

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47

**RWSA BOARD OF DIRECTORS**  
**Minutes of Regular Meeting**  
**August 27, 2019**

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, August 27, 2019 at 2:35 p.m. in the 2<sup>nd</sup> floor conference room, Administration Building, 695 Moores Creek Lane, Charlottesville, Virginia.

**Board Members Present:** Mike Gaffney, Tarron Richardson, Kathy Galvin, Gary O’Connell, Liz Palmer.

**Board Members Absent:** Lauren Hildebrand, Jeff Richardson.

**Rivanna Staff Present:** David Rhoades, Phil McKalips, Michelle Simpson, Austin Marrs, Andrea Terry, Victoria Fort, Jennifer Whitaker, Scott Schiller, Lonnie Wood, Liz Coleman, Dr. Bill Morris, Dyon Vega, Katie McIlwee, Bill Mawyer.

**Attorney(s) Present:** Kurt Krueger, RWSA counsel, members of the public and media representatives.

***1. CALL TO ORDER***

Mr. Gaffney called the August 27, 2019 regular meeting of the Rivanna Water and Sewer Authority Board of Directors to order at 2:35 p.m.

***2. MINUTES OF PREVIOUS BOARD MEETINGS***

- a. Minutes of Regular Board Meeting on May 28, 2019*
- b. Minutes of Regular Board Meeting on July 23, 2019*

Mr. Gaffney asked Mr. Krueger which members would be able to vote on the meeting minutes.

Mr. Krueger replied that for the May 28, 2019 meeting, the Board members absent were Ms. Hildebrand, Mr. Richardson, and Dr. Palmer, and that there were four members present who could vote.

Mr. Gaffney asked the Board members if there were any questions or comments about the May 28, 2019 meeting and heard none.

**Mr. O’Connell moved that the Board approve the minutes of the regular Board meeting of May 28, 2019. The motion was seconded by Ms. Galvin and passed 4-0-1. Dr. Palmer abstained from the vote. Mr. Richardson and Ms. Hildebrand were absent from the meeting and the vote.**

Mr. Gaffney asked the Board members if there were any questions or comments about the July 23, 2019 meeting and heard none.

**Mr. O’Connell moved that the Board approve the minutes of the regular Board meeting of**

48 **April 23, 2019. The motion was seconded by Dr. Palmer and passed unanimously (5-0). Mr.**  
49 **Richardson and Ms. Hildebrand were absent from the meeting and the vote.**

50  
51 **3. *RECOGNITIONS***

52 There were no recognitions.

53  
54 **4. *EXECUTIVE DIRECTOR'S REPORT***

55 Mr. Mawyer stated that for the Strategic Plan update for this quarter, the Communication and  
56 Collaboration Team was participating in an "Imagine a Day Without Water" event with Mr.  
57 O'Connell and the City. He stated that school children are invited to draw pictures of what it  
58 would be like to have a day without water, and that some of this artwork could be seen in the  
59 hallway.

60  
61 Mr. Mawyer stated that RWSA is also participating in the United Way's Day of Caring on  
62 September 25 and going to Camp Holiday Trails to work on a trail improvement project.

63  
64 Mr. Mawyer stated that RWSA continues to optimize its operations and security by installing  
65 security cameras at a number of its reservoir locations. He stated that they also plan to keep the  
66 front gate closed longer in the morning, starting Monday, September 3, 2019. He explained that  
67 it currently opens at about 6:00 am when there is a shift change, but that there are only two staff  
68 on the property until after 7:00 am and they would therefore leave the gate closed until 7:00 am,  
69 staying open until 5:30 pm.

70  
71 Mr. Mawyer continued that a letter was sent to about 140 haulers who are the frequent early-  
72 morning customers, informing them that the schedule has changed and noting that they can still  
73 come in 24 hours a day, 7 days a week, but they must call the operator on duty to have the gate  
74 opened. He stated that if the haulers choose to do this there is a fee, except for the one hour of  
75 6:00-7:00 am so that the new schedule change will not affect the haulers.

76  
77 Mr. Gaffney asked if there were only two people there after 7:00 am.

78  
79 Mr. Mawyer replied that there are two staff present before 7:00 am, and that those two operators  
80 work alone all night.

81  
82 Mr. Gaffney asked if it was expensive to put up an automatic gate.

83  
84 Mr. Mawyer replied that this would be considered as part of the security project that was  
85 approved the prior month, noting that he wasn't sure what the specific cost would be. He stated  
86 that there is currently an automatic gate there now and that he can click with his remote to open  
87 it. He stated that staff have clickers to obtain access 24-7, but the private haulers and anyone  
88 from the public do not have these.

89  
90 Mr. Gaffney stated that he didn't know if someone could call the operator and if the operator  
91 could open the gate.

92  
93 Mr. Mawyer replied that they currently cannot do this remotely.

94

95 Mr. Mawyer stated that the Infrastructure and Master Planning Initiative is continuing and that  
96 work is underway for the second phase of the Asset Management Program. He stated that a pilot  
97 study would be done on the relatively new Rivanna Pump Station to catalogue assets and help  
98 develop a new asset management software system.

99

100 Mr. Mawyer stated that, as he mentioned at the last Board meeting, there was training as part of  
101 Workforce Development on the OSHA-10 safety topics, as well as in CPR.

102

103 Mr. Mawyer stated that for environmental stewardship, the water resources manager has been  
104 coordinating with County staff about algae blooms in the reservoirs.

105

106 Mr. Mawyer stated that also in regard to infrastructure and master planning, work is being done  
107 on the Buck Mountain Property Master Plan and there would be interviews the following week  
108 with consultants who would help move this project forward. He stated that Mr. Krueger has  
109 helped to craft a resolution to eliminate the Buck Mountain surcharge and was coordinating with  
110 the City, County, and ACSA attorneys. He stated that Mr. Wood is coordinating with the bond  
111 trustee, who also have to approve termination of the surcharge. He stated that after approval is  
112 obtained from the bond trustee, it would be brought to the Board for review and approval, then  
113 would be passed on to the City, the County and the Service Authority for Council and their  
114 Boards to approve the resolution to terminate the surcharge.

115

116 Mr. Mawyer stated that negotiations are continuing with property owners to acquire the Rivanna  
17 to Ragged Mountain water line property easements.

18

119 Mr. Mawyer stated that work is continuing with UVA staff on the lease for the Observatory  
120 Water Treatment Plant. He stated that they received comments from UVA in the week prior and  
121 that there would be a meeting with them on Thursday to begin to wrap up negotiations.

122

123 Mr. Mawyer stated that he and staff are working on a capacity increase agreement with the City  
124 and the ACSA for the Observatory WTP project. A 2003 agreement provides that if there is any  
125 new capacity built in the urban water system, there will need to be a new agreement between the  
126 City and the ACSA to allocate funding for the project. He stated that they are adding 2.3 million  
127 gallons capacity at the Observatory Treatment Plant as a new project, and that an agreement was  
128 drafted with Mr. O'Connell, Ms. Hildebrand, and Mr. Krueger, which will soon come to the  
129 Board (possibly in September) for review. He stated that it would then move forward to the City  
130 and Service Authority for final approval.

131

132 Mr. Mawyer stated that after recently speaking with Mr. Jeff Richardson about responsibilities  
133 for the reservoirs, as well as concerns about traffic, parking and trash, a memorandum of  
134 understanding is being drafted between the County, the City, and Rivanna about the five  
135 reservoirs that Rivanna uses and what the responsibilities would be for the various aspects. He  
136 stated that he plans to send a letter to Dr. Tarron Richardson and Mr. Jeff Richardson in the next  
137 week or so with the proposed plan of responsibilities.

138

39 Dr. Palmer stated that the prior weekend, she walked along the South Fork at Mormon's River

140 down to Skyline Drive, down to the “Blue Hole,” which is City property. She stated that as soon  
141 as she arrived on the City property, there was a steady stream of people coming there to go  
142 swimming. She stated that a large number of people had coolers and some had large cases of  
143 beer. She stated that there was a significant amount of alcohol there, and she wasn’t sure how  
144 this relates with the City in terms of insurance. She stated that there is also a rope swing there  
145 that doesn’t look like it is in good shape. She stated that this may be something to consider for  
146 insurance purposes.

147  
148 Mr. Mawyer stated that guidance was found in the original Four-Party Agreement about limiting  
149 Rivanna’s responsibility for municipal purposes at the reservoirs - that it is in charge of the  
150 structures, but not municipal activities – which was the guideline for the matrix.

151  
152 Ms. Galvin stated that it seemed that some of the standards and guidelines in public parks would  
153 apply, because the areas are used as parks.

154  
155 Mr. Mawyer stated that this is what was suggested – that others are responsible for park-related  
156 activities and not Rivanna.

157  
158 Ms. Galvin expressed that it was good to make this clear.

159  
160 Mr. Mawyer stated that RWSA has received calls about who would retrieve dead animals, trash,  
161 and about parking at Sugar Hollow (where emergency vehicles cannot get through). He stated  
162 that there was also damage to the gate, which RWSA repaired, but at Mr. Richardson’s  
163 suggestion, he made a list of responsibilities to communicate to the groups responsible.

164  
165 Mr. O’Connell asked which reservoirs this pertained to.

166  
167 Mr. Mawyer replied that it was all five – Ragged Mountain, Sugar Hollow, South Fork, Totier,  
168 and Beaver Creek. He stated that three are owned by the City and two by the County.

169  
170 Dr. Palmer stated that taking the trash cans away from Sugar Hollow has helped dramatically, as  
171 the trash can was usually overflowing. She stated that people do use doggie bags there and they  
172 can be found all along the trails.

173  
174 Mr. Krueger added that one of the reasons Rivanna had a relatively limited scope of duties at the  
175 reservoirs was the recognition of the fact that Rivanna has no police powers, but the County  
176 does. He stated that Rivanna could enact regulations but that they had no way to enforce them.  
177 He stated that this was the original thought process when the original 1972 Four-Party  
178 Agreement was put together.

179  
180 Mr. Mawyer stated that the matrix tries to follow this guidance.

181  
182 Mr. Gaffney stated that Rivanna does not want police powers.

183  
184 Mr. Mawyer stated that Rivanna is at the threshold of getting started with the Observatory Water  
185 Treatment Plant and South Rivanna Treatment Plant upgrades, through which the two buildings

186 will be combined into one construction mega-contract relative to Rivanna. He stated that to  
187 encourage competitive bidding, they would invite contractors to an informational meeting on  
188 September 26 and that the meeting would be advertised in national newspapers to improve  
189 interest and pricing. He stated that likely in October to November, they would advertise for and  
190 receive bids.

191  
192 Mr. Mawyer stated that in environmental stewardship, as well as infrastructure and master  
193 planning, Ms. Whitaker and Ms. Terry have been coordinating with the Virginia DEQ and had a  
194 stream gauge replaced below the South Fork-Rivanna Reservoir Dam. He stated that this gauge  
195 can be used to help measure and estimate flow out of the reservoir. He stated that when there are  
196 meters in the reservoir, they can calibrate and cross-check them with the gauge that DEQ has put  
197 in the river. He stated that it would also have a monitoring station online and that anyone can see  
198 what the gauge is reading.

199  
200 Mr. Mawyer stated that a grant application for AEDs (automated external defibrillators) was  
201 made for the RWSA, which was approved for \$4,000 from the Virginia Resource Sharing  
202 Association, who is RWSA's property and liability insurance company. He thanked Safety  
203 Manager, Liz Coleman, for managing this project.

204  
205 Dr. Palmer asked where the cameras at Sugar Hollow are located.

206  
207 Ms. Whitaker stated that there is the ability to see the whole downstream piece of the dam.

208  
209 Mr. Mawyer asked if they were on the dam.

210  
211 Ms. Whitaker replied they are mounted to the dam.

212  
213 Mr. Gaffney asked if they were in the parking area, too.

214  
215 Ms. Whitaker replied that only a small portion of the parking area had cameras.

216  
217 Mr. Gaffney asked about the eagle's nest across the reservoir.

218  
219 Ms. Whitaker replied no.

220  
221 **5. ITEMS FROM THE PUBLIC**

222 Mr. Gaffney opened the meeting to the public.

223  
224 As no one came forward to address the Board, Mr. Gaffney closed this portion of the meeting.

225  
226 **6. RESPONSES TO PUBLIC COMMENTS**

227 Mr. Gaffney stated that there were no responses to public comments.

228  
229 **7. CONSENT AGENDA**

230 *a. Staff Report on Finance*

232 *b. Staff Report on Ongoing Projects*

233

234 *c. Staff Report on Operations*

235

236 *d. Professional Services Authorization and CIP Budget Amendment: Moores Creek Wastewater*  
237 *Facilities Master Plan; Hazen And Sawyer Engineers*

238

239 *e. Professional Services Authorization – Asset Management Plan, Phase 2; GHD, Inc.*

240

241

242 Mr. Gaffney asked Board members if there are any items they would like to pull. There were  
243 none.

244

245 Mr. O'Connell asked if an update could be provided on wholesale meters.

246

247 Mr. Mawyer stated that they have been working on the wholesale meter project for some time  
248 and experts have helped with it. He stated that the week prior, a calibration firm calibrated the  
249 meters. He stated that they have 25 total meters and 20 have passed calibration now, 3 have  
250 failed and attempts are being made to determine why, one has a problem with a test port, and one  
251 is on its way back from the factory to be reinstalled and tested.

252

253 Mr. Gaffney asked Mr. Mawyer if, on the list of projects, it would be possible to note if the  
254 projects have had any changes to their write-ups since the last meeting. He stated that he ends up  
255 reading the project completely each month and if it hasn't changed, he doesn't realize until he's  
256 read it.

257

258 Ms. Galvin noted that they used to bold anything that was new.

259

260 Mr. Mawyer stated that the current status is intended to be new every month unless a project is  
261 on hold. He stated that the updates could be bolded.

262

263 Mr. Gaffney suggested that on-hold projects be noted as such.

264

265 Mr. Mawyer suggested that anything that isn't current is moved into the history section. He  
266 asked if this was what Mr. Gaffney meant.

267

268 Mr. Gaffney replied yes.

269

270 Mr. O'Connell asked if Mr. Mawyer could speak more about the Wastewater Master Plan, noting  
271 that it was a CIP item and asking if there were concerns about capacity.

272

273 Mr. Mawyer stated that there were no concerns and that it was determining what is needed over  
274 the next 50 years. He stated that the Urban Water Master Plan is being done for 50 years in  
275 advance and commensurate with that, they are looking at which wastewater facilities have needs.  
276 He stated that they considered putting an addition on the Administration building and want to  
277 make sure they program all the wastewater facilities for the next 50 years before they plan any

278 Administration building changes. He stated that it is purely a planning document and there were  
279 no concerns about immediate capacity issues.

280  
281 Mr. O'Connell asked if they were getting rock boring on McIntire Road for the Schenks Branch  
282 project.

283  
284 Mr. Mawyer replied this was correct. He stated that they were getting borings at the baseball  
285 field to determine the rock profile through the field and street, and that the information would be  
286 provided to the Board as a comparison to help decide which path to take for that project.

287  
288 Mr. Schiller stated that geophysical analysis was done the week prior, which was non-destructive  
289 and was completed for both the road and the ball field alignment. He stated that they would be  
290 going there again the week of September 9 to do a few borings to correlate and create a profile,  
291 and that the report would be complete in October.

292  
293 **Dr. Palmer moved that the Board approve the Consent Agenda. The motion was seconded**  
294 **by Ms. Galvin and passed unanimously (5-0). Ms. Hildebrand and Mr. Richardson were**  
295 **absent from the meeting and the vote.**

296  
297 **7. OTHER BUSINESS**

298  
299 *a. Presentation and Request for Approval: University of Virginia Rowing Team and Rivanna*  
300 *Rowing Club Waiver Extension – Kevin Sauer, Head Coach, UVA Women's Rowing Team*

301 Mr. Kevin Sauer thanked the Board for allowing him to present. He praised the efforts of a  
302 particular company UVA has been working with for the past three years to get the new electric  
303 motor, and that they are the first rowing company in the United States to have this.

304  
305 Mr. Sauer noted that UVA has secured \$85,000 in funds from a foundation, and the UVA  
306 Athletic Department has promised \$75,000. He stated that there has been a huge investment of  
307 time, money, and effort to make this work. He noted it was in beta testing for the company in  
308 Seattle, and that he was informed the day prior that the company has approached two engineers  
309 from Tesla, which he found to be impressive.

310  
311 Mr. Sauer indicated to the Board the size of the battery, noting the battery alone was \$8,500. He  
312 stated that the motor itself is \$6,000, with a charging system of about \$2,000, totaling \$16,000-  
313 \$17,000 for the power plant per motorboat, which was a significant investment. He explained  
314 they have the motorboats they need and that they just need to buy the power plants.

315  
316 Mr. Sauer presented two pictures showing the outfit, which was put on the day prior by the  
317 company. He stated that it was tested and pointed to a picture of the motor, noting that it was not  
318 very big. He showed a picture of the battery, noting its size, and the line that connects it. He  
319 stated that a 200-amp service was brought to the dock the year prior so that the charging can be  
320 done at the dock, noting that there was beta testing being done relating to this as well.

321  
322 Mr. Sauer played some videos of what the launch looks like in operation. He pointed out the  
323 motor and the battery, and the engine in operation taking off from the dock, noting how quickly  
324 it came to speed. He stated that the motorboat he has currently, which has a gasoline engine, was

325 outrun by the new motors. He mentioned there was minimum wake and that helped with erosion  
326 control, as had been discussed in years past. He stated that this was the first time he felt confident  
327 that they have the ability to have a power plant that will keep up with the rowing shells for safety  
328 and coaching reasons. He also noted that UVA received this before the University of Washington  
329 (in Seattle) got one.

330  
331 Mr. Sauer noted again that they are in beta testing, and that \$42,000 was invested so far. He  
332 stated that the women's program is the "guinea pig," and the men's program is watching closely.  
333 He stated that he could not promise exactly how long it would take to get everything outfitted,  
334 but that testing would continue, and the final product would arrive in the spring, with at least  
335 two, and one more each year (possibly more).

336  
337 Ms. Galvin asked about maintenance and what happens if it breaks down.

338  
339 Mr. Sauer replied that he asked the same question the day prior, as there are not many people  
340 who work on them. He explained that it is a very simple process and because it's an electric  
341 motor, there is no carburetor or cooling system. He noted that a tech on the East Coast would be  
342 available to help during R&D, adding that UVA has budgeted to have a spare motor and a spare  
343 battery if one is down. He stated that he also offered to send his boat repairman to Seattle to learn  
344 the system, but the company assured him that there was nothing that he would need to know  
345 besides the electric engineering between the battery, motor, and throttle.

346  
347 Mr. Sauer stated that one of the videos had sound associated, and the actual wind of the boat  
348 going 15 mph produced more sound than the motor itself. He noted this would be great for the  
349 rowers and coaches.

350  
351 Mr. Gaffney asked how many launches there would be.

352  
353 Mr. Sauer replied that they would like to eventually have 10 up and running across the UVA  
354 women's and men's teams and Rivanna Rowing Club. He stated that he confirmed with the  
355 company that they would have enough amperage at the boathouse to get charging stations for all  
356 the motors. He stated that his hope was in five years, they would have everyone up to speed.

357  
358 Mr. Gaffney asked if all the bass boaters would want these.

359  
360 Mr. Sauer recognized that as soon as they would see the new motor, they would likely want it,  
361 and wasn't sure if this would cause problems or not. He stated that the owners of the company  
362 were rowers, and that bass fishing (which is a \$20 million industry) would likely follow with this  
363 type of motor. He noted it is cost-restrictive, but that some of the bass boats are expensive and  
364 could go in this direction. He stated that the disadvantage is that this motor typically goes 20-25  
365 mph and when the bass boats want to go fast, it's typically at about 80 mph. He expressed doubt  
366 that the high-tech bass fishermen would be interested, but that some boaters on the reservoir may  
367 want to invest in it, again stating that it was expensive.

368  
369 Mr. O'Connell asked how long Mr. Sauer had been coaching.

370



371 Mr. Sauer replied that he was in his 43<sup>rd</sup> year of college coaching and his 32<sup>nd</sup> year at UVA.  
72

373 Ms. Galvin asked if Mr. Sauer wanted to purchase as many of the motors as he could today, how  
374 many would he want.

375  
376 Mr. Sauer replied 10 at maximum, noting that this was all that was needed across all the  
377 programs. He stated that doing the math, with the boats, it's about a \$160,000 investment.  
378

379 Ms. Galvin asked if others schools (such as the University of Richmond and VCU) would be  
380 interested.

381  
382 Mr. Sauer replied yes, explaining that he has already started to receive phone calls. He stated that  
383 the video was posted to social media the day prior and that he had already received about 3-4  
384 calls.

385  
386 Ms. Galvin stated that her son is a volunteer coach for VCU's rowing team and would love it.  
387

388 Mr. Sauer noted that even people who don't have restrictions are interested in the product  
389 because of the environmental aspects, making it very popular. He stated that he was glad that the  
390 project was finally happening.

391  
392 **Dr. Palmer moved that the Board authorize the Executive Director to expand UVA's**  
393 **waiver to August 2021 to allow the use of gasoline-powered safety and coaching launches**  
74 **by the UVA Women's and Men's Rowing Teams and the Rivanna Rowing Team, subject to**  
95 **UVA agreeing to other conditions and what RWSA deems necessary to protect the**  
396 **treatment of water supply and the quality of the South Fork Rivanna Reservoir to include**  
397 **continued research on electric motor technology. The motion was seconded by Ms. Galvin**  
398 **and passed unanimously (5-0). Ms. Hildebrand and Mr. Richardson were absent from the**  
399 **meeting and the vote.**

400  
401 Mr. Mawyer noted that one interesting point that was reviewed was that the prohibition on  
402 combustion engines on the reservoirs is a County ordinance requirement, but the ordinance  
403 delegates authority to the RWSA Board to authorize waivers.  
404

405 Mr. Sauer stated that regarding the maintenance of each reservoir in theC county, he gets a 5-  
406 gallon bucket per practice of trash, and he tells all the other coaches that there is a 5-gallon  
407 bucket on the front of each boat and asks them to pick up any trash they see.  
408

409 *b. Presentation: Major Construction Projects and Value Engineering Update*

410 Mr. Scott Schiller, Engineering Manager, began his presentation by reviewing completed  
411 projects.  
412

413 Mr. Schiller stated that the Crozet Finished Water Pump Station was done to increase the  
414 capacity in the pump station from 1 MGD to 1.6 MGD and to replace old infrastructure from the  
415 1960s. He stated that the project was completed in June 2019, noting construction had been

416 extended for quite awhile and that it was ready to be expanded in the future as the plant  
417 continues to upgrade and expand its capacity.

418  
419 Dr. Palmer asked when Mr. Schiller believed it would be needed to expand it beyond the 1.6  
420 MGD.

421  
422 Ms. Whitaker replied it would be in 2032.

423  
424 Dr. Palmer asked if she meant the project would be completed by then or would be starting then.

425  
426 Ms. Whitaker replied that the expansion accounted for future capacity upgrades.

427  
428 Mr. Schiller spoke to the project for the Birdwood raw water main located along the side of the  
429 golf course, explaining that 5,900 linear feet of 36-inch raw water main had been installed as part  
430 of the future South Rivanna Reservoir to Ragged Mountain Reservoir transfer line. He stated that  
431 all pipe work was completed in June 2019, but reports show 99% complete as there are still some  
432 negotiations associated with permanent seeding with the UVA Foundation. He stated that the  
433 pipe is installed, and the easement areas are fairly well restored.

434  
435 Mr. Schiller stated that regarding the Sugar Hollow Reservoir to Ragged Mountain Reservoir  
436 Transfer Flow Meter, the project expanded as it was developed, with an existing, older Venturi  
437 style flow meter that was replaced and a new automatically controlled flow isolation valve,  
438 which now will allow for the transfer of water from Sugar Hollow to Ragged Mountain remotely  
439 as opposed to being physically present to slowly open the valve throughout the course of the day.  
440 He stated that with direction from the City, many of the outbuildings that were there were  
441 removed. He stated that a shed and a barn were also demolished and removed, as well as a  
442 couple buildings related to the water line and old facilities that were removed as well.

443  
444 Mr. Schiller presented a picture of what the area looks like presently, noting that it has been  
445 cleared.

446  
447 Mr. Schiller stated that the Piney Mountain Tank Rehabilitation was completed in July 2019 and  
448 was put back into operation the first week of August. He stated that it involved some structural  
449 repairs to the roof as well as fully sand blasting and recoating the interior, in addition to some  
450 retouch work on the exterior. He stated that week, there were some punch list items done outside  
451 of the tank, noting that the tank is in operation and everything is complete otherwise.

452  
453 Mr. Schiller stated that there are some projects currently under construction. He stated that the  
454 major current project is the Crozet Water Treatment Plant Expansion, which is to increase the  
455 capacity of the plant by modernizing the existing equipment. He stated that the footprint of the  
456 site is limited and capacity is trying to be maximized within the space that is available. He stated  
457 that powder activated carbon contactors are being added, plate settlers installed into the  
458 sedimentation basins, the chemical building backwash storage is being added and filters are  
459 being rebuilt among other general improvements. He stated that the project is approaching the  
460 first major milestone and the rest of the work is scheduled to be complete by May of 2020.

461

462 Mr. Schiller stated that the Moores Creek Digester Coating is a project to seal the internal roof of  
53 the digester to improve odor control and gas collection and to stop any structural degradation  
464 occurring from the sludge that it's storing. He stated that they have completed the coatings on  
465 Digesters 1 and 2 and are currently working on Digester 3. He stated that unfortunately, Digester  
466 3 does not seem to be taking the initial coating, as well as the additional coatings that were tried,  
467 so designers and contractors are being consulted to determine the best way to move forward. He  
468 stated that based upon this process, they are estimating completion by summer of 2020.

469  
470 Ms. Galvin asked about Digester 3 not taking the coating.

471  
472 Mr. Schiller explained that pull tests are performed on the coating to determine if it is adhering to  
473 the concrete. He stated that four tests have been done on the original coating product, and one on  
474 a second coating product, and none of the pull tests have held. He noted the digestors were all  
475 built at the same time and have the same coating, but for some reason the concrete in Digester 3  
476 doesn't want to accept the coating. He stated that they are looking into other options as far as  
477 what they can do to make this work.

478  
479 Mr. Schiller stated that a coating project has been started at Glenmore Wastewater Facility to  
480 recoat the metal components of the secondary clarifiers at that plant. He stated that the coatings  
481 are over 10 years old and they needed to be recoated to protect them against further metal  
482 deterioration. He stated that this is currently being prepped for coating, which should be done by  
483 Winter 2019.

484  
35 Mr. Schiller stated that there were other projects that would soon start construction, noting the  
486 Scottsville Water Treatment Plant Finished Water Flow Meter project. He stated that currently,  
487 finished flow is determined by using the run time calculation, which is not the most accurate  
488 method, and so a finished flow meter will be put in to provide better data. He stated that in order  
489 to do this, some of the finished water piping will be modified to shoehorn in a flow meter. He  
490 stated that there is a signed contract now, so the project will begin shortly, with an estimated  
491 completion of Spring 2020.

492  
493 Mr. Schiller stated that the Bucks Elbow Ground Storage Tank project and system improvements  
494 looks to boost chlorine at this location and that the current chlorine feed process is a generally  
495 labor-intensive process, with multiple people involved to haul equipment out to the site. He  
496 stated that in order to make this a less labor-intensive process, a permanent chemical feed system  
497 will be installed, which will be in building off to the side with a permanent piping connection to  
498 the top of the tank. He stated that they are in the midst of signing contracts for this and that it has  
499 an estimated completion of Spring 2020.

500  
501 Dr. Palmer asked about the location.

502  
503 Mr. Schiller replied it is northwest of town proper.

504  
505 Mr. O'Connell asked if you pass by Mint Springs to get there.

506  
57 Ms. Terry stated that it was just before Mint Springs.

508  
509 Mr. Schiller stated that the Moores Creek Aluminum Slide Gates Replacement Project is to  
510 replace slide gates at the Moores Creek Pump Station as well as the UV facility. He stated that  
511 the Moores Creek project would require almost a full bypass of the flow coming in to the Moores  
512 Creek pump station, so this would be done after getting through dealing with the UV facility. He  
513 stated that the bid package for this work was advertised in August 2019 and the bids should be  
514 received on September 5.

515  
516 Mr. Mawyer asked if Mr. Schiller could point to the gates.

517  
518 Mr. Schiller indicated on a picture to the aluminum slide gates that will be replaced. He stated  
519 that there has been some degradation and noted it was a difficult working environment,  
520 especially in the UV facility. He stated that these gates would be replaced by June 2020 and that  
521 the full project budget was \$470,000.

522  
523 Mr. Schiller recalled that with the Security Enhancement Project, approval had been asked for  
524 the previous month for an access control implementer. He stated that the contract is being  
525 finalized and signed, and then the project will be moving into access control at the main facilities  
526 (Moores Creek facility, South Rivanna, Observatory, and Crozet). He stated that with access  
527 control, this would include all the exterior doors, motorized gates, and some of the interior doors.  
528 He stated that as these are worked on, this would be rolled into other facilities, as well as some  
529 other security enhancements, as budget allows. He noted there is currently a \$1 million budget  
530 and that the full completion schedule accounts for all the facilities that would potentially get  
531 incorporated.

532  
533 Mr. Schiller stated that related to the earlier question, part of the situation is determining if there  
534 is a system that can be operated remotely at some of the facilities as far as opening and closing  
535 the gates.

536  
537 Mr. Schiller stated that he would speak about projects that are near completion of the design  
538 phase and upcoming construction projects. He showed a picture of the Crozet flow equalization  
539 tank on the wastewater system in Crozet, which will be located next to the existing Pump Station  
540 #4. He stated that the intent of the tank is to shave off the peak of the wet weather events so as  
541 not to impact the capacity of downstream sewer systems as a result of that process. He stated that  
542 this was identified and confirmed as being needed during the 2016 study. He stated that it will  
543 have a one million-gallon capacity and there would be some improvements to the pump station  
544 as well. He stated that advertising is estimated to start Fall 2019 and that construction should  
545 begin Winter 2019, with an expected completion of 2021, and a budget of \$4.6 million.

546  
547 Mr. Schiller stated that for the South Rivanna and Observatory Water Treatment Plants, there are  
548 long-awaited overall improvements within this major project. He stated that it will increase the  
549 capacity of Observatory to 10 MGD and that this will be done through installation of plate  
550 settlers into two sedimentation basins, as well as rebuilding the filters. He stated that the  
551 backwash pumps will also be replaced, with a new building being created for them adjacent to  
552 the filter room. He stated that they will replace the settled water flume and build a new chemical

553 building. He presented a rendering of the new chemical building that will be located next to the  
554 existing chemical building.

555  
556 Mr. Schiller stated that for South Rivanna, there are general improvements that will be done  
557 there associated with the new chemical storage building for alum and fluoride, raw water and  
558 finished water pumping improvements, and the addition of two new filters. He stated that a new  
559 administration building will be constructed as well. He presented a rendering that showed the  
560 extension of the two additional filters onto the existing filter buildings, with new exits that will  
561 be necessary as a result of the extended area. He stated that construction would begin Winter  
562 2019 with a completion of 2023.

563  
564 Mr. Schiller stated that the estimated budget for the South Rivanna and Observatory project is  
565 \$40.5 million, which accounts for the option to add four additional GAC vessels at Observatory.  
566 He noted the capital budget hasn't been increased for that purpose, but it will likely be included  
567 as an alternate item in the bid to see what the cost would be, and then it would be brought to the  
568 Board to determine if it is a fair value.

569  
570 Mr. Schiller stated that for this project, they also performed a value engineering project in April  
571 of 2019. He explained that this was done in accordance with RWSA policy and that if a project is  
572 over \$5 million in total capital costs, a value engineering workshop is done. He stated that SEH  
573 is the design engineer and that they participated, as well as Hazen and Sawyer and others, over  
574 the course of four days, with multiple site visits to review field conditions. He stated that they  
575 came up with a number of enhancements and identified an amount just short of \$800,000 in cost  
76 savings, which included removal of a high service pump they felt they did not need.

577  
578 Dr. Palmer asked about the high service pump.

579  
580 Mr. Schiller stated that there was an option to have a fifth high service pump, explaining that it  
581 feeds the water into the urban system so that the treated water from the plant gets pushed into the  
582 system. He stated that it was determined that the fifth pump was not needed. He stated that they  
583 also made sure to size buildings appropriately to make sure they were not creating too much  
584 square footage, and so there were cost savings there as well. He stated that they also discussed  
585 optimizing HVAC needs and about which areas need or need not be conditioned, and that this  
586 also resulted in cost reduction.

587  
588 Mr. Schiller stated that in addition to cost reductions, enhancements and improvements were  
589 identified. He stated that there is a need to ensure an appropriate plant water supply for the plant  
590 water system at Observatory, as raw water is needed to make finished water. He stated that they  
591 also evaluated the power transfer process at South Rivanna and its open and close transitions to  
592 ensure the impact on operators is diminished when there is a loss of power and the plant has to  
593 be brought back into operation. He noted that these improvements will increase the overall value  
594 of the project.

595  
596 Mr. Schiller stated that the Route 29 pump station and North Rivanna transmission main will be  
597 used to provide a reliable and redundant source of water for the North Rivanna area. He  
98 mentioned the term "Kohls pump" which will be permanently replaced by this pump station, and

599 it will be a permanent transfer location for water from the more urban, South Rivanna side of the  
600 system up to the north system. He stated that it is located in the Hollymead Town Center and is  
601 part of the future development of what will eventually be the Airport Pressure Zone. He  
602 referenced the site plan, explaining where the ground storage tanks would be located as well as  
603 the booster pump. He stated that construction is anticipated to begin in Fall 2020 and completing  
604 sometime in 2022, noting that the design phase is just beginning for this project.

605  
606 Mr. Schiller stated that there were projects relating to dams and mentioned the Sugar Hollow  
607 Dam - Rubber Crest Gate Replacement and Intake Tower Repairs project. He stated that the  
608 rubber dam is 20 years old and at the end of its serviceable life, so it will be replaced. He  
609 presented a picture of when it was being installed, and the bladder in operation that would be  
610 replaced on top of the concrete structure. He stated that the intake tower would also be evaluated  
611 and addressing some of the issues associated with the tower. He stated that this work will start in  
612 Summer 2020, to be completed in 2021.

613  
614 Mr. Schiller stated that there would be gate repairs to the South Rivanna dam. He stated that this  
615 would either repair or replace the 36" slide gates at both the north and south gate locations. He  
616 stated that they would also work on improving access to the north tower, noting that it is  
617 daunting to currently access it and that they would devise some way to access it more safely. He  
618 stated that there will also be minor repairs associated with the concrete face of the raw water  
619 pump station. He stated that this was estimated to start in Summer 2020.

620  
621 Dr. Palmer stated that when the UVA Foundation did the erosion control at the Birdwood Golf  
622 Course, they used an erosion control matting that contains plastic. She stated that when she  
623 visited the site, there were a number of things trapped in it, including black snakes and small  
624 reptiles. She stated that there were many alternatives that exist for erosion control matting and  
625 that some of the UVA Foundation and UVA people had already been looking at alternatives, but  
626 they weren't requiring them at this point. She stated that she was told that they will, except for in  
627 certain situations where it is not appropriate, such as on steep slopes. She stated that the County  
628 stated that they would not use the plastic anymore, except in extreme situations where they have  
629 to.

630  
631 Mr. Mawyer stated that he would look into alternative materials. He asked Mr. Schiller to  
632 introduce his staff.

633  
634 Mr. Schiller introduced Michelle Simpson, Austin Marrs, Victoria Fort, and Dyon Vega.

635  
636 Mr. Mawyer recognized the staff, who made up the team who manages the projects, noting that  
637 they have about 60 projects they are currently working on in various phases. He stated that there  
638 was a lot of work going on in Engineering and Maintenance, explaining that this was the  
639 engineering side of that division.

640  
641 Ms. Galvin noted this was all based on building out the water supply plan, which was based on  
642 population buildup and numbers that were generated by AECOM. She asked when this took  
643 place.

644

645 Mr. Mawyer replied it was in 2010.

16

647 Ms. Galvin asked if there has been an update on the population numbers.

648

649 Mr. Mawyer replied that this was being done currently. He stated that they are receiving  
650 information from Weldon Cooper, County Planning, City Planning, and UVA.

651

652 Ms. Galvin asked if she could see the numbers from 2010 compared to the final buildout. She  
653 stated that this is becoming a major issue in the City regarding what their buildout number is.

654

655 Mr. Mawyer stated that RWSA goes by what those departments tell them, to a large degree.

656

657 Dr. Palmer stated that it was done every 10 years.

658

659 Mr. Mawyer agreed and stated that every 10 years, they measure how much water they have in  
660 the reservoirs, and they estimate the demand for the next 50 years and make sure there is enough  
661 water to cover that demand. He stated that there would be a report available to the Board  
662 sometime between December 2019 and Spring 2020.

663

664 Dr. Palmer noted the growth in the City has become a big part of this and responding to some of  
665 the changes that are being seen.

666

667 Mr. Mawyer stated that Ms. Simpson was working on this project and working to schedule  
668 meetings with all the parties involved.

669

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

671 Dr. Palmer stated that one of the members of the Board of Supervisors recently expressed  
672 concerns to her about the defunct RWSA structure near Lambs Road and was glad to find out  
673 that it would be removed. She stated that this brought up the question of if there is an inventory  
674 of other defunct infrastructure that some people may consider an eyesore.

675

676 Mr. Mawyer replied that they do plan to remove the structure.. He stated that they had two  
677 clarifiers on the Moores Creek plant and that they were crafting a plan to remove them. He stated  
678 that the old Mechums River pump station is defunct and needs to beremoved. He stated that there  
679 is a plan to get a preliminary estimate to remove all the facilities and when RWSA comes to the  
680 Board for the CIP in the Spring, they will see how the projects fit in the priorities and funding.

681

682 Dr. Palmer suggested that the ones that are in the urban areas and more visible would be higher  
683 priority.

684

685 Mr. Mawyer stated that the two on Lambs Road were evaluated along with School Facilities, and  
686 they agreed that they should be removed. He stated that there is a pump station there that needs  
687 to be rebuilt, along with easements for the Rivanna-to-Ragged Mountain pipeline.

688

689 Ms. Galvin recalled that there used to be regular reports about the condition of the algae blooms  
690 in the reservoirs and facilities. She stated that the reason this was coming up was reports about

70

691 domesticated animals ingesting river bacteria that is connected with the algae, becoming sick and  
692 dying. She asked if there was any understanding about how this is impacting the operations of  
693 RWSA and what is being done about this.

694  
695 Ms. Terry replied that RWSA's monitoring program is extremely proactive and because of that,  
696 when these events occur, they know that the reservoir had just been sampled to determine what  
697 was in it. She stated that the week prior, two treatments were done (one at Beaver Creek and one  
698 at South Rivanna), and that the one at South Rivanna tested for toxins associated with the blue-  
699 green algae because it was at a level that was much higher than the treatment level. She stated  
700 that the treatment level is 10,000 cells per milliliter and that it had gotten up to 65,000 at South  
701 Rivanna. She stated that toxins were tested at South Rivanna and that they did not have any hits.

702  
703 Mr. Mawyer asked how frequently this is monitored.

704  
705 Ms. Terry stated that they have it set up to monitor every other week (mainly for Beaver Creek  
706 and South Rivanna) and that Ragged Mountain and Totier can be more spread out. She stated  
707 that it has been weekly at Beaver Creek for awhile now, and they are upping the frequency on  
708 South Rivanna as well.

709  
710 Dr. Palmer stated that it was her understanding regarding the incident that was reported for Chris  
711 Greene Lake, the dog died the following day and the owner stated that the dog had been to Chris  
712 Greene Lake but that there was no direct correlation with anything that the dog ingested. She  
713 stated that it was out of an abundance of caution that the County decided to close it to test it. She  
714 asked if there was any update on Mint Springs.

715  
716 Ms. Terry replied that she did not, acknowledging that they were closed. She asked if Chris  
717 Greene is still open.

718  
719 Dr. Palmer replied that it is open. She stated that Mint Springs was closed down for the rest of  
720 the year. She stated that she was unsure if they found toxins, but they found algae. She wanted to  
721 know if they had come to a next step in the investigation.

722  
723 Ms. Terry replied that she did not know. She noted that regarding the dog that died after being in  
724 the Rivanna River, this was not an algae-related event but a different kind of illness.

725  
726 Mr. Mawyer stated that the reservoirs are regularly monitored for algae.

727  
728 **10. Adjournment**

729 **At 3:35 p.m., Dr. Palmer moved to adjourn the meeting of the Rivanna Water and Sewer**  
730 **Authority. The motion was seconded by Ms. Galvin and passed unanimously (5-0). Mr.**  
731 **Richardson and Ms. Hildebrand were absent from the meeting and the vote.**

732  
733  
734  
735  
736



737 Respectfully submitted,

38

739

740

741

742

743



---

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

