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3 **RWSA BOARD OF DIRECTORS**
4 **Minutes of Regular Meeting**
5 **October 25, 2016**
6

7 A regular meeting of the Rivanna Water & Sewer Authority (RWSA) and a special meeting
8 Rivanna Solid Waste Authority (RSWA) Board of Directors was held on Tuesday, October 25,
9 2016 at 2:15 p.m. in the 2nd floor conference room, Administration Building, 695 Moores Creek
10 Lane, Charlottesville, Virginia.

11
12 **RWSA/RSWA Board Members Present:** Mr. Tom Foley, Mr. Mike Gaffney – Chair, presiding,
13 Ms. Kathy Galvin, Mr. Maurice Jones, Ms. Judith Mueller, Mr. Gary O’Connell (RWSA only) and
14 Dr. Liz Palmer.

15
16 **RWSA Board Members Absent:** None.

17
18 **RSWA Board Members Absent:** Mr. Trevor Henry.

19
20 **Staff Present:** Mr. Mark Brownlee, Mr. Tim Castillo, Ms. Victoria Fort, Ms. Teri Kent, Mr.
21 Doug March, Mr. Scott Schiller, Ms. Michelle Simpson, and Ms. Jennifer Whitaker.

22
23 **Also Present:** Ted Cole of Davenport & Company, members of the public, and media
24 representatives.

25
26 **1.0 Call to Order**

- 27
28 a) The regular meeting of the RWSA Board of Directors and a special meeting RSWA Board of
29 Directors was called to order by Mr. Gaffney on Tuesday, October 25, 2016 at 2:16 p.m., and
30 he noted that a quorum was present.
31 b) Mr. Gaffney stated that the first item on the agenda was the appointment of Bill Mawyer, Jr.
32 as the new Executive Director of the Rivanna Water and Sewer Authority and Rivanna Solid
33 Waste Authority.

34
35 **Ms. Mueller moved to appoint Mr. Bill Mawyer, Jr., as Executive Director of the Rivanna**
36 **Water and Sewer Authority and Rivanna Solid Waste Authority at a base annual salary of**
37 **\$177,500 with an additional annual \$5,000 contribution to be included for participation in**
38 **the Deferred Compensation Plan – for a total base compensation of \$182,500 per year. This**
39 **appointment will be effective November 2, 2016. Dr. Palmer seconded the motion, which**
40 **passed unanimously (7-0).**

41
42 Mr. Gaffney read the following statement:

43
44 Bill Mawyer has been the Assistant Director of the Public Utilities Department in Henrico County,
45 Virginia for the last 15 years. In this position, he was responsible for the treatment of drinking
46 water and wastewater as well as refuse and recycling services for the 320,000 residents of Henrico
47 County.

48
49 Bill's career extends over 30 years and includes service with the Naval Facilities Engineering
50 Command in Norfolk, Facilities Management at the University of Virginia, and the Engineering
51 and Public Works Department in Albemarle County.

52
53 The Board is pleased to welcome Bill back to our community. He is very knowledgeable and
54 experienced in water and wastewater as well as solid waste which we feel has prepared him well
55 for this leadership role. We believe Bill's strong engineering and utility management experience
56 make him a great fit to lead Rivanna into the future.

57
58 **2.0 Minutes of Previous Board Meetings**

- 59
60 a) *Minutes of the Regular Meeting of the RWSA Board on August 23, 2016*
61 b) *Special Joint Meeting Minutes August 15th, 2016*
62 d) *Special Joint Meeting Minutes September 22, 2016*
63 e) *Special Joint Meeting Minutes September 30, 2016*
64

65 Mr. Gaffney asked if there were any changes or comments to the minutes.
66

67 Mr. Wood stated that at the meeting of August 15, 2016, Ms. Galvin had left early and didn't
68 certify the closed meeting, so that is part of this meeting's agenda and will need to be noted within
69 minutes of this meeting the confirmation of the closed meeting. Ms. Galvin stated that she had
70 reviewed the certification resolution following the closed meeting and for the record approved that
71 certification with respect to the portion of the closed meeting that she attended.
72

73 Mr. Foley stated that he had missed the meeting of September 22, 2016.
74

75 **Dr. Palmer moved to approve the minutes as presented. Mr. Jones seconded the motion,**
76 **which passed 6-0, with Mr. Foley abstaining from approval of the September 22 meeting**
77 **minutes.**

78
79 **3.0 Recognition**

80
81 There were no recognitions.
82

83 **4.0 Executive Director's Report**

84
85 There was no Executive Director's Report.
86

87 **5.0 Items from the Public**

88

89 No items from the public were presented.

90

91 **6.0 Responses to Public Comments – No Responses This Month**

92

93 There were no responses to public comments.

94

95 **7.0 Consent Agenda**

96

97 *a) Staff Report on Finance*

98 *b) Staff Report on Operations*

99 *c) Staff Report on Ongoing Projects*

100 *d) Change Order – Upper Schenks Branch Interceptor*

101

102 **Mr. O’Connell moved to approve the Consent Agenda as presented. Dr. Palmer seconded**
103 **the motion, which passed by a 7-0 vote.**

104

105 **8.0 Other Business**

106

107 *a) Bond Issue – Davenport*

108

109 Mr. Wood reported that with the odor control project well underway, Rivanna has been looking at
110 various mechanisms for funding, including a “bank qualified loan,” which Ted Cole of Davenport
111 & Company would explain.

112

113 Mr. Ted Cole addressed the Board and presented several options for securing project financing, all
114 of which would have been part of the guiding document for bond issuance – a trust indenture –
115 which spells out how the mechanisms work, rates and charges. He said that in the past, the
116 investment structure has been that a bank buys a single bond from Rivanna that is secured by water
117 and sewer revenues, with one investor for that bond. Mr. Cole stated that as part of this process,
118 Davenport solicited proposals from banks and other financial institutions for \$10 million over 15
119 or 20-year terms at a fixed rate. He said that three proposals came back, including Carter Bank &
120 Trust, BB&T Government Finance, and Capital One – all of which are experienced with debt
121 issuance to localities and authorities.

122

123 Mr. Cole stated that one of the options provided was for an interest rate quote based on a bank-
124 qualified bond or loan, which means that the RWSA can only designate up to \$10 million under
125 that status in one calendar year. He said that the \$10 million limit resets on January 1, and if
126 Rivanna moves forward with this \$10 million, they would close bank-qualified options for this
127 calendar year, but it would reopen in 2017. Mr. Cole stated that this allows some lenders to provide
128 a more attractive interest rate. Carter Bank & Trust will offered bids under the bank-qualified
129 designation only; BB&T offered the term of 15 years and offered a 2.17% rate with the designation
130 or 2.40% without it. He said that lenders carrying the bank-qualified loan receive favorable tax
131 treatment on the interest earned, which is an incentive for them, but Capital One does not provide
132 a rate advantage for it.

133

134 Mr. Wood pointed out that there is more efficiency and less information required under a bank-
135 qualified loan than with a regular bond issue – including no requirement for an engineer’s report
136 that supports it, which helps with total bond issuance costs.

137
138 Mr. Cole stated that they have the ability to prepay the Carter Bank & Trust loan without penalties,
139 with complete flexibility to pay it down ahead of time, and their only other requirement is that it
140 close before December 9. He noted that the rates of 1.90% or 2.35% are fixed for the entire term
141 of 15 or 20 years – 15 or 20 years – and would not require a bond rating on a continuing disclosure
142 commitment, just Rivanna’s annual audit report. He said that typically with VRA or public bond
143 markets, there is a 10-year no-call period that locks a borrower out of refunding – but that is not
144 the case here. Mr. Cole noted that at this point, these rates are locked in, and should the RWSA
145 Board choose to move forward on November 15, they would get the money on the closing date
146 and those funds would be available for project costs. He said that the loan would function as any
147 other loan outstanding, with interest paid twice per year and principle once a year, and liens on the
148 revenues like any other piece of debt – which needs to be calculated into Rivanna’s rates and
149 charges, as Mr. Wood has done.

150
151 Mr. Cole reported that Davenport had done a quick comparison with another AAA-bond issuer on
152 a 20-year term, and their true interest cost based on the current market was about 2.63%. He stated
153 that the bond issue is a good comparable at 2.35%, in addition to having a streamlined
154 administrative process. He referenced the comparable bond issuances bid on, with a \$10 million
155 loan including \$100,000 cost of issuance and \$9.9 million for projects, noting that the information
156 provided includes the breakdown of annual payments for 15 and 20-year terms. Mr. Cole stated
157 that at their November 15 meeting, there would be a series of resolutions for the Board to approve
158 to select the winning bank, with a potential closing date of December 1.

159
160 Mr. Wood mentioned that Rivanna has never done a 15-year bond on debt before, they have always
161 done 20 or 30 year bonds, and the cost savings over the term would likely be less than the \$1
162 million stated as shown here when the time value of money is taken into account. He stated that
163 he likes to reserve potential cash flow for future bond issue and thus would probably recommend
164 a 20-year term.

165
166 Mr. Cole said that they could provide a present-value of the different cash flows of the two terms
167 to give a sense of what the cost difference would be.

168
169 Mr. Wood stated that once you start saving money, the dollar is worth less at the end of the term,
170 which a present value calculation will show by restating the future cash flow savings in today's
171 dollars.

172
173 Mr. Cole noted that with either bond structure, a 15 year is less than 2% fixed for the entire term,
174 and at 20 years it’s 2.35%. He said that Rivanna has benefitted from refunding under restructured
175 debt with VRA, and while interest rates have edged up lately, they are still quite favorable.

176
177 Mr. O’Connell asked if the budget accommodated this debt, and whether this would save money
178 in debt service.

179
180 Mr. Wood responded that this was considered in the CIP projections along with all capital projects,
181 and wastewater has \$20 million earmarked for financing new projects. He said that these good
182 rates would save money, and as projects are added to the CIP it would take some of those savings
183 – which is why they reset the projection every year when doing the CIP. Mr. Wood said there was
184 a \$120,000 savings in the rate reset done in August. There isn't a saving but a reduced rate of
185 increases for wastewater's fixed charges over what was previously estimated.

186
187 Mr. O'Connell noted that the ACSA had used the bank-qualified process for some of its financing
188 and that these were very good rates.

189
190 *b) Hydropower Evaluation*

191
192 Mr. Schiller presented to the board options regarding the hydropower facility at South Fork
193 Rivanna Reservoir. He began by providing some background information on the hydropower
194 facility: it was built in 1987 and has a rate capacity of just under 1 megawatt. He stated that there
195 is an exemption to licensure from FERC to operate the facility, and it was operational for a limited
196 amount of time prior to June 2013 when there was a major flooding event. Mr. Schiller said there
197 were some mechanical issues associated with the speed reducer and the generator prior to that
198 time, and some of the electric and hydraulic equipment was coming to the end of its operational
199 life – but the flooding issue made it permanently inoperable. He stated that as a result of those
200 issues and inquiries from FERC, Rivanna hired the firm Gomez & Sullivan to perform a feasibility
201 study on how the facility could be rehabbed and improved to get it back into operation. Mr. Schiller
202 said that the firm looked at what would be needed in equipment, the costs, economic feasibility of
203 performing that work, and regulatory approvals needed for a number of different approaches.

204
205 He stated that Gomez & Sullivan visited the site and did their own inspection and also worked
206 with a specialty contractor to look at the mechanical issues – and through that effort identified a
207 need of approximately \$2.2 million to bring the facility up to operable standards. Mr. Schiller said
208 that the firm looked at nine different economic scenarios, and only four of them resulted in a
209 positive return on investment over a 30-year life cycle. He noted that three of the four positive
210 scenarios had the highest energy escalation rates – 3%, 4%, and 5% – and as a result of those less
211 than ideal economic results, Gomez & Sullivan provided three options.

212
213 Mr. Schiller reported that the first option is to rehabilitate and operate the facility, which would
214 include replacement of electrical and hydraulic equipment, with a full overhaul of the mechanical
215 turbine, with addition of some remote operation capabilities. He stated that the second option was
216 to surrender the exemption from licensure from FERC and decommission the facility, which would
217 involve a petition to FERC and some procedural requirements for long-term storage. Mr. Schiller
218 reported that the third option involves transferring the exemption to a third party, which would be
219 required to meet all responsibilities to rehabilitate the facility and perform the operations and
220 maintenance work. He noted that there would be an agreement in terms of release of water supply
221 and coordination with Rivanna staff for access to the facility.

222
223 Mr. Schiller reported that option one would provide an offset in terms of energy generation, with
224 hydroelectric considered “green energy,” and Rivanna would control the release of the water

225 supply. He stated that negative aspects of this option are the unlikelihood of a positive return on
226 investment, and possible environmental concerns because the hydro pulls cold water from the
227 bottom of the reservoir which has a lower dissolved oxygen (DO), which could have impacts
228 downstream. Mr. Schiller said that putting the facility back in operation would also add strain to
229 operations and maintenance staff to make sure it is effectively used. Mr. Schiller stated that
230 decommissioning the facility would allow Rivanna to wait until it is more economically feasible
231 to operate it. He said that they had some concerns as to whether a third party can come in and take
232 over the facility, but based on legal review, they don't believe that is an issue – and the property
233 belongs to the City of Charlottesville, so only the City and Rivanna have the rights to use it. Mr.
234 Schiller said that once they got through the decommissioned plan, they would no longer be under
235 FERC regulation. He stated that one negative aspect of this option is the need to work with FERC
236 on the decommission plan as well as following through with all the necessary steps, and the
237 opportunity lost by not generating energy from this site. Mr. Schiller emphasized that there would
238 be costs associated with a decommissioned plan, but nowhere near the cost of rehabbing.

239
240 Mr. O'Connell asked how much of the water treatment plant energy needs would be addressed
241 through hydropower.

242
243 Mr. Schiller responded that he did not know specifically, but on average they generated about
244 3,300 megawatt hours per year at the hydropower plant.

245
246 Ms. Galvin asked if it could be offset with solar.

247
248 Mr. Schiller responded that he thought it probably could.

249
250 Mr. Schiller reported that the third option would relieve Rivanna of maintenance and operational
251 responsibilities, and green energy would be generated. He stated that Rivanna would still own the
252 dam and have to deal with FERC regulations, would have to develop a third-party agreement as
253 well as releasing the water supply, grant third-party access to the facility, and coordinate with
254 maintenance and operations staff when necessary. Mr. Schiller said that in general, there would be
255 no benefit to Rivanna with this option. He stated that in general, there are some environmental
256 concerns as there may be impacts downstream with the release of colder water with lower
257 dissolved oxygen in comparison to the water that typically spills over the dam – which is warmer
258 and more oxygenated. Mr. Schiller said that there are also considerations related to the water
259 supply itself, as the minimum flow to get a turbine to spin a generator is 45 MGD, which is quite
260 larger than the minimum requirements – and any stress to the water supply would be exacerbated
261 in low-water situations. Mr. Schiller stated that the third consideration is impact on maintenance
262 and operations staff, and while Rivanna would try to increase remote operations capabilities, it
263 would require additional support to effectively use the facility.

264
265 Mr. Schiller said that based on the Gomez & Sullivan report, legal assistance, and input from staff,
266 Rivanna is recommending going with option two, which is surrendering the exemption and
267 decommissioning the facility. He noted that the decommission plan would include cleaning up the
268 facility from its current state, removal of electrical equipment, and “mothballing” mechanical
269 equipment for long-term storage. Mr. Schiller pointed out that the engineers have indicated that
270 the equipment could stay in its current condition indefinitely. He said that the Penstock is the

271 largest line providing water to the hydro unit, and there is some leakage of water through an
272 isolation gate, so that would be repaired in the process to prevent water from going through the
273 line that could affect the turbine. Mr. Schiller stated that as the energy industry changes, Rivanna
274 could keep track of the economic feasibility of performing this work – and could rehabilitate and
275 operate the facility once it became economically feasible.

276
277 Ms. Mueller stated that being from Niagara Falls, she is a big proponent of hydropower, but she
278 supports option two and is amazed at the deterioration of the facility. She said there may have been
279 a time when they could have done this, but perhaps they should focus instead on solar energy to
280 power the plant.

281
282 Dr. Palmer said that option two seems to be the only way to go, but she wondered if building a
283 hydropower plant today would be the same in terms of its construction and parts.

284
285 Mr. Schiller responded that the turbine itself had not changed much, although there may be some
286 changes in equipment, and if they had a brand new unit they might decrease the capacity so it could
287 run more frequently – as one of the issues now is potential impact on the water supply, with a
288 minimum release of 20 MGD. He stated that the reason that wasn't included in his report is because
289 it would require a whole new FERC permit, as it would be a modification to the exemption.

290
291 Dr. Palmer asked why the facility had flooded previously.

292
293 Mr. Schiller responded that the throw ring on top of the turbine had been opened up to work on
294 the turbine, and there was a big wet weather event that caused the river levels to increase. He stated
295 that there was a means to install stop gates on the downstream side of the plant, but they were not
296 installed – so this allowed backwater to come in. Mr. Schiller noted that this would be resolved if
297 the plant was opened again in the future.

298
299 Ms. Galvin asked if the reason this would be visited when the industry changed was because oil
300 prices were so low.

301
302 Mr. Schiller responded that this was the reason, and the wholesale rates Rivanna pays Dominion
303 are pretty good – so to get a decent buyback, they would need to pay more. He added that there is
304 also not a market in Virginia for renewable energy credits, and the thought is that if the energy
305 market matures, there may be more incentive to use hydropower.

306
307 Mr. Gaffney commented that the projection that caused it to have a positive rate of return was a
308 5% yearly energy escalation rate.

309
310 Mr. Schiller said that was over 30 years.

311
312 Mr. Wood noted that the break-even point was even beyond that, and it becomes less predictable
313 as you get further out.

314
315 Mr. Schiller stated that out of the four positive scenarios, the one with the earliest break-even was
316 23 years, with the others being 29 and 30 years.

317
318 Mr. Wood mentioned that when the dam was built, it never stopped spilling – and now that it has
319 stopped, it makes it a challenge to operate this type of facility.

320
321 **Ms. Mueller moved to accept option two to surrender the exemption and decommission the**
322 **facility, with staff relieved of pressure to meet a particular timeframe, since the process can**
323 **often take a very long time. Mr. Foley seconded the motion, which passed 7-0.**

324
325 Mr. Schiller noted that it could be two or three years.

326
327 Mr. O’Connell said that he would like to reflect in the record that staff should explore other green
328 alternative energy sources in the future, so that this doesn’t get lost. He commented that they are
329 giving that up and he recognizes that there are a lot of other capital projects pending, and he wanted
330 to provide that guidance to staff.

331
332 Ms. Galvin mentioned that they would soon be developing a strategic plan.

333
334 Ms. Whitaker emphasized that the RWSA still has green renewable energy at the plant, and the
335 staff sees a long-term commitment to more sustainable energy production at all Rivanna facilities.
336 She added that there may be potential with solar, waste reuse, etc. – and that was not lost on staff.

337
338 Dr. Palmer asked what the grant opportunities were for an organization like Rivanna.

339
340 Ms. Whitaker responded that the grant availability and financing potential for hydropower came
341 out of the 1970s, and there wasn’t a lot available now – as a lot of the money was focused towards
342 nutrient removal. She said that the industry as a whole was pushing towards energy neutral, and
343 she saw that expanding in the future.

344
345 Mr. Foley stated that if they started with a broader statement as part of the strategic planning
346 process, it becomes a standard practice/principle rather than a decision every time something
347 comes up, and this should also carry into the CIP.

348
349 Ms. Galvin said this should be a fairly early order of business for Rivanna in the coming year.

350
351 **9.0 Other Items from Board/Staff not on Agenda**

352 Mr. Gaffney recognized Mr. Wood for his work as Interim Executive Director, and asked Board
353 members to make a motion granting Mr. Wood a bonus of \$5,000 for his work. He stated that Mr.
354 Wood’s temporary pay would end November 11, 2016 to coincide with Rivanna’s regular pay
355 period.

356
357 **Dr. Palmer moved to grant Mr. Wood a bonus of \$5,000 for his work as Interim Director,**
358 **and for his term to end November 11, 2016 to coincide with Rivanna’s regular pay period.**
359 **Mr. Jones seconded the motion, which passed 7-0.**

360
361 Ms. Galvin complimented Mr. Wood for his knowledge, ability, and expertise – particularly in
362 terms of finance.

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10.0 Closed Meeting

There was no closed meeting held.

11.0 Adjournment

Ms. Galvin moved to adjourn the RWSA Board meeting. Mr. Foley seconded the motion, which was approved by a vote of 7-0.

There being no further business, the meeting adjourned at 3:04 p.m.

Respectfully submitted,

Mr. Thomas C. Foley
Secretary-Treasurer