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2 **RWSA BOARD OF DIRECTORS**
3 **Minutes of Regular Meeting**
4 **February 25, 2020**
5

6 A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was
7 held on Tuesday, February 25, 2020 at 2:32 p.m. in the 2nd floor conference room,
8 Administration Building, 695 Moores Creek Lane, Charlottesville, Virginia.
9

10 **Board Members Present:** Lauren Hildebrand, Dr. Liz Palmer, Jeff Richardson, Lloyd Snook,
11 Dr. Tarron Richardson.
12

13 **Board Members Absent:** Gary O'Connell, Mike Gaffney.
14

15 **Rivanna Staff Present:** David Tungate, Lonnie Wood, Michelle Simpson, Austin Marrs,
16 Andrea Terry, Victoria Fort, Jennifer Whitaker, Scott Schiller, Betsy Nemeth, Liz Coleman, Bill
17 Morris, Dyon Vega, Katie McIlwee, Bill Mawyer.
18

19 **Attorney(s) Present:** Kurt Krueger.
20

21 **1. CALL TO ORDER**

22 Dr. Richardson called the February 25, 2020 regular meeting of the Rivanna Water and Sewer
23 Authority to order at 2:32 p.m.
24

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

26 *a. Minutes of Regular Board Meeting on January 28, 2020*

27 Dr. Richardson asked Board members if they had comments or changes.
28

29 **Dr. Palmer moved that the Board approve the minutes of the previous Board meeting. The**
30 **motion was seconded by Mr. Richardson and passed unanimously (5-0). Mr. Gaffney and**
31 **Mr. O'Connell were absent from the meeting and the vote.**
32

33 **3. RECOGNITIONS**

34 Mr. Mawyer stated there were no recognitions, but that he wanted to mention that Mr. O'Connell
35 had a conflict and could not be present, and therefore, Quinn Lunsford was designated as Mr.
36 O'Connell's alternate that day. He stated Mr. Lunsford could sit in and participate, but was not
37 allowed to vote on any items, nor participate in a closed session (noting there were no plans to
38 hold one). He stated Mr. Lunsford is the Director of Finance for the Service Authority.
39

40 **4. EXECUTIVE DIRECTOR'S REPORT**

41 Mr. Mawyer stated he had talked in the RSWA Board meeting about employees having the new
42 benefit of being members of the YMCA, and that he also showed a new employee orientation
43 video.
44

45 Mr. Mawyer stated Rivanna continues its work on the South Rivanna to Ragged Mountain
46 Reservoir water line easements, and dealing with the 12 private property owners. He stated there
47 is one that has accepted their offer, and that they have acquired one easement. He stated staff has

48 spent a great deal of time and has worked hard to meet with the property owners over the last 4-5
49 months. He stated appraisals and offers have been made. He stated at times, the property owners
50 want Rivanna to come stake out the easement to show them exactly where it is located. He stated
51 Rivanna has had tree experts come out to talk with the property owners about any damage,
52 removal, or replacement of trees in the easement, and mentioned fences as well.
53

54 Mr. Mawyer stated at times, the project may not seem like it is moving very quickly, but that
55 staff is doing a lot behind the scenes to bring it to a conclusion. He stated he would expect that
56 over the next 3-6 months, they would bring many of the easements to the conclusion of
57 acceptance or no acceptance.

58 Mr. Mawyer stated the Observatory Water Treatment Plant lease continues to move forward. He
59 asked Mr. Krueger if he had any information to offer on that.
60

61 Mr. Krueger replied that he had no updates since the last meeting. He stated UVA has Rivanna's
62 response to the three document drafts that they had prepared for Rivanna's review. He stated
63 except for the lease, the comments were relatively minor, and that they are waiting for UVA to
64 comment on these documents.
65

66 Mr. Mawyer stated UVA has asked Rivanna to make the leased property for the treatment plant
67 smaller on one side, and so they need to reevaluate the survey, acreage, and details that are
68 included in the lease language. He stated that there was nothing very significant, and that Ms.
69 Whitaker and her staff are working with UVA to get this done.
70

71 Mr. Mawyer stated that during the recent sustainability workshop, they heard about how
72 sustainability can work in the water, sewer, and solid waste world.
73

74 **5. ITEMS FROM THE PUBLIC**

75 Dr. Richardson opened the meeting to the public.
76

77 Ms. Sally Thomas stated she wanted Rivanna to know it was appreciated. She stated everyone
78 turns on their faucets and expect to have clean water, and for the water to be well cared for. She
79 stated what the Rivanna Authority has done from the days it was created is very important, and
80 that it was particularly important as the area faces more stress with climate change.
81

82 Ms. Thomas stated she was therefore very interested in the Rivanna to Ragged Mountain
83 Reservoir pipeline, and somewhat concerned about it being pushed back. She stated she realizes
84 that money pressure was coming in the other direction, but that it would be sooner rather than
85 later that they find themselves needing that kind of water assurance. She wished Rivanna luck
86 with the project.
87

88 Dr. Richardson closed the public comment portion of the meeting.
89

90 **6. RESPONSES TO PUBLIC COMMENTS**

91 Mr. Mawyer stated the results of the long-awaited water demand and safe yield study would be
92 brought to the Board next month. He stated they had thought this would happen in February, but
93

94 that they were not quite ready. He stated since Mr. O'Connell was not going to be present, they
95 decided to wait until March. He stated this will shed some light on when the community would
96 need more water, and that they have done a lot of projections of the County, City, and UVA
97 demand, as well as reservoir measurements.

98
99 Mr. Mawyer stated Ms. Thomas had mentioned moving back the pipeline. He explained that they
100 haven't moved it, and that it was on the same schedule that he would mention in the CIP
101 presentation which the Board discussed two years prior, regarding schedule Options B and C.

102 Dr. Palmer clarified that Ms. Thomas was saying that the pipeline would have already been in at
103 that point. She stated there was some very old history of when that was actually planned for.

104
105 Mr. Mawyer thanked Dr. Palmer for the clarification. He stated more information would be
106 brought forward next month, and that this could be a topic for discussion at that time.

107
108 Dr. Palmer asked who did the sustainability workshop.

109 Mr. Mawyer replied that it was Hazen Engineers.

110 Dr. Palmer asked if the firm has someone who specifically goes to workshops.

111 Mr. Mawyer stated they had several subject area experts from the East Coast to speak to topics
112 such as energy reuse, bioenergy, and different things that Rivanna can do from a sustainable
113 standpoint.

114 Dr. Palmer asked if there was an outline of the workshop.

115 Mr. Mawyer replied that he had the handout the firm provided for the training, if Dr. Palmer
116 would like to have it.

117 Dr. Palmer stated she would like to have the handout shared with the Board so she could see
118 what subjects were discussed.

119 Mr. Mawyer stated Rivanna intends to go to the next step with that information, now that they
120 have a better orientation on sustainability. He stated they received some more information on
121 greenhouse gases and emissions. He stated he and his staff would meet to consider where to go
122 from there, as far as a Master Plan or what projects they would pursue with a sustainability
123 initiative. He stated they were working on putting together a list of projects Rivanna was
124 working on, for the Board.

125
126 **7. CONSENT AGENDA**

127 a. *Staff Report on Finance*

128 b. *Staff Report on Operations*

129 c. *Staff Report on Ongoing Projects*

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141 d. *Staff Report on Wholesale Metering*

142
143 e. *Award of Nonprofessional Services Contract for Construction Visual Documentation Services;*
144 *Commonwealth Documentation, LLC*

145
146 **Dr. Palmer moved that the Board approve the Consent Agenda. The motion was seconded**
147 **by Ms. Hildebrand and passed unanimously (5-0). Mr. Gaffney and Mr. O'Connell were**
148 **absent from the meeting and the vote.**

149
150 **8. OTHER BUSINESS**

151 a. *Presentation: Proposed FY 2021 – 2025 Capital Improvement Plan*

152 Mr. Mawyer stated the five-year FY 21-25 CIP would be proposed to the Board. He stated the
153 basis of the CIP is through the Strategic Plan goal, which says that they will manage
154 infrastructure and Master Planning as one of their six Strategic Plan goals so that they can deliver
155 and maintain dependable infrastructure in a financially responsible way. He stated Ms. Jennifer
156 Whitaker and her staff did a great job pulling this together, with Mr. Lonnie Wood working on
157 the financial side.

159 Mr. Mawyer stated the five-year CIP includes 56 projects totaling \$135.2 million. He stated they
160 have \$106 million in water projects, which is about 80% of the CIP, and so this is a CIP that is
161 heavily-dominated by water projects. He stated wastewater projects were estimated at \$24.4
162 million, and then about \$4.8 million in what they call “All Systems” for technology and security
163 projects that support both water and wastewater.

164
165 Mr. Mawyer stated he met with Mr. Lunsford, Mr. O'Connell, Ms. Hildebrand, and Mr. Chris
166 Cullinan to preview the budget, as the sub-committee. He stated one topic that came up that he
167 wanted to talk to the Board about was the difference between the budget last year (FY 20-24)
168 versus the present year (FY 21-25). He stated last year, the budget was \$97 million, and this
169 year, it is \$135 million, which is about a \$38 million increase.

170
171 Mr. Mawyer stated he had a summary of reasons why this increase transpired. He stated that
172 first, Rivanna has what he calls a “rolling budget,” so that with each new year, the last year drops
173 out, and the new year comes in. He stated the FY 25 funding was for 14 existing projects that
174 were previously identified in other years. He stated they rolled into the budget at \$17.7 million.

175
176 Mr. Mawyer stated the RWSA Board approved increases to several significant projects. He
177 stated as recently as the previous month, the Board approved an increase in the budget of over \$8
178 million to the Observatory and South Rivanna Water Treatment Plants project that is under
179 construction. He stated part of this was adding more GAC treatment facilities at the Observatory
180 Water Treatment Plant, as they increased from 2 million gallons per day (mgd) to 6 mgd in GAC
181 treatment capacity at Observatory.

182

183 Mr. Mawyer stated there was a significant increase at the Beaver Creek Reservoir Spillway
184 Modification and Pump Station Project, of \$3 million. He stated \$1 million of that is due to the
185 restoration (with Mr. O'Connell's concurrence) of the hypolimnetic system, which is an
186 oxygenation system. He stated there are compressors that would be designed and built in the
187 pump station, and lines that would go out in the reservoir. He stated the lines oxygenate the
188 water and help to improve water quality, which reduces the algae issues and the need to use
189 algaecides as frequently (particularly in Beaver Creek Reservoir). He stated the additional costs
190 for these projects was about \$12 million.

191
192 Mr. Mawyer stated they pulled two projects forward in the CIP. He stated the first was Security
193 Enhancements that had been scheduled for 2026. He stated this was pulled forward to 2020-
194 2024, in large part with a renewed emphasis on security and the unfortunate incident in Virginia
195 Beach where employees were killed at that utility. He stated they pulled \$1.7 million forward
196 into the current five years so they can accelerate completion of those projects.

197
198 Mr. Mawyer stated they also pulled forward the Moores Creek Co-Generation Facility in which
199 they use methane gas from wastewater byproducts to power a co-generator which produces
200 electricity as well as heat, which is used in the digestion process. He stated the sludge is heated
201 in order to be more rapidly digested by microbial organisms. He stated this project was moved
202 forward, as this facility is currently not operational, and Rivanna wishes to get it back online.

203
204 Mr. Mawyer stated that many of these projects were moved out of the budget last year to reduce
205 costs to \$97 million for the FY 20-24 budget. He stated they felt that the two projects he
206 mentioned were priorities and they needed to be brought back into the current five year budget.

207
208 Mr. Mawyer stated they also added 11 repair and maintenance projects totaling \$4.7 million,
209 with most of them being at Moores Creek. He stated these projects were for exterior lighting, and
210 demolition of clarifiers and a silo that are no longer used. He stated they will be upgrading the
211 5KV electrical system (the primary electrical system for the plant), as those cables are 50 years
212 old and need to be replaced. He stated there would also be a few renovations at the facilities that
213 he would speak more about.

214
215 Mr. Mawyer stated collectively, these were the four major reasons the proposed 5-year CIP
216 budget increased from \$97 million to \$135 million.

217
218 Mr. Mawyer stated that on a broader scale, staff looked at the history of the CIP for Rivanna
219 from back in 2003 up until present time. He stated Rivanna had a CIP of \$31 million in 2003,
220 which went on a rapid trajectory for 5 years to get up to \$154 million in 2008. He stated it has
221 been substantially level since then, with an average CIP of \$144 million per five-year CIP. He
222 stated there was a budget spike in 2012, and that in 2019, there was a big year totaling \$154

223 million. He stated they then decreased the budget by moving projects out of the five-year
224 program to reach the 2020-2024 CIP of \$97 million.

225
226 Mr. Mawyer stated in the proposed 2021-2025 CIP, they were back to \$135 million, which was
227 just below the 20-year average of \$144 million. He stated this is a comparable budget, compared
228 to the history.

229
230 Dr. Palmer commented that this reflects how little was done in the earlier years, and that they
231 now have a lot of catching up to do. She stated the Authority has done a wonderful job putting in
232 many important projects.

233
234 Mr. Mawyer stated he appreciated this and the Board's support. He stated that from 2008, for the
235 last 12 or 13 years, they have been catching up with those projects that were deferred.

236
237 Mr. Mawyer stated the staff put together a 15-year construction plan, in 5-year segments. He
238 stated they forecasted \$80 million for the next 5 years (FY 26-30), and almost \$60 million in FY
239 31-35. He stated it was likely that by the time they get closer to those years, they will find that
240 more work is needed, and those budgets will increase. He stated they do have a significant 15-
241 year CIP of \$275 million.

242
243 Mr. Mawyer stated the major programs they focused on are upgrading the water treatment plants.
244 He stated there have been many discussions about those recently, and that there are three with
245 improvements under construction (South Rivanna, Observatory, and Crozet), which represent
246 \$52 million. He stated they have regulatory issues, such as the modifications to the Beaver Creek
247 Dam and Spillway. He stated they are trying to make sure they do not have wastewater
248 overflows, by building a flow equalization tank to support the Crozet wastewater system.

249
250 Mr. Mawyer stated they have been working with their colleagues at the County about exterior
251 lighting at Moores Creek that currently does not comply with the County ordinance, and so there
252 is a project to upgrade the exterior lighting.

253
254 Mr. Mawyer stated redundancy and resiliency is at the forefront, even nationally with the
255 American Water Infrastructure Act of 2018, which requires all utilities Rivanna's size to submit
256 a risk and resiliency plan by March. He stated they have a number of piping and pump station
257 projects that support those initiatives.

258
259 Mr. Mawyer stated there are always operation and maintenance projects. He stated they have
260 \$257 million in capital assets of building and equipment that they are responsible to maintain,
261 and so there is about \$11 million scheduled in the next 5 years for that work.

262

263 Mr. Mawyer stated there is some growth aspect, and Schenks Branch Wastewater Interceptor is a
264 project in the CIP. He stated there are discussions about getting that wastewater pipe replaced.

265
266 Mr. Mawyer stated Rivanna is adding more staff, and there is a renovation of what they call a
267 “duty station” in the CIP, as well as a renovation and addition to the Moores Creek
268 Administration Building.

269
270 Mr. Mawyer stated they continue to do a lot of master planning, and that at Moores Creek, they
271 are trying to master plan what the next generation of wastewater facilities will include as they
272 move from a 15 mgd plant to the next capacity increase (perhaps a 20 mgd plant).

273
274 Mr. Mawyer stated there is an Asset Management project underway to strategically manage
275 Rivanna’s facility assets, and that there is an IT Master Plan that is keeping IT projects on track.

276
277 Mr. Mawyer presented images of the South Rivanna and Observatory Water Treatment Plants,
278 noting that they would be under renovation. He presented an image of the solid waste side of the
279 Moores Creek facility. He stated this was the building where they process solids that come out of
280 the digestors, and that they are then spun in the centrifuge and loaded on a truck to be shipped to
281 Waverly. He indicated on an image of the sphere where they hold the methane gas from that
282 process. He indicated to a building that is the current co-generation facility where they have the
283 equipment that makes electricity for the plant and heat for the digestion process.

284
285 Mr. Mawyer presented some of the major projects from the Community Water Supply Plan. He
286 stated the Ragged Mountain Dam was completed in 2014 for about \$27 million. He stated they
287 are under construction at the South Rivanna Water Treatment Plant for \$17 million over the next
288 two years. He stated they have the Observatory Water Treatment Plant under construction,
289 costing about \$26 million. He stated there is the Ragged Mountain Reservoir to Observatory
290 Treatment Plant Pipeline that needs to be replaced, and that they plan to have this completed by
291 2026.

292
293 Mr. Mawyer presented an image of the new pump station that will serve two purposes: pump raw
294 water from the Ragged Mountain reservoir to the Observatory Treatment Plant, and pump raw
295 water from Ragged Mountain back to the South Rivanna Reservoir and its Treatment Plant. He
296 stated this pump station will support the South Rivanna to Ragged Mountain Raw Water Line
297 project, which is currently in the CIP to be completed between 2027 and 2040. He stated this is
298 an \$80 million project, according to the current estimate.

299
300 Mr. Mawyer mentioned the Central Water Line project. He stated he talks frequently about the
301 “three-legged stool,” required to have an adequate water system, one leg being water supply. He
302 stated the Authority has done a good job by adding capacity at the Ragged Mountain Reservoir.

303 He stated that capacity can be increased when they add 12 feet of water, and when they connect
304 the two reservoirs (SRR – RMR) with the pipeline, it results in increased water supply. He
305 stated they are now busy completing water treatment and upgrading the two major water plants
306 in the urban area (the second leg). He stated the third leg is water distribution, so they have to be
307 able to get the water out in the system at the proper pressures to the customers.

308

309 Mr. Mawyer stated the Central Water Line is a planned water distribution project, and that a
310 study would be completed this summer about where that pipeline will be located.

311

312 Dr. Palmer stated the South Fork to Ragged Mountain Raw Water Line was a project that the
313 Board of Supervisors was very interested in, and that the Albemarle County Service Authority
314 has agreed to take on the majority of that cost. She asked for the time it would actually take to
315 design and build this.

316

317 Mr. Mawyer replied that it would be 6-8 years. He stated they originally set up the four separate
318 schedule alternatives in 8-year segments, and that the project completion schedule could be
319 shorter than that, particularly after they have already built the Birdwood section of the pipeline
320 and studied the alignment so the design wouldn't take as long as starting from square one.

321

322 Dr. Palmer asked if they would have to design the sediment removal facility to provide
323 pretreatment.

324

325 Mr. Mawyer stated the pretreatment facility will need to be designed and would be located at the
326 South Rivanna Reservoir end of the system. He stated there will be a pump station there to pump
327 from Rivanna to Ragged, and then another pump station to pump water back to the South
328 Rivanna Treatment Plant, if needed.

329

330 Dr. Palmer asked Mr. Mawyer to give her an idea of how long the design would take. She stated
331 she wanted to make sure they were expressing to people that this is not something that can be
332 done right away.

333

334 Mr. Mawyer replied that they expect the design phase to take about 2 years.

335

336 Dr. Palmer asked if, at the very earliest, the RWSA Board agreed on the money issues, and they
337 started design in 2027, it would be a couple years before they were able to start construction.

338

339 Mr. Mawyer replied yes, adding that he would comment on that when he would speak to the debt
340 service curve, which is how they timed it so that the construction starts around 2030. He stated
341 the design would start 2-3 years ahead of that, and so the large costs of construction would occur
342 when the debt service is reduced and give them the debt service capacity.

343
344 Dr. Palmer stated this answered her question and that she wanted to be sure she was clear in
345 order to be able to communicate to people. She stated she knew a lot of people wanted to get
346 started on this sooner rather than later, which she agreed with, but that there were many factors
347 that needed to go in first.

348
349 Mr. Mawyer stated these factors included permitting, as well as property acquisition (which they
350 were currently working on).

351
352 Dr. Palmer stated other projects have to be done first, such as the pipelines they are putting in.

353
354 Mr. Mawyer stated there were two issues that they would talk more about next month. He stated
355 in the three-legged stool analogy, it was nice to have a lot of water at Ragged Mountain, but if
356 they cannot get it treated and distributed to the faucets, it has little value.

357
358 Mr. Mawyer stated the seventh and final project is to raise the Ragged Mountain Reservoir water
359 level 12 feet, which would add 600 million gallons of storage to Ragged Mountain, from 1.4
360 billion to 2 billion gallons. He stated this would add even more water supply.

361
362 Dr. Palmer stated it adds more water supply, but that it doesn't do what the pipeline is supposed
363 to do, which adds redundancy to the system and allows them to use the treatment plants in the
364 event that something happened.

365
366 Mr. Mawyer agreed. He stated they currently fill Ragged Mountain from Sugar Hollow
367 Reservoir in Free Union, and that it trickles at about 3.5 mgd. He stated with this new pipeline
368 and with the pumping capacity, they could transfer 25 mgd.

369
370 Mr. Mawyer stated South Rivanna Reservoir has the largest watershed of any of the reservoirs, at
371 259 square miles. He stated essentially all rain runoff which occurs west of Route 29 from
372 Greene County to Israel's Mountain in Batesville finds its way to the South Rivanna Reservoir.

373
374 Mr. Mawyer stated when it rains in the County, stormwater is captured in the South Rivanna
375 Reservoir, but not at Ragged Mountain. He stated they have the greatest water storage capacity at
376 Ragged Mountain, and so when there is a large storm, there will be water flowing over the
377 Rivanna dam on its way to the Chesapeake Bay. He stated this pipeline would allow them to
378 capture and transfer the rainwater from Rivanna to the larger Ragged Mountain Reservoir, which
379 could then be used at the upgraded water treatment plant at Observatory, as well as at the largest
380 water treatment plant (South Rivanna).

382 Dr. Palmer stated when Mr. Mawyer was talking about the mild drought that the area
383 experienced last fall, he stated it would take 90 days to fill the Ragged Mountain Reservoir from
384 the Sugar Hollow Reservoir, but that it would take 6 days to fill it with the new pipeline.

385
386 Mr. Mawyer stated this was correct.
387

388 Dr. Palmer stated she thought this was impressive.
389

390 Mr. Mawyer stated there is a significant difference in what their capability will be with the new
391 pipeline and pump stations, as compared to what they currently have now to transfer water to the
392 Ragged Mountain Reservoir.

393
394 Mr. Mawyer stated other projects that Rivanna would be working on include the South Rivanna
395 Dam Gate Repairs, which reflects back to 2017, when they had a low reservoir level and realized
396 that some of the dam gates were leaking. He stated they have been repaired, but that permanent
397 repairs would happen this summer.

398
399 Mr. Mawyer stated that next summer, the rubber crest gate on top of the Sugar Hollow Dam that
400 was installed over 20 years ago will need to be replaced.

401
402 Mr. Mawyer stated he mentioned Security Enhancements and that this was a big project that
403 includes getting a card reader access system on all facilities, including South Rivanna and
404 Observatory while they are under construction. He stated the card system will get people in to
405 our facilities , and if they have employees leave Rivanna, they can be removed from the
406 computer system to cure the access control issue.

407
408 Mr. Mawyer stated at Crozet, they plan to construct a wastewater flow equalization tank that will
409 be located near Route 250 and Route 240. He indicated on the map to where the tank would be
410 located. He stated this will be a wastewater storage tank needed because when rainwater gets into
411 the sewer system where it is not supposed to be, it can cause the system to be overcharged,
412 resulting in sewage coming out of manholes. He stated they would take the water out of the pipe
413 and hold it in the tank until the peaks recede in the wastewater system. He stated construction is
414 supposed to start this year and extend into 2021.

415
416 Mr. Mawyer stated Crozet wastewater is a part of the urban wastewater system, as opposed to
417 Crozet water not being a part of the urban water system. He stated Crozet has its own water
418 treatment, but that all the wastewater comes to the Moores Creek plant.

419
420 Mr. Mawyer stated the County has given Rivanna notice that their outside lighting does not meet
421 County standards. He stated there was a drone video taken a couple weeks ago at night, which

422 shows what the County is referring to. He stated there are many light fixtures that can be seen
423 from above that are somewhat glaring. He presented an image of the fixture they generally have,
424 which is designed to broadcast light at an angle to the ground as opposed to what the County
425 requirements call for. He stated there is a project for \$1 million and is committed to be
426 completed in two years to comply with County standards as well as to improve the security of
427 the facilities. He stated there will be an engineered design of the lighting system.

428

429 Mr. Mawyer played a video for the Board that gives a tour of the plant and Charlottesville at
430 night. He stated that though it was nice to see the lights, the County would say that the lights
431 should not be glaring as they are and do not comply with County lighting standards.

432

433 As the video played, Mr. Mawyer noted that there is water in all the aeration basins. He stated
434 security and safety are great concerns, as there are operators working all night taking samples.
435 He stated there must be adequate lighting for safety reasons.

436

437 Mr. Mawyer stated development is coming closer to the plant, which is another reason why they
438 need to have secure lighting. He indicated on the video to the new Willow Tree development.

439

440 Mr. Mawyer stated they were able to get good photographs from the drone as well.

441

442 Mr. Mawyer stated with regards to renovations at Moores Creek, there are two clarifiers that
443 have been out of service for five or ten years. He stated there is a new centrifuge in the solids
444 building, which serves like a dryer that takes the leftover solid residue from wastewater, spins
445 and dries it, and puts it on the truck. He stated in the past, the clarifiers were necessary because
446 the equipment was much slower, and they had to have storage capacity. He stated the clarifiers
447 are no longer needed and have been proposed for removal.

448

449 Mr. Mawyer stated there is a silo that used to store lime used to dry out the solids residuals that
450 is no longer needed and will be demolished.

451

452 Mr. Mawyer indicated on an image to the co-generation facility in a small building. He stated the
453 generator and the building need to be replaced. He stated they have about \$1.85 million set aside
454 for that.

455

456 Mr. Mawyer indicated to an image of the duty station, which is at the entrance to the plant. He
457 stated it used to be a pump station with a laboratory and some administrative space. He stated it
458 is now only used for electrical power for the Moores Creek pump station at the entrance of the
459 facility. He indicated to some of the electrical devices that are used there now. He indicated to
460 the old pumping equipment, explaining that they want to remove it, renovate the space, and put
461 staff in there (likely IT staff, with their equipment).

462
463 Mr. Mawyer presented an image of the conference room, explaining that they are proposing a
464 renovation of the room that will generally include all the ceiling, wall, furniture, and floor
465 finishes. He stated they would improve the technology in the room with speakers and monitors to
466 make it more user-friendly to the Board and to the public.

467
468 Mr. Mawyer stated in 2021, they would get started with construction near Airport Road for a
469 new water pump station that will be located near the tower seen at the Hollymead Town Center.
470 He stated in the distant future, there will be more water storage tanks on that site as well.

471
472 Mr. Mawyer stated Beaver Creek Dam modifications include, per regulations, passing over the
473 dam probable maximum precipitation. He stated the old requirement was to be able to pass 15
474 inches of rain in a day, and the new requirement is to pass 31 inches of rain in a day so that the
475 dam doesn't wash out. He presented the engineer's drawing, and the current grass spillway by
476 the County park area. He stated they propose to move the spillway into the center of the dam
477 across Brown's Gap Turnpike. He stated there will be a bridge there, and a labyrinth spillway.
478 He explained from the pictures presented how the water would go down the chute of the dam. He
479 stated these labyrinths allow more water to pass without having a wider spillway.

480
481 Mr. Mawyer presented an image of the existing raw water pump station that pumps water up to
482 the Crozet Water Treatment Plant. He stated this sits in the way of the new spillway, and so they
483 will look on the west side of the reservoir facility to acquire property and build a new raw water
484 pump station. He stated this is a large project funded entirely by the Service Authority.

485
486 Dr. Palmer asked again for the change in the requirement on passing rainwater.

487
488 Mr. Mawyer replied that the regulatory requirement increased from 15 inches to 31 inches per
489 day. He stated it was a significant increase, and that one might assume that it would never rain 31
490 inches in a day, but that Hurricane Camille in 1969 resulted in about that number of inches. He
491 stated the regulators were therefore not far off in making that requirement. He noted the dam in
492 Lynchburg was recently washed out, as well as one in California. He stated dam safety has been
493 a current and rising topic, and so the regulation was changed.

494
495 Mr. Snook asked if this was a federal or state regulation.

496
497 Mr. Mawyer replied that it was a state regulation.

498
499 Mr. Mawyer presented financial numbers to the Board, explaining that there was \$135 million
500 for the five-year CIP. He stated there is \$5.4 million in work in progress, and that they are using
501 debt proceeds that they already borrowed, as well as cash. He stated they estimate that they will

502 have \$82 million in new debt that they will need to finance the proposed five-year CIP. He stated
503 they are funding 13.5% of the CIP with cash, which exceeds Rivanna's financial policy that says
504 they would use 10% cash, and so they are using more cash than they would necessarily need to,
505 with 86% debt.

506
507 Mr. Mawyer stated they currently have \$200 million in debt, and that he would be speaking more
508 about this next month with the operating budget.

509
510 Mr. Mawyer stated Rivanna projects that the City charges from Rivanna will increase 5.7% in
511 the upcoming fiscal year, and increase 7.1, 7.2, 6.5, and 6.5% over the next five years. He stated
512 the Service Authority rates are projected to increase from 8.8 to 9.1, 8.7, 8.1, 7.6% over the next
513 five years. He stated their rates may be higher, in part, because of the work in Crozet. He stated,
514 80% of the pipeline from Rivanna to Ragged is funded by the Service Authority.

515
516 Mr. Mawyer stated Rivanna is using some cash to support the CIP, as mentioned. He stated when
517 they calculate the rates, it is not just for the proposed CIP construction projects. He stated they
518 also have to include their operating expenses to come up with a comprehensive cost and charge
519 to the two customers (Service Authority and City). He stated they have therefore included a 6.3%
520 increase in their operating budget for next year, which he would speak more about next month
521 when he presents the operating budget.

522
523 Mr. Mawyer stated they do anticipate issuing a revenue bond in 2021, and possibly 2-3 years
524 after that, depending on the rate of spending that occurs for construction projects.

525
526 Mr. Mawyer presented the debt profile, noting that it was shown to the Board in January 2018.
527 He stated the light green numbers, at that time, represented the existing debt profile, and that the
528 dark green was what they projected for the proposed CIP, including the pipeline from Rivanna to
529 Ragged.

530
531 Mr. Mawyer presented the current debt profile, noting it was very similar to that from the past.
532 He stated the debt cost has risen from \$15.7 to \$17.7 million per year. He stated that cost is
533 shared between the City and Service Authority.

534
535 Mr. Mawyer stated that around 2031 is when the debt service starts decreasing, and that is when
536 they have capacity to take on additional debt and maintain the same debt payment amount, which
537 is somewhat the basis of starting design in 2027 for the pipeline project. He stated in 2030, the
538 significant dollars would start to flow for construction, and they would have capacity for
539 increased debt at that time.

540

541 Mr. Mawyer summarized that Rivanna's proposed five-year CIP included 56 projects at \$135
542 million.

543
544 Dr. Palmer thanked Mr. Mawyer for the good work that the group does every year on the CIP.
545 She stated it was mind boggling to her how much infrastructure costs. She stated some of the
546 projects on the County side were dwarfed by Rivanna's projects.

547
548 Mr. Mawyer stated this was by design from the County and City to put the Authority together for
549 that purpose, to complete the large utility projects. He stated next month, he would be speaking
550 about the operating budget and expenses. He stated in May, he would ask the RWSA Board to
551 have a public hearing on the budget, and that the Board would approve the budget and adopt the
552 CIP at that time.

553
554 **9. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA**
555 There were none.

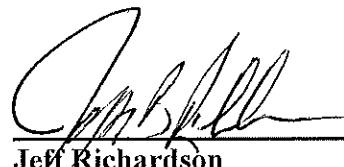
556
557 **10. CLOSED MEETING**

558 There was no closed meeting.

559
560 **11. ADJOURNMENT**

561 At 3:15 p.m., Dr. Palmer moved to adjourn the meeting of the Rivanna Water and Sewer
562 Authority. The motion was seconded by Mr. Richardson and passed unanimously (5-0).
563 Mr. Gaffney and Mr. O'Connell were absent from the meeting and the vote.

564
565 Respectfully submitted,



Jeff Richardson
Secretary - Treasurer