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2
3 **RWSA BOARD OF DIRECTORS**
4 **Minutes of Regular Meeting**
5 **April 23, 2024**

6 A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was
7 held on Tuesday, April 23, 2024 at 2:15 p.m. at Rivanna Administrative Building, (2nd Floor
8 Conference Room), 695 Moores Creek Lane, Charlottesville, VA 22902.

9
10 **Board Members Present:** Mike Gaffney, Samuel Sanders, Jeff Richardson, Lauren Hildebrand,
11 Gary O’Connell, Ann Mallek, Brian Pinkston

12
13 **Board Members Absent:** None

14
15 **Rivanna Staff Present:** Bill Mawyer, David Tungate, Jennifer Whitaker, Lonnie Wood, Jacob
16 Woodson, Deborah Anama, Bethany Houchens

17
18 **Attorney(s) Present:** Valerie Long

19
20 **1. CALL TO ORDER**

21 Mr. Gaffney called the April 23, 2024, regular meeting of the Rivanna Water and Sewer
22 Authority to order at 2:15 p.m.

23
24 **2. AGENDA APPROVAL**

25 **Ms. Mallek moved that the Board approve the agenda as presented. The motion was**
26 **seconded by Mr. Pinkston and passed unanimously (6-0). (Mr. Sanders was absent).**

27
28 **3. MINUTES OF PREVIOUS BOARD MEETING**

29 *a. Minutes of Regular Board Meeting on March 26, 2024*

30
31 Mr. Gaffney stated that he had one amendment to the minutes, which was to correct the date on
32 line 7 to March 26, 2024.

33
34 **Mr. Richardson moved that the Board approve the minutes of the March 26, 2024 meeting**
35 **as amended. The motion was seconded by Ms. Mallek and passed unanimously (6-0). (Mr.**
36 **Sanders had not arrived).**

37
38 **4. RECOGNITIONS**

39 *a. Resolution of Appreciation for Gary O’Connell*

40
41 Mr. Gaffney presented and read:

42
43 **Resolution of Appreciation for Mr. Gary B. O’Connell**

44 **WHEREAS, Mr. O’Connell has served as a member of the Rivanna Water & Sewer Authority**
45 **Board of Directors since 1995 and as a member of the Rivanna Solid Waste Authority Board of Directors**
46 **from 1995 until 2010; and**

47 **WHEREAS**, over that same period Mr. O’Connell has demonstrated leadership in water and
48 sewer, solid waste and recycling services, and has been a valuable member of the Boards of Directors and
49 a resource to the Authorities; and

50 **WHEREAS**, Mr. O’Connell’s understanding of the water, sewer, solid waste and recycling
51 operations of the Water & Sewer Authority and the Solid Waste Authority has supported a strategic
52 decision-making process that provided benefits to the customers served by the City of Charlottesville and
53 the Albemarle County Service Authority as well as the community as a whole. Through the leadership and
54 skillful support of Mr. O’Connell, major regional initiatives, Agreements and projects were completed for
55 the Authorities during his tenure including:

- 56 - The Environmental Memorandum of Understanding of 2005 which allocated the costs of
57 maintaining the closed landfill cells at the Ivy Material Utilization Center between the City, County
58 and UVA
- 59
- 60 - The Ragged Mountain Dam Project and Cost Allocation Agreements of 2012 to increase the
61 community’s drinking water supply by constructing a larger dam at the Ragged Mountain
62 Reservoir and a connecting raw water pipeline from the South Rivanna Reservoir
- 63
- 64 - 2014 Wastewater Projects Cost Allocation Upgrades Agreement to address wet weather flows and
65 future capacity needs of the Urban Wastewater System
- 66
- 67 - The Observatory Water Treatment Plant, Raw Water Pumping and Piping Upgrade Cost and
68 Capacity Allocation Agreement of 2020 to upgrade and expand the water production capacity of
69 the Observatory Water Treatment Plant from 7.7 to 10 mgd, as well as replace and upgrade the
70 raw water pump stations and pipelines between the Ragged Mountain Reservoir and the
71 Observatory Water Treatment Plant
- 72
- 73 - The Northern Area Drinking Water Projects Agreement of 2022 to allocate costs for construction
74 of four new drinking water infrastructure projects, all planned within the northern area of the
75 County described as follows:
 - 76 1. The Airport Road Water Pump Station and Piping Project
 - 77 2. The South Rivanna River Crossing Project
 - 78 3. The North Rivanna River Crossing Project
 - 79 4. The Water Storage Tank Project for the Airport Road Water Pump Station, along with all
80 future capacity and non-capacity water facilities located north of the South Fork Rivanna
81 River
 - 82
- 83 - Major upgrade of Moores Creek AWWRF for nutrient reduction and wet weather capacity
- 84
- 85 - Major renovations of the South Rivanna and Observatory Water Treatment Plants
- 86
- 87 - Construction of the Central Water Line, a major drinking water pipeline to serve the Urban Area
- 88
- 89 - A Strategic Plan for both Authorities
- 90

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

96

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

99

100 **Ms. Mallek moved that the Board adopt the Resolution. The motion was seconded by Mr.**
101 **Pinkston and passed unanimously (5-0). (Mr. O’Connell abstained). (Mr. Sanders had not**
102 **arrived).**

103

104 Mr. Gaffney stated that the Resolution stated that it was presented to Gary O’Connell in
105 appreciation of 29 years of dedicated service to the Rivanna Authorities.

106

107 Mr. O’Connell stated that he did not know if they knew this or not, but he had a glass case of
108 glass globes, and he would put this gift in the center. He stated that when he moved to
109 Charlottesville in 1981, he learned to trout fish in the Moormans River, above and below the
110 dam. He stated that in a sense, he had been fishing his whole life, and the love of water was one
111 of the things he really enjoyed here.

112

113 Mr. O’Connell stated that in 1995 he joined the Board, and it became an even more important
114 part of trying to help protect water resources. He stated that he continued to fish in the
115 Moormans River and actually went up there last week to fish above the Sugar Hollow dam and
116 perform a quick dam inspection as part of the job, so it was a nice perk. He stated that when he
117 became City Manager and talked to the previous City Manager, they started to tell him about
118 Rivanna because it was a piece of cake to attend the Board meetings and not to worry about it.
119 He stated that within six months, the Solid Waste Authority was sued by the neighbors.

120

121 Mr. O’Connell stated that he did not recall the exact date, but it did not feel like it was much
122 longer that they had a consent order on the wastewater treatment plant and got into all those
123 wastewater projects. He stated that as they had read, there were a lot of other projects as well. He
124 stated that the project he was most proud of was the water supply plan, which was a team effort
125 that included lots of different people. He stated that it involved many Board members, Executive
126 Directors, attorneys, and others who committed to providing high-quality water to this
127 community for a long time.

128

129 Mr. O’Connell stated that he believed that they were the envy of the country when thinking
130 about how clean the water in the Moormans River is and the fact that brook trout can live there,
131 and that this water was provided to their residents, it was outstanding. He stated that this was the
132 fun part of this job, and he appreciated the support that the Authority gives.

133

134 Ms. Mallek stated that for the first 20 years of his career, she was in the audience observing and
135 pushing and supporting the work that Mr. O’Connell and the Authorities had helped carry
136 forward. She stated what seared in her memory was the 19-agency meeting at the County Office
137 Building in 2004 or 2005, when the Army Corps of Engineers representative stated that anyone
138 who hoped they would receive their water from the James River should forget it; there was no
139 water unassigned to the James and they should deal with it locally.

140

141 Ms. Mallek stated that they thankfully did not need to worry about that anymore. She stated that
142 she agreed with Mr. O’Connell that it was a great team effort with a cast of hundreds who had
143 worked on it for decades. She stated that it was an important legacy he had helped establish and
144 she was proud of the work he had done.

145
146 Mr. Gaffney stated that he also came to the area in 1981 and did not know that Mr. O’Connell
147 arrived during that time until now. He stated that it had been a pleasure serving alongside Mr.
148 O’Connell on the Board. He stated that he initially got to know him through the Chamber of
149 Commerce, where he was an ad hoc Board member. He stated that then, he had the opportunity
150 to work with him on the Rivanna Board and appreciated his dedication to the waters of their area
151 and the infrastructure.

152
153 Mr. Gaffney stated that rebuilding the entire infrastructure from scratch, with no financial
154 resources initially, had been a challenging yet rewarding experience. He stated that Mr.
155 O’Connell had made huge contributions during this process, first with the City and then with the
156 Albemarle County Service Authority. He stated that he was so pleased to have served with Mr.
157 O’Connell for that long and appreciated his support in his position, but also pushing Rivanna in a
158 lot of ways to get them to the narrow path.

159
160 Mr. Gaffney stated that he absolutely agreed that this Rivanna Authority crew, through all of
161 their help, was an envy in the United States. He stated that this was his belief, and it had always
162 been their goal. He stated that they had achieved it, and while they had a lot more work ahead of
163 them, the basis of what they had achieved was incredible and Mr. O’Connell had been a huge
164 part of that success.

165
166 Mr. Pinkston stated that although he did not know Mr. O’Connell that well, his reputation
167 preceded him, and he always appreciated his comments and had learned a lot from listening to
168 him. He stated that as someone just coming into this work in the past couple of years, Mr.
169 O’Connell had been a role model to a number of people around the table. He stated that he had
170 not previously known very much about the water system but had learned so much in the past two
171 years. He stated that he wanted to convey his thanks on behalf of all of those who did not know
172 of the work Mr. O’Connell and others had done, and wished him luck and success in his
173 retirement.

174
175 Mr. Mawyer stated that he would like to add that he met Mr. O’Connell in 1997 when he held
176 the position of County Engineer and served on the Solid Waste Board. He stated that during that
177 time, he worked alongside Mr. O’Connell for four years. He stated that over the past eight years,
178 particularly in this role, Mr. O’Connell has been a great mentor to him. He stated that they would
179 discuss various topics, and Mr. O’Connell would advise him and ask him to consider different
180 perspectives. He stated that he recognized the depth of Mr. O’Connell’s knowledge stemming
181 from his extensive experience with community members and the processes he had navigated
182 throughout his long tenure. He stated that he always appreciated Mr. O’Connell’s help and
183 thanked him.

184
185 Mr. O’Connell stated that he remembered when Mr. Mawyer stated that they would increase the
186 water level in Ragged Mountain Reservoir by 12 feet, and he asked if he was sure it was the right
187 time. He stated that it worked. He thanked everyone very much and stated he appreciated the
188 opportunities and relationships during his time with the Rivanna Authorities.

189
190

191 **5. EXECUTIVE DIRECTOR'S REPORT**

192
193 Mr. Mawyer stated that it had been a busy month since they last met. He stated that first, he
194 would like to acknowledge the promotion of a team member. He stated that Andrea Bowles
195 found a better opportunity and moved on from the position of Water Resources Manager. He
196 stated that after a competitive process, they were pleased to promote Bethany Houchens, who
197 had been with them for eight years. He stated that Ms. Houchens held a bachelor's degree in
198 environmental science and worked closely with Ms. Bowles for many years. He stated that they
199 were very pleased to promote her. He stated that Ms. Houchens was also a certified
200 Environmental Specialist.

201
202 Ms. Houchens stated that Rivanna provided her with an opportunity to receive comprehensive
203 training while she had been employed here. She stated that the training covered various topics,
204 some of which were not directly related to their work at Rivanna. She stated that the training
205 focused on the CERCLA Reclamation Act, as well as watershed supplies, the National Primary
206 Drinking Water Act, and the Clean Water Act.

207
208 Ms. Houchens stated that attending this training was a valuable experience offered by Rivanna.
209 She stated that furthermore, she had received a Watershed Management certification through the
210 EPA during her time at Rivanna. She stated that in her previous role as a Water Quality
211 Specialist, she gained experience in both reservoir sampling and distribution systems. She stated
212 that she hoped that this background would be beneficial as they moved forward.

213
214 Mr. Mawyer stated that Ms. Houchens and Mr. Tungate attended the Pantops Homeowners
215 Association meeting last night and Ms. Houchens was introduced to the Pantops community. He
216 stated that they were scheduled to attend the Crozet Advisory Committee next month. He stated
217 that they aimed to familiarize the community with their new water resources personnel by having
218 Ms. Houchens attend community events. He stated that over the past month, they had been
219 actively communicating and collaborating.

220
221 Mr. Mawyer stated that they organized the Sixth Annual Central Virginia Utility Managers
222 Meeting, which had been a tradition for the past six years. He stated that this year, they had 24
223 representatives of 10 different localities, from Augusta, Bedford, Waynesboro, Fluvanna,
224 Harrisonburg, Maury County, Rappahannock Service Authority, Upper Occoquan Service
225 Authority, Albemarle County Service Authority, and the City. He stated the event involved
226 networking, discussing industry issues, and sharing experiences.

227
228 Mr. Mawyer stated that they were members of the Virginia Water and Waste Authorities
229 Association. He stated that he attended their annual meeting in Staunton this month, and was re-
230 elected as the First Vice Chair of the organization, so he was on that board of directors. He stated
231 that they were also members of the Virginia Municipal Drinking Water Association, which also
232 met this month. He stated that this group targeted Richmond and the legislation, advocating for
233 water interests. Mr. Mawyer stated that this organization was created a few years ago to
234 advocate for the water interests of utilities in addition to the Virginia Association of Municipal
235 Wastewater Agencies, which advocated for wastewater interests to the Virginia DEQ. He stated
236 that they held quarterly meetings, and he was elected to the Board of Directors for that

237 organization as well. He stated that their outreach continued to expand.

238
239 Mr. Mawyer stated that they were pleased to host students from middle schools visiting their
240 Crozet Water Treatment Plant. He stated that students from Charlottesville Waldorf School and
241 Crozet Elementary School attended, as well as a group of UVA students who came to learn about
242 wastewater facilities. He stated that Betsy Nemeth organized several educational events for them.
243 He stated that they would celebrate during Drinking Water Week with our professionals
244 responsible for creating clean, safe drinking water.

245
246 Mr. Mawyer stated that they held a contractor information meeting at the Doubletree Hotel and
247 invited contractors from far and wide to learn about our upcoming construction program. He
248 stated that they informed them about the five projects they were preparing to advertise for
249 construction bids. He stated that the Ragged to Observatory Treatment Plant pipeline and the
250 Central Water Line passing through the City would be advertised for bidding towards the end of
251 this year. He stated that next summer, they would bid the changes to the Ragged Mountain
252 Reservoir to increase the normal pool level by 12 feet after completing perimeter vegetation
253 clearing and altering the intake tower.

254
255 Mr. Mawyer stated that the final project was the Rivanna to Ragged pipeline, which they also
256 planned to advertise for bidding next fall in 2025. He stated that this initiative at the contractor
257 meeting aimed to generate interest and attract competitive pricing. He stated that attendees
258 included bidders from various states, as well as suppliers and subcontractors. He stated that the
259 event went well, and he appreciated Jennifer Whitaker, Scott Schiller, Michelle Simpson, Angela
260 Ott, and Austin Marrs for their efforts to organize this event.

261
262 Mr. Mawyer stated that the Rivanna Pump Station restoration project continued. He stated that
263 displayed on the slide was a photo of one of the pump motors after it was cleaned and removed
264 from its submerged state. He stated that a four-by-four barrier had been placed between the
265 former locations of the pumps and motors. He stated that the 6 pumps had been shipped to North
266 Carolina for evaluation.

267
268 Mr. Mawyer stated that the independent engineer consultant had completed a draft review of the
269 cause analysis, totaling approximately 400 pages. He stated that they were currently reviewing
270 this document to ensure accuracy of facts and figures. He stated that once verified, they would
271 share it with the insurance company for their input and concurrence on the cause of the event.

272
273 Mr. Mawyer stated that they had established a Technical Advisory Committee, comprised of
274 staff members, consultants, and contractors, to examine the pumping system's design. He stated
275 that the committee would explore potential modifications, such as whether future pumps should
276 be submersible and capable of functioning underwater. He stated that they would also weigh the
277 pros and cons of various design changes to the pump station. He stated that this committee would
278 support them in making informed decisions for the restoration of the pump station.

279
280 Mr. Pinkston asked when Mr. Mawyer anticipated receiving more information about the report.

281
282 Mr. Mawyer stated that they were currently reviewing it and hoped to have it to the insurance

283 company within the next few weeks or one month. He stated that then, they would discuss it and
284 hopefully reach an agreement on the cause of the incident.

285
286 Mr. Gaffney asked how many reports there would be. He stated that he knew there had been one
287 so far.

288
289 Mr. Mawyer stated that they were only doing one through their independent consultant. He stated
290 that their other consultant was working on how to restore the plant.

291
292 Mr. Gaffney asked if the insurance company was doing another report.

293
294 Mr. Mawyer stated that the insurance company had their own two engineers involved, but they
295 were waiting for Rivanna's report. He stated that they may do their own independent assessment,
296 but he believed they were waiting for the details of Rivanna's report to see if they agreed with
297 their consultant's determination.

298
299 Ms. Mallek asked if the original designer, Hazen, was doing a study.

300
301 Mr. Mawyer stated the Hazen engineers were working on designs to replace the damaged electric
302 equipment and HVAC penetration thru the stairwell wall into the pump room. He stated that this
303 includes conduit and other submerged electrical equipment. He stated that they would also be
304 reviewing the report, as he assumed they were interested in the engineer's assessment of the
305 situation as well.

306
307 Mr. Pinkston stated that regarding the consent agenda item, he wondered if Mr. Mawyer could
308 explain its purpose or when it would be addressed.

309
310 Mr. Mawyer stated that the reimbursement resolution was a prerequisite action mandated by the
311 IRS in case we needed to reimburse expenses related to the pump station. He stated that if we
312 decided to issue a bond for this specific purpose, we could subsequently reimburse ourselves.

313
314 Mr. Pinkston asked if the bond would be determined after assessing what the insurance would
315 cover and their responsibilities.

316
317 Mr. Mawyer stated that it would be to some degree. He stated that they had other projects
318 requiring bond approval as well. He stated that Mr. Wood would present a bond resolution to
319 them in June or July for authorization, including funds for this project to a certain extent. He
320 stated that they hoped to have a clearer understanding of the required contribution amount by
321 then. He stated that there may be limited contribution from our funds, but it was likely there
322 would be some.

323
324 Mr. O'Connell asked if it was believed that those pumps could be reused.

325
326 Mr. Mawyer stated that the pumps might be reusable, but it was not as likely for the electric
327 pump motors. They possibly could be rewound. He stated that the manufacturer may provide
328 pricing for rewinding these motors or for purchasing new ones. He stated that this was what they

329 were expecting.

330

331 Mr. O'Connell asked if there was discussion about larger pumps. He stated that it sounded like
332 there were different ones being considered.

333

334 Ms. Whitaker stated that they primarily were looking at the arrangement of the station,
335 considering different stations built in deep well configurations like theirs, which were
336 constructed using multiple methods. She stated that each method had its advantages and
337 disadvantages. She stated that they also were looking at a thorough root cause analysis to ensure
338 that all factors contributing to the issue were resolved individually. She stated that Mr. Mawyer
339 had mentioned examining the HVAC, electrical, flow control gates, among other aspects. She
340 stated that their focus regarding the pumps would be solely on those different configurations.

341

342 Mr. Mawyer stated that he did not believe the pumps were too small; they merely did not
343 function as intended during the event. He stated that he thought they were not moving towards
344 larger pumps.

345

346 Mr. Mawyer continued that the EPA had been quite active this month. He stated that on April 10,
347 they issued the first National Primary Drinking Water Regulation for six PFAS compounds,
348 which had previously been discussed as a draft. He stated there had been extensive national
349 discussion about the proposed regulation. He stated that the maximum contaminant level
350 established in the regulation was 4 parts per trillion for PFOA and PFOS compounds, and
351 different levels for several other compounds. He stated that he mentioned earlier that one part per
352 trillion was equivalent to one drop of water in 20 Olympic-sized swimming pools or one second
353 of time in 31,700 years. He stated that it was a small quantity to say the least. He stated that the
354 EPA had set this standard, and they must work towards meeting it.

355

356 Mr. Mawyer stated that their water system had generally been in good condition. He stated that
357 last summer, the North Rivanna water treatment plant experienced an exceedance due to a PFOA
358 concentration of 25 and a PFOS concentration of 6.5 parts per trillion. He stated that after a
359 couple of weeks, they retested, and the concentrations were back below 4. He stated that they
360 had not yet identified what caused this spike. He stated they remained cognizant about potential
361 contaminants in their watershed that could contribute to PFAS in their water supply. He stated
362 that these contaminants can travel through various means including through the air, from
363 furniture, clothes, suntan lotion, and other sources, entering the reservoir.

364

365 Mr. Mawyer stated that staff believed the Authority was in a good position regarding the
366 regulation's impact on them. He stated that they currently had a planned project for 2035
367 involving adding additional GAC vessels to their urban system. He noted that this new regulation
368 might speed up the project's implementation, as compliance was required within five years. He
369 stated that they must adhere to these standards within that timeframe. He stated that the EPA had
370 declared PFOA and PFOS as hazardous substances under the Comprehensive Environmental
371 Response Compensation and Liability Act (CERCLA) on April 19.

372

373 Mr. Mawyer stated that while they were still processing this information, he noted that it was
374 essential to acknowledge that the American Water Works Association opposed this regulation.

375 He stated that they argued that the final rule from the EPA put water systems at risk, leading to
376 increased costs for ratepayers and opened water systems up to costly litigations.

377
378 Mr. Mawyer stated that as a purveyor of PFOS, which came from their water treatment plant or
379 wastewater treatment plant, they might face some regulatory oversight or litigation as a result.
380 He stated that on a more positive note, the Virginia Department of Health had granted them \$3.1
381 million two years ago for granular activated carbon facilities at the Crozet Water Treatment
382 Plant.

383
384 Mr. Mawyer stated that in 2023, they applied again and recently the Virginia Department of
385 Health increased the second grant amount from \$260,000 to \$3.06 million, for an additional \$2.8
386 million for their Emerging Contaminant Program. He stated that these funds came from federal
387 legislation passed through the BIL and were administered by the Virginia Department of Health.
388 He stated that over these past two years, they had received over \$6 million in total, which would
389 significantly support the installation of additional GAC filters at the Crozet Water Treatment
390 Plant.

391
392 Mr. O'Connell asked if that saved the Authority \$6.6 million.

393
394 Mr. Mawyer stated yes. He stated that they would provide an update on all the grants they had
395 applied for either in May or June. He stated that they had applied for a total of \$50 million to
396 support the Rivanna to Ragged Pipeline Project. They had proposed hiring a Sustainability and
397 Grants Coordinator in the personnel proposal for next year to focus on finding prospective grant
398 opportunities and navigating the eligibility requirements for the various federal grant programs.

399
400 Mr. Mawyer stated that for instance, the Emerging Contaminant Program had awarded \$10
401 million last year, with half allocated to disadvantaged communities and the other half not tied to
402 any specific community criteria. He noted that they took this into consideration when applying
403 for that program, ensuring they met the eligibility requirements. He stated that moving forward,
404 they would continue pursuing these grants, and the positive news about receiving \$6 M for the
405 Crozet GAC project was encouraging. He stated that this concluded his report.

406
407 Ms. Mallek stated that regarding the EPA standards, she thought they should anticipate that the 4
408 parts per trillion would decrease as testing capability improved. She stated that she appreciated
409 the storytelling of the one drop in the 20 pools analogy, but this was an example of how
410 incredibly dangerous the material was. She stated that the proven health conditions have already
411 been ignored, which is why it irritated her when she heard the AWWA people say it was too
412 much. She stated that they could not use that argument because the health consequences for their
413 customers were far more severe compared to that. She stated that she hoped they would do
414 themselves a favor and avoid going down that path anymore.

415
416 Ms. Mallek stated that the "producer pays" element should follow the regulation first. She stated
417 that the regulation must come before anything else. She stated communities across the country
418 would not complain, asking not to punish those at the end of the line. She stated they should
419 target the ones who produce this hazardous substance and have made billions of dollars over 60
420 years while knowing it was dangerous and not taking any action. She stated that she did not want

421 them to lose any ground on that issue.

422

423 Ms. Mallek commended the proactive approach regarding the grant. She stated there was a
424 responsibility at the state level to distribute the funds promptly. She stated that the fact that they
425 all were proactive from the start meant that they could help each other, which was fantastic. She
426 stated that if they did not have the capacity or willingness to make that extra effort, then they
427 were lagging behind.

428

429 Ms. Mallek stated that the people in small water systems, with only 3,000 customers, were in
430 deep trouble because they had no staff and could not protect themselves. She stated that many of
431 them had severely contaminated water and needed to inform their customers because if they did
432 not, the customers could not protect themselves either. She stated she was grateful that the
433 Authority was taking a responsible approach and putting their resources where their mouth was
434 to safeguard their customers.

435

436 Mr. Gaffney asked if they had tested for the other three substances in their testing for PFAS.

437

438 Mr. Mawyer stated yes. He stated that Mr. Tungate would review those findings during the
439 monthly assessment of their wastewater testing.

440

441 Mr. O'Connell stated that in the drinking water report that the City and County sent to their
442 customers, the data from 2023 was included so that customers received the information as well.

443

444 Mr. Gaffney stated that Mr. Mawyer mentioned wastewater. He asked if there was any indication
445 of when they would begin testing the discharge into rivers and streams.

446

447 Mr. Mawyer stated no, but it seemed like that may be the next regulatory requirement.

448

449 Mr. Gaffney asked if they needed to proactively test.

450

451 Mr. Mawyer stated that they were testing their wastewater and leachate from the landfill, which
452 was brought to Moores Creek and processed through their wastewater treatment system. He
453 stated that they knew how much PFAS came into the facility and how much goes out. He stated
454 that this was where the CERCLA designation could be a problem, because if they released PFAS
455 back into the streams of the US, they could be liable under the designated CERCLA provisions.
456 He stated that to the wastewater question, it could force them to remove PFAS from wastewater.

457

458 Mr. Gaffney asked what the alternative was. He asked if they would have to run that through the
459 GAC.

460

461 Mr. Mawyer stated that currently, GAC was one of the leading technologies for doing that. He
462 stated that they could double or triple their GAC facilities from what they have now.

463

464 Mr. Gaffney stated that they may recall the \$250 million cost for unknown projects Mr. Mawyer
465 had shared a year or two ago. He stated that this was what it may cost.

466

467 **6. ITEMS FROM THE PUBLIC**

468
469 Dede Smith stated that she wanted to reiterate that, as a City customer, their only protection from
470 PFAS was the original community water plan developed by the Nature Conservancy, which
471 recommended responsibly filling the Ragged Mountain Reservoir with the only clean water they
472 have had for over 100 years. She stated that the water source, the Moormans River, was truly
473 protected against contamination by PFAS. She stated that she understood that it seems way too
474 late, but the financial requirements since adopting the nine-mile pipeline have only increased and
475 now look to be compounded again due to PFAS. She stated that this was just shocking. She
476 stated that she knew it was not great news, but thanked the Board for the opportunity to speak.

477
478 **7. RESPONSES TO PUBLIC COMMENT**

479 There were no responses.

480
481 **8. CONSENT AGENDA**

- 482
483 *a. Staff Report on Finance*
484
485 *b. Staff Report on Operations*
486
487 *c. Staff Report on CIP Projects*
488
489 *d. Staff Report on Administration and Communications*
490
491 *e. Staff Report on Wholesale Metering*
492
493 *f. Staff Report on Drought Monitoring*
494
495 *g. Approval to Amend Professional Engineering Services Work Authorization –*
496 *Administration Building Renovation and Addition Project – Short Elliot Hendrickson*
497 *Inc.*
498
499 *h. Approval of Construction Contract Award and Amendment to the FY 24 Capital*
500 *Improvement Plan: Red Hill Water Treatment Plant Upgrades – Anderson Construction,*
501 *Inc.*
502
503 *i. Approval of Reimbursement Resolution – Rivanna Pump Station Rehabilitation*

504
505 **Ms. Mallek moved that the Board approve the Consent Agenda. Mr. O’Connell seconded**
506 **the motion and passed unanimously (7-0).**

507
508 **9. OTHER BUSINESS**

- 509
510 *a. Presentation: Succession & Strategic Planning Review*
511 *Bill Mawyer, P.E., Executive Director*

512 Mr. Mawyer stated that during the Board meeting last month, they made numerous references to
513 Succession and Strategic Planning strategies that were presented to the Board in 2023. He stated
514 that he would now provide a brief review to refresh everyone's memory on this plan. He stated
515 that it encompassed both their Succession Management and Strategic Planning initiatives,
516 focusing on developing staff internally to replace retiring senior staff and fulfill priorities
517 outlined in their Strategic Plan, such as outward communications, environmental stewardship,
518 and infrastructure planning.

519

520 Mr. Mawyer stated in their succession planning, the objective was to foster organizational
521 growth and develop their staff internally so they would be eligible for future opportunities. He
522 mentioned that this could be seen through instances like Ms. Houchens' seamless transition to a
523 higher role after Ms. Bowles' departure. He stated that they had a Leadership Development
524 Program managed by Betsy Nemeth and Leah Beard, who were effectively training the next
525 generation of leaders and providing them with ample opportunities.

526

527 Mr. Mawyer stated that recently, they provided staff with various opportunities to showcase their
528 skills, such as Ms. Whitaker presenting the Capital Improvement Budget, Mr. Wood presenting
529 the Operating Budget, and Mr. McKalips' Solid Waste Budget presentation. He stated that by
530 doing so, they aimed to prepare staff for advancement within the organization. He stated that in
531 2023, when examining organization functionally, they sought to integrate both succession
532 planning and strategic initiatives for a comprehensive approach.

533

534 Mr. Mawyer stated that in 2024, there were three divisions within the water sewer area: Finance
535 and Administration, Engineering and Maintenance, and Operations. He noted that Solid Waste
536 was a separate division. He stated that Administration handled responsibilities such as payroll,
537 training, budgeting, billing, document management, and Information Technology. He stated that
538 he and Ms. Anama were doing all the media communications, grants, managing the Safety
539 Manager, and acting as FOIA Officer.

540

541 Mr. Mawyer stated that organizational changes were made to functionally improve the structure.
542 He stated that starting in July of 2023, the Board approved revisions which created an
543 Administration and Communication division, with Ms. Nemeth selected through a competitive
544 process as Director. He stated that Safety was moved into this new division, and grants were
545 moved into Engineering and Maintenance. He stated that Finance and Administration became
546 Finance and Information Technology, with three focus areas as they still had Procurement. He
547 stated that they moved Ms. Houchens' position to the Environmental Services department within
548 Operations.

549

550 Mr. Mawyer stated that the restructuring led to two management changes for water and
551 wastewater treatment plants. He stated that the Central Laboratory and an Industrial Pretreatment
552 program were introduced, and he expected the Board would hear more about them over time. He
553 stated that this organizational change started in 2024.

554

555 Ms. Mallek asked which box on the chart was for Water Resources.

556

557 Mr. Mawyer stated that it was the box titled "Water Supply Management."

558

559 Mr. Pinkston asked if Human Resources was in the first column.

560

561 Mr. Mawyer stated that HR was in the workforce management area of the Administration &
562 Communications Division. He stated that Ms. Nemeth's group had HR, communications, and
563 media releases. He added that her department also managed security badges. He stated that in FY
564 2023, they crafted a five-year plan that would add 18 positions. He stated that they filled the four
565 positions approved for FY 2024.

566

567 Mr. Mawyer stated that they had hired Tanner Wright as their IT Technician, Betsy Nemeth as
568 their Director of Administration and Communication, and Josh Bowen as their Engineering
569 Inspector Supervisor. He stated that there was a change in priorities; they moved the Wastewater
570 Operator to FY 2025 and advanced the Finance Manager to FY 2024. He stated that they were
571 pleased to have hired Stephanie Deal for that role. He stated that for the four positions for FY
572 2025, they would be hiring a Deputy Executive Director, an Outreach and Communications
573 Coordinator in the Administration & Communications Division, a Wastewater Operator, and a
574 Sustainability and Grants Coordinator in the Engineering & Maintenance Division.

575

576 Mr. Mawyer stated that in the first two years, they focused on organizational structure and
577 management positions. He stated that for the next three years, they would concentrate on staff-
578 level positions such as a Chemist, Accountant, and Water Operator. He stated that they planned
579 to hire another Engineer, Mechanic, and Chemist for research and compliance in FY 2028. He
580 stated their goal was to ensure that they remained a forward-looking utility and that their staff
581 stayed informed about technological advancements.

582

583 Mr. Mawyer stated that when considering the treatment of wastewater and water for the next 10
584 to 20 years, and as they planned to build the necessary infrastructure, it was crucial to understand
585 the available technology and identify what works effectively. He stated the Authority did a great
586 job a decade ago by devising a plan to install the GAC, which now yielded significant benefits.
587 He stated that they aimed to remain at the leading edge, rather than the bleeding edge, of
588 technology. He stated that regarding the PFAS issue, GAC was one of the foremost technologies
589 for removing PFAS contaminants.

590

591 Mr. Mawyer stated that returning to FY 2025, they discussed the role of the Water Resources
592 Manager, which had been reassigned to the Operations & Environmental Services Division. He
593 stated this change was made to emphasize their commitment to Environmental Services and
594 align with strategic planning suggestions. He stated that the water system management had been
595 further strengthened through the appointment of Ms. Houchens in the role of Water Resources
596 Coordinator.

597

598 Mr. Mawyer stated that in their proposal for July 2024, they aimed to further enhance their
599 organizational structure by introducing a Deputy Executive Director to facilitate succession
600 planning for the Executive Director role.

601

602 Mr. Mawyer stated that in FY26, there would be additional positions proposed for recruitment
603 and development within their HR group, and a Safety Associate requested by the Solid Waste

604 Board. He stated that there would be two Solid Waste positions. He stated that the IT Department
605 was experiencing growing needs due to the increasing control of their systems; thus, they were
606 seeking capable and ample staff to manage these. He stated that they anticipated a major
607 construction program and, as such, proposed an additional Engineering Inspector in FY26.

608
609 Mr. Mawyer stated that regarding changes for FY27, there were a few positions that included a
610 Chemist for Industrial Pretreatment. He stated that recently, they had been examining the fats,
611 oils, and grease program, as well as the biological products present in wastewater, to determine
612 whether industries should be required to have pretreatment or if their treatment needed
613 expansion. He explained that a preliminary report suggested investing mega dollars in additional
614 aeration bases; however, after reevaluating the data, they believed this was not as imminent as
615 initially thought. He stated that nonetheless, as their community's population grew, they would
616 eventually need to expand wastewater facilities.

617
618 Mr. O'Connell asked if the new positions on the organizational chart were displayed in pink, and
619 added positions were in green.

620
621 Mr. Mawyer stated yes. He stated that it was about three to four positions per year in Water and
622 Sewer. He stated that in FY 2029, it was more of the same, with an Accounting Associate, a
623 Mechanic, and another Water Operator. He stated that they may look for a Manager in their
624 Regulatory Compliance group. He stated that in 2030, there was a major change to the
625 organization. He stated that Finance and IT would become separate divisions, each with its own
626 Director.

627
628 Mr. Mawyer stated that they planned to expand their management team by adding a second
629 Deputy Executive Director who would oversee Administration, Finance, and IT divisions while
630 the current Deputy Executive Director continued to manage Engineering & Maintenance, and
631 Operations & Environmental Services groups. He stated that one would focus more on
632 Operations and the other would be more for Administration.

633
634 Mr. Mawyer stated that in 2035, they planned to accommodate ten years of staff growth by
635 ensuring that their upcoming building addition could house the anticipated expansion. He stated
636 that this included dividing their divisions further: adding a Legal and Procurement division with
637 an in-house attorney, moving Procurement from Finance to the Legal office along with
638 Regulatory Compliance. He stated that they would separate Operations and Environmental
639 Services. He stated that Operations would focus on their ten water and wastewater treatment
640 plants, while Environmental Services would continue to grow in testing, regulatory compliance,
641 and internal treatment expertise.

642
643 Mr. Mawyer stated that there would be 169 positions at the end of this plan, up from 102 in
644 2023. He stated that this would be a 50% increase in the organization over the 12 years of this
645 plan. He stated that this growth represented a vision and a plan that may not unfold perfectly;
646 however, it provided them with a target for consideration as they progressed. He stated that
647 returning to their discussion from last month regarding the budget and succession planning, this
648 strategic plan aligned with their ongoing discussions.

649

650 Ms. Mallek asked if the Grants Coordinator would begin in the new year or if they were on staff
651 currently.

652

653 Mr. Mawyer stated that the plan was to hire someone for that position between December 2024
654 and January 2025 (Note: this strategy has been updated and the Grants position will be hired in
655 first quarter of FY 25 while federal grant funds are abundant).

656

657 Ms. Mallek stated that the benefit of this approach was that the EPA's nearest regional office was
658 located in Philadelphia. She stated that it had a complete staff of technical advisors. She noted
659 that establishing a personal relationship with the staff there would significantly expedite
660 answering questions and ensuring smooth operations.

661

662 Mr. Mawyer stated that they would look for our Grants person to help them with contacts,
663 available grants, and all those other aspects.

664

665 Ms. Mallek stated that in the past several months, it had become evident that increased focus on
666 outreach and communication would be highly beneficial. She stated that both the Moormans
667 River aspect and the pump station issue illustrated this point, as everyone eagerly sought
668 accurate information. She stated that by providing concrete facts rather than speculative
669 assumptions, they could streamline the process and significantly improve its efficiency. She
670 stated she was intrigued by the mention of pre-treatment initiatives from industry. She asked if
671 they could consider requiring industries to do their own cleanup sooner so to avoid having the
672 responsibility be put on RWSA.

673

674 Mr. Mawyer stated that the analysis would cover whether they should require the industries to
675 complete the task, or if RWSA should do it for a large group of customers. He stated that they
676 could also consider fees. He stated that currently, their sewer regulations include the option to
677 charge fees for discharges with excessive Biological Oxygen Demand (BOD) or high-strength
678 waste. He stated that they had spent a year examining whether to raise these fees and at what
679 level.

680

681 Mr. Mawyer stated that if discharges have a higher BOD, indicating stronger waste, they could
682 be charged an additional fee for the extra treatment required. He stated that implementing such
683 fees may not be popular with some community members, as in the hypothetical example of
684 vineyards being required to pay more due to increased BOD levels. He stated that they must
685 consider how to address the potential influx of high-strength waste from industries like Pepsi-
686 Cola, which is a significant contributor to the City, and decide whether to impose fees or absorb
687 the costs within their CIP.

688

689 Ms. Mallek stated that there was a certain public belief that accountability should go with
690 individuals rather than socializing the risk and privatizing the benefit.

691

692 Mr. Pinkston asked if they had received many federal grants in the past. He asked if the
693 reporting, management, and compliance requirements were involved.

694

695 Mr. Mawyer stated that they would be subject to the federal Davis-Bacon wage requirements and

696 the Buy American, Build American requirements. He stated that they had not initiated any of
697 those grant projects yet; however, they were well-prepared. He stated that in his previous federal
698 experience, he was accustomed to abiding by such stipulations. He stated that they could handle
699 those management requirements. He stated that the wastewater Enhanced Nutrient Removal
700 construction projects in the past included federal grants and administrative requirements, which
701 staff successfully managed.

702
703 Ms. Whitaker stated that the Chesapeake Bay Act was implemented through state legislation,
704 alongside Davis-Bacon and various procurement and reporting requirements. She stated that
705 typically, these grants involved visits from state regulators. She noted that they had gained
706 familiarity with such processes, but each program came with its unique set of rules and
707 requirements. She stated that now, they were designing the Beaver Creek Dam and Spillway
708 Modifications project with expectations of receiving a federal grant which would include the
709 federal administration requirements.

710
711 Mr. Gaffney stated that was one of the first questions the contractors asked at the recent
712 information meeting was if federal funds were involved in any of the upcoming projects in the
713 next five years, because it would significantly impact how they bid the project.

714
715 Mr. O'Connell asked if it was correct that Rivanna was formed due to a federal grant, and the
716 City and County merged to create Rivanna.

717
718 Mr. Mawyer stated that he understood the City and County created the Authority in 1972 in
719 order to qualify for federal wastewater funds.

720
721 Ms. Mallek asked if the impact on contractors would be the amount of data they have to collect.

722
723 Mr. Gaffney stated that it pertained to how much they would have to pay in labor costs (Davis-
724 Bacon wage requirements).

725
726 Mr. Mawyer stated that it may also pertain to how much they would have to pay to get piping
727 and other materials that were made in America.

728
729 Mr. Mawyer stated that currently, there were no federal funds in their major projects, but if they
730 could get a grant for the Rivanna to Ragged Pipeline project, it would become a federally funded
731 initiative.

732
733 Mr. O'Connell stated that the biggest one they had now was the Beaver Creek Dam project,
734 which would have all the federal requirements.

735
736 *Presentation: Wastewater Program Review*

737
738 David Tungate, Director of Operations & Environmental Services, stated that today they would
739 discuss the wastewater program. He stated that the picture on the slide was taken by one of their
740 drone pilots in the IT department and showed an aerial of the Moores Creek facility. He stated
741 that the Moores Creek property included about 80 acres. He stated that there are four wastewater

742 treatment plants: Moores Creek, with a full treatment capacity of 15 MGD; the Stone Robinson
743 Elementary School facility, with a treatment capacity of 7,000 gallons daily; Glenmore
744 wastewater treatment facility with a treatment capacity of 0.381 MGD; and the Scottsville
745 wastewater treatment plant that has a two-tiered permit for 0.100 MGD and 0.20 MGD.

746

747 Mr. Tungate stated that the Moores Creek facility has two influent pump stations: one is known
748 as the Moores Creek pump station that is located adjacent to the front gate, and the other is the
749 Rivanna pump station located on the opposite side of the facility close to the Woolen Mills
750 development. He stated that both pump stations receive wastewater from the community and
751 pump it to the headworks facility to begin the treatment process.

752

753 Mr. Tungate stated that the map of their collection system showed the Rivanna pump station
754 handled approximately 60% of the collection system, while the Moores Creek pump station takes
755 care of the southern half of Charlottesville and the ACSA collection area. He stated that Moores
756 Creek pump station also receives sewage from the Crozet area through a series of 4 lift stations.

757

758 Mr. Tungate stated that the Moores Creek facility is divided into a “wet side” and “dry side”; the
759 slide photo displays the “wet side”, with their administration building visible in the background.
760 He stated that as the water is pumped from the influent pump stations to the headworks and then
761 flows by gravity into the primary clarifiers.

762

763 Mr. Tungate pointed out the aeration basins to the right adjacent to I-64. He stated that
764 wastewater flows to the secondary clarifiers where the water is held after the aeration process.
765 He noted their large chemical storage silos and three clarifiers visible in the picture, the fourth is
766 not in the picture.

767

768 Mr. Tungate stated that moving on to the “dry side” of the Moores Creek facility, he pointed out
769 the three primary digesters up on the hill as one entered the site. He noted that there was a
770 smaller digester with a green roof that holds methane gas generated from the primary digesters.
771 He stated that another smaller digester stores the sludge before it is sent to the solid handling
772 building for dewatering. He stated that the wastewater then proceeds to the tertiary filters, which
773 remove any remaining particulates and fine material in the water.

774

775 Mr. Tungate stated that wastewater is then directed to the ultraviolet (UV) channels, where it
776 must be free of particles for the ultraviolet lamps to provide disinfection effectively. He stated
777 that the treated wastewater is channeled to their outfall on Moores Creek. He stated that lastly, a
778 methane sphere and a flame that burns off excess methane gas. The flame illuminates the plant
779 during the night and in winter when the trees are devoid of leaves.

780

781 Mr. O’Connell asked if there was any filtering at the end of the process or if it was just UV.

782

783 Mr. Tungate stated that wastewater first passes through the tertiary filters, which remove specific
784 particulates, then it proceeds to UV treatment, then out through the effluent channel to Moores
785 Creek.

786

787 Ms. Mallek asked if the testing of the water was done after the tertiary filter and before it went

788 out of the discharge.

789

790 Mr. Tungate stated that he would show them a picture later, but they collected their final effluent
791 sample after the UV treatment.

792

793 He stated that they had influent pump stations: Rivanna and Moores Creek. He stated that these
794 stations had grinders that made any larger materials smaller so they could be pumped. He stated
795 that at the headworks, they first had band screens to remove materials from the water because
796 they did not want insoluble materials in the wastewater process.

797

798 Mr. Tungate stated that this debris came off the screens, was dewatered and compacted, then
799 dumped into a dumpster. He stated that they also had a grit system that removed heavier
800 inorganic material from the wastewater. He added that the higher the flow rates from the influent
801 pump stations, typically the greater amount of grit was captured in the dumpster. He stated that
802 normally the dumpster was emptied once a week.

803

804 Mr. Tungate stated that after the band screens and grit removal, they had primary clarifiers for
805 the settling of sludge and most of the solids. He stated that the primary clarifiers also removed
806 floating oils and grease. He added that there is an odor control system to remove foul air under
807 the aluminum covers of the primary clarifiers. He stated that there is a robust odor control
808 system in the series of four pump stations that pump sewage from Crozet to Moores Creek. He
809 stated that pump station number four was situated at the intersection of routes 240 and 250 in
810 Crozet. The slide showed the odor control system and the flow equalization tank (FET) in the
811 background. The FET is a flow equalization tank and stores excess wastewater during a storm.
812 During high flow events in the sewer system the water is stored in the tank, once flow rate is
813 reduced, the stored water will be slowly returned to the pump station for ultimate delivery to
814 Moores Creek.

815

816 Mr. Tungate stated that the image displayed represented the odor control system, marking the
817 first of three odor control systems on the Crozet force main. He stated that to mitigate odors,
818 RWSA spends approximately \$390,000 annually along route 250, coming east from Crozet.

819

820 Mr. Tungate showed an image of their Crozet odor control equipment at pump station two. He
821 stated that they worked with a vendor to procure this service and applied Bioxide and hydrogen
822 peroxide to combat odors in the Crozet system.

823

824 He stated that the slide showed the aeration process occurring in the aeration basins, which was
825 vital for microbe growth and nutrient reduction. He explained that there are multiple chambers
826 and areas within these basins allowed them to adjust the location of air as needed. He stated that
827 subsequently, secondary clarifiers facilitated additional sludge settlement. The liquid continues
828 to be pumped to the tertiary filters. He stated that this picture was one of their four secondary
829 clarifiers.

830

831 Mr. Pinkston asked how they got the sludge out.

832

833 Mr. Tungate stated that the sludge pumps would transfer sludge from the secondary clarifiers to

834 the digesters, which he would discuss next. He stated that the sludge is collected on the bottom
835 of the clarifier. He stated that the WW operations staff was very prescriptive in how they run
836 the sludge inventory in the clarifiers. The secondary clarifiers are designed to allow the sludge to
837 settle to the bottom and then be pumped to the digesters.

838

839 Mr. Pinkston asked if something similar happened at the primary clarifiers.

840

841 Mr. Tungate stated yes. He stated that the sludge is pumped directly from the bottom of the
842 primary clarifiers to the digesters. He stated that the water proceeded from the secondary
843 clarifiers to the sand filters. The function of the sand filters is to remove any small particles to
844 make the UV treatment processes more efficient and effective. After the water is treated through
845 the UV light channels for disinfection it flows to the outfall into Moores Creek. The Moores
846 Creek outfall is visible on the right of the slide. He stated that to answer Ms. Mallek's earlier
847 question, RWSA WW staff collect their effluent sample after UV treatment but before the outfall
848 to Moores Creek. He stated that final effluent sample is the final quality check on the treatment
849 plant's effectiveness.

850

851 Mr. Pinkston asked if the sludge from the clarifiers goes to the digesters.

852

853 Mr. Tungate stated yes. He stated that the sludge was sent to digesters, where it stayed for 15 to
854 20 days, during which microbes break down the sludge. He stated that this resulted in a reduced
855 sludge volume due to anaerobic digestion. He stated that the digested sludge was then processed
856 through one of the two centrifuges, which operated at night, six to seven days a week, and
857 produced a byproduct resembling topsoil.

858

859 Mr. Tungate stated that they used five trailers for waste disposal, filling two per night. He stated
860 that the material was transported to McGill Environmental in Waverly, Virginia, where it
861 becomes a commercially available compost. He stated that in 2023, Moores Creek processed
862 14,000 tons of material and made 545 trips to Waverly, Virginia. He stated that they had an
863 agreement with McGill Environmental to allow them to haul back a portion of the finished
864 compost to help offset costs. He stated that the full trailers of biosolids are temporarily stored at
865 the compost yard prior to transportation to McGill Environmental.

866

867 Mr. Tungate stated that regarding wastewater compliance, Virginia Department of
868 Environmental Quality allocated 282,994 pounds of nitrogen and 18,525 pounds of phosphorus
869 annually to the Moores Creek AWRRF. For example, the slide shows the March 2024 nitrogen
870 and phosphorus data that indicated Moores Creek discharged 7,600 pounds of nitrogen and 695
871 pounds of phosphorus. He stated that they were currently under their allotment for both nutrients,
872 with a discharge of only 32% of their nitrogen and 19% of their phosphorus allocation utilized.
873 He stated that RWSA WW staff took pride in the fact that they had only discharged 12% of their
874 allocated nitrogen and 4% of their allocated phosphorus during the first three months of 2024.

875

876 Mr. Tungate stated that this allowed RWSA to accumulate excess nitrogen and phosphorus
877 credits, which RWSA can sell in the Virginia nutrient exchange program. He stated that the
878 price per pound of nitrogen and phosphorus varied but could generate revenue between \$60,000
879 and \$100,000 annually. He stated that lesser-performing wastewater treatment plants in the

880 James River watershed could purchase those credits.

881
882 Mr. Tungate stated that the wastewater treatment facilities were regulated by the Virginia
883 Department of Environmental Quality, and the current slide showed a snapshot of their testing
884 requirements for Moores Creek. He stated that dissolved oxygen and pH tests were performed
885 daily. He stated that E. coli samples were required four times per week, and they were required
886 to have less than 126 cells per milliliter. He stated that their discharge was typically less than 10
887 cells per milliliter of E. Coli.

888
889 Mr. Tungate stated that the Moores Creek plant must be staffed by licensed Operators and have
890 personnel present 24/7. He stated that each shift consisted of two individuals working 12-hour
891 shifts. He stated that adjacent to the Moores Creek pump station, there was a septic receiving
892 station. He stated that in 2023, it processed approximately 9 million gallons of septage with over
893 6,100 transactions during the calendar year.

894
895 Mr. Pinkston asked what Mr. Tungate meant by transactions.

896
897 Mr. Tungate stated that there was a requirement that any septic disposal at the RWSA septage
898 receiving station required a login and a PIN so RWSA could determine the source of each
899 disposal for invoice payment. He stated that there were 6,100 individual disposals in CY 2023.

900
901 Mr. Pinkston asked if these were individuals who participated.

902
903 Mr. Mawyer stated that it was usually commercial haulers delivering septage from rural septic
904 tanks.

905
906 Mr. Tungate stated that it could be a septic hauler that brings in truckloads of waste, portable
907 toilets companies, or other providers or haulers that bring in septage.

908
909 Mr. Gaffney stated that there was nothing from the City.

910
911 Ms. Mallek stated that the County paid extra to cover the infrastructure cost for those septage
912 receiving facilities.

913
914 Mr. Tungate stated that regarding their wastewater treatment plants, he would discuss how much
915 they treat at these plants. He stated that at the Moores Creek facility, last year, RWSA WW staff
916 treated 3.5 billion gallons, 44 million gallons at Glenmore, 20 million gallons at Scottsville, and
917 approximately 610,000 gallons at Stone Robinson.

918
919 Mr. Pinkston asked if Mr. Tungate stated 3.5 billion gallons.

920
921 Mr. Tungate stated yes, 3.5 billion gallons. He stated that they had 610,000 gallons at Stone
922 Robinson. He stated that because Stone Robinson was a school and was not in session during the
923 summer, they could not keep the plant alive, so they actually fed rabbit food to keep the bugs
924 alive so they could continue using the plant when school staff returned in August.

925

926 Mr. Tungate stated that their facilities had varying sizes. He stated that Moores Creek, their
927 largest facility, had a capacity of 15 MGD of full treatment capacity. He stated that when they
928 experienced higher flow rates over 15 MGD, they could abbreviate the treatment process. He
929 stated that they stored excess wastewater in holding ponds and changed the aeration treatment
930 process to bypass some treatments for efficient flow through the plant. He stated that there were
931 nine total Operators assigned to this facility. He stated that Glenmore, Scottsville, and Stone-
932 Robinson facilities were visited daily, but not staffed 24/7.

933

934 Mr. Tungate stated that each plant had one Operator per shift, two shifts per week, with
935 approximately four hours daily for Glenmore and Scottsville, and one hour per day at Stone-
936 Robinson. He stated that one person usually covered these three “County” facilities in a day. He
937 stated they had two Relief Operators trained to run all plants, who received a premium on their
938 hourly wages and were available for emergencies or additional help. He stated that their
939 management staff included a Manager, Assistant Manager, and Supervisor, making the total
940 wastewater operations staff 16.

941

942 Mr. Tungate stated that they were proud of their licensed Operators; their highest-ranking is
943 Class 1 license holders. He stated that currently, they had one unlicensed trainee who had not
944 been with them long and needed to take an exam after six months of hands-on experience. He
945 stated that they had one open position that was in the process of being filled. He stated that out
946 of their 16 staff members, seven held a Class 1 license, while 13 possessed a Class 2 or higher
947 license.

948

949 Mr. Pinkston asked what the entry-level educational prerequisites or qualifications were for an
950 individual just starting in the field.

951

952 Mr. Tungate stated that most of their Operators possessed a high school diploma. He stated that
953 possessing post-high school education accelerated the licensing process even more, potentially
954 reducing the time required. He stated that a prerequisite for taking these licensing exams was six
955 months of hands-on experience, after which individuals with post-high school education could
956 progress faster.

957

958 Mr. Pinkston stated that what had particularly stood out to him during his time on this Board was
959 the fact that the organization served as an excellent starting point and foundation for individuals
960 seeking to launch and develop their careers.

961

962 Mr. Tungate stated that they discussed this topic frequently, as many of the Operators he had
963 interviewed, both for water and wastewater positions, often mentioned that they were unaware of
964 the water or wastewater Operator jobs prior to joining. He stated that most of these individuals
965 have transitioned from other industries, such as night managers from Sheetz and McDonald’s,
966 hydrogeologists, teachers, and a civil engineer.

967

968 Mr. Tungate stated that this diverse group of Water and Wastewater Operators is undeniably
969 fascinating, yet the position is not suited for everyone due to the long hours and 24/7 nature of
970 the job. He stated that a common theme emerges when speaking with potential candidates: they
971 appreciate working for the community, contributing to its well-being, and finding purpose in

972 their daily tasks of providing clean water and treating wastewater for the community.

973

974 Mr. Pinkston stated that they should keep young adults in mind for these positions.

975

976 Mr. Tungate stated that he would discuss the industrial pre-treatment program briefly. He stated
977 that the purpose of the program is to safeguard the sewer system and the operations in their
978 treatment plants by enforcing discharge limits as mandated by the Environmental Protection
979 Agency and the Virginia Department of Environmental Quality. He stated that they implement a
980 Pre-treatment Program that adheres to the provisions of the Clean Water Act of 1972.

981

982 Mr. Tungate stated that permitted businesses submitted a report concerning the Pre-treatment
983 Program on January 31 for the previous year. He stated that Pre-treatment Programs involve
984 examining issues such as oil and grease buildup. He stated that RWSA staff has had discussions
985 with ACSA staff, Jeremy Lynn and Tim Brown, about the Grease Trap Program at restaurants.
986 He stated that the program also pertained to heavy metals, some nutrients like nitrogen and
987 phosphorus, pH levels, and carbonaceous biochemical oxygen demand (CBOD).

988

989 Mr. Tungate stated that there has been an increasing problem with oils and grease being poured
990 down drains, which subsequently coagulates. He stated that in addition to identifying categorical
991 significant industrial users, such as metal finishing and semiconductor manufacturing, they also
992 consider non-categorical users that discharge more than 25,000 gallons a day or have the
993 potential to adversely affect treatment processes at the plant. He stated that they had examined
994 the possibility of regulating businesses with processes that discharged pollutants of concern,
995 including restaurants, breweries, food preparation facilities, and soft drink production sites
996 extensively in the last year.

997

998 Mr. Tungate stated that currently, three significant industrial users, Virginia Diodes, Mikro
999 Systems, and Northrop Grumman, were part of their system, with permits issued on July 31,
1000 2022. He stated that these entities were required to submit a semi-annual report to lab staff in
1001 June and December of each year.

1002

1003 Mr. Tungate stated that the RWSA wastewater departmental budget amounted to \$22.9 million,
1004 with a significant portion allocated to debt service. He stated that in Fiscal Year 2023, they
1005 managed approximately 3.5 billion gallons of wastewater at a cost of approximately \$0.67 per
1006 hundred gallons of wastewater.

1007

1008 Mr. Gaffney stated that Mr. Tungate's presentation was very impressive.

1009

1010 Ms. Mallek asked if Mr. Tungate could describe the grit system a bit more in depth.

1011

1012 Mr. Tungate stated that the flow came into the plant from the pump stations, it is pumped to the
1013 headworks where the grit system takes the grit out of the wastewater. The grit system uses a
1014 system where the heavy grits particles settle to the bottom and are separated.

1015

1016 Ms. Mallek stated that she would understand it better if it was coming in from the freshwater
1017 source, where the turbidity was occurring. She asked if this was after use.

1018
1019 Mr. Tungate stated that this was what was coming in from Rivanna and Moores Creek pump
1020 stations.
1021
1022 Ms. Mallek asked if this was on the wastewater side.
1023
1024 Mr. Tungate stated yes. He stated that they had seen things such as cell phones, pagers, and other
1025 larger items.
1026
1027 Mr. Mawyer asked where the grit may come from.
1028
1029 Mr. Tungate stated that it could be from aggregate from paving operations or small breaks in the
1030 sewer collection system. He stated that materials may get washed in.
1031
1032 Ms. Mallek stated that they had a separated system, so she thought they should not be getting
1033 things from the sides of the streets when it rained.
1034
1035 Mr. Tungate stated that was correct.
1036
1037 Ms. Mallek stated that she knew they were spending a lot of money sending stuff to Waverly.
1038 She asked if Waverly was treating the biosolids further than what is done at Moores Creek. She
1039 stated that she did not understand why we were not just selling compost here. She stated that she
1040 understood there was an odor issue, but that should be taken care of in the process and be
1041 removed.
1042
1043 Mr. Tungate stated that it would be an expensive process to create compost and control odors at
1044 Moores Creek. We produced Class B biosolids, which could not be land applied due to the
1045 presence of pathogens. He stated that in contrast, Class A biosolids could be safely land applied.
1046
1047 Mr. Mawyer asked how they could get to Class A.
1048
1049 Mr. Tungate explained that to achieve Class A status, biosolids underwent additional heating and
1050 drying processes. He noted that a wastewater plant in Harrisonburg had installed a drying facility
1051 for this purpose, resulting in a Class A product. He stated that they had discussed the land
1052 application of biosolids extensively, recognizing its relevance to waste management. He added
1053 that our operations run continuously, irrespective of weather conditions, which he believed made
1054 the RWSA approach quite effective. He stated that they must move the solids out 365 days a
1055 year, regardless of weather and other conditions.
1056
1057 Ms. Mallek asked if this was as much about volume removal as anything else.
1058
1059 Mr. Tungate stated yes. He stated that they did not store anything at Moores Creek except for the
1060 biosolids in the trailer from overnight.
1061
1062 Mr. O'Connell asked if they heated the material at Waverly to get it to Class A.
1063

1064 Mr. Tungate stated that McGill Environmental combined various materials during the
1065 composting process, which includes drying and heating stages to create a product suitable for
1066 land application and or commercial use. He stated that McGill Environmental, who sold the
1067 compost under a trade name, had utilized this product at one of the Washington Redskins
1068 facilities. He stated that McGill incorporate grease, recycled money from the Federal Reserve,
1069 tobacco waste products from Philip Morris, and a series of biosolids from other wastewater
1070 facilities.

1071
1072 Mr. Mawyer stated that they mixed the compost materials and let them dry.

1073
1074 Ms. Mallek asked if it was just sitting out somewhere.

1075
1076 Mr. Tungate stated that they had large Quonset huts with blowers.

1077
1078 Mr. O'Connell asked if it was visible from the road as one passed by Waverly.

1079
1080 Mr. Tungate stated that it was along Beef Steak Road in Waverly, and it is unknown if it is
1081 visible from a road.

1082
1083 Mr. O'Connell stated that he had driven by the facility a week or two ago and did not realize
1084 what it was.

1085
1086 Ms. Mallek stated that regarding the bypass system that was used during heavy rainfall, that was
1087 to hold the extra volume at the other storage pond, and it was not put into the river. She asked if
1088 it was held until it could be processed.

1089
1090 Mr. Tungate stated that was correct. He stated that if they knew there was a storm coming,
1091 RWSA WW staff would pump down the holding ponds, so they had places to store excess
1092 wastewater.

1093
1094 Ms. Mallek stated that the equalization tank was used for that purpose. She stated that perhaps in
1095 the communications materials, staff could share information about how not everything is
1096 flushable. She stated that anyone with a home septic system would never dream of doing that, or
1097 they would have huge expenses. She stated that it was not fair for people to think they could put
1098 whatever they want into the public sewer. She stated that regarding these categorical SIUs, she
1099 would like to know if that was because they were using degreasers for the sheet metal in the
1100 factory.

1101
1102 Mr. Tungate stated yes, it was a chemical process, and any degreasing facilities should be
1103 regulated.

1104
1105 Mr. Mawyer asked what the issue was with those chemicals.

1106
1107 Mr. Tungate stated that those chemicals could disrupt the biological activity at the wastewater
1108 treatment plants.

1109

1110 Mr. Mawyer clarified further that it could kill the bugs essential to the biological wastewater
1111 treatment process.

1112
1113 Ms. Mallek stated that the degreaser issues were why they had the ACME visible records area
1114 and the EPA Superfund site near the airport. She stated that they had contaminated the ground in
1115 those areas, so she was glad that they had a better handle on it now.

1116
1117 **10. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA**

1118 Mr. Mawyer stated that there would be a reception for Mr. O'Connell after the meeting, and he
1119 hoped everyone would join in the celebration of his service.

1120
1121 **11. CLOSED MEETING**

1122 There was no reason for a closed meeting.

1123
1124 **12. ADJOURNMENT**

1125 **At 3:45 p.m., Mr. Pinkston moved to adjourn the meeting of the Rivanna Water and Sewer**
1126 **Authority. Mr. O'Connell seconded the motion, which passed unanimously (7-0).**

1127
1128 Respectfully submitted,



Mr. Jeff Richardson
Secretary - Treasurer

1129
1130
1131
1132

