



**RWSA BOARD OF DIRECTORS
Minutes of Regular Meeting
March 26, 2024**

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, March 26, 2024 at 2:15 p.m. at Rivanna Administrative Building, (2nd Floor Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

Board Members Present: Mike Gaffney, Jeff Richardson, Lauren Hildebrand, Gary O’Connell, Ann Mallek, Brian Pinkston, Samuel Sanders

Board Members Absent: none

Rivanna Staff Present: Bill Mawyer, Lonnie Wood, Jennifer Whitaker, David Tungate, Betsy Nemeth, Deborah Anama, Jacob Woodson, Stephanie Deal

Attorney(s) Present: Valerie Long

1. CALL TO ORDER

Mr. Gaffney called the March 26, 2024, regular meeting of the Rivanna Water and Sewer Authority to order at 2:37 p.m.

2. AGENDA APPROVAL

Mr. Mawyer proposed an amended agenda, adding presentation 9b concerning sediment in the Urban drinking water system. He stated that they intended to present this at the end of the meeting, provided the Board was receptive, as this was a recent issue that surfaced last week. He stated that they wished to discuss it with the Board before making any decisions.

Mr. Pinkston moved that the Board approve the agenda as amended. The motion was seconded by Ms. Hildebrand and passed unanimously (7-0).

3. MINUTES OF PREVIOUS BOARD MEETING

a. Minutes of Regular Board Meeting on February 27, 2024

Mr. Mawyer stated that he wanted to propose amendments to two aspects of the minutes. He stated that regarding line 810, Ms. Mallek noted that her remark pertained to the *allocation* rather than the *location*. He stated that upon review of the recording, they found that it was difficult to discern, but she had stated “allocation” and not “location.” He stated that also, they would include in the list of Rivanna staff present at the meeting that Michelle Simpson was also in attendance. He stated that these are the two minor adjustments to the minutes that he proposed for the Board’s consideration.

Ms. Mallek moved that the Board approve the minutes of the February 27, 2024 meeting as amended. The motion was seconded by Mr. O’Connell and passed unanimously (7-0).

47 **4. RECOGNITION**

48 There were no recognitions.

49
50 **5. EXECUTIVE DIRECTOR'S REPORT**

51 Mr. Mawyer stated that during his performance evaluation in June of 2022, the two Boards
52 requested that he create a succession management plan. He stated that he integrated it with their
53 strategic plan for 2023 and presented it to both Boards in January 2023. He stated that
54 subsequently, in July of 2023, the Boards approved four additional positions, including a new
55 Finance Manager to support Mr. Wood in the Finance Division. He stated that it was his pleasure
56 to introduce Stephanie Deal, who had been hired as their new Finance Manager. He mentioned
57 that she had returned to their organization, having previously worked there from 1995 to 2001 as
58 an Accounting Technician. Afterwards, she pursued higher education and graduated from the
59 University of Virginia McIntire School of Commerce. For the past 13 years, she has been
60 employed by Greene County, most recently serving as the elected County Treasurer. He stated
61 that they were thrilled to welcome Ms. Deal back. Ms. Deal mentioned the significant changes
62 that had occurred since her previous employment at Rivanna, all of which were positive. She
63 stated that she was excited to be back.

64
65 Mr. Mawyer stated that they wanted to recognize Seth Marshall, who had recently been
66 promoted to a Relief Operator in the Water Department. He stated that further, they wanted to
67 recognize Bonnie Eveleth and Haider Alsafee for passing their Class 1 Water Operator licenses.
68 He mentioned that Mr. Alsafee had been with them since December 2019, starting as a Class 4
69 Operator and progressing to Class 3 in one year, Class 2 the following year, and now Class 1. He
70 stated that similarly, Ms. Eveleth joined them in November 2022, obtained her Class 2 license
71 last year and her Class 1 this year. He stated that they were proud of their achievements under
72 the guidance of Director of Operations and Environmental Services, David Tungate, Daniel
73 Campbell, Water Manager, and Rob Haacke, Wastewater Manager.

74
75 Mr. Mawyer stated that they put an emphasis on their Operators getting higher licenses and gave
76 their Operators a 7% raise for every license increase, which not only benefited the Operators but
77 also enhanced the Authority's credentials. He stated that on the water side, they were required to
78 have a Class 1 Operator on site 24/7 at the treatment plants; therefore, these licenses are highly
79 valuable to the Authority. He stated that Class 1 was also the highest Virginia license attainable
80 for wastewater Operators, but wastewater regulations required a Class 1 Operator to be "in
81 responsible charge", but not on-site at all times.

82
83 Mr. Mawyer stated that in the past month they had engaged in several communication efforts. He
84 stated that they attended a community meeting with Sugar Hollow residents regarding the
85 deflated bladder issue at the Sugar Hollow Dam. He stated that they met with the White Hall
86 community to discuss safety improvements and installation of audible alarms as a possible
87 solution. He stated that the community was strongly in favor of these alarms; however, they must
88 consider the pros and cons before making a final decision. He stated that they were considering
89 implementing audible alarm systems for their other reservoirs as a future measure.

90
91 Mr. Mawyer stated that they had hosted Jason Burch, Chris White, Stewart Key, and Penny
92 Shifflett from the Charlottesville-Albemarle Airport management staff for a windshield tour of

93 their water facilities, followed by a virtual tour of all their facilities. He stated that this exchange
94 was informative for both parties.

95
96 He stated that they had a productive meeting with Albemarle County Deputy County Executives,
97 Trevor Henry and Ann Wall, as well as Public Information and Fire staff, to discuss emergency
98 communications and ways to improve communication between their organizations and the
99 Emergency Communications Center. He stated that Mr. O'Connell's staff from ACSA also
100 attended that meeting with them.

101
102 Mr. Mawyer stated that during a forest fire near the Piney Mountain tank, their staff went on
103 high alert, demonstrating their readiness to respond to such emergencies. He stated that this
104 occurred on the previous Monday evening, and they had Maintenance, Operations, Engineering,
105 and IT staff planning for potential consequences if the tank at Piney Mountain, located on the
106 west side of Rt. 29 North between the North Rivanna River and Greene, had been impacted. He
107 stated that fortunately they did not encounter a problem but were prepared for it; he appreciated
108 the staff's responsiveness to that situation.

109
110 Mr. Mawyer stated that he would provide an update on the Rivanna Pump Station. He stated that
111 they have been conducting an investigation into the causation of the submergence incident that
112 occurred in January. He stated that the consultant's report is expected within the next few weeks,
113 after which they will engage in discussions with the insurance company regarding its contents.
114 He stated that in the interim, contractors have removed the pumps and motors from the pump
115 station and shipped them to North Carolina for evaluation. He stated that the bypass system is
116 now operating at 55 MGD capacity based on the newly installed pumps. He stated that they
117 appreciated the support and interest shown by the Service Authority staff and Mr. Gaffney, who
118 joined them for a tour of the pump station last week to witness the bypass set-up and the interior
119 of the facility.

120
121 Mr. Pinkston stated that some of his colleagues on City Council had expressed interest in
122 receiving a report or further information regarding the pump station. He stated that they would
123 appreciate an update on what happened and the current status. He stated that they would not grill
124 him but would like to share the information more broadly in the Charlottesville community. He
125 asked if they had made any progress on determining the cause.

126
127 Mr. Mawyer stated no. He stated that they had been gathering information, and they would
128 receive the report once it was sent to them. He stated that after receiving the report, they would
129 proceed to evaluate the content of the report to ensure that all facts were accurate. He stated that
130 he was certain that the insurance company would do the same thing.

131
132 Mr. Pinkston asked if it would likely be several months from now.

133
134 Mr. Mawyer stated that it could be several months until they clearly determine and agree on the
135 causation.

136
137 Mr. Pinkston stated that they would appreciate it if they could meet at that time and discuss it
138 with City Council.

139
140 Mr. Mawyer stated that he presented at the Rivanna River Basin Commission meeting earlier this
141 month, which he had been invited to by Ms. Mallek, the Chairman of the Commission. He stated
142 that the presentation focused on the events surrounding the Rivanna Pump Station and explaining
143 what a bypass is to help attendees better understand the concept. He stated that to encourage
144 competition and improve pricing with contractors, they were planning a Contractor Information
145 Meeting for April 11 at the Doubletree Hotel. He stated that this event would discuss their
146 upcoming four major piping projects: Ragged Mountain to Observatory, Central Water Line,
147 South Rivanna Crossing, and the Rivanna to Ragged Water Line with pump station and reservoir
148 modifications.

149
150 Mr. Mawyer stated that they anticipated bidding the Ragged Mountain to Observatory project,
151 shown as the brown line on the map, and the Central Water Line this summer, with construction
152 expected around December. He stated that the South Rivanna Crossing, which was not shown on
153 the map, would involve installing a second pipe under the South Rivanna River later this year.
154 He stated that then, they planned to address the Rivanna to Ragged Water Line and pump station
155 and reservoir modifications, hopefully to be bid next summer. He stated that their goal was to
156 generate interest among contractors during these discussions, as they had previously experienced
157 success with the water treatment plant renovation projects.

158
159 Mr. Pinkston asked if they had coordinated the work for the Ragged Mountain to Observatory
160 Treatment Plant with the university in terms of roadways. He stated that they had some work
161 going on behind Hereford dorms.

162
163 Mr. Mawyer stated yes. He stated that the pipe would go through the Fontaine Avenue area, near
164 the new biomedical facility, crossing Fontaine Avenue and ascending Observatory Mountain to
165 the treatment plant. He stated that they were collaborating with the UVA Architect to determine
166 the precise location regarding an easement. He stated that they were meticulously navigating this
167 process together.

168
169 Mr. Pinkston asked if they were hoping to do construction this summer.

170
171 Mr. Mawyer stated that work could occur in this area during the summer of 2025.

172
173 Mr. Pinkston asked if there was any RWSA work going on in that area.

174
175 Mr. Mawyer stated no.

176
177 He stated that in 2024 and extending until 2030, there would be 16 miles of piping work
178 underway as part of their community's water supply initiative. He stated that this extensive
179 program aimed to ensure a sufficient water supply for the community, considering the changing
180 climate conditions and uncertainties that affect the community's water supply. He stated that he
181 had presented to the Land Use and Environmental Planning Committee about their water supply
182 projects, showcasing the four piping projects and highlighting the 16 miles of piping work
183 planned over the next few years.

184

185 Mr. Mawyer stated that with their Environmental Stewardship Strategic Plan priority, they
186 collaborated with the City and the ACSA in the “Fix a Leak Week” program last week,
187 promoting water conservation among community members. He stated that additionally, some of
188 their staff had volunteered with the Rivanna Conservation Alliance for the Stream Sampling
189 Program. He stated that they appreciated staff’s participation. He stated that their benefits
190 program encouraged employees to volunteer, offering eight hours per year for such activities. He
191 stated that with this allocation, they could contribute to environmental initiatives like the ones
192 mentioned.

193
194 Ms. Mallek stated that she had a comment for the future list. She stated that she was unsure if
195 there was a reference to daily conservation in the Strategic Plan. She stated that despite the
196 increase of a billion gallons in their supply, it was crucial to address the population boom in the
197 area. She stated that to mitigate future droughts, occurring at least once every ten years, they
198 must encourage residents to adopt a more conservation-minded approach “every day”.

199
200 Mr. Mawyer stated that under the Environmental Stewardship priority, it was clearly implied, if
201 not explicit, that it should be “every day”, but we may need to beef up that message.

202
203 **6. ITEMS FROM THE PUBLIC**

204 Mr. Gaffney asked if there were any members of the public who wished to speak. Seeing none,
205 he asked Ms. Anama if there were any speakers online.

206
207 Dede Smith stated that she wanted to commend Ms. Anama for her minutes, which were very
208 comprehensive. She stated that she very much appreciated that this month that they corrected
209 some of the comments made about her own comments. She stated that upon clarification of that
210 comment about the Sugar Hollow Dam and whether there were any plans to take it down, she
211 would like to add that the dam was 80 years old and would eventually need to be taken down.
212 She stated that this point should be kept in mind, and it should also be kept in mind when
213 discussing the added agenda item concerning sediment and drinking water, as they are usually
214 related to dams.

215
216 Ms. Smith stated that as a last note, she would like to bring attention to a project underway in the
217 City involving Oakwood Cemetery. She stated that there was a consistently wet area at the base
218 of the cemetery that had been exacerbated due to pipe breaks and the construction of Elliott
219 Avenue. She stated that the concern had been raised at a public forum regarding the Central
220 Water Line’s proximity to the issue, and they had all suggested keeping this matter on their
221 radar. She stated that she would like them to also keep on their radar that the City would be
222 conducting utility repairs in that same area. She stated that she simply wanted to ensure everyone
223 was mindful of these circumstances.

224
225 **7. RESPONSES TO PUBLIC COMMENT**

226 Mr. Mawyer stated that he would like to thank Ms. Smith for complimenting the minutes, as he
227 could assure them that they dedicated significant effort to make sure the minutes were coherent
228 and accurate. He stated that the recording served as a reference, but when the transcriber
229 converted the spoken words into text, clarity and meaning could sometimes be lost. He stated
230 that Ms. Anama, himself, and their staff invested considerable time in reviewing the minutes to

231 ensure the statements were comprehensible and that the minutes made sense.

232

233 Mr. Gaffney stated that they did a good job.

234

235 Mr. Mawyer stated that there were no plans to take down the Sugar Hollow Dam. He stated that
236 there may be a discussion regarding the necessity of the bladder in the near or long-term future;
237 however, there were not any discussions about removing the Sugar Hollow Dam.

238

239 **8. CONSENT AGENDA**

240

241 *a. Staff Report on Finance*

242

243 *b. Staff Report on Operations*

244

245 *c. Staff Report on CIP Projects*

246

247 *d. Staff Report on Administration and Communications*

248

249 *e. Staff Report on Wholesale Metering*

250

251 *f. Staff Report on Drought Monitoring*

252

253 **Ms. Mallek moved that the Board approve the Consent Agenda. The motion was seconded**
254 **by Mr. O’Connell and passed unanimously (7-0).**

255

256 **9. OTHER BUSINESS**

257

258 *a. Presentation and Vote: Introduction of FY 2024 – 2025 Budget and Vote to Consider Approval of*
259 *the Resolution to Adopt the Preliminary Rate Schedule*

260

Lonnie Wood, Director of Finance and Information Technology

261 Lonnie Wood, Director of Finance and Information Technology, introduced the FY 2024 – FY
262 2025 budget. He stated the Strategic Plan had a team working on each of the goals within the
263 plan and it helps guide the budget formulation process. He stated that the four main areas for the
264 year were: fully funding debt service charges based on their five-year CIP, establishing resources
265 to achieve the strategic plan priorities, fully funding operating costs with items lagging behind
266 actual spending, and translating objectives into reasonable charges to the City and ACSA.

267

268 Mr. Wood stated that their budget had increased by \$7.4 million or 15.6%, primarily driven by
269 debt service charges totaling \$4.54 million, with a \$3 million increase in the operating budget.
270 He stated that the rates listed would help fund this increase. He stated that operating rates were
271 per thousand gallons, based on usage rather than a monthly charge.

272

273 Mr. Wood stated that their budget was divided 50-50 between debt service and operating
274 expenses. He stated that out of the \$27.4 million operating budget, the workforce was the largest

275 share. He stated that chemicals and utilities were the next two significant expenses. Those three
276 budget items account for nearly 70% of the overall operating budget. He stated that other items
277 included information technology, maintenance repairs, building and grounds, depreciation,
278 biosolid transportation, lab services, and professional services.

279
280 Mr. Wood stated that the 10-year budget history showed a steady increase in both the operating
281 and debt service budgets. He stated that the yellow line represented both combined. He stated
282 that the rate of increases had escalated in the last two years, heavily influenced by debt service to
283 support the CIP.

284
285 Mr. Wood stated that they allocated charges between the City and ACSA based on actual retail
286 flows, and this year's estimate shows a shift between the two customers. They used the 2023
287 retail flows reported to them by the City and ACSA on a monthly basis. He stated that this
288 allocation affected certain cost allocation agreements and impacted the operating charge. He
289 stated that this year, there was a flow allocation shift from the ACSA to the City Utilities. He
290 stated that in FY 2025, urban water was split 51% ACSA to 49% City. He stated that the
291 allocations for wastewater were 53% ACSA and 47% City, representing a one percentage point
292 change in both cases.

293
294 Mr. Wood stated that this situation rarely occurred for both water and wastewater but it had
295 happened this year. He stated that to illustrate the allocation process in the gray area, the flow
296 was used to apply rates and obtain the estimated charge. He stated that \$44.8 million total budget
297 remained unchanged between the two years; however there was a \$230,000 shift in charges from
298 the ACSA to the City before any other changes were made to the budget. He stated that this was
299 an estimate and served to demonstrate their estimating process; the actual outcome may differ
300 and could potentially shift back next year.

301
302 Mr. Wood stated that the revenue estimate shows a \$7.4 million increase. He stated that customer
303 charges were estimated to increase \$6.3 million. He stated that both the City and the ACSA had
304 significant charge increases. He stated that despite the ACSA increase being \$3.7 million, which
305 was larger than the City's, it constituted a smaller percentage of their total charge. He stated that
306 additionally, interest income had increased by approximately \$1 million due to rising interest
307 rates over the past year.

308
309 Mr. Wood stated that the RSWA would be charged for administrative, finance and IT support,
310 which had been increasing as discussed earlier. He stated that there was a \$50,000 increase in
311 septage acceptance revenue. He stated that other revenues were expected to decrease, primarily
312 due to nutrient credits going down slightly, and they were using \$80,000 less from reserves. He
313 stated that cost drivers for this budget included debt service, which accounted for the largest
314 portion of the \$7.4 million increase at 60%, followed by personnel costs.

315
316 Mr. Wood stated that debt service, personnel costs, utilities and chemicals made up 93% of the
317 total increase in operating expenses, with IT, lab testing, and other expenses, such as insurance
318 and dam maintenance, comprising the remaining percentage. He stated that they would begin by
319 discussing CIP and debt service.

320

321 Mr. Wood stated that the information indicated the source of funds for the CIP. He stated that
322 \$25 million represents current funding for work-in-process, and the second column included cash
323 already earmarked for specific projects or bond proceeds waiting to fund them. He stated that the
324 \$12.8 million represented future cash reserves that he will address in a few slides. He stated that
325 the \$24.9 million consisted of grants and recoveries, primarily for the Beaver Creek Dam and
326 GAC project.

327
328 Mr. Wood stated that there was a betterment portion for the central water line that the City would
329 reimburse for services provided. He stated that this left them with \$308 million in new debt
330 required to fund the CIP. He stated that for rate purposes, they used a figure of \$323 million,
331 assuming \$15 million would be needed for Rivanna Pump Station repairs.

332
333 Mr. Wood stated that two pipeline-related projects, Ragged to Observatory and Rivanna to
334 Ragged, had been discussed extensively by the Board. He stated that Beaver Creek, a regulatory
335 required project, had been on the books for some time; it held the largest grant. He stated that the
336 concrete rehab and Crozet rehab projects were similar in need. He stated that the facilities were
337 built in the early 1980s and were now approximately 40 years old and required significant
338 rehabilitation work.

339
340 Mr. Wood stated that the administrative office building also fell into this category; it was
341 constructed in the 1980s and was not suitable for its current purpose. He stated that the electrical
342 capacity in this building was nearly at its limit. He stated that there was no fire suppression
343 system installed, and additionally, space constraints were becoming an issue. He stated that these
344 six proposed groups of projects accounted for approximately 70% of the total CIP.

345
346 Mr. Wood stated that the existing debt level was \$195 million. He stated that the current annual
347 debt service cost amounted to \$16 million. He stated that \$323 million is the amount of new debt
348 needed, would increase annual debt service costs by \$24 million annual to a total annual cost of
349 \$40 million after completion of the projects in the 5-year CIP. He stated that the total outstanding
350 debt after finishing would be \$518 million.

351
352 Mr. Wood stated that their calculation method involved dividing their target of \$24 million
353 annually by five, establishing a level debt service charge increase over the next five years. He
354 stated that they added \$4.8 million until they reached the target within the five-year period,
355 totaling \$40 million. He stated that this estimation accounted for the necessary funds to issue
356 \$323 million in new debt to achieve their goal. He stated that this represented a 150% increase in
357 their debt service costs.

358
359 Mr. Wood stated that a steady \$4.8 million increase in their debt service charge was represented
360 by the blue line. He stated that the orange line indicated where the actual debt service became
361 active. He stated that usually we issue debt every two to three years according to IRS
362 regulations. He stated that they did not consistently issue new debt every year; instead, they used
363 reserves to make up the difference between charges and payments. He stated that this year, they
364 were accumulating reserves. He stated that this is where they generate the \$12.8 million in
365 reserves to use cash for project costs. He stated that using \$12.8 million in cash upfront would
366 save about \$1 million per year in debt service.

367
368 Mr. Wood stated that a 3% COLA and a 2% merit increase were programmed for personnel
369 costs, totaling a \$425,000 increase. He stated that four new positions were added, amounting to a
370 \$205,000 cost. He stated that all newly created positions in the current year must be fully funded,
371 resulting in a \$163,000 increase. He stated that the related benefit costs of the first three items
372 totaled a \$364,000 increase.

373
374 Mr. Wood stated that the new positions would fall under the communications and outreach
375 (admin division), sustainability and grants (engineering and maintenance), with the deputy
376 executive director overseeing all three divisions. He stated that the wastewater operator position
377 was increased from nine to 10 as part of the four new positions.

378
379 Mr. Wood stated that the Deputy Executive would manage the Finance and Technology
380 Division, as well as the Engineering and Maintenance and Operations and Environmental
381 Divisions. He stated that the Grant and Sustainability Coordinator would be beneficial in
382 acquiring and coordinating external funding sources, such as grants and potential local financing
383 sources. He stated that this position would assist in developing and enhancing policies related to
384 sustainability efforts.

385
386 Mr. Wood stated that the Outreach and Communication Coordinator would focus on effective
387 marketing and public outreach, manage the website, and oversee social media pages. He stated
388 that the Wastewater Operator would join the existing team of nine, addressing the Wastewater
389 side of operations.

390
391 Mr. Wood stated that these salary increases and positions contributed to their workforce
392 development goals, aiming for a turnover rate of less than 10%. He stated that currently, the
393 turnover rate was at 12%. He stated that by offering competitive pay and benefits, they strived to
394 retain employees and attract new ones. He stated that the latest inflation rate was 3.2%, and the
395 market survey indicated a range of 3% to 8% increases with an average of 4.5%. He stated that
396 as a member of the Virginia Government Finance Officers Association, he had observed similar
397 trends in the informal surveys conducted by their colleagues.

398
399 Mr. Wood stated that it had been quite some time since they conducted a compensation study,
400 likely before or during the COVID-19 pandemic. He stated that, in the past, their compensation
401 studies focused on accurate job descriptions and their placement within the pay scale. He stated
402 that they would also interview employees to ensure their roles aligned with their job descriptions
403 and that their pay scales were competitive in the market. The compensation studies were not
404 used to make wholesale changes to employee pay.

405
406 Mr. Wood stated that regarding budget lag effects, utilities and chemicals experienced significant
407 increases between 2022 and 2023. He stated that the fuel charge in three of their largest utility
408 accounts, which made up approximately 80% of all utility costs, increased by 40%. As for
409 chemical costs, he stated that though they had become more efficient in using these chemicals,
410 the bid prices for 2023 resulted in a 60% increase in unit pricing. These cost increases are
411 usually not known or not realized until after the budget process has been completed. This creates
412 a budget lag effect. He stated that they anticipated that utility costs would stabilize in the future.

413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458

Mr. O'Connell asked if the chemical costs were stabilizing.

Mr. Wood stated that the bid prices almost came in flat for FY 2024. This year they aimed to alter the process to obtain more comprehensive information in a timely way. He stated that they planned to extend the current prices for an additional three or four months, if possible, with their existing providers, and then bid them in November. He stated that this would provide them with at least four, five, or six months of data from this year, rather than bidding them in May for a June start.

Mr. Wood stated that the next cost driver was laboratory expenses. He stated that they had introduced new and additional testing procedures this year, including PFAS, which had been discussed at the Board level. He stated that there were no official regulatory requirements yet, they were proactively preparing. He stated that the PFAS testing program was already underway.

Mr. Wood stated that pharmaceutical by-product testing, and calcium testing related to hot water tank sediment, were new tests. He stated that tests were not conducted within the lab; instead, they collected samples on-site and sent them to be qualified laboratories for analysis. He stated that the PFAS qualifications were particularly stringent, making it challenging to find suitable laboratories for this task. He stated that this had resulted in a 150% increase in laboratory costs.

Mr. Wood stated that IT systems continued to grow in complexity due to each capital project introducing new networks, security measures, firewalls, and programmable logic controllers (PLCs). He stated that they were still working on unifying their firewall-related software and hardware to adhere to best practices. He stated this also established a more efficient administration of those security related items. A disaster recovery site was also being established at the South Rivanna WTP.

Mr. Wood stated that the new data center served cybersecurity and disaster recovery purposes. He stated that a total of nine PLCs had been introduced in various projects. Third-party support had been increased significantly, primarily for cybersecurity efforts, penetration testing, device management, and patch management. He stated that this was done to maintain the latest protection standards for all devices. He stated that the new asset management, document management, and HR system were being gradually integrated with additional modules.

Mr. Wood then gave a brief example and photo of a PLC (programmable logic controller). He stated that the maintenance crew was responsible for terminating connections in the PLCs and ensuring proper communication with the devices. He stated that once this was done, the IT department took over the SCADA PLC portion of the system, which then communicated back to the central interface viewed by operators. He stated that there were approximately 110 of those throughout the plants. He stated that five years ago, there were about 65-70.

Mr. Wood stated that in summary, these objectives aligned with their strategic plan goals and indicated where he believed the cost drivers applied. He stated that CIP was relevant to all of them. He stated that the financial forecast for the next five years showed that over half of their

459 budget was dedicated to debt services, with 24% allocated to workforce and the remaining 26%
460 to other costs. He stated that the figures had been presented in the five-year CIP last month. He
461 stated that the total capital budget for 2025 was \$79 million, while the current CIP stood at \$371
462 million, and anticipated new debt was \$308 million.

463
464 Mr. Wood stated that in 2029, they must achieve a charging structure for their two customers that
465 meets the needs of the community and operating costs. He stated that the proposed 86% increase
466 for the ACSA over the next five years was primarily driven by a 121% increase in urban water
467 debt service, with 61% attributed to urban wastewater and 70% for all other rates. He stated that
468 debt service was the primary driver of rate increases for both customers.

469
470 Mr. O'Connell stated that incorporating inflation into these five-year estimates results in larger
471 figures. He stated that this trend had been observed. He stated that on the ACSA side, retail rates
472 were anticipated to double at a minimum. He stated that this represented a significant
473 undertaking for which he hoped their customers were prepared.

474
475 Mr. Gaffney stated that 12 years ago, when they approved the community water supply plan, it
476 was a significant undertaking and an essential aspect for their community.

477
478 Mr. Wood stated that perhaps they would be lucky, as there was one significant grant application
479 for \$50 million for the Rivanna to Ragged water line project.

480
481 Mr. Wood stated that this final slide presented the resolution for a public hearing on May 28. He
482 stated that it involved approving the preliminary rate schedule as per the Code of Virginia. He
483 stated that there had been a recent change in rules concerning advertising purposes, so the
484 waiting period must be observed before proceeding. He stated that the public hearing was
485 scheduled for May 28, as indicated by this resolution.

486
487 Mr. Pinkston stated that with the CIP, they had been actively discussing debt service in recent
488 meetings, particularly the last one. He stated that the projects had been set in motion several
489 years ago to improve the water supply, and although it was a heavy financial burden, they needed
490 to do it.

491
492 Mr. Gaffney stated that he believed that their position was stronger compared to other utilities in
493 the region due to recent actions taken in the past. He asked how their rates compared to similar
494 authorities.

495
496 Mr. Mawyer stated that typically, in terms of ACSA and City's retail fees, they fell within the
497 middle of regional charges.

498
499 Ms. Mallek stated that it was indeed challenging to double the cost, but it was due to the rapid
500 increase in material costs. She stated that they could not delay any longer as the expenses had
501 become unaffordable.

502
503 Mr. O'Connell stated that the issue they would see is that it was not just about average utility
504 costs but also what was considered affordable in their community. He stated their community

505 was different from national norms as median income varies significantly within the area. He
506 stated that specific demographics experiencing affordability issues should be considered, such as
507 those with fixed or low incomes or living in unsubsidized apartment complexes.

508
509 Mr. O'Connell stated that to maintain affordability for these residents, they would analyze their
510 first-tier rates and explore alternative methods to cover increasing costs. He stated that their
511 primary goal was to ensure that even as other expenses rose, their services remain accessible to
512 those who need them most.

513
514 Mr. O'Connell stated that over the past decade, they witnessed a steady increase in water supply
515 plan costs. He stated that to mitigate these wholesale price hikes, they established a rate
516 stabilization reserve. He stated that this fund aimed to provide a cushion against sudden increases
517 and keep their rates approximately half of the wholesale rate.

518
519 Mr. O'Connell stated that they were currently conducting financial studies to sustain this balance
520 for at least the next five years. He stated that their challenge lay in distributing these reserves
521 wisely while maintaining an affordable rate for small users, defined as those consuming around
522 3,200 gallons.

523
524 Ms. Mallek stated that it was an important effort, and they were lucky they had options like that.

525
526 Mr. Pinkston asked if Ms. Hildebrand had reviewed these figures.

527
528 Ms. Hildebrand stated that the preparation of all these items was reviewed in detail by a team
529 that met with Mr. Mawyer prior to this meeting.

530
531 **Mr. O'Connell moved that the Board approve the Resolution to adopt the preliminary rate**
532 **schedule including authorization to advertise the preliminary rate schedule for a public**
533 **hearing to be held during the regular meeting of the Board of Directors on May 28, 2024.**
534 **The motion was seconded by Ms. Mallek and passed unanimously (7-0).**

535
536 *b. Presentation and Discussion on Sediment in Drinking Water*
537 *David Tungate, Director of Operations*

538 Mr. Tungate stated that he wanted to discuss the letter sent to the Board of Supervisors regarding
539 the drinking water issue, which had been ongoing for about seven days. He stated that ACSA had
540 received calls from residents in the Glenmore subdivision reporting sediment in their hot water
541 systems. He stated that laboratory analysis identified the substance as calcium phosphate
542 material.

543
544 Mr. Tungate stated that they were coordinating with ACSA, Glenmore Homeowners
545 Association, and the Cornwell Engineering Group to investigate the cause of this issue. He stated
546 that an online survey was sent to all 1000 homes in the Glenmore subdivision to better
547 understand the impact and extent of the problem in early January.

548
549 Mr. Tungate stated that at least one resident in the Farmington area had reported sediment, which
550 was being sent for further analysis to determine if it was the same substance as seen in

551 Glenmore. He stated that RWSA staff, along with ACSA staff, would begin a sampling program
552 in Glenmore and Farmington homes next week (started on 4/8/2024). He stated they were
553 conducting home visits and had established a Work Authorization with Cornwell Engineering
554 Group that devised a plan to investigate the cause of the sediment problem. He stated that one of
555 the tasks involved an in-depth analysis of the water quality in 8-10 homes in Glenmore.
556

557 Mr. Tungate stated that the survey revealed homes with the sediment problem as well as homes
558 without the sediment problem, located adjacent to each other. The goal of the plan is to
559 determine why this was happening since they received the same water supply. He stated that
560 laboratory test simulations were being conducted at Cornwell Engineering Group's laboratory,
561 where they compared different chemicals and dosages in a controlled setting to try to replicate
562 the situation in the water distribution system.
563

564 Mr. Tungate stated that in two to four months, they anticipated receiving the results of the lab
565 experiments. He stated this topic had been a point of discussion among staff at Rivanna and
566 ACSA. He stated that no similar sediment concerns had been reported from Charlottesville,
567 Crozet, Scottsville, or the UVA distribution systems. He stated that they were trying to address
568 why they were seeing these issues in isolated areas.
569

570 Mr. Tungate stated that in terms of the Urban water system, to the north, they had the North
571 Rivanna Water Treatment Plant on the North Rivanna River; the South Rivanna Treatment Plant
572 adjacent to the South Rivanna Reservoir; and the Observatory Treatment Plant on UVA grounds.
573 He stated that all three treatment plants supplied water to the Urban water system. He stated that
574 their current focus was on the eastern portion (Glenmore) and the far western part (Farmington
575 and Ivy) of the Urban water system.
576

577 He stated that with the assistance of the Glenmore HOA a survey was emailed to 1,000 residents
578 in the Glenmore subdivision and received 280 responses. He stated that out of these respondents,
579 79% reported no noticeable sediment issues, while 21% had experienced some sediment issues.
580

581 Mr. Tungate stated that the data was analyzed by the Cornwell Engineering Group. He stated that
582 they requested images of the sediment as part of the survey. He stated that this process led them
583 to develop an intensive in-home sampling program. He stated that initial analysis of online
584 survey data revealed a correlation between homes with over 5,000 square feet, tankless water
585 heaters, and hot water recirculation systems. He stated that some homes with hot water
586 recirculation systems, which are pumps that constantly circulate hot water around the household
587 plumbing to provide instant hot water at distant fixtures.
588

589 Mr. Tungate stated that the data showed a correlation between these three factors. He stated the
590 study would evaluate the corrosion inhibitor product added to drinking water by RWSA. He
591 stated that RWSA changed from a zinc polyphosphate product to a sodium orthophosphate
592 product in 2019-2021, upgrading their corrosion inhibitor technology.
593

594 Mr. Tungate stated that laboratory tests were currently comparing the impact of zinc and sodium
595 orthophosphate corrosion inhibitors. He stated that anecdotally removal of zinc could have
596 caused the sediment problem, and they were investigating the differences. He stated that the

597 current chemical provider had dozens of customers using the same sodium orthophosphate
598 product.

599
600 Mr. Tungate stated that they were examining the reasons behind sediment issues in some
601 locations but not others, as well as considering water age as a factor. He stated that water travels
602 from South Rivanna Water Treatment Plant or at the Observatory Water Treatment Plant to the 5
603 million-gallon Pantops water storage tank and from there to the Glenmore subdivision. He
604 stated that there was an ACSA water storage tank that serves the Glenmore area. Most of the
605 water that enters the Glenmore subdivision passes through this tank. He stated they were
606 investigating whether water age has an impact on the sediment issue.

607
608 Mr. Tungate stated that there had been no reported issues in the City, Crozet, Scottsville, or UVA
609 areas. He stated that the wastewater treatment plant located at the back of the Glenmore
610 subdivision had not reported any sediment issue. He stated that as part of the study, RWSA
611 would remove their existing hot water tank at the Glenmore wastewater treatment plant and
612 inspect it for sediment. He stated that they will replace it with an instant water heater or a
613 tankless water heater to observe if they could replicate this condition at the Glenmore
614 Subdivision Wastewater Treatment Plant.

615
616 Mr. Tungate stated that the objective of the sediment study was to understand the cause of
617 sediment issues affecting less than 1% of their customers before changing the drinking water
618 system for 100% of their customers. He stated they took this matter seriously and empathized
619 with those affected, but they must fully understand why this was happening before making any
620 changes. He stated that uninformed decisions could lead to the wrong changes.

621
622 Mr. O'Connell asked about the safety aspect of drinking minerals.

623
624 Mr. Tungate stated that in December 2023, during a meeting with Glenmore HOA, a resident
625 raised concerns about the safety of the water supply through a letter to Representative Bob
626 Good's office. He stated that the letter requested the VDH get involved. He stated that the issue
627 was not related to the safety of the water.

628
629 Mr. Tungate stated that it was noted that the problem was evident in hot water, not cold water.
630 He stated that despite this, all water quality tests conducted on the distribution system were
631 thorough and comprehensive. He stated that the Water Department files monthly operations
632 reports with the Virginia Department of Health. These reports detail chemical usage, water
633 quality tests, and the amount of water produced.

634
635 Mr. Pinkston asked if it could be associated with the electrodes in tankless water heaters.

636
637 Mr. Tungate stated that was one of the reasons they were going to install a tankless water heater
638 at the Glenmore Wastewater Treatment Plant. He stated that the process had been lengthy,
639 closely involving ACSA. He stated that they were addressing the issue seriously and intended to
640 investigate the situation thoroughly.

641
642 Mr. Gaffney asked if the Central Water Line would help address water age issues.

643
644 Mr. Tungate stated not necessarily, because the water would still travel through the Pantops tank
645 to get to the Glenmore subdivision.

646
647 Mr. Gaffney asked if the three identified traits were seen altogether or separately.

648
649 Mr. Tungate stated that it was the combination of all three factors in Glenmore. He stated that
650 individuals with sediment lived in homes exceeding 5,000 square feet, tankless water heaters, hot
651 water reuse systems.

652
653 Mr. O'Connell stated that what made this situation peculiar was that there could be a single
654 residence fulfilling all the mentioned criteria experiencing the issue on the hot water side, while
655 the neighboring house constructed simultaneously with identical plumbing fixtures did not
656 encounter the same problem.

657
658 Mr. Gaffney stated that it could be the amount of use over time.

659
660 Mr. Tungate stated that in their analysis of water usage in homes, they generally observed a
661 lower amount of water consumption and higher water age. He stated that one question they asked
662 was regarding the number of showers per day, as this typically constituted a significant portion
663 of domestic water use.

664
665 Mr. Tungate stated that typically, individuals reported one to two showers daily; however, given
666 that most households consisted of one to two people, this finding was not surprising. He stated
667 that during their in-home sampling, they aimed to compare houses situated next to each other on
668 the same block by visiting both properties consecutively to identify any differences and observe
669 the distinct factors at play.

670
671 Mr. Gaffney asked whether they were testing homes with and without the problem.

672
673 Mr. Tungate stated yes. He stated that they used a matrix to compile the data.

674
675 ***10. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA***

676 There were none.

677
678 ***11. CLOSED MEETING***

679 There was no reason for a closed meeting.

680
681 ***12. ADJOURNMENT***

682 **At 3:40 p.m., Mr. Sanders moved to adjourn the meeting of the Rivanna Water and Sewer**
683 **Authority. The motion was seconded by Mr. O'Connell and passed unanimously (7-0).**
684 **Respectfully submitted,**



685
686 
687 **Mr. Jeff Richardson**
Secretary - Treasurer