver Creek Reservoir and the Crozet water system under a VWP permit.

Ms. Whitaker stated that they had not previously had a permit, and in 2023, they believed that their proposed plan would be sufficient to meet water needs through 2070. She stated that however, in 2024, as they finalized the permit, DEQ informed them that their approach had changed, and they would need to explore a water supply augmentation sometime beyond 2045.

Ms. Whitaker stated that this study will analyze the information, their permit, and allow them to determine when, between 2045 and 2070, they will need additional water, how much

additional water they will need, and where they can find it. She stated that as required by law, they would examine all alternatives, considering whether some may be better or worse than others, and they will go through the process to identify the most suitable option for supplying the remaining water to Crozet.

Ms. Mallek stated that in Ms. Whitaker's analysis, the Crozet Master Plan initially projected a build-out of approximately 16,000 people, and they were now at around 12,000. She asked how this discrepancy fit into the overall picture. She stated that she believed many people were shocked by the cost of pipelines, and she was concerned about the cost of bringing water from either of the rivers, which often had limited supply, especially during dry periods. She stated that given the hundreds of millions of dollars spent on pipelines, she wondered how reasonable it was to continue adding to the population without ensuring a reliable water supply to support them.

Ms. Whitaker stated that they would move forward with this planning study, which was intended to take approximately a year to complete. She stated that by doing so, they will be able to answer the questions that have been raised, including the carrying capacity of the current system and what would be required to exceed that capacity.

Ms. Mallek asked if the numbers of customers were a factor in their deliberations. She stated that this was something that was brought up to her, and she had considered it as she was doing her homework today.

Ms. Whitaker stated that the key point was that population drove demand.

Ms. Mallek stated that was not true for relative costs; $5 million for 800 people versus $5 million for 12,000 people were not the same.

Ms. Whitaker stated that what they had seen historically in the urban system was that they could accommodate more and more people without a change in demand, at least in the last few years. She stated that it was a matter of examining the specific demands, population projections, development areas, and working with those factors.

Ms. Mallek stated that she had one final question to ensure she understood the context correctly. She stated that for the overall cost allocations, she wanted to clarify whether the 12,000 users in Crozet were included in the 52%/48% because they had a separate water system, or if they were not. She stated that she assumed the cost allocations they were discussing were related to the growth area, which appeared to be the area being served here.

Mr. Mawyer stated that all cost allocations for the Crozet project were funded 100% by the ACSA.

Ms. Mallek stated that there was a separate group of individuals with a demand that was not included in the 52%/48% plan that they were discussing for the other projects.

Mr. Mawyer stated that the Service Authority and the City had common service areas, but the

City would not be involved in water services in Crozet.

Mr. Lunsford asked when this project was scheduled to be finished.

Ms. Whitaker stated that they were estimating a one-year timeline, assuming they started in July. She stated that the actual duration may vary depending on how challenging it was to gather all the necessary data. She stated that the expectation would likely fall within the 12- to 16-month range.

Ms. Mallek stated that the National Environmental Policy Act (NEPA) process was also a component of this.

Ms. Whitaker stated that was correct. She stated that Beaver Creek Dam had been a topic of discussion for some time. She stated that the proposed replacement involved converting the primary spillway to a labyrinth spillway with a bridge spanning over it. She stated that they were replacing the existing raw water pump station with a new one, as depicted in the bottom right-hand picture, which would be located near the point indicated by the red circle on Beaver Creek.

Ms. Whitaker stated that the new pump station would be situated in a similar location in relationships to the deeper water and dam. She stated that this $62 million project currently had $21 million in anticipated federal funding. She stated that they were all awaiting news on the federal funding, and they would continue to provide updates as more information became available.

Ms. Mallek asked if they would need to perform a considerable amount of land flattening due to the existing grade.

Victoria Fort, Senior Civil Engineer, stated they would need to grade out a site for the building and, in addition, create parking areas and address surrounding utilities, facilities, and ancillary structures. She stated that to achieve this, they would install retaining walls on both sides of the flat area. She stated that their goal was to minimize the impact on the surrounding vegetation by leaving as much of it intact as possible and incorporating it into the design of the hillside. She stated that, however, they would need to flatten out an area of approximately one acre for the building.

Ms. Mallek asked if they would be at the water's edge.

Ms. Fort stated no; the building would be near the water but must be situated outside of the flood zone for a 100-year storm event.

Ms. Whitaker stated that in 2023, they conducted a needs assessment for the Glenmore Wastewater Treatment Plant and established a project to address the rehabilitation work they had discussed. She stated that recently they had been working with the Glenmore community on noise and light pollution concerns.

Ms. Whitaker stated that the blowers at this facility were nearing the end of their useful life and were quite loud. She stated that one could see the two blowers on the provided slide, and they had historically used sound attenuating curtains to mitigate the issue.

Ms. Whitaker stated that they had moved the UV disinfection and blower systems to a phased project, while the remaining work would be completed on the regular schedule. She stated that the total cost for this project was estimated at $8.5 million, and it was 100% funded by the ACSA.

Ms. Whitaker stated that finally, she would discuss the Scottsville Wastewater Treatment Plant and Raw Water Pump Station. She stated that the treatment plant was in need of a major overhaul. She stated that constructed in 1964, much of the interior remained in its original condition, and they were looking at a $14 million upgrade.

She stated that to summarize, their capital improvement plan was approximately $551 million, with charge increases of 12.9% for the City and 20.6% for Albemarle County Service Authority for Fiscal Year 26. She stated that their goals for this capital planning process included the five key priorities of the Authority.

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

Michelle Simpson, P.E., Senior Civil Engineer, stated that she would discuss the Moores Creek Structural and Concrete Rehab Project construction award and the CIP amendment. She stated that this project involved repairs throughout the Moores Creek plant, including the holding ponds, equalization (EQ) basins, primary clarifiers, digesters, and the compost shed roof, as well as additional drainage. She stated that it also included a new hoist system to remove the nutrient recycle pumps from the aeration basins.

Ms. Simpson stated that in summary, the total project cost estimate before bidding was $14 million. She stated that they received two competitive bids in December, and they were recommending the award of this project to W.M. Schlosser out of Hyattsville, Maryland, in their contract amount of $12,967,500. She stated that this award would require a $4.2 million CIP amendment, bringing the total CIP budget to $15.5 million.

Ms. Simpson stated that the construction schedule would have them start construction in May, with a projected completion time of approximately two years. She stated that the holding ponds were two large concrete basins at the back of the plant that held approximately 17 million gallons of wastewater. She stated that constructed in 1977, they played a crucial role in their wastewater management program, capturing extraneous flow during wet weather events.

Ms. Simpson stated that over time, the construction joints had begun to fail and chunks of the

concrete basins were cracking. She stated that small shrubs had even begun to grow in the cracks. She stated that this part of the project would require the contractor to thoroughly clean out each basin, repair significant cracked joints, and make all necessary repairs to extend the basins' useful life.

Ms. Simpson stated that the EQ basins were the two large, rectangular basins located outside the administration building, which was visible in the picture on the slide. She stated that each basin held approximately 2.4 million gallons, totaling 4.8 million gallons between the two. She stated that these basins were also important for their wet weather management system.

Ms. Simpson stated that as shown in the sample pictures, they exhibited spalling concrete, which could be easily pierced with a screwdriver, and required frequent repairs to cracks. She stated that the contractor would work on one basin at a time, ensuring that the other remained operational to avoid losing all capacity. She stated that for the primary clarifiers, internal steel repairs were being performed, and the basins were currently covered.

Ms. Simpson stated that an odor control scrubber had been installed several years ago, but the underlying steel had developed corrosion. She stated that replacement work was underway, including the replacement of skimmer arms. She stated that the rest of the structural steel will be sandblasted and recoated.

Ms. Simpson stated that moving to the aeration basins, a new lifting system was being installed for the pumps. She stated that currently, small hoisting systems are used to lift and set pumps in place, but this process is time-consuming and requires a crane, which takes up the road and necessitates road closures. She stated that the new system will improve efficiency and reduce downtime.

Ms. Simpson stated that it was currently a tedious process to go through all the details, and it was time-consuming. She stated that to address this, they were proposing a long monorail hoisting system that would span the entire basin, allowing them to lift the pump and transport it on the monorail to a truck parked in the road. She stated that this system would be significantly more convenient for operations.

Ms. Simpson stated that next was their compost yard, which was previously used for their composting operation that was no longer in operation. She stated that it had been repurposed as a covered storage shed. She stated that they stored trucks and other solids under this roof. Ms. Simpson stated that the roof was in disrepair, with rust and leaks, and the gutter system was inadequate, resulting in water accumulation underneath. She stated that to address this, they planned to replace the metal roofs and sandblast and paint the metal structure underneath. She stated that additionally, they were proposing to address structural repairs at the digester complex, including installing a railing along the roof for safety. Ms. Simpson stated that they were also performing roof repairs and draining and coating the inside of the sludge storage tank.

Ms. Simpson stated that the bids for these projects were competitive, but over the engineers' estimate. She stated that after negotiating with the contractor, they were able to reduce the

cost by nearly $900,000. She stated that the main item reduced was the cost of removing solids from the holding ponds, EQ basins, and digesters. Ms. Simpson stated that they were able to obtain a different quote from another subcontractor, which resulted in a reduction of their cleaning costs by $807,000. She stated that additionally, they were able to reduce the size of a trench drain, originally intended for the compost shed, by half, which saved $898,000. She stated that the original bid for the project was $13,866,000, but after negotiations, the new bid was reduced to $12,967,500.

Ms. Simpson stated that when they added this reduction to the current Capital Improvement Plan budget, which had been amended by $4.2 million, the new Capital Improvement Plan budget totaled $15.5 million.

Mr. Pinkston asked how long this work would take to complete.

Ms. Simpson stated that they were estimating about two years.

Mr. Pinkston asked if they would be phasing the work in order to keep operations going.

Ms. Simpson stated yes. She stated that with the current setup, it was necessary to work on one EQ basin, one holding pond, and one primary clarifier at a time. She stated that there was a process to switch between them, which involved taking one out of service, cleaning it, and then working on the other. She stated that there were also provisions that allowed for certain other equipment to be taken out of service simultaneously, without shutting down the entire plant.

Ms. Mallek asked if there was a contingency on top of what they were adding, or if the contractor was held to this. She asked what would happen if the contractor returned with higher costs for the work done during the project.

Ms. Simpson stated that a 10% contingency for change orders was included in the project budget. The contract would be awarded for $12,967,500.

Ms. Simpson stated that the $15.5M included the 10% contingency for that contract.

Mr. Mawyer said that it was a fixed-price construction contract, unless unforeseen changes or conditions were identified and approved by RWSA.

Ms. Simpson stated that the contractor would not receive any additional funding unless the changes were reviewed and approved by the engineer and the owner.

Ms. Mallek stated that the storage of the old compost yard appeared to have two roof lines that met in the middle, which seemed to provide a significant amount of surface area. She stated that it was unclear whether a gutter system was installed in that joint.

Ms. Simpson stated that yes, part of what has failed so far was where those two roof lines meet, requiring a new gutter system in between.

Ms. Mallek asked if they had considered pushing the pitch of the roof up so the gutter ran on the outside instead.

Ms. Simpson stated that they had not considered that, but she assumed it would require a new structural replacement of the roof.

Ms. Hildebrand asked what the engineer's estimates were for the design costs for this project.

Ms. Simpson stated that she did not have that information available at the moment, but could send it to Ms. Hildebrand later.

Mr. Pinkston moved the Board to amend the FY 25 – 29 CIP for the MCAWRRF Structural and Concrete Rehabilitation project to increase the budget by $4.2 million, which would bring the total CIP budget for this project to $15.5 million, and to authorize the Executive Director to award a construction contract for IFB#421 to W.M. Schlosser Company, Inc. for a total amount of $12,967,500, and to approve any change orders to the construction contract necessary for completion of the work not to exceed 10% of the original construction contract. Ms. Mallek seconded the motion, which carried unanimously (7-0).

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

Michelle Simpson, P.E., Senior Civil Engineer, stated that this project included renovations to the maintenance and operations office and personnel spaces at the Moores Creek plant to address staffing needs, as well as improvements to the gravity thickener. She stated that the initial project estimate before bidding was around $12 million.

Ms. Simpson stated that they received two competitive bids in December and were recommending an award to English Construction Company of Lynchburg in the amount of $9,631,500. She stated that this award also included a CIP amendment of $6.65 million, bringing the total CIP budget to $11.8 million. She stated that the construction schedule was expected to last approximately two years.

Ms. Simpson stated that the first part of this project involved upgrading the blower building and the sludge pumping building, both constructed in 1977, were located across the street from each other and served as the primary workspaces for operators and operations management. Ms. Simpson stated that the renovations to these buildings included new lunchrooms, office spaces, an operator workroom separate from the electrical room, a state-of-the-art laboratory that met current standards, allowing for the conduct of all necessary tests, new bathrooms, IT space, a brand new locker room, and a temporary work area would be created in the duty station, located near the Moores Creek pump station. She stated that this construction would follow a phased approach, where one building was worked on at a

time, allowing operators to continue working out of the other building and the duty pump station simultaneously.

Ms. Simpson stated that once the first building was completed, the staff would move back to that building, and the contractor would work on the second building. She stated that the existing maintenance building and vehicle maintenance shop, also constructed in 1977, would undergo renovations. She stated that new lunchrooms, office spaces, a large workroom with computer setups, a new conference room, bathrooms, IT space, and a new gas and oil storage area would be added.

Ms. Simpson stated that Ms. Whitaker showed the picture earlier, highlighting the current storage arrangement, and the new storage area would be double the size, allowing for a more efficient and safer layout. She stated that the area currently open at the end of the vehicle maintenance shop would be enclosed, and the new office space, locker rooms, and bathrooms would be located in this area.

Ms. Simpson stated that this project also included six new actuators on the end of the aeration basins, and the gates which controlled the flow to the secondary clarifiers, thereby aiding in flow management during wet weather management. She stated that the gravity thickeners were located nearby. She stated that this project included a new chemical feed building, and they would replace the existing polymer tote.

Ms. Simpson stated that additionally, an additional hypochlorite feed would be provided in the chemical building. She stated that this project also included easier methods for remote filling, allowing trucks to park on the road, fill their chemicals at a remote fill port, and then transport them to the gravity thickeners. She stated that the project included renovations to the gravity sludge line, which would be equipped with clean-outs to facilitate maintenance in the event of clogs.

Ms. Simpson stated that the estimated cost of the project was initially around $7 million, with English's bid coming in at $9.8 million. She stated that they worked with the contractor to identify areas where they could reduce the budget, including relocating windows, removing access ladders, simplifying the chlorination system, changing the sewer material type from ductile iron pipe to polyvinyl chloride, and requiring only a small portion of the concrete slab under the vehicle maintenance shop canopy to be replaced, rather than the entire slab.

Ms. Simpson stated that these changes resulted in a reduction of $189,500, bringing the revised bid amount down to $9 million. She stated that as a result, they needed to amend the CIP budget by $6.65 million, bringing the total cost to $11.8 million.

Ms. Hildebrand stated that she noticed this amendment was approximately 129% larger than the initial estimates. She stated that she wondered if there was a specific reason for this significant increase. She stated that the amount exceeded double the original projections. She stated that she recalled that Ms. Whitaker had stated in her presentation, that they were trying to avoid scope creep. She asked about the history of this item.

Ms. Whitaker stated that there were a couple of reasons. She stated that the sewer line versus pump station was added later in the project. She stated that initially, they had planned to build a separate pump station and incorporate the sewer line. She stated that these estimates were updated in January just before bidding, and they were significantly closer to the actual bid costs.

Ms. Whitaker stated that upon completing the project and finalizing the details, they found that the costs came in much closer to the budget. She stated that she believed during the initial conception of the project, they intended to rehabilitate this building and its frame, and some of the early cost assessments may not have fully accounted for all the necessary elements.

Ms. Hildebrand stated that she was trying to follow the mechanical process upgrades associated with the buildings that were being updated. She stated that they had a combinations of various systems, such as the actuators at the end of the aeration basin.

Ms. Whitaker stated that the electrical circuit was essentially the same as the rest of the facility. She stated that the vicinity became important because they knew they had the potential to develop the administrative building, the sealed concrete, and the upfitting of those buildings, as well as some work at the front gate. She stated that as a result, they attempted to coordinate multiple projects. She stated that initially they had 18 individual projects underway simultaneously. She stated that they later consolidated this to four, while still trying to organize them geographically.

Ms. Simpson stated that to avoid any overlap, they kept the renovations within their own vicinity.

Mr. Lunsford stated that earlier there was a slide in the CIP presentation that showed $41 million worth of amendments to the 25-29 CIP. He stated that if he was correct, they were also adding another $4.2 million and $6.6 million, which brought the total to almost 17% of the five-year CIP that had been amended.

Mr. Gaffney stated that the additions were amended in this year's current CIP, and included in the future Capital Improvement Plan, which meant that it did not increase the overall CIP amount they had previously seen. He stated that instead, it increased the five-year period they were currently in. He stated that all those additions were accounted for in the $551M.

Mr. Mawyer stated that was correct; the funding allowed them to award the contract this fiscal year, today, rather than waiting until next fiscal year in July.

Ms. Hildebrand stated that they were within the $111 M rather than the $41M.

Mr. Pinkston moved the Board to amend the FY25-29 Capital Improvement Plan for the MCAWRRF Building Upfits and Gravity Thicker Improvements project to increase the budget by $6,650,000, an amendment which would bring the total CIP budget for this project to $11,800,000, and authorize the Executive Director to award a

construction contract for IFB#422 to W. English Construction Company, Inc. for a total amount of $9,631,000 and to approve any change orders to the construction contract necessary for completion of the work not to exceed 10% of the original construction contract award. Ms. Mallek seconded the motion, which carried unanimously (7-0).

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

Scott Schiller, P.E., Engineering Manager, stated that he would be presenting information on the Administration Building Renovation and Addition Project for the Construction Award and FY25-FY29 CIP Amendment. He stated that the building they currently occupied was constructed in the late 1970s and early 1980s, housing their administrative staff since then. He stated that the Engineering Department was located in a series of four trailers which were assembled and placed across the parking lot from the existing Administration Building between 2003 and 2010.

Mr. Schiller stated that due to the age and condition of these facilities, they concluded that renovation and expansion were necessary. He stated that to modernize their facilities, they aimed to account for staffing needs through the year 2035, update their facilities from the late 1970s and early 1980s construction, and specifically address the laboratory downstairs, which occupied the majority of the lower portion of the building. He stated that their IT spaces needed renovations because IT work was drastically different from what it was in the 1980s, and the Board meeting space, currently housed with wood paneling, also required modernization. He stated that they included space for an educational exhibit in the building addition. He discussed the revised layout of their lab downstairs, featuring a distinct water lab and wastewater lab to maintain separation and prevent cross-contamination. Mr. Schiller stated that they had also accounted for shipping and receiving space within the lab itself, which was crucial for tracking samples that were dropped off. He stated that this included storage for gas cylinders, chemicals, and workspaces for their chemists, which were previously scattered throughout the lab. He stated that their goal was to bring this into a more modern environment and optimize the use of the space they had.

Mr. Schiller stated that they were expanding the Board meeting space, which they were referring to as a multi-purpose room. He stated that the rendering showed what this room would look like as a large meeting environment, with a separate setup for Board meetings. He stated that they were also installing solar panels on both the existing and expanded building roofs.

Mr. Schiller stated that to determine the space needed for the renovation and addition, they conducted an extensive building program evaluation, meeting with individual departments to assess their current staffing levels, projected needs through 2035, and required space for storage, meeting spaces, IT closets, and other facilities. He stated that their consultant created a colored area diagram, which informed them that they would need three floors, with specific

space allocations for each department. He stated that they also examined actual room diagrams to better understand how to utilize the space efficiently.

Mr. Schiller stated that this process allowed them to design the multi-purpose room with flexibility in mind, enabling it to be used for large meetings, classrooms, or Board meetings, and ensuring that the layout was optimized for efficient use of the space. He stated that as part of the process, they also wanted to incorporate an education exhibit within the building. He stated that this area, located on the first floor of the expansion, was designated as the educational exhibit space.

Mr. Schiller stated that upon entering the lobby, visitors would find a welcome area with information about the history of Rivanna. He stated that the space would also include exhibits on their stewardship within the community and a large area focused on water science, which was relevant to their mission as a Water and Sewer Authority.

Mr. Schiller stated that the education exhibit space would also feature a wet lab or instructional learning area with seating and would allow for more in-depth learning experiences. He stated that the educational space also included interactive exhibits, such as this example, which showcased the past, present, and future of their authority. He stated that the exhibit designer was working on the final designs, which were still in the draft stage.

Mr. Schiller stated that the bid package they were presenting today included construction of the exhibit space and the utility rough-in work. He stated that a separate bid package would include the exhibit designs, media, and finishes, which were separate from the general contractor's requirements to build the facility. He stated that they had advertised the project and received three bids on February 13, with bids ranging from $22 to $26 million.

Mr. Schiller stated that they received a final estimate from their engineer in November 2024, which was approximately $22.3 million. He stated that the apparent low bid received on that day was from Martin Horn at $22.1 million. He stated that this low bid was lower than the engineer's estimate, which was a welcome development. He stated that construction was anticipated to take place from June 2025 through December 2027. He stated that the CIP budget was $20 million. Mr. Schiller stated that their analysis revealed that as they gathered estimates in November and even in the summer, the construction market and inflation were pushing them closer to the engineer's estimate of $22.3 million. He stated that as a result, they proactively included this amount in the 2025 to 2029 CIP budget. He stated that this $27.6 million was now part of the proposed budget amendment for the 2025 to 2029 CIP, but was already accounted for in the 2026 to 2030 CIP. He stated that therefore, the proposed budget amendment was $7.6 million.

Mr. Mawyer asked if the educational exhibit costs were included in the $7.6M amendment.

Mr. Schiller stated that was correct.

Ms. Mallek stated that before hiring someone to design an exhibit from scratch, she was guessing that there were many other places where similar designs were already in use. She

stated that in this case, plagiarism could be beneficial, as it would save them the cost of creating something that someone else had already paid for. She stated that she would encourage them to visit the Museum of Natural History, which had a wide range of exhibits, including some that might be of interest to them.

Mr. Mawyer stated that they had an exhibit designer, but would need to hire the actual exhibit implementer.

Mr. Gaffney stated that he trusted that they would effectively demonstrate in this educational exhibit how Rivanna fit into the community and ACSA and Charlottesville.

Mr. Schiller stated absolutely. He stated that the idea was to present more information about RWSA to welcome people into the space and tell the story of the organization.

Ms. Hildebrand asked if they had explored any cost savings opportunities with the contractor, similar to those they had implemented in previous projects.

Mr. Schiller stated that with this particular project, they did not explore cost savings because the bid was below the engineer's estimate. He stated that this decision was made internally. He stated that with projects of this nature, the majority of the costs are typically associated with the building envelope and the square footage. Mr. Schiller stated that to find cost reductions, there would need to be some compromise on the square footage. He stated that the intent of the program evaluation was to really refine their understanding of the space they felt was necessary. He stated that given that the project came in below the engineer's estimate, this decision was made.

Mr. Mawyer asked if they had completed a value engineering assessment.

Mr. Schiller confirmed that they had. He stated they conducted a value engineering workshop in November of 2023, and as a result, he identified approximately $380,000 worth of cost savings. He stated that the evaluation revealed both cost additions and savings, and with all options included, the net result would have been a cost savings of around $95,000. He stated that they went through the options and fine-tuned their choices. He noted that these values were estimates, and actual bid values may have been different. He stated that at the time, based on the specific options they selected, they estimated the total cost savings to be around $385,000.

Mr. Lunsford stated that Mr. Schiller had mentioned that they accounted for future staff through 2035. He asked if that was far enough out, being five years after the end of the project’s schedule.

Mr. Schiller stated that the challenge lay in finding a balance between right-sizing the project to make it financially feasible, while also utilizing available information on the Authority's future plans and strategic priorities. He stated that although they aimed to plan for the year 2050, the further out they looked, the more uncertain the details became. He stated that what they had discovered, however, was that they could further subdivide the existing office space,

allowing them to accommodate a few more people. He stated that while they could not pinpoint an exact date for completion during the program process, they did have an opportunity to make progress in the near term.

Mr. Mawyer stated that the succession plan for the organization went out to 2035, so he used the same data for staffing needs in the building.

Mr. Pinkston asked if there would be a future presentation about the educational exhibit.

Mr. Schiller stated yes; that would be another bid that would be submitted for an award recommendation. He stated that it was within the $27.6 million Capital Improvement Plan.

Mr. Pinkston moved the Board to amend the FY25 – 30 CIP for the Administration Building Innovation and Addition Project to increase the budget by $7.6 million, bringing the total budget to $27.6 million, and to authorize the Executive Director to award a construction contract to Martin Horn, Inc. for a total amount of $22,094,000, and approve any change orders to the construction contract necessary to the work not to exceed 10% of the original contract amount. Ms. Mallek seconded the motion, which carried unanimously (7-0).

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

Ms. Mallek commented that she appreciated the paragraph in the staff report about their work on conservation.

Mr. Mawyer stated that Ms. Nemeth had worked hard on that. He stated that they had linked the ACSA and City Utilities webpages from the Rivanna website.

Mr. Mawyer stated that as they look at the drought map now it shows our area to be in normal condition, but he acknowledged it was ever changing.

Ms. Mallek stated that the chart she regularly referred to reported they were 35% down.

13. ADJOURNMENT

At 4:32 p.m., Mr. Sanders moved the Board 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

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