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RWSA BOARD OF DIRECTORS
Minutes of Regular Meeting
July 26, 2022

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, July 26, 2022 at 2:15 p.m. via Zoom.

Board Members Present: Mike Gaffney, Jeff Richardson, Michael Rogers, Brian Pinkston, Ann Mallek, Lauren Hildebrand, and Quin Lunsford, attending as alternate for Gary O'Connell.

Board Members Absent: Gary O'Connell

Rivanna Staff Present: Bill Mawyer, Lonnie Wood, Jennifer Whitaker, Deborah Anama, David Tungate, John Hull, and Jeff Southworth.

Attorney(s) Present: Carrie Stanton

1. CALL TO ORDER

Mr. Gaffney called the July 26, 2022, regular meeting of the Rivanna Water and Sewer Authority to order at 2:15 p.m.

2. STATEMENT FROM THE CHAIR

Mr. Gaffney read the following statement aloud:

"This is Mike Gaffney, Chair of the Rivanna Water and Sewer Authority. I would like to call the July 26, 2022 meeting of the Board of Directors to order.

"Notwithstanding any provision in our Bylaws to the contrary, as permitted under the City of Charlottesville's Continuity of Government Ordinance adopted on March 7, 2022, Ordinance number 0-22-029 Albemarle County's Continuity of Government Ordinance adopted on April 15th, 2020, and revised effective November 4, 2020, Ordinance number 20-A16 and Chapter 1283 of the 2020 Acts of the Virginia Assembly effective April 24, 2020, we are holding this meeting by real time electronic means with no Board member physically present at a single, central location.

"All Board members are participating electronically. This meeting is being held pursuant to the second resolution of the City's Continuity of Government Ordinance and Section 6 of the County's revised Continuity of Government Ordinance. All Board members will identify themselves and state their physical location by electronic means during the roll call which we will hold next. I note for the record that the public has real time audio-visual access to this meeting over Zoom as provided in the lawfully posted meeting notice and real time audio access over telephone, which is also contained in the notice. The public is always invited to send questions, comments, and suggestions to the Board through Bill Mawyer, the Authority's Executive Director, at any time."

Mr. Gaffney called the roll.

Ms. Lauren Hildebrand stated she was located at 305 4th Street Northwest in Charlottesville, VA.

Ms. Ann Mallek stated she was located 4826 Advance Mills Road in Earlysville, Albemarle County. She stated there were 3/10 of an inch in her rain gauge because the rain came down sideways.

Mr. Quin Lunsford stated he was located at the ACSA administrative complex at 168 Spotnap Road, Charlottesville, VA.

Mr. Brian Pinkston stated he was located at 575 Alderman Road in Charlottesville, VA.

Mr. Jeff Richardson stated he was located at 401 McIntire Road in Charlottesville, VA (County Office Building).

Mr. Michael Rogers stated he was located at 605 Main Street, Charlottesville, VA (Charlottesville City Hall).

Mr. Mike Gaffney stated he was located in Quebec, Canada.

Mr. Gaffney stated the following Authority staff members and consultants were joining the meeting electronically: Bill Mawyer, Lonnie Wood, David Tungate, Jennifer Whitaker, John Hull, Jeff Southworth, Deborah Anama, Catherine Carter, and Darin Thomas.

Mr. Gaffney stated they were also joined electronically by Ms. Carrie Stanton (Williams Mullen), Counsel to the Authority.

3. AGENDA APPROVAL

Mr. Gaffney asked if there was a motion to approve the agenda.

Ms. Hildebrand moved that the Board approve the agenda. The motion was seconded by Mr. Pinkston and passed unanimously (6-0).

4. MINUTES OF PREVIOUS BOARD MEETING

a. Minutes of Regular Board Meeting on June 28, 2022

Mr. Gaffney asked if there were any comments, questions, or changes to the Board minutes. Hearing none, he asked if there was a motion to approve the minutes.

Mr. Rogers moved that the Board approve the minutes of the June 28, 2022 meeting. The motion was seconded by Ms. Mallek and passed unanimously (6-0).

5. RECOGNITIONS

There were no recognitions.

6. EXECUTIVE DIRECTOR'S REPORT

Mr. Mawyer stated the area received about 1.7 inches of rain yesterday. He stated another

important metric that they monitored was the South Rivanna Reservoir and whether or not water was flowing over the dam, which it had been for quite a while. He stated as of this morning, there were about eight inches of water flowing over the dam, which they approximated to be about 55 million gallons per day. He stated they monitored the South Rivanna Reservoir because as long as that was overflowing, they were taking most of the water from the South Rivanna Reservoir and not from Ragged Mountain Reservoir. When South Rivanna stopped overflowing, that was when they switched priorities and removed water from the Ragged Mountain Reservoir in order to conserve water in the South Rivanna Reservoir.

Mr. Mawyer stated he wanted to recognize two employees. He stated that Maurice Whitlow recently obtained his Class A commercial driver's license, which was due to the new federal requirement that an independent certifier be used for certifying employees for CDL license. He stated they went through the Piedmont Virginia Community College (PVCC) who provided that service. He stated their employee had to go for four weeks to classroom and field training to learn to drive CDL trucks and equipment, and everyone was pleased that Mr. Whitlow passed. He stated Mr. Whitlow had been a mechanic with them for four years and was doing well; they appreciated his efforts and engagement.

Mr. Mawyer stated he also wanted to recognize Michael Hearn, a water operator, who recently passed the Class 1 Water Operator exam. He stated Class 1 was the highest level of water operator licensed in the state. He stated Mr. Hearn had been with them for about 4 years, beginning as a Class 3, and in the past 18 months, he had passed Class 2 and now Class 1 licensing exams, and his efforts were appreciated. He stated Mr. Hearn was working at the Scottsville and Red Hill treatment plants, but now with his new and higher license, he would join the South Rivanna Water Treatment Plant team.

Mr. Mawyer stated David Tungate, Director of Operations, gave a tour to a family he knew from Crozet of the Crozet Water Treatment Plant as a part of their community outreach efforts. He stated they expected to return to in-person Board of Director meetings in September. He stated this was true for both Rivanna Boards, and they would be welcomed back on September 27.

Mr. Gaffney asked if there were any questions for Mr. Mawyer. Hearing none, he moved onto the next item.

7. ITEMS FROM THE PUBLIC

Mr. Gaffney opened the meeting to the public. He asked speakers to identify their name and where they live, and to keep in mind the three-minute time limit.

Mr. Hull stated Dede Smith would like to speak.

Mr. Gaffney greeted Ms. Smith.

Ms. Dede Smith thanked the Chair and greeted the Board. She stated she would like to reflect on the history of their water supply and lessons that had been learned or not learned. She stated back in the 1920s, when Ragged Mountain Reservoir was the only water source they had and was not meeting local water needs, a study was done to look for another source, and in this study, 100

139 years ago, they found that the only clean water in Albemarle County was the Moormans River.
140 She stated back then, 100 years ago, that was where the decisionmakers went; first the pipeline
141 and then a little bit later the Sugar Hollow Reservoir. She stated when that source needed help
142 back when they were very wasteful water users with very high demand, they asked where to go
143 next, and sure enough, the same information about the only clean water in the whole system was
144 in Sugar Hollow. She stated to remember that it was the 1960s, thinking of Rachel Carson, and
145 against the advice of those who understood the importance of clean water, the City in this case,
146 damned the Rivanna. She stated within a few years, there were massive fish kills and a really
147 stinky pond. She stated this went on for years and was totally putrefied – dead. She stated it was
148 a complete mess for many reasons.

149
150 Ms. Smith stated that jumping ahead now to the new century when those same questions were
151 being asked, sure enough, the Virginia Department of Health, in a letter to Rivanna which now
152 existed, to go for the cleanest water, and the only clean water they had was in the Moormans.
153 She stated that was just what Rivanna wanted to do and that was the Nature Conservancy plan:
154 create a massive bathtub and fill it with the cleanest water as healthy flow allows, and all that
155 water would sustain them through a drought. She stated drought protection was what it was all
156 about, but as they all knew, the water may be clean, but politics was not always clean, and
157 because it was not, they were looking at hundreds of millions of dollars in pipelines that were
158 never in the original plan and in her opinion were not necessary. She stated they almost had it
159 right to use the incredible flow of the Rivanna for 1 million to 2 million gallons per day,
160 dismantle the dirty reservoir at South Fork, and use the clean one for drought protection. She
161 stated it was not perfect, but in this day and age, when demand was dropping and would continue
162 to, it was really the only environmentally responsible option they had. She thanked the Board
163 and stated she appreciated their time.

164
165 Mr. Gaffney thanked Ms. Smith. He asked Mr. Hull if there were any other members of the
166 public who wished to speak at this time.

167
168 Mr. Hull stated there were no further comments from the public.

169
170 Mr. Gaffney stated they would close Items from the Public and open the responses to public
171 comments.

172
173 Mr. Gaffney closed Items from the Public.

174 175 **8. RESPONSES TO PUBLIC COMMENT**

176 Mr. Gaffney asked if Mr. Mawyer had any responses to public comment before going to the
177 Board members.

178
179 Mr. Mawyer stated he would only offer that the community water supply plan that was approved
180 in 2012 included a pipeline from the South Rivanna Reservoir to the Ragged Mountain Reservoir
181 as the means to fill the new and larger reservoir at Ragged Mountain once the new dam was
182 built. That was part of their plan to execute the community water supply strategy as soon as they
183 could, and that plan did not include taking down the South Rivanna dam. He stated he
184 appreciated Ms. Smith's comments and he would be glad to talk more with her about that, but

185 that was their plan right now as approved by the City and the County and the Service Authority.

186
187 Mr. Gaffney asked if there were any members of the Board who wished to respond to public
188 comment.

189
190 Ms. Mallek stated that the Moormans had incidences of almost no flow. She stated when there
191 was no water to release due to low rain, there was no river, so that was really harsh on that
192 section. She reported that there were numerous farms between Sugar Hollow and the more
193 modern piping closer to town, where she guessed monstrous amounts of water was escaping
194 from that pipe that was put in more than 100 years ago, because there were seeps and plants
195 growing where there never were plants before, which indicated an underground water source,
196 and she was not sure they were able to rehabilitate that pipe in that location to keep it
197 worthwhile. She stated she hated to waste any water at all, and they were losing some right now,
198 so she certainly supported the plan as they had it.

199
200 Mr. Gaffney asked if anyone else wished to speak. He asked Mr. Mawyer if there was any
201 question about the quality of drinking water coming out of the Observatory Water Treatment
202 Plant or the South Fork Water Treatment Plant.

203
204 Mr. Mawyer stated no. He stated they had high-quality water and a granular activated carbon
205 filter that contributed to that quality, so they had no concerns. He stated they dealt with algae in
206 the reservoir sometimes, but that was typical of taking water from reservoirs. He stated
207 otherwise, their water quality was very high.

208
209 Ms. Mallek stated at some time in the future, she would like to learn what possibilities existed to
210 trace back some of those sources of the algae along the inlet streams in the system. She stated
211 there may be something ongoing, and if not, she would love to learn how to do a better job of
212 that in order to actually reduce the problem instead of having to treat it all the time.

213
214 Mr. Gaffney closed responses to public comment.

215 216 **9. CONSENT AGENDA**

217
218 *a. Staff Report on Finance*

219
220 *b. Staff Report on Operations*

221
222 *c. Staff Report on Ongoing Projects*

223
224 *d. Staff Report on Wholesale Metering*

225
226 *e. Staff Report on Drought Monitoring*

227
228 *f. Transfer of Ownership to Albemarle County Service Authority – Upper Woodbrook*
229 *Interceptor*

Mr. Gaffney asked if there were any items on the Consent Agenda that Board members would like to pull for comments or questions. Hearing none, he asked if there was a motion to approve the Consent Agenda.

Mr. Rogers moved that the Board approve the Consent Agenda. Ms. Mallek seconded the motion, which passed unanimously (6-0).

10. OTHER BUSINESS

(reconvene RSWA for a Joint Session with the RWSA)

At 2:28 p.m., Mr. Gaffney reconvened the RSWA Board of Directors meeting and called the joint meeting with the RWSA Board of Directors to order.

a. Presentation: Physical and Cyber Security Update

Ms. Whitaker stated she was presenting today with Jeff Southworth from their IT management group. She stated they would be providing an update to the Board on the physical and cyber security program. She stated that infrastructure security had been a longstanding concern for the water and wastewater industry, in part because water and wastewater had historically been fundamental to the security and health of a community.

Ms. Whitaker stated that shortly after the 9/11 tragedy there were significant regulations that looked at the best practices to assess risk to critical infrastructure. She stated there were 16 federally recognized critical infrastructure sectors, and of those 16, three applied to Rivanna Water and Sewer and Solid Waste Authorities. She stated that included the dam sector, the water and wastewater sector, as well as the government facilities sector. She stated more recently, the American Water Infrastructure Act of 2018 mandated that utilities develop and routinely update risk assessments and emergency response plans.

Ms. Whitaker stated the physical security program is used in combination with other mitigative measures to reduce vulnerability and increase resilience within the Authority. She stated their key programs included door hardening and replacement. She stated many of their facilities were a bit older, so the doors themselves had physically deteriorated. She stated it could be seen on the right side of the slide that they had put in new and more modern doors with locking hardware and more intrusion-resistant facilities.

Ms. Whitaker stated they had looked at lock strengthening, key inventory, and gating and fencing improvements at all the facilities, as seen with the new front gate to the Observatory Water Treatment Plant. She stated they were looking at cameras and lighting; the camera system that had been set up and many cameras had been added over the last few months in an effort to get a sight on all critical infrastructure and ingress and egress out of their facilities.

Ms. Whitaker stated they had also done a tremendous amount of lighting work at Moores Creek and other facilities, both security lighting as well as employee safety lighting. She stated that the program also included landscaping and housekeeping, such as clearing fence lines to keep a good line of sight. She stated last on the list was access control and badging, which was what they

likely thought of when discussing physical security. She stated funding for this program came from many different places.

Ms. Whitaker stated that security was included in both specific independent Capital Improvement Projects, as well as other capital projects and more general projects, such as the water treatment plants getting upgraded doors and badging systems. She stated they had routine maintenance activities where they hired out vendors, and they also had specialized tasks that in-house maintenance staff did as well. She stated they were currently seeking funding from Homeland Security for the Moores Creek entrance gate project, which she would discuss more in a moment.

Ms. Whitaker stated access control referred to door locks, badging, and cameras that allowed people to enter and exit buildings in a controlled fashion. She stated they hired a company called Security 101, who had been their consultant for about two years now. She stated they helped them select a system based on their needs. She stated they helped with software installation, training, and support, as well as hardware design and installation, and they had been working their way from the larger facilities to the smaller facilities.

Ms. Whitaker stated they were getting close to having enhanced access control at all Rivanna facilities. She stated they also had an ongoing maintenance contract with Security 101, so they were able to call them if a component or piece of equipment stopped working and they could come out and repair it for them. She stated for instance, they occasionally had trucks hit their gate access control devices and they were able to get them out relatively quickly and repair those.

Ms. Whitaker stated that the key thing about the access control system was that they were able to get RFID badges for employees, vendors, and contractors, so they had been able to keep better control of who was exiting and entering facilities and their location permissions. She stated they were able to designate permissions by department, time of day, facility, and position of the person. She stated this allows them to prove their identification of employees, as well as vendors, visitors, and licensed contractors. She stated it also gave them intrusion notifications and open-door notifications, so if a door was propped open or broken, they were able to see that.

Ms. Whitaker stated they were more easily able to mitigate lost keys and lost badges; they were able to turn them on and off quickly. She stated they were investigating an electronic padlock system which they would be able to remotely control through smart phone devices.

Ms. Whitaker stated the other capital project she wanted to discuss was at Moores Creek Advanced Water Resource Recovery Facility. She stated in September, they would all get the opportunity to see the gate firsthand. She stated displayed on the screen was a map of the Moores Creek facility entrance, which is off Franklin Street in the City, and the red arrow indicated Moores Creek Lane. She stated the orange bar was their current front gate, which was the entrance to the main entrance and exit to the entire 80-acre facility. She stated anyone that had business at the facility—whether it be an employee, a vendor, contractor, the mailman, parks, delivery—everyone passes through this main gate.

323 Ms. Whitaker stated while it gave a single point of control, it came with a downside. If the gate
324 was open like it is during the day to allow the public to enter, everyone had access to the entire
325 facility, and then at night it was locked and no one had access to the facility. She stated they
326 were going to get a little more nuanced about how they secured the facility.

327
328 Ms. Whitaker showed the same graphic along with photographs of the entrance to Moores Creek
329 Lane. She stated the picture at the bottom was looking back towards Franklin Street and coming
330 down the lane was how one entered the facility. She stated the front entrance sign was located at
331 the first island. She stated one could either make an entrance into the septage receiving area
332 where they received septage trucks, usually from the County, and those came in day and night,
333 so having access to this facility in both the day and night was important. She stated if not
334 entering the septage receiving area, drivers could enter this main road, which was shown in the
335 third picture.

336
337 Ms. Whitaker stated once making it past the first island, there was a choice of turning back into
338 septage receiving, turn and go to the north side of the plant, which would take one under the
339 bridge at Moore's Creek and to the north side of the facility, or continuing straight across the top
340 of the bridge and to the south side of the plant. She stated there were a lot of turning movements
341 at the front end of this facility and a lot of conflicting uses. She stated because of the geometry,
342 there also was the main pump station, septage receiving area, duty pump station, which was an
343 office facility as well as a functional part of the process, and some maintenance activities, all
344 coming in and intermixing at this location as well as at least three road splits. She stated they had
345 to get creative in their thought process about securing this front facility.

346
347 Ms. Whitaker stated shown on the slide were four red arrows, one coming into the main plant
348 and main gate, which when opened, they would have badge-controlled access to the gate, which
349 would allow employees to have access after hours, or anyone who had authorized access would
350 be able to come in after hours through that main gate. She stated normally, during the day that
351 main gate would be left open. She stated septage haulers would be able to pull into the septage
352 receiving facility and employees would be able to continue straight down the road, and with their
353 badge system, access through the gate to either the north or south side of the plant through the
354 north and south gates.

355
356 Ms. Whitaker stated visitors would have a visitor lane that would allow people without badge
357 access to pull over into the stippled area. She stated they would be able to go through a camera
358 and access the administrative staff who can buzz them in or provide escorted access to the
359 facility. She stated in addition, they would be installing gates that went down to the creek and
360 fencing to create a holding area at the front of the plant, where people who needed to access
361 septage receiving would be able to do so, but visitors could be greeted. She stated it would
362 greatly reduce the public interaction with their wastewater process, which they felt was
363 necessary. She stated it would integrate with their access control and camera system, so the staff
364 had easy access in and out of the gates without too much slow-down.

365
366 Ms. Whitaker stated again, it would allow them to continue to operate septage receiving during
367 normal hours as well as after hours, and it would dramatically improve their visitor check-in
368 process. She stated this project of the Moores Creek gate, doors, and access control were all in

their current capital plan and estimated at about \$2.8 million. She asked if there were any questions on the security program.

Mr. Gaffney asked if there were any questions for Ms. Whitaker.

Mr. Southworth stated cybersecurity was the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. He stated common cyberattacks included computer viruses, malware, phishing emails, social engineering to obtain passwords from users, impersonation, which was pretending to be someone in order to gain information or task performed, and intercepting communications. He continued that there were two different sources for guidance, one being the Cybersecurity & Infrastructure Security Agency (CISA), which was part of the Department of Homeland Security, setting security standards and giving guidance and threat alerts. He stated the other was AWWA guidance tool, which closely aligned with CISA and was used in security assessments.

Mr. Southworth stated for what they needed to protect and why, they needed to understand the risks in both technology and physical security and know that 90% of successful cyberattacks were caused by human error, such as clicking a link, answering questions, or allowing someone inside the network. He stated that third-party vendors could damage the network as well. He stated how the evaluated options and prioritized solutions helped the Authority allocate the resources they needed to secure the network. He stated based on the risk assessments, they were developing a cybersecurity plan and protocols. He stated the Rivanna IT team was the leader for cybersecurity within the organization, but it encompassed all the employees as well as the top management.

Mr. Southworth explained that the CISA Security Assessment looked at the categories of: IT risk assessment; IT asset management; supply chain risk management; identity management, i.e., authentication and access control; awareness and training; data security; IT response planning; and disaster recovery planning.

Mr. Southworth stated for the CISA Security Assessment completed by the outside contractor, they used network mapping tools, the Security Event and Information Management (SEIM) tool, and a vulnerability scan tool. He stated there was a network assessment and a penetration vulnerability testing completed by outside contractors. He provided AWWA recommendations on a slide. He noted one of the recommendations was to implement network segmentation by firewalls. He stated that had been completed. He stated the administrative network was separated from the operational network, so if one network was breached, it did not affect the other. He stated the administrative network was more vulnerable than the operational network.

Mr. Southworth stated they began using strong passwords and had changed the default passwords. He stated they were reviewing other access controls. He stated they had a strong password policy in place. He stated they were evaluating using more multi-factor authentication (MFA) methods. He noted a recommendation was to implement an employee cybersecurity training program. He stated it would be an ongoing training with staff.

Mr. Southworth stated they had adopted a defense-in-depth approach with five different

categories—application and data security; host security; network security; physical security; and policies and procedures. He stated a 90-day password expiration policy and strong password requirements were implemented. He stated the password requirements were over eight characters, to include special characters, uppercase and lowercase characters, and at least one numeric character.

Mr. Southworth stated they were cleaning up the Microsoft Active Directory. He stated there were stale items that had been identified. He stated they were using UltraBac Software for file and folder backups. He stated those backups were taken offsite. He stated they used a Barracuda Microsoft Office 365 backup. He stated the organization used Microsoft Exchange, OneDrive, Teams, and SharePoint. He stated there were backups in place for any instance the cloud may be breached.

Mr. Southworth stated they were working on the monthly patching for the servers and computers. He stated they used Sophos Antivirus on the servers, computers, and phones. He stated there was a mobile-device-management (MDM) process for cellphones and laptops. He stated in regard to network security, they were creating a geo-fence to examine the trouble spots. He stated they installed a firewall to protect the network. He stated on a daily basis, there was anywhere from 20,000 to 25,000 access attempts. He stated there was router antivirus software.

Mr. Southworth stated there were IPSEC tunnels between the internal routes, so there were virtual, private connections to those networks. He stated those protections were still being strengthened. He stated they were constantly monitoring the network to ensure there had been no breaches.

Mr. Southworth stated in regard to physical security, they had implemented a building access badging system. He stated he agreed that they needed more video cameras. He stated they were using email phishing campaign training. He stated they used the KnowBe4 service, and it had been successful. He stated it was rolled out in the past six months, and the staff response had been good.

Mr. Southworth stated they had updated IT policies. He stated they implemented non-disclosure agreements with their IT vendors as well as SCADA vendors coming into the organization. He stated there was a bring-your-own-device (BYOD) policy being developed. He provided an overview of the threat modeling. He stated in terms of geofencing, they were keeping a tight rein on the areas. He stated they were receiving spam mail from all over the world.

Mr. Southworth stated the cybersecurity program was a continuous process of assessing, testing, and implementing the changes to defend against the latest threats. He stated the IT team was committed to leading and fostering a cybersecurity culture with the employees, and providing a security ecosystem that included technology, user training, and leadership awareness.

Mr. Gaffney asked if there were questions or comments.

Ms. Mallek noted the non-disclosure agreement (NDA) for contractors. She asked if the contractors had to provide employee clearance and verification.

461
462 Mr. Southworth stated they worked with different, specific companies. He stated they vetted the
463 process before the vendors connected to the internal network. He stated they were also shadowed
464 by the IT department, so they were aware of everything the vendors did on the network. He
465 stated it was also logged.

466
467 Ms. Mallek asked if there was a written record of the actions taken, like a keystroke log.
468

469 Mr. Southworth stated there was always caution exercised towards outside vendors. He stated
470 they did not have keystroke loggers. He stated they had logs in place for what changes were
471 made to the SCADA system and the internal network. He stated they fully vetted all of the
472 contracted companies before they came into contact with the Authority's network.
473

474 Mr. Pinkston asked if the amount of access requests and spam was typical for a utility.
475

476 Mr. Southworth stated yes. He stated from his previous experience, cyberattacks could be done
477 remotely and automatically. He stated there were programs that constantly sent out spam
478 requests. He stated the spam was not exclusive to utility organizations. He stated it was typical.
479 He stated the amount of spam depended on how visible and disseminated the organization's
480 email addresses were. He stated Mr. Mawyer, Mr. Wood, and Ms. Nemeth were more vulnerable
481 due to their public exposure. He stated they received nearly 3,000 spam emails a day.
482

483 Mr. Pinkston stated he presumed all of the steps taken were also mitigating the risk of a
484 ransomware attack.
485

486 Mr. Southworth stated that was correct. He stated he had not mentioned ransomware. He stated
487 there were backups located offsite, so there was an airgap. He stated the cloud services were also
488 backed up to a third party in two different locations.
489

490 Mr. Pinkston asked if the SCADA system was provided by a proprietary vendor or if it was
491 home-grown.
492

493 Mr. Southworth stated SCADA was the process that the program logic controllers (PLCs) ran in
494 the devices out in the treatment plants, such as the motors to open the gates or the controls for the
495 chemical treatment of the water. He stated the SCADA programmed monitored the PLCs and the
496 treatment. He stated it was important to separate the systems so that they were more secure.
497

498 Mr. Mawyer stated the system was proprietary.
499

500 Mr. Southworth stated they did not write the program. He stated they worked with a couple
501 different vendors, and GE was one of them. He stated all utilities used the SCADA system.
502

503 Mr. Mawyer stated he believed the system was a GE system.
504

505 Mr. Pinkston asked what SCADA stood for.
506

Mr. Mawyer explained SCADA stood for Supervisory Control and Data Acquisition. He stated the acronym was about monitoring the treatment process through data acquisition and controlling the process through supervisory control in response to the data. He stated it was one of the greatest vulnerabilities for the Authority, that someone would hack into and take control of the SCADA system to potentially impact the treatment process.

Mr. Pinkston noted Mr. Southworth was working hard to protect the system.

Mr. Mawyer stated isolating the system from the administrative network was one of the key components of protecting the SCADA. He stated it was not hooked in with the other internet systems.

Mr. Gaffney noted the Badge system. He asked if they proactively reviewed where the badges went on a regular basis, or if they only reviewed them if an event occurred.

Ms. Whitaker stated there were a variety of ways of examining the problem. She stated they had looked at vendor activity through a facility. She stated they had reviewed individual buildings. She stated she did not know how much random auditing was performed. She stated they had historically looked for specific patterns for different reasons.

Mr. Mawyer stated the badges were programmed to only provide access to the places that employees needed to go. He stated people did not have unlimited access because they had a badge.

Mr. Gaffney asked if there were further comments or questions.

Mr. Rogers asked if the camera system was monitored 24/7.

Ms. Whitaker stated operators could view the camera feeds and certain camera feeds were available at their workstations. She stated if the cameras were applicable to the work being done, then the feed may be available to operators. She stated as an example, the South Rivanna WTP had a camera on the dam, and the operator was able to access that camera feed at all times. She stated they did not have access to the entire network of cameras.

Mr. Roger asked if an alarm system had been installed at key vulnerability points to alert the system to intruders.

Ms. Whitaker stated the systems in place could be set for several different purposes. She stated cameras could be set to provide internal notifications if there was a particularly heightened concern. She stated the issue became what to do with the information once the alarm was triggered. She stated there were intrusion devices at key doors, hatches, and fences that will trigger an alarm alerting that someone entered the facility unauthorized.

Ms. Mallek stated if someone were busy, they could be notified to review the camera feed when there were people where they should not be. She stated she hoped they were programming the cameras to detect those situations so they were not triggered by the motion of the water.

Ms. Whitaker stated occasionally, they also caught a few bears and deer on the camera.

b. Presentation and Work Session: 2023-2028 Strategic Plan Update

Mr. Darin Thomas, Vice-President of Raftelis Financial Consultants Inc, stated Ms. Catherine Carter, Senior Manager of Raftelis Financial Consultants Inc, was also present. He stated the intent of the presentation was to provide the Board with a briefing on where things stood relative to the development and update of the Authority's strategic plan. He stated the organization had a rich history of strategic planning. He stated he and Ms. Carter did this as a living for utility authorities and local governments around the country.

Mr. Thomas stated he lived in Greensboro, North Carolina, and Ms. Carter worked from the headquarters in Charlotte, North Carolina. He stated they were involved with the development of the previous strategic planning document. He stated typically, it was best practice to update the plans on a five-year cycle. He stated the planning had been initiated by the Board. He stated they had requested a readout on where the Authority was going, what its goals were, and the direction of the organization. He stated he would provide an overview of the process and the timeline. He stated stakeholder input had been gathered. He stated it was best practice when drafting a strategic plan to get the input from people who were leading the organization. or a stakeholder in the organizations.

Mr. Thomas stated he would discuss the stakeholder feedback. He stated the Board had items in their packets that provided more details. He stated he would review vision, mission, and values. He stated they did not recommend, nor was the steering committee recommending—composed of Mr. Mawyer, his leadership team, and a few others—significant changes to the vision, mission, and values. He stated they would discuss emerging or proposed areas of focus for the organization—also known as goals, focus areas, or priorities. He stated the presentation would wrap up with next steps.

Mr. Thomas provided a project timeline for the overall project. He stated there were six events. He stated there had been a kickoff meeting—a structured conversation with the core strategic planning team. He stated the team had about 12 people, including Mr. Mawyer, Ms. Whitaker, Mr. Tungate, Mr. Wood and other leaders in the organization. He stated the event was on June 9, and they produced a project charter and defined the stakeholders to consult at the meeting.

Mr. Thomas stated shortly after the June 9 meeting, many members of the Board were interviewed as part of the portfolio of stakeholder engagement. He stated the engagements included structured interviews, online surveys, and others. He stated stakeholder engagement was concluded in July. He stated on July 7, there was a foundation workshop. He stated at the workshop, development of the draft strategic plan was advanced. He stated moving forward, after receiving Board input, they would have another workshop with the core planning team on August 18. He stated it was a strategy workshop where they add more specificity to the strategic plan.

Mr. Thomas stated that in the August and September timeframe, they would start designing and writing a new, updated, five-year strategic plan for the Authority that would be presented to the

Board for its input. He stated once they received the Board's input, they would finalize the draft. He stated in September and October, they would transition into implementation.

Mr. Thomas stated Ms. Carter was involved in driving the stakeholder feedback. He stated the Board had two deliverables in the packets, and Ms. Carter would provide a high-level discussion on the contents.

Ms. Carter noted about 76% of the employees in the Authority took the survey. She stated they performed interviews with members of the leadership team and employee focus groups. She stated about 35 people participated across three different focus groups. She stated Board interviews and external stakeholder interviews were conducted as well. She stated they were still working to schedule some of the interviews, but had been in contact with most of the people identified as high-priority stakeholders. She stated the results were captured in the Board's informational packet.

Ms. Carter stated when they performed stakeholder interviews and employee engagement, they often focused on different types of questions. She stated the first question revolved around aspirations—what would make them proud of the organization in five years, and what did they want the Authority to be known for. She stated there were themes common across the responses. She stated key aspirations focused on regional leadership and being the model for other organizations and utilities. She stated there was focus on workforce development and engagement.

Ms. Carter stated other key themes included topic such as updated facilities and infrastructure. She stated people wanted to work in facilities that met their needs, and people wanted the infrastructure to continue to meet the needs of the client population. She stated another topic was streamlined and efficient operations. She stated the workforce was professional, and strides had been taken to make the operational processes more efficient. She stated employees were especially proud of the work done in those areas. She stated it would make them proud if the stakeholders and community had an understanding of the value of the services provided.

Ms. Carter stated they then asked respondents and interviewees about strengths. She stated there was a lot of energy around the professional and knowledgeable workforce. She stated excellent product quality was mentioned. She stated people felt strongly about the leadership and organizational culture. She stated long-term and capital planning was a strength of the organization. She stated stakeholders and others felt the Authority was responsive and reliable. She stated members of the leadership team and the Authority general felt they had sufficient resources to fulfill the organizational missions—financial resources, operational resources, and internal expertise.

Ms. Carter stated there was the desire for the Authority to seize the opportunity to increase regional visibility through engagement in regional conversations. She stated there were opportunities for external partnerships to help support the Authority goals. She stated an example may be the relationship with PVCC. She stated in light of the Great Resignation, there was still the feeling of opportunity around employee recruitment and retention, but continued effort was needed.

Ms. Carter stated there was the feeling they would have the opportunity to expand internal opportunities. She stated a cohesive, shared vision with RSWA was emphasized. She stated there were big opportunities and discussions around environmental stewardship. She stated they were ensuring the operations and activities of the Authority were environmentally friendly. She stated there was the conversation around increasing the organizations focus on diversity, equity, and inclusion. She stated it was a common point.

Ms. Carter stated they asked questions regarding the critical issues, such as the barriers that needed to be addressed and the things they needed to ensure they were capturing and responding to in the strategic plan. She stated there was a real need to address technology upgrades and cybersecurity needs. She noted the growth of the population of the service area and the future impacts. She noted supply chain issues - materials that the organization needed to operate - were less available, more expensive, or both.

Ms. Carter stated there was discussion around the lack of community understanding and awareness of the services the Authority provided. She stated it was a topic that needed to be addressed for the organization to be successful. She stated there was discussion around service affordability, capital project financing, and regulatory requirements. She stated a lot was uncertain, and the uncertainty could be addressed through capital projects. She stated addressing changing regulations was expensive. She stated there was discussion around staff workload and capacity. She stated with the turnover and the range of activities at the Authority, people were moving in many directions.

Ms. Carter stated there was the issue of climate change and operational resiliency. She stated the organization would be forced to adapt to mitigate the impacts of climate change. She stated in the survey, they asked employees to give a sense of the performance in various areas. She stated employees were asked to rate performance from "Excellent" to "Poor," and the responses were given an average numerical score. She stated the same questions were asked in 2017 and in 2022. She stated in every one of the categories, employees considered performance to have increased between 2017 and 2022.

Ms. Carter stated employees felt performance increased the most in the areas of workforce and employee/leadership development, and in infrastructure stability. She stated both were focus areas of the previous strategic plan. She stated there was a bigger awareness of what the Authority did among the employees and clients. She stated there was deliberate effort to improve in those areas.

Mr. Richardson asked if the improvements related to performance in workforce was related to the employee perception of the employer's commitment to employee development.

Ms. Carter stated for each of the categories, there was a short accompanying statement to provide more context. She stated in the case of workforce, it was focused on employee and leadership development—the organization's ability to attract, develop, and retain a highly skilled and professional workforce. She stated the increase was a reflection of employee's perception of the categories and concepts.

691
692 Mr. Thomas stated the Board could be comforted that the organization appeared to make
693 progress. He stated it had been five years since his firm last engaged with the Authority. He
694 stated they were able to feel the improvements throughout the organization. He stated in some
695 cases, perception was reality. He stated the data reflected the perception of the employees.

696
697 Mr. Thomas stated they needed to determine a way to deal with the input they received. He
698 stated it was the job of the consultant to help the core planning team convert the input to decision
699 making. He stated they had the tendency to rely on the aspiration questions. He stated they
700 reviewed the aspirational themes against the vision statement. He stated the strengths were used
701 to inform the mission of the strategic plan.

702
703 Mr. Thomas provided the current vision of the organization. He stated after the previous
704 workshop, there was an edit made to the vision statement that smoothed the wording. He stated
705 there was no significant energy from the core planning team to make a radical change to the
706 vision statement. He stated they proposed to make a small change to the vision statement. He
707 read the current vision statement:

708
709 “To serve the community and be a recognized leader in environmental stewardship by providing
710 exceptional water and solid waste services.”

711
712 as compared to the proposed vision statement:

713
714 “To serve the community as a recognized leader in environmental stewardship by providing
715 exceptional water and solid waste services.”

716
717 Mr. Thomas asked if the Board had any reactions or thoughts in response to the changes made to
718 the vision statement.

719
720 Ms. Mallek stated either wording was fine. She stated she appreciated seeing the written vision
721 statement because it showed the provision of services was the priority, and being a recognized
722 leader was a byproduct of providing services. She stated she was concerned all the energy would
723 be devoted to being a regional leader, but the change in the vision statement addressed that
724 concern.

725
726 Mr. Gaffney noted in the current vision statement, there were two goals, and in the proposed
727 statement, there was only one. He stated he supported the conciseness.

728
729 Mr. Thomas read the current mission statement:

730
731 “Our professional team of knowledgeable and engaged personnel serve the Charlottesville,
732 Albemarle, and UVA community by providing high quality water treatment, refuse, and
733 recycling services in a financially and environmentally responsible manner.”

734
735 and the proposed mission statement:
736

737 “Our knowledgeable and professional team serves the Charlottesville, Albemarle, and UVA
738 community by providing high-quality water treatment, refuse, and recycling services in a
739 financially responsible and sustainable manner.”

740
741 Mr. Thomas stated there was a subtle change in the mission statement. He stated the mission
742 statement was the purpose of the organization and communicated the reason it existed. He stated
743 the emphasis of the statement was on a fiscally responsible and sustainable manner at the end.
744 He stated there was sufficient input from all of the stakeholders about the recognition of
745 environmental stewardship and sustainability, and the revisions better emphasized those
746 categories.

747
748 Mr. Gaffney noted financial stability and responsibility meant the Authority was breaking even.
749

750 Mr. Thomas stated utilities were expensive to operate.
751

752 Ms. Mallek stated she was glad the statement did not say “financially feasible,” because there are
753 things that must be done even though they were expensive.
754

755 Mr. Thomas stated there were no proposed changes to the values. He stated during the previous
756 work session, the core planning team thought through what the most deeply held beliefs were
757 and what it wanted the culture to be. He stated values were used to make decisions when no one
758 was watching. He stated the values were still representative of the organization’s beliefs.
759

760 Mr. Thomas stated all of the stakeholder input was used in the foundation workshop. He stated
761 they would review what they had focused on in the past and consider what needed to be done to
762 be responsive to some of the opportunities that had been brought up by the stakeholders. He
763 stated the organization had been focused on advancing workforce development. He stated that
764 was visible in survey results that had been presented. He stated operational optimization had
765 been a focus area along with being an efficient organization that used resources wisely. He stated
766 communication and collaboration served to allow the organization to support its primary
767 customers.
768

769 Mr. Thomas stated the organization had a focus on and strategies for communication and
770 collaboration. He stated they were an environmental company at the core and focused on
771 environmental stewardship. He stated a lot of feedback was received related to infrastructure
772 master planning. He stated solid waste services was another topic of focus.
773

774 Mr. Thomas stated there were proposed or emerging areas of focus. He stated the solid waste
775 service goal was not as prominent. He stated it had been assumed by the emerging focus areas.
776 He stated there were six goals in the previous strategic plan. He stated the core planning team
777 was considering having five goals. He stated those five goals were displayed on the slide. He
778 stated they recognized that workforce was a focus of the organization. He stated they needed
779 highly skilled, competent, engaged, and highly performing employees to accomplish the
780 organizational goals. He stated workforce was about attracting, developing, and retaining an
781 adequate and competent workforce.
782

783 Mr. Thomas stated in addition to optimization, the organization needed to be resilient. He stated
784 the second emerging goal category focused on the notion of organizational optimization and
785 resiliency. He stated the organization should be efficient, leverage technology, and be able to
786 know where its risks were and be able to mitigate those risks. He stated the third proposed area
787 of focus was on planning and infrastructure. He stated the organization, as a utility, must always
788 take a long-term view. He stated the fourth proposed goal area related to communication and
789 collaboration with stakeholders. He stated they did that to elevate the brand and the awareness of
790 the organization.

791
792 Mr. Thomas stated the fifth goal of environmental stewardship was about the organization being
793 a strong voice for sustainability, locally and in the region. He stated the message to the Board
794 was that they were proposing five goal areas instead of the former six. He asked for thoughts or
795 reactions from the Board. He asked if there were other priorities that the Board believed should
796 be considered that would not fall under one of the five proposed categories.

797
798 Mr. Rogers asked if diversity, equity, and inclusion would fall under the workforce category.

799
800 Mr. Thomas stated yes.

801
802 Ms. Carter stated they did not put all the information on the slide. She stated at the previous work
803 session, they determined what concepts fell into the five goal categories. She stated diversity,
804 equity, and inclusion was included in the workforce theme and the stakeholder communication
805 and collaboration theme.

806
807 Mr. Rogers asked if there would be a work plan within each one the goals to realize the intent.

808
809 Mr. Thomas stated that was correct. He stated the next work session would add more specificity
810 and detail to the goals. He stated they would address specific strategies to drive success.

811
812 Mr. Rogers stated the five areas were right. He stated he supported the messaging and the intent
813 of the proposed goals.

814
815 Ms. Mallek confirmed that the five proposed goals would apply to RWSA and RSWA.

816
817 Mr. Thomas stated that was correct.

818
819 Ms. Mallek asked when the adjustments for new regulations would be implemented. She stated
820 they had discussed the uncertainty regarding future regulations.

821
822 Ms. Carter stated it depended on which regulations. She stated if they were discussing the
823 American Water Infrastructure Act, then it would fall under operational resiliency. She stated
824 some regulations would be addressed through planning and infrastructure, and some planning
825 would fall under environmental stewardship. She stated it would depend on what the content of
826 the regulation was and where they came from. She stated regulations could come from the EPA
827 or be related to the workforce.

829 Ms. Mallek asked if water quality regulations would be addressed through efficient operations
830 and performing whatever capital investments were required. She stated new water regulations
831 were coming with new testing guidelines.

832
833 Mr. Pinkston stated he supported the proposed goals and reflected how he felt about the
834 organization. He stated many people had no concept of what the Authority did. He stated for
835 instance, with the CWL, roughly half the cost was borne by the County. He stated elevating the
836 brand was important.

837
838 Mr. Smalls asked if climate action would be included under environmental stewardship.

839
840 Mr. Thomas stated exactly.

841
842 Mr. Smalls stated it was difficult to have to interpret the goals. He asked if using the Authority's
843 expertise was included under stakeholder communication.

844
845 Mr. Thomas stated that would be his reaction, but he would take that input from Mr. Smalls. He
846 stated these were the conversations needed to sort through the details.

847
848 Mr. Richardson noted solid waste was not included at all within the five proposed goals. He
849 stated his assumption was that as staff worked with the consultant and received input, then they
850 were looking at topics such as waste-stream reduction and performance measurements to take
851 advantage of recycling technology. He stated they looked to be an Authority in a leadership role
852 as technology improved. He asked if solid waste and environmental stewardship connected.

853
854 Mr. Thomas stated he thought it did. He stated Mr. Richardson provided great input because it
855 was helping them prepare from a strategy development perspective. He stated they would weave
856 the themes throughout each of the goals.

857
858 Ms. Hildebrand stated she liked that the "infrastructure and master planning" category had
859 evolved to "planning and infrastructure." She noted the large projects the Authority had
860 undertaken. She stated the master planning that had been accomplished would be put into long-
861 term goals for infrastructure planning.

862
863 Mr. Thomas stated they had that very same discussion.

864
865 Mr. Gaffney asked what the next steps were.

866
867 Mr. Thomas stated the Board's input was appreciated. He stated they would begin to incorporate
868 the feedback, and it would inform how decisions were made for the next work session. He stated
869 they would be able to work with the leadership team to define the specificity around each of the
870 particular focus areas.

871
872 Mr. Thomas stated the specificity would be in the form of various strategies. He stated they
873 would ensure they identified key metrics. He stated they would return to the Board in September.
874 He stated after the September meeting, the goal was to draft a strategic plan by October. He

875 stated the Board would deliberate on the final draft. He stated the plan was then passed to Mr.
876 Mawyer to implement. He stated the plan would then guide the organization for the next five
877 years.

878
879 Mr. Rogers stated he had been through many strategic planning sessions and processes through
880 the years. He stated he supported the way the plan was being done.

881
882 Mr. Stewart stated he was familiar with the current strategic plan. He stated there were more
883 details to revisit and work through with stakeholders. He asked if there were future plans to gain
884 input from stakeholders, such as himself, the County representative for RSWA, Mr. Smalls, and
885 others.

886
887 Mr. Thomas stated the part of the data collection from stakeholder engagement was complete. He
888 stated there were a few people to touch base with. He stated as some of the strategies began to
889 develop, and if there were key stakeholders impacted by some of the strategies, it was in their
890 purview to reach out and get input from the stakeholders who may participate. He stated they did
891 not have a formal point where they would validate the specificity of the plan to outside
892 stakeholders.

893
894 Mr. Mawyer stated it sounded like a good plan. He stated if there were particular items that
895 related, then they could reconnect with Mr. Stewart and Mr. Smalls.

896
897 ***11. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA***

898 Mr. Gaffney asked if there were other items from Board members or staff not on the agenda and
899 heard none.

900
901 ***12. CLOSED MEETING – PERSONNEL REVIEW***

902 **At 3:59 p.m., Ms. Mallek moved that the RWSA enter into a joint closed session with the**
903 **RSWA. Mr. Pinkston seconded the motion, which passed unanimously (6-0).**

904
905 Mr. Gaffney asked if a roll call vote was required to leave the closed session.

906
907 Ms. Stanton stated the boards would reconvene in public and take a roll call vote to certify the
908 closed session. She explained that any resolution or motion agreed to in the closed session must
909 be voted on in the public meeting for it to be effective. She stated after the certification vote,
910 there would need to be a motion, a second, and a vote to approve whatever was agreed to in the
911 closed meeting.

912
913 **At 4:49 p.m., Ms. Mallek moved that the RWSA certify the closed session. Mr. Pinkston**
914 **seconded the motion, which carried unanimously (6-0).**

915
916 Mr. Gaffney requested both boards make a motion that gave the executive director, Mr. Mawyer,
917 a 6% increase in his salary as of July 1, and increase his vacation from 4 weeks to 5 weeks after
918 5 years of service in keeping with the Rivanna Employees Standard Policy.


919
920 **Mr. Rogers made the motion for the RWSA to approve an increase to the Executive**

921 Director's salary by 6% and his vacation time to 5 weeks after 5 years of service in keeping
922 with the Rivanna Employees Standard Policy. Mr. Pinkston seconded the motion, which
923 carried unanimously (6-0).
924

925 **13. ADJOURNMENT**

926 At 4:53 p.m., Mr. Rogers moved to adjourn the meeting of the Rivanna Water and Sewer
927 Authority. Ms. Mallek seconded the motion, which passed unanimously (6-0).
928

929 Respectfully submitted,
930
931
932
933
934
935



Mr. Jeff Richardson
Secretary - Treasurer