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4 **RWSA BOARD OF DIRECTORS**  
5 **Minutes of Regular Meeting**  
6 **April 25, 2017**  
7  
8

9 A regular meeting of the Rivanna Water & Sewer Authority (RWSA) Board of Directors was held  
10 on Tuesday, April 25, 2017 at 2:15 p.m. in the 2<sup>nd</sup> floor conference room, Administration Building,  
11 695 Moores Creek Lane, Charlottesville, Virginia.  
12

13 **Board Members Present:** Mr. Mike Gaffney – Chair, presiding, Ms. Kathy Galvin, Mr. Maurice  
14 Jones, Mr. Gary O’Connell, Dr. Liz Palmer and Mr. Doug Walker.  
15

16 **Board Members Absent:** None.  
17

18 **Staff Present:** Mr. Tim Castillo, Ms. Victoria Fort, Dr. Richard Gullick, Ms. Teri Kent, Mr. Doug  
19 March, Mr. Bill Mawyer, Mr. Scott Schiller, Ms. Michelle Simpson, Ms. Jennifer Whitaker and  
20 Mr. Lonnie Wood.  
21

22 **Also Present:** Ms. Lauren Hildebrand; Mr. Kurt Krueger, RWSA counsel; members of the public;  
23 and media representatives.  
24

25 **1.0 Call to Order**

26 The regular meeting of the RWSA Board of Directors was called to order by Mr. Gaffney on  
27 Tuesday, April 25, 2017 at 2:34 p.m., and he noted that a quorum was present.  
28

29 **2.0 Minutes of Previous Board Meeting**

30 *a) Minutes of the Regular Meeting of the Board on March 28, 2017*  
31

32 Mr. Gaffney asked if there were any changes or comments to the minutes. There were none  
33 provided.  
34

35 **Dr. Liz Palmer moved to approve the minutes of February 28, 2017 as presented. Mr.**  
36 **O’Connell seconded the motion, which passed 6-0.**  
37

38 **3.0 Recognition**

39 *a) Recognition of Staff Members Who Obtained Licenses*  
40

41 Mr. Mawyer recognized Jody Schwake, who completed the requirements to move from a Class 3  
42 to a Class 2 water plant operator; and Matthew Walker, who recently received his Class A  
43 commercial driver’s license (CDL), which would authorize him to operate heavy vehicles on the  
44 public highway.

45  
46 **4.0 Executive Director’s Report**

47 Mr. Mawyer reported that Rivanna continues to work on the Crozet Water Master Plan and would  
48 be interviewing firms the following week, with Mr. O’Connell of the Albemarle County Service  
49 Authority and Frank Pohl of the County serving on the committee as part of a joint effort to look  
50 at a long-range drinking water master plan for the Crozet water system. He stated that the rain had  
51 been beneficial and all reservoirs were full except for Ragged Mountain, which was about 1.2 feet  
52 low and about 95% full, with transfer continuing from Sugar Hollow until it was completely full  
53 – hopefully over the next few weeks. Mr. Mawyer noted that as a whole, the urban reservoirs were  
54 97% full.

55  
56 Mr. Mawyer said that Rivanna continues its community outreach, with the Communications  
57 Manager and Wastewater Manager giving a tour of the Moores Creek plant to 60 juniors and  
58 seniors from Charlottesville High School. He stated that Ms. Kent also gave a presentation on  
59 “how water works” to 85 third graders from Hollymead Elementary School, held at the  
60 Rivanna/UVA Rowing Complex. He added that Rivanna was moving forward with its strategic  
61 plan for the Authorities.

62  
63 Dr. Palmer asked what the plan was for operating the Ragged Mountain Reservoir in the  
64 summertime and how far Rivanna would let it go down before they stop the transfer from Sugar  
65 Hollow to Ragged Mountain.

66  
67 Mr. Gaffney asked whether Rivanna would stop transferring from Sugar Hollow once it filled  
68 Ragged Mountain Reservoir, or if Rivanna would continue to transfer as long as it was filled.

69  
70 Mr. Mawyer responded that Rivanna would intend to transfer a small amount to keep Ragged  
71 Mountain Reservoir full, because 1 MGD is typically pulled out each day for the Observatory  
72 Treatment Plan – but during all of these transfers, Rivanna was meeting the in-stream flow  
73 requirements of the Moorman’s River, and water could be overflowing the dam at Sugar Hollow.  
74 He stated that Rivanna has not established a specific drawdown level for the Sugar Hollow  
75 reservoir, which was recently down as much as 6 feet. Information from 2015 indicates the  
76 reservoir was drawdown 36 feet. Mr. Mawyer said that the drawdown would likely be between 6  
77 and 10 feet, but would depend on the summer weather and drinking water demand, since Sugar  
78 Hollow is a drinking water supply reservoir.

79  
80 Dr. Palmer asked for confirmation that Sugar Hollow was the first source, not Ragged Mountain  
81 Reservoir.

82  
83 Mr. Mawyer confirmed that it was, stating that Rivanna can only take a limited amount out of  
84 Ragged Mountain because the Observatory Treatment Plant normally only treats about 1 MGD –  
85 whereas the South Fork Rivanna Water Treatment Plant was treating 8-10 MGD. He stated that  
86 Rivanna needs more water coming from Sugar Hollow to the South Rivanna Reservoir, so that

87 would be the first source. He stated that Rivanna’s strategy is to hold Ragged Mountain as full as  
88 possible for as long as possible to address any drought, with Sugar Hollow and South Rivanna  
89 used first and Ragged Mountain used last.

90  
91 Dr. Palmer asked how long Rivanna could use a full Ragged Mountain in the summertime if it was  
92 not taking anything out of Sugar Hollow at all to go to Observatory, and taking 1 MGD from  
93 Ragged Mountain.

94  
95 Mr. Mawyer responded that there were 1.5 billion gallons in Ragged Mountain. He stated that  
96 within the water treatment plant options of North Rivanna, South Rivanna and Observatory which  
97 supply the urban area, there is redundancy which allows Rivanna to do some balancing and make  
98 strategic decisions about which water source Rivanna wants to use first. Mr. Mawyer said that the  
99 water from Sugar Hollow is flowing down the Moorman’s River and through the Rivanna  
100 Reservoir, across the dam, and is then gone – whereas Ragged is more static and the water is held  
101 there, and is not leaving as it does when passing over the South Fork Rivanna Reservoir dam. He  
102 stated that this was why Rivanna’s strategy is to use the water in Sugar Hollow and South Fork  
103 first and hold Ragged Mountain full, using it through Observatory, for as long as possible. Mr.  
104 Mawyer said that the community water supply plan includes constructing a pipe from the Rivanna  
105 reservoir to Ragged Mountain, with water pump stations at both locations, so Rivanna can pump  
106 from the Rivanna Reservoir to help fill Ragged Mountain, and when Sugar Hollow and South  
107 Rivanna water supplies were low, Rivanna could pump from Ragged Mountain to the South  
108 Rivanna Treatment Plant because it has the largest treatment capability at that plant.

109  
110 Mr. Gaffney said his understanding is that Rivanna would use 1 MGD while South Rivanna was  
111 spilling, and asked if we would then increase the use of Observatory Water Treatment Plant when  
112 South Rivanna stopped spilling.

113  
114 Mr. Mawyer responded that if there was not an adequate water supply from South Rivanna, we  
115 could increase production at the Observatory Water Treatment Plant, while holding Ragged  
116 Mountain water levels high for as long as possible.

117  
118 Dr. Palmer said that one of the reasons she asked was to see if the plan had changed at all, because  
119 when Rivanna did the water supply plan it was with the intention of keeping Ragged Mountain as  
120 full as possible all the time.

121  
122 Mr. Mawyer confirmed that it was the same operational plan.

123  
124 Ms. Jennifer Whitaker stated that as Rivanna developed the water supply plan, the safe yield  
125 optimization was geared towards being able to maximize use of the water in all of its various  
126 locations as a unit. She said that to do that based on the hydrology, topography, weather, and  
127 existing infrastructure, it almost has to be used in that order – otherwise Rivanna is just taking  
128 from one system to give it to another. Ms. Whitaker stated that if Rivanna uses the water at Ragged  
129 Mountain early in a drought and can’t get water there, it won’t be there to use when it’s actually  
130 needed. She added that there is some flexibility, but using the reservoirs completely out of order  
131 reduces their safe yield.

132

133 Dr. Palmer stated that the Board needs to be able to explain this, because they often receive many  
134 questions related to Sugar Hollow.

135  
136 Dr. Gullick said that an analogy might be a checking account and a savings account, and Ragged  
137 is the savings account – with the other sources serving more as checking accounts, with water  
138 flowing through. He stated that Rivanna would intend to keep Ragged Mountain full, but would  
139 not overflow Ragged when transferring water from the Sugar Hollow watershed over to Ragged  
140 and out, so the water stayed in its watershed other than what was taken for the community water  
141 supply.

142  
143 Dr. Palmer stated that this was a positive attribute, because 15 years ago, that was exactly what  
144 was happening.

145  
146 Dr. Gullick emphasized that Rivanna needs to focus on saving the water for drought situations,  
147 and hypothetically Ragged would be filled in the winter and used in the summer, and how full it  
148 would be would depend on how it uses the pipeline.

149  
150 Mr. Mawyer stated that staff would put together a presentation with some photos and graphics to  
151 illustrate how this works.

152  
153 Mr. Gaffney suggested that RWSA offer it to the Board of Supervisors and City Council also.

154  
155 Ms. Galvin noted that there were Council members who knew nothing of the history of the water  
156 supply plan.

157  
158 Dr. Gullick mentioned that it was important for everyone to understand that the purpose of Sugar  
159 Hollow is for drinking water and therefore the water level goes up and down. He stated that it filled  
160 very quickly because it is a small reservoir in a decent size watershed. He added that recreation  
161 was not its primary purpose.

162  
163 Mr. O’Connell asked if he thought the construction at the water treatment plants over the summer  
164 would change that.

165  
166 Mr. Mawyer responded that they have not gotten that deep into that analysis, but at present he did  
167 not see it changing anything.

168  
169 Ms. Whitaker agreed, stating that Rivanna had passed the most difficult parts of construction – the  
170 filter upgrades at South Fork – and those were all back in service at this point. She stated that it  
171 would likely be a day or a few days here and there, but not wholesale changes.

172  
173 **5.0 Items from the Public**  
174 There were no items from the public presented.

175  
176 **6.0 Responses to Public Comments – No Responses This Month**  
177 There were no responses to public comments this month.

178

179 **7.0 Consent Agenda**

180 a) *Staff Report on Finance*

181

182 b) *Staff Report on Operations*

183

184 c) *Staff Report on Ongoing Projects*

185

186 d) *Reimbursement Resolution – Capital Funding*

187

188 e) *Deposit Account Authorization*

189

190 f) *Contract Award – Term Contract Dam Engineering Services*

191

192 g) *Request for Easement from Dominion Virginia Power*

193

194 **Mr. Jones moved to approve the Consent Agenda as presented. Mr. O’Connell seconded the**  
195 **motion.**

196

197 Mr. O’Connell asked if Rivanna would need to use the fund surplus to make up the deficit with  
198 wastewater.

199

200 Mr. Wood responded that the reserve was there for instances like this in which Rivanna had to  
201 repair one of the clarifiers.

202

203 **The motion passed by a 6-0 vote.**

204

205 **8.0 Other Business**

206 a) *Presentation on the North Rivanna Water Treatment Plant*

207

208 Mr. Mawyer stated that he would continue the series of virtual tours of Rivanna facilities, stating  
209 that he would present the North Rivanna Water Treatment Plant. He said that the facility was  
210 constructed in the 1970s, and inside the building was the operator and controls to run the treatment  
211 process, the lab, filters, chemicals, and a clearwell where about 60,000 gallons of treated water  
212 was stored temporarily. He noted that this plant is one of three that serves the Urban Area. Mr.  
213 Mawyer stated that the plant was constructed in 1973 and had a current capacity of 2 MGD, getting  
214 its water from the North Fork of the Rivanna River. He said that there was additional storage and  
215 primary storage at the Piney Mountain Tank, which holds 750,000 gallons, and Rivanna only  
216 operates the plant during daytime hours, seven days per week. Mr. Mawyer noted the location of  
217 the treatment plant on a map provided, pointing out its proximity to 29 North, the U.S. Army  
218 facility, UVA Research Park, Airport Road and the Airport, and Forest Lakes. He stated that the  
219 North Rivanna plant can be accessed by going through the Camelot subdivision.

220

221 Mr. Mawyer mentioned that water from the North Rivanna Water Treatment Plant can flow south  
222 into the urban area primarily served by the South Rivanna Water Treatment Plant. He stated  
223 Rivanna can supply treated drinking water from the north to the south, but in order to get water to

224 go from the south to the north, it has to set up a temporary pump – which it puts near Kohl’s – and  
225 hooks it into the system, then pumps the water into the zone typically covered by North Rivanna.  
226

227 Mr. Mawyer stated that the North Rivanna Water Treatment Plant intake is on the North Rivanna  
228 River. There is a concrete dam that impounds the water behind the dam, with the intake structure  
229 in the river. He said that the North Rivanna Treatment Plant uses a conventional treatment process  
230 with a flocculation basin that is found at all water treatment plants, with alum added so that  
231 suspended solids settle out of the water in the sedimentation basins. Mr. Mawyer noted the location  
232 of the new granular activated carbon building for this plant. He stated that the operator workspaces  
233 inside the plant are not glamorous but are functional, and he pointed out the location where the  
234 operator sat. He said the operator does all of the onsite testing in the lab within the facility. Mr.  
235 Mawyer said the primary water storage facility was the Piney Mountain tank, located toward the  
236 west of the treatment plant. This was a 750,000-gallon tank, with the CIP including resources for  
237 some structural repairs and painting on the tank in the upcoming fiscal year.  
238

239 Mr. Krueger asked if that was raw water storage.  
240

241 Mr. Mawyer responded that it was finished water storage, and after it has been through the plant,  
242 it was pumped and held in the tank – then that feeds into the system and helps maintain the pressure  
243 in the system.  
244

245 Dr. Palmer asked if the water ever stopped going over the dam.  
246

247 Mr. Mawyer responded that in the summer, it does, and Rivanna took water from the pool behind  
248 the dam – as long as there was water there – but there were occasions when the North Rivanna  
249 River got very dry and needed to fill, then the water was pumped out and treated when the pool  
250 refilled.  
251

252 Dr. Palmer asked if North Rivanna had no in-stream flow requirements because it was  
253 grandfathered.  
254

255 Mr. Mawyer confirmed this.  
256

257 Dr. Palmer asked what would happen to that plant if Rivanna got in-stream flow requirements.  
258

259 Mr. Mawyer responded that it would render the plant unusable for a significant part of the summer.  
260

261 Ms. Whitaker stated that it would depend on what the in-stream flow requirements were, and in  
262 Virginia they are generally negotiated based on a series of models and other factors. She said that  
263 the 1970s and 1980s requirements were always a percentage of the water, but now they were  
264 modeled up and down based on the seasons – so there would be a negotiated in-stream flow  
265 requirement through the permitting process. Ms. Whitaker stated that during the 2002 drought,  
266 Rivanna would not have been able to use the plant.  
267

268 Mr. Mawyer pointed out that in-stream flow requirements usually mimicked the natural flow of

269 the river, so if there was little no water, it would not change their operating procedures – so Rivanna  
270 wouldn't be required to maintain water in the river because it couldn't if there was no water.

271  
272 Dr. Palmer commented that her understanding was that when you get to the moderate drought  
273 conditions, having the in-stream flow requirements actually helps the health of the river  
274 downstream from the treatment plant.

275  
276 Mr. Gaffney stated that he thought Rivanna would have to build a dam to be able to provide  
277 downstream flows during those times because it would have to have water.

278  
279 Mr. Mawyer said this would be to increase the impounding so Rivanna could serve the water  
280 supply and the river.

281  
282 Dr. Palmer stated that there were now in-stream flow requirements at Sugar Hollow and at South  
283 Fork, and asked if the plan was to use the North Rivanna water treatment plant in the indefinite  
284 future.

285  
286 Mr. Mawyer explained that Rivanna staff was working on a study to address that issue because  
287 there were three plants serving the Urban Area and it needed to be determined whether it is most  
288 effective to continue with that model or provide a different approach. He stated that possibly North  
289 Rivanna would be eliminated, as it is the smallest plant, and use of South Rivanna and Observatory  
290 would be increased. Mr. Mawyer commented that it was difficult to eliminate a facility that was  
291 already in operation, but Rivanna must consider all requirements.

292  
293 Mr. O'Connell asked what the pieces were for the 10-year CIP, with permanent movement of water  
294 from the urban system into North Rivanna Water Treatment Plant.

295  
296 Mr. Mawyer responded that the 29 North Pump Station was in the CIP, and the plan was to split  
297 the North Rivanna zone into two zones to help serve the areas better because the pressure was very  
298 high in that zone.

299  
300 Mr. Gaffney asked if the new tank by Hollymead was for the north system.

301  
302 Mr. Mawyer replied that it would help to create the two new pressure zones.

303  
304 **9.0 Other Items from Board/Staff not on Agenda**

305 There were no additional items presented.

306  
307 **10.0 Closed Meeting**

308 There was no closed meeting held.

309  
310 **11.0 Adjournment**

311  
312 **Mr. Jones moved to adjourn the RWSA Board meeting. Ms. Galvin seconded the motion,**  
313 **which was approved by a vote of 6-0.**

314

315 There being no further business, the meeting adjourned at 2:59 p.m.