




Board of Directors Meeting & Public Hearing


June 23, 2020


2:15pm



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

434.977.2970 

434.293.8858 

www.rivanna.org 

BOARD OF DIRECTORS

Regular Meeting of the Board of Directors of the Rivanna Water & Sewer Authority

DATE: June 23, 2020

LOCATION: Virtually via ZOOM

TIME: 2:15 p.m.

AGENDA

1. CALL TO ORDER

2. STATEMENT FROM THE CHAIR

3. MINUTES OF PREVIOUS BOARD MEETINGS

a. Minutes of Regular Board Meeting on May 26, 2020

4. RECOGNITION

5. EXECUTIVE DIRECTOR'S REPORT

6. ITEMS FROM THE PUBLIC

7. RESPONSES TO PUBLIC COMMENTS

8. CONSENT AGENDA

a. Staff Report on Finance

b. Staff Report on Operations

c. Staff Report on Ongoing Projects

d. Staff Report on Wholesale Metering

e. FY 2021 Personnel Management Plan Revisions

f. Purchasing Manual and Policy Updates

g. Construction Contract Award – Removal and Disposal of Solids From Holding Ponds – Merrill Bros, Inc

9. OTHER BUSINESS

a. Presentation and Public Hearing: Adoption of FY 2020 – 2021 Budget and FY 2021-2025 CIP; Approval of Preliminary Rate Schedule Resolution: Bill Mawyer, Executive Director

b. Presentation: Urban Water Supply and Demand Report: Bill Mawyer, Executive Director

10. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA

11. CLOSED MEETING

12. ADJOURNMENT

If you wish to address the Rivanna Board of Directors during the time allocated for public comment, please use the “chat” feature in the Zoom Meeting interface.

Members of the public who submit comments will be recognized during the specific time designated on the meeting agenda for “Items From The Public.” The comment(s) will be read aloud to the Board of Directors only during this agenda item, so comments must be received prior to the end of this agenda item. The comments will be read by the Rivanna Authority’s Executive Coordinator/Clerk of the Board.

If you would like to submit a comment, please keep in mind that Board of Directors meetings are formal proceedings and all comments are recorded on tape. In order to give all who wish to submit a comment proper respect and courtesy, the Board requests that commenter follow the following guidelines:

- Submit your comment prior to the start of or during the “Items from the Public” section of the Agenda.
- In your comment, state your full name and address and your organizational affiliation if commenting for a group;
- Address your comments to the Board as a whole;
- State your position clearly and succinctly and give facts and data to support your position;
- Be respectful and civil in all interactions at Board meetings;
- The Board will have the opportunity to address public comments after the public comment session has been closed;
- At the request of the Chairman, the Executive Director may address public comments after the session has been closed as well; and
- As appropriate, staff will research questions by the public and respond through a report back to the Board at the next regular meeting of the full Board. It is suggested that commenters who have questions for the Board or staff submit those questions in advance of the meeting to permit the opportunity for some research before the meeting.

The agendas of Board meetings, and supporting materials, are available from the RWSA Administration office upon request or can be viewed on the Rivanna website.



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CALL TO ORDER

STATEMENT OF CHAIR TO OPEN MEETING

This is Mike Gaffney, Chair of the Rivanna Water and Sewer Authority.

I would like to call the June 23, 2020 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 25, 2020, Albemarle County's Continuity of Government Ordinance adopted on April 15th, 2020, 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(e) of the County's 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.

ROLL CALL:

Ms. Hildebrand: Please state your full name and location.

Mr. O'Connell: Please state your full name and location.

Dr. Palmer: Please state your full name and location.

Mr. Richardson: Please state your full name and location.

Dr. Richardson: Please state your full name and location.

Mr. Snook: Please state your full name and location.

And I am Mike Gaffney and I am located at _____.

Joining us today electronically are the follow Authority staff members:

Bill Mawyer, Executive Director

Lonnie Wood, Director of Finance & Administration

Jennifer Whitaker, Director of Engineering and Maintenance

Dave Tungate, Director of Operations

Betsy Nemeth, Human Resources Manager


Katie McIlwee, Communications Manager & Executive Coordinator


Michelle Simpson, Senior Civil Engineer



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We are also joined electronically by Kurt Krueger, counsel to the Authority.



RWSA BOARD OF DIRECTORS
Minutes of Regular Meeting
May 26, 2020

A regular meeting of the Rivanna Water and Sewer Authority (RWSA) Board of Directors was held on Tuesday, May 26, 2020 at 2:49 p.m. virtually via Zoom.

Board Members Present: Mike Gaffney, Lauren Hildebrand, Dr. Tarron Richardson, Lloyd Snook, Dr. Liz Palmer, Jeff Richardson, Gary O'Connell.

Board Members Absent: None.

Rivanna Staff Present: Bill Mawyer, Katie McIlwee, Lonnie Wood, Jennifer Whitaker.

Attorney(s) Present: Kurt Krueger.

Also Present: Access to the meeting was available via Zoom for members of the public and media representatives.

1. CALL TO ORDER

Mr. Gaffney called the May 26, 2020 regular meeting of the Rivanna Water and Sewer Authority to order at 2:49 p.m.

2. STATEMENT FROM THE CHAIR

Mr. Gaffney stated that notwithstanding any provision in the bylaws to the contrary, as permitted under the City of Charlottesville's Continuity of Government Ordinance adopted on March 25, 2020, and under Albemarle County's Continuity of Government Ordinance adopted on April 25, 2020, and under Chapter 1283 of the 2020 Acts of the Virginia Assembly effective April 24, 2020, they were holding this meeting by real-time electronic means with no Board member physically present in a single, central location.

Mr. Gaffney stated all Board members are participating electronically. He stated this meeting was being held pursuant to the second resolution of the City's Continuity of Government Ordinance and Section 6(e) of the County's Continuity of Government Ordinance. He stated all Board members will identify themselves and state their physical location by electronic means during the roll call, which would be held next.

Mr. Gaffney noted, for the record, that the public has real-time audio/visual access to this meeting over Zoom as provided in the lawfully open meeting notice, and real-time audio access over telephone, which was also contained in the notice. He stated the public is always invited to send questions, comments, and suggestions to the Board through Mr. Bill Mawyer, the Authority's Executive Director, at any time.

Mr. Gaffney called the roll call.

Ms. Lauren Hildebrand stated she was located at 305 Wood Street.

48 Mr. Gary O'Connell stated he was located at 168 Spotnap Road.

50 Dr. Elizabeth Palmer stated she was located on Mechum Banks Drive in Albemarle County.

52 Mr. Jeff Richardson stated he was located at 15 Lark Hill Road in Arden, North Carolina.

54 Dr. Tarron Richardson stated he was located at 605 East Main Street in Charlottesville.

56 Mr. Lloyd Snook stated he was located at 408 East Market Street in Charlottesville.

58 Mr. Mike Gaffney stated he was located at 3180 Dundee Road in Earlysville.

60 Mr. Gaffney stated the following Authority staff members were joining the meeting: Bill Mawyer (Executive Director), Lonnie Wood (Director of Finance and Administration), Jennifer Whitaker (Director of Engineering and Maintenance), and Katie McIlwee (Communications Manager).

62 Mr. Gaffney stated they were also joined electronically by Mr. Kurt Krueger (Counsel to the Authority).

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68 **3. RESOLUTION OF THE RIVANNA SOLID WASTE AUTHORITY AUTHORIZING THE**
69 **ADOPTION OF PROCEDURES FOR ELECTRONIC PUBLIC MEETINGS AND PUBLIC**
70 **HEARINGS AND MODIFICATION OF PROCUREMENT PROCEDURES TO ENSURE**
71 **THE CONTINUITY OF GOVERNMENT DURING THE COVID-19 PANDEMIC DISASTER**

72 Mr. Gaffney stated this resolution: (i) approves conducting the meeting and future meetings
73 electronically, consistent with the City's Continuity of Government Ordinance (adopted on March
74 25), the County's Continuity of Government Ordinance (adopted on April 15), and Chapter 1283 of
75 the 2020 Acts of the Virginia General Assembly (effective April 24); (ii) approves their conducting
76 the public hearings required for adoption of budgets and rate settings; and (iii) permits the Executive
77 Director to modify the requirements or procedures for procurements not directly related to the
78 COVID-19 disaster after giving reasonable notice to make the public aware of those modifications.

79
80 Mr. Gaffney noted that the public notice for this meeting was given in conformity with those
81 ordinances.

82
83 **RESOLUTION OF RIVANNA WATER AND SEWER AUTHORITY**
84
85 **AUTHORIZING THE ADOPTION OF PROCEDURES FOR ELECTRONIC PUBLIC**
86 **MEETINGS AND PUBLIC HEARINGS AND MODIFICATION OF PROCUREMENT**
87 **PROCEDURES TO ENSURE THE CONTINUITY OF GOVERNMENT DURING**
88 **THE COVID-19 PANDEMIC DISASTER**
89

90
91 **WHEREAS**, on March 12, 2020, Governor Ralph S. Northam issued Executive Order
92 Fifty-One declaring a state of emergency for the Commonwealth of Virginia arising from the
93 novel Coronavirus (COVID-19) pandemic; and

94 **WHEREAS**, Executive Order Fifty-One acknowledged the existence of a public health
95 emergency which constitutes a disaster as defined by Virginia Code § 44-146.16 arising from the
96 public health threat presented by a communicable disease anticipated to spread; and

97 **WHEREAS**, Executive Order Fifty-One ordered implementation of the Commonwealth
98 of Virginia Emergency Operations Plan, activation of the Virginia Emergency Operations Center
99 to provide assistance to local governments, and authorization for executive branch agencies to
100 waive “any state requirement or regulation” as appropriate; and

101 **WHEREAS**, on March 13, 2020, the President of the United States declared a national
102 emergency, beginning March 1, 2020, in response to the spread of COVID-19; and

103 **WHEREAS**, on March 11, 2020, the World Health Organization declared the COVID-19
104 outbreak a pandemic; and

105 **WHEREAS**, on March 12, 2020, the Charlottesville City Council approved the
106 declaration of a local emergency and the City Manager and Director of Emergency Management
107 issued a declaration of local emergency on March 12, 2020; and

108 **WHEREAS**, on March 17, 2020, the Albemarle County Board of Supervisors confirmed
109 the declaration of local emergency because of the COVID-19 pandemic made by the County
110 Executive, acting as the Director of Emergency Management on March 12, 2020; and,

111 **WHEREAS**, on March 18, 2020, the Albemarle County Board of Supervisors consented
112 to the County Executive, acting as the Director of Emergency Management, issuing an amended
113 declaration of local emergency to refer to the COVID-19 pandemic as not only an emergency,
114 but also as a “disaster” as the Governor had included in Executive Order Fifty-One, and the
115 County Executive issued the amended declaration on March 20, 2020; and

116 **WHEREAS**, Virginia Code § 15.2-1413 provides that, notwithstanding any contrary
117 provision of law, a locality may, by ordinance, provide a method to assure continuity of
118 government in the event of a disaster for a period not to exceed six months; and

119 **WHEREAS**, on March 25, 2020, the Charlottesville City Council, pursuant to Virginia
120 Code § 15.2-1413, adopted an Ordinance to Modify Deadlines, Modify Public Meeting and
121 Public Hearing Practices and Procedures to Address Continuity of Operations Associated with
122 the Pandemic Disaster (the “City Emergency Ordinance”); and

123 **WHEREAS**, on March 27, 2020, the Albemarle County Board of Supervisors, pursuant
124 to Virginia Code § 15.2-1413, adopted an Emergency Ordinance to Ensure the Continuity of
125 Government During the COVID-19 Disaster; and

126 **WHEREAS**, on April 15, 2020, the Albemarle County Board of Supervisors, pursuant to
127 Virginia Code § 15.2-1413, adopted an Ordinance to Ensure the Continuity of Government
128 During the COVID-19 Disaster, modifying its earlier ordinance adopted on March 27, 2020 (the
129 “County Emergency Ordinance” and collectively, with the City Emergency Ordinance, the
130 “Emergency Ordinances”, and individually, the “Emergency Ordinance”); and

131 **WHEREAS**, through its respective Emergency Ordinance, the Charlottesville City
132 Council and the Albemarle County Board of Supervisors specifically found that COVID-19
133 constitutes a real and substantial threat to public health and safety and constitutes a “disaster” as
134 defined by Virginia Code § 44-146.16 being a “communicable disease of public health threat”
135 and

136 **WHEREAS**, through its respective Emergency Ordinance, the Charlottesville City
137 Council and the Albemarle County Board of Supervisors further found that the COVID-19
138 pandemic makes it unsafe to assemble in one location a quorum for public bodies including its
139 respective boards, commissions and authorities (collectively the “Public Entities”), or for such

Public Entities to conduct meetings in accordance with normal practices and procedures; and

WHEREAS, on April 24, 2020, Governor Northam approved an amendment to House Bill 29, the Budget Bill, enacted as Chapter 1283 of the 2020 Acts of the Virginia General Assembly, Part 4: General Provisions, Section 4-0.00 Operating Policies, subparagraph g., effective on such date, permitting any public body, including any state, local, regional, or regulatory body, or certain governing boards, to meet by electronic communication means without a quorum of the public body and any member of the governing board physically assembled at one location when the Governor has declared a state of emergency, subject to certain conditions and procedures;

WHEREAS, through its respective Emergency Ordinance, the Charlottesville City Council and the Albemarle County Board of Supervisors adopted certain procedures to ensure the continuity of government during the COVID-19 Pandemic disaster (such procedures together with the Operating Policies set forth in Part 4 of Chapter 1283 of the 2020 Acts of the Virginia General Assembly, hereinafter collectively referred to as the "Continuity Procedures"), suspended any deadlines applicable to Public Entities and their staff during the COVID-19 disaster, and authorized Public Entities, at their discretion, to postpone non-emergency public hearings and action items during the disaster; and

WHEREAS, the Rivanna Water and Sewer Authority, being a public body created by concurrent resolutions of the City of Charlottesville and the County of Albemarle pursuant to the Virginia Water and Waste Authorities Act (Virginia Code Section 15.2-5100 *et seq.*) and whose Board members are appointed by the City of Charlottesville and the County of Albemarle, is a Public Entity included within the scope of each of the Emergency Ordinances adopted by the City of Charlottesville and the County of Albemarle and a local body under Chapter 1283 of the 2020 Acts of the Virginia General Assembly.

NOW, THEREFORE, BE IT RESOLVED that the Rivanna Water and Sewer Authority hereby incorporates by reference and adopts the Continuity Procedures prescribed in each of the respective Emergency Ordinances adopted by the City of Charlottesville and the County of Albemarle, and in Chapter 1283 of the 2020 Acts of the Virginia General Assembly copies of which are attached hereto; and

BE IT FURTHER RESOLVED that the Rivanna Water and Sewer Authority hereby authorizes and directs its officers and staff to take all steps reasonably necessary or appropriate to implement such Continuity Procedures and to develop any specific procedures as applicable and appropriate for the Rivanna Water and Sewer Authority, provided that such specific procedures are consistent with the terms and conditions of the Emergency Ordinances, including modification of the requirements or procedures for procurements not directly related to the COVID-19 disaster, notwithstanding any provision in its Bylaws or its Procurement Manual to the contrary, and

BE IT FURTHER RESOLVED that this Resolution shall take effect immediately upon adoption and shall remain in effect during the pendency of both Emergency Ordinances including for any applicable period upon the re-adoption of the Emergency Ordinances by the Charlottesville City Council or the Albemarle County Board of Supervisors and during the pendency of the emergency declaration by the Governor of Virginia.

Dr. Palmer moved that the board adopt the resolution authorizing the procedures for an electronic public meeting and public hearings, and granting the Executive Director the authority to modify procurement procedures to ensure the continuity of government during

the COVID-19 pandemic disaster. The motion was seconded by Mr. Snook, and passed unanimously (7-0).

4. ELECTION OF CHAIR, VICE CHAIR & SECRETARY-TREASURER

Mr. Krueger stated that for Water and Sewer, Dr. Richardson currently serves as Vice Chair, and Mr. Richardson serves as Secretary-Treasurer. He stated if following convention, they would alternate those roles this time.

Dr. Palmer moved that the board elect Mike Gaffney as Chair, Mr. Richardson as Vice Chair, and Dr. Richardson as Secretary-Treasurer, to take effect immediately. The motion was seconded by Mr. Snook, and passed unanimously (7-0).

5. MINUTES OF PREVIOUS BOARD MEETINGS

a. Minutes of Regular Board Meeting on February 25, 2020

Mr. Gaffney asked board members if they had comments or changes.

Mr. O'Connell moved that the board approve the minutes of the previous board meeting. The motion was seconded by Mr. Richardson and passed unanimously (6-0). (Mr. Gaffney abstained, as he was not in attendance at the February 25, 2020 meeting.)

6. RECOGNITIONS

There were no recognitions.

7. EXECUTIVE DIRECTOR'S REPORT

Mr. Mawyer stated he was excited to be part of the first virtual board meeting of the RWSA Board. He thanked Mr. Wood and his staff for making this possible, along with Ms. McIlwee in helping to set this up and have it run so successfully.

Mr. Mawyer thanked the 93 employees of the Water and Sewer Authority, noting that 90% of these employees had to work their normal shifts on most days. He stated they did stagger some of the shifts, but water operators, wastewater operators, maintenance, laboratories, chemists, finance employees, Human Resources, Administrative, and IT personnel as well as construction and inspection staff worked during their normal shifts on normal days to help keep our systems operating. He stated he appreciated all their efforts.

Mr. Mawyer stated their engineering staff worked from home, but did a great job keeping all the construction projects moving forward amidst the COVID-19 challenges. He stated he appreciated all that staff has done. He presented a picture that was taken on Employee Appreciation Day at Michie Tavern, which featured a mix of Water/Sewer and Solid Waste employees. He stated he appreciated what this dedicated staff did during this stressful time.

Mr. Mawyer stated they have had many things happen since the board last met in February. He stated he was pleased that the staff have made a lot of progress on the easement acquisitions from South Rivanna Reservoir to Ragged Mountain Reservoir. He stated they have made offers to 11 of 12 private owners. He stated the only private owner they need to make offers to is the UVA Foundation. He stated they have not offered on some of the UVAF properties, but all of the

other 11 properties have received offers, and they have successfully negotiated 8 easements with those 11 property owners.

Mr. Mawyer stated they were moving forward with the three public properties that include VDOT, the City near Ragged Mountain (which Ms. Hildebrand has been working to get this on the City's agenda as soon as possible, likely in July), and the County School Board (where property is located behind Albemarle High School and Jouett Middle School). He stated all these are moving forward.

Mr. Mawyer stated there is another leg of the easement acquisition process that is from Ragged Mountain Reservoir to Observatory Treatment Plant. He stated there is a pipeline that will be replaced from the reservoir to the treatment plant, and they are working with UVA, the UVA Foundation and other private property owners, and the VA Department of Forestry to access those properties. He thanked Ms. Whittaker and Ms. Victoria Fort for their efforts on this essential project.

Mr. Mawyer stated they continue to move forward on the Observatory lease with UVA. He stated they are down to final lease terminology, terms, and conditions. He stated UVA asked RWSA to revise the boundaries of the lease property area, so they reviewed this and provided some thoughts on where they could move the property line. He stated he is hopeful UVA will accept this so they can get the lease approved and move on. He stated there is a license agreement on the Alderman Pump Station that is in its final phase, as well as the wording for water line easements that go along with this process.

Mr. Mawyer stated staff did a great job applying for a federal grant with the Natural Resources Conservation Service, a federal agency, for the Beaver Creek Dam Improvement Project. He stated they have been approved for a \$341,000 grant to support the preliminary engineering for that project. He stated they are close to getting the paperwork signed and returned to the NRCS. He stated this is Part One of that process and project, and that they would intend to apply for construction funding later in the process. He stated they understand it is a shared process where the NRCS could pay about 40% of the total costs of the construction, which the total project is around \$27 million.

Mr. Mawyer stated the Second Annual Northwest Central Virginia Utilities Manager Lunch was held in February, and was well attended.

Mr. Mawyer stated May 3-9 was Drinking Water Week.

Mr. Mawyer stated the IT group received recognition in Power Magazine, which stated that Rivanna was a "respected environmental and industry leader in the region, and uses advanced technology and processes to achieve high standards of performance." He stated this was a nice article about the SCADA system they have used, which is a G.E. product. He stated he appreciated Mr. Wood, Mr. Steve Miller and his group for doing a good job with that.

Mr. Mawyer stated they have been watching the water production, particularly in view of the COVID-19 situation and schools closing. He stated while the urban water production has been

278 down about 7% since March 1, Crozet has been up 5%, and Scottsville has been up 24%. He
279 stated comparing FY 20 to the last fiscal year, they were still about 3.5% above their production
280 last year. He stated they were not seeing a significant impact.

281
282 Mr. Mawyer noted that on Attachment 10D, Ms. Whittaker and Ms. Fort included the Wholesale
283 Metering Report. He stated this shows how the wholesale water meters are allocating water to
284 the City and to the Service Authority. He stated while the Service Authority demand use is on
285 par with the normal, there is a drop in the City's demand, which they could anecdotally allocate
286 to UVA's usage being decreased.

287
288 Mr. O'Connell asked if this was for the month of April.

289
290 Mr. Mawyer stated Attachment 10D shows several months. He asked Ms. Hildebrand if she was
291 seeing a decrease in use from UVA.

292
293 Ms. Hildebrand replied yes.

294
295 Mr. O'Connell thanked Mr. Mawyer and his staff for all their work in keeping the water flowing
296 and wastewater treatment going throughout the pandemic. He stated this is an essential service
297 that is out of sight and out of mind until customers do not have it.

298
299 Mr. Mawyer noted that both Mr. O'Connell and Ms. Hildebrand offered their staff to help
300 Rivanna, if ever needed, with water and sewer operations and that thankfully, they have not had
301 to ask for any help. He stated Mr. David Tungate and his group did a nice job making some
302 videos about "a day in the life of an operator" to help with training, which could help provide
303 City and ACSA staff with some minimal training on what it is to be a water or wastewater plant
304 operator.

305
306 Mr. Mawyer stated they have actually achieved many improvements during the pandemic, both
307 administratively and training-wise with PPE and making sure they have an adequate stock. He
308 stated they have been doing well, along with the standard sanitization and safe health procedures.
309 He stated the wastewater staff disinfect shoes when they go from certain buildings to others. He
310 expressed appreciation to staff and to the ACSA and City for offering to help.

311
312 Dr. Palmer agreed that everyone was appreciative of the staff at RWSA, ACSA, and the City in
313 keeping everything going. She stated she had a question about the Biosolids Regional Meeting.
314 She stated there was a note in the report that biosolids generators discussed concerns about the
315 long-term availability of land application, incineration, and landfilling. She asked if Mr. Mawyer
316 could say something about that or direct the board to something they could read about these
317 concerns.

318
319 Mr. Mawyer stated when they finish the wastewater treatment process, it ends with a
320 biosolid/solid product, and a liquid product. He stated the liquid product is treated and
321 disinfected, then goes back into Moores Creek from the Moores Creek plant. He stated they also
322 have many tons of biosolids they produce and those are currently shipped to Waverly, where
323 they are made into compost.

Mr. Mawyer stated there are a number of wastewater utilities who land-apply biosolids, and the Biosolids Council of which RWSA is a member, monitors a lot of the legislation going on, as there is concern in the community about chemicals being in biosolids, particularly when they are land-applied. He stated more recently, there are concerns about PFAS (Per- and Polyfluoroalkyl Substances) and how this might affect the land, or if it runs off and goes into the streams during land application.

Mr. Mawyer stated many utilities see land application as an important part of their biosolids disposal program, but it is being challenged in various places because of the potential for leeching materials back into the water supply. He stated this Council stays in touch with that kind of information and helps all the members be aware of legislation, and the DEQ inspection program for biosolids. He stated he could send Dr. Palmer more information.

Dr. Palmer stated there had been a presentation by staff in the past on the options for biosolids and that in the chart of options, landfilling was one of those. She stated this, of course, was not chosen and that Mr. Mawyer explained what they are doing locally. She asked if there was some effort to disallow that from landfills.

Mr. Mawyer stated the main target is disallowing land application of biosolids and spreading it on agricultural property. He stated landfills which accept biosolids are the technologically-advanced landfills with membrane bottom and top liners. He stated they have not received much concern about biosolids going to the landfill, and that it was mostly the land application that receives attention.

Dr. Palmer stated she assumed very few counties incinerate it, as there were not many incinerators around.

Mr. Mawyer stated he has read about some incineration facilities around the country, but not very many.

Mr. Mawyer added that those who land apply biosolids also need to landfill as a part of their disposal program. He stated biosolids are generated every day and must be disposed, and if it is during the winter or a rainy period and they cannot get the biosolids onto the fields, the landfill then becomes an important component of those utilities' biosolids disposal program.

8. ITEMS FROM THE PUBLIC

Mr. Gaffney opened the meeting to the public. Hearing no speakers, he closed the Items from the Public portion of the meeting.

9. RESPONSES TO PUBLIC COMMENT

As there were no public comments, there were no responses.

10. CONSENT AGENDA

a. Staff Report on Finance

b. Staff Report on Operations

371
372 c. *Staff Report on Ongoing Projects*

373
374 d. *Staff Report on Wholesale Metering*

375
376 e. *Authorization for Engineering Services – Virginia Water Protection Permit Renewal for the*
377 *Urban Water System; Hazen Engineers*

378
379 f. *Award of Contract for Engineering Services - Term Contract for Professional Sanitary Sewer*
380 *Modeling Services; Brown and Caldwell Engineers*

381
382 g. *Construction Work Authorization – South Fork Rivanna Dam Mud Valve Replacement – Bander*
383 *Smith, Inc*

384
385 Regarding item (g), Mr. O’Connell asked if he could get more detail on the mud valves, what the
386 work involves, the timeframe for the repair, and when that will be completed.

387
388 Mr. Mawyer stated these mud valves were the ones that RWSA found were not operating
389 properly in 2017, and they did some temporary patching to seal them as best as possible. He
390 stated now there was a diving company, as much of the work is underwater, to assess these
391 valves and the closing devices and come up with recommendations of whether they should be
392 repaired or replaced. He stated he hoped that whichever is appropriate, this calendar year (later in
393 the summer or fall), they could make these valves (which were put in when the dam was
394 originally built) more water-tight.

395
396 Mr. O’Connell asked if Mr. Mawyer expected the work to be completed by end of fall.

397
398 Mr. Mawyer asked Ms. Whittaker if this was the case.

399
400 Ms. Whittaker replied yes. She stated the intent is to have the work done. She stated in fact, they
401 were in the chambers two weeks ago, and the divers got a great view. She stated they will close
402 the bulkheads and pull the valves off the concrete wall, and will do one of two things. She stated
403 they will either retrofit from the square sluice hole to a circular knife gate hole and knife gate
404 plate, valve, and parts that go with it; or they will take the square sluice gate off the wall,
405 refurbish the square sluice gate, and reinstall it. She stated they were able to get a clear picture of
406 what the issues are, where it is leaking, and why. She stated they expected within the month to
407 have an alternative selected and the equipment ordered.

408
409 **Dr. Palmer moved that the board approve the Consent Agenda. The motion was seconded**
410 **by Mr. O’Connell and passed unanimously (7-0).**

411
412 **II. OTHER BUSINESS**

413 a. *Presentation: Proposed FY 2021-2025 Capital Improvement Program Budget Update; Bill*
414 *Mawyer, Executive Director*

415 Mr. Mawyer stated this was presented to the board in February, but in view of the economy and
416 the COVID-19 realities, the subcommittee members, Mr. O’Connell and Ms. Hildebrand, both
417 asked to have zero increases in RWSA’s costs to them next year. He stated in order to do that,

they had to go back to the Capital Program, as well as the Operating Budget, to make revisions. He stated this update is a review of those revisions.

Mr. Mawyer stated the updated CIP includes 5 deferred projects of the 56 projects that were included in February, with the project total now 51. He stated they deferred \$2.7 million in projects outside the five-year CIP, which made some small changes (e.g. \$1.1 million in urban water, \$1.3 million in urban wastewater, and \$300,000 for non-urban water projects).

Mr. Mawyer stated five projects were deferred, including a waterline crossing of the Rivanna River, which was mostly a study to assess that project. He stated it would give them a second crossing and redundancy to the Piney Mountain area, as there is only one pipe that serves that area from the South Rivanna Treatment Plant today.

Mr. Mawyer stated there is a more significant project with the North Rivanna Water Treatment Plant Upgrade, and that an assessment of that project is being conducted to determine if they will continue to operate that treatment plant or take it out of the inventory. He stated meanwhile, with the storm a couple years ago, it washed out the backwash lagoons, and so they still have some funding in the project to do the minimum necessary, but deferred \$1 million from FY 23 to FY 26 until they have more information and make a more comprehensive decision about what upgrades they might do to this plant.

Mr. Mawyer stated that regarding the Scottsville water tank, there was an assessment that determined that the interior and exterior needed to be painted, but this project was delayed one year.

Mr. Mawyer stated there was a project for the Maury Hill sewer replacement, which is located at the UVA Fontaine Avenue Research Park. He stated this is a sewer capacity issue, but that it is not currently experiencing any problems, so the project was deferred.

Mr. Mawyer stated there has been a project in the CIP for a couple years of about \$8 million to complete an addition to the administration building. He stated they deferred the first year of significant funding for that project, from FY 25 to FY 26. He stated with the new paradigm of working from home, they will have to reassess this addition and what shape and form it needs to take, if any, for Rivanna's future.

Mr. Mawyer stated similarly, there was a small project to renovate the Moores Creek conference room, and that this has been deferred from FY 22 to FY 26.

Mr. Mawyer stated these changes totaled about \$2.7 million in project reductions within the five-year CIP.

Mr. Mawyer stated the CIP history over the last 20 years shows that the average is at \$144 million per 5-year CIP. He stated the CIP totaled \$154 million in 2019, followed by a significant drop in 2020 to \$97 million. He stated they were not too far from the average, at \$132.5 million, which is still slightly below the 20-year average for Rivanna's history.

Mr. Mawyer stated the 15-year CIP planning forecast did not change significantly. He stated they shifted the \$2.7 million, so they have less in the first five years and more in the second five years. He stated the third five years remained unchanged, and so the 15 years still total \$275 million.

Mr. Mawyer stated they did not affect any of the schedules or projects related to community water supply projects. He presented a list of those projects, noting that none of those projects were impacted by the deferrals.

Mr. Mawyer stated in summary, the five-year CIP has adjusted from 56 to 51 projects, and from \$135.2 million to \$132.5 million.

Mr. Mawyer stated with the three water treatment plant renovations (Crozet, South Rivanna, and Observatory) underway construction, and the cost of these facilities totaled over \$52 million in the CIP.

Dr. Palmer thanked Mr. Mawyer for the work on the CIP.

Mr. Mawyer stated Ms. Whittaker and her staff put together the CIP in a strategic way, and modify it when asked. He stated he appreciated all their effort in making it happen. He likened the CIP to a puzzle in that pulling one piece out can affect the entirety of the comprehensive puzzle, as they have put it together in a strategic way and projects are connected.

b. Presentation: Introduction of Proposed Budget for FY 2020-2021, and Adoption of Preliminary Rate Schedule; Bill Mawyer, Executive Director

Mr. Mawyer presented a photograph of the Ragged Mountain Reservoir at night, noting it was impressive. He pointed out the dam and I-64 Westbound in the picture. He stated they now have a new video of the Rivanna to Ragged Mountain Pipeline route, and that he would show this to the board in the coming months.

Mr. Mawyer stated the proposed budget for next year totals \$37.1 million. He stated the largest single budget item was debt service and pointed it out on the pie chart, noting it was \$17.7 million. He stated they have \$8.7 million in personnel cost, salaries, and benefits, and that this funds the 93 people that report to Water and Sewer. He stated there is \$4 million in general services that they use for nonprofessional and professional contract services, utilities, and insurance. He stated there is also \$6.5 million that funds chemicals, building repairs, equipment maintenance, and related things.

Mr. Mawyer stated the proposed budget for the next year was \$37.1 million.

Mr. Mawyer stated he wanted to celebrate the things they were able to complete that year. He presented a photograph by the Birdwood Golf Course, noting that the area between the golf course and Belair is where the Birdwood Water Line was constructed.

Mr. Mawyer stated they finished the Wholesale Water Metering Project last year, and got the Observatory Water Treatment Plant cost sharing agreement completed between the City and the Service Authority.

Mr. Mawyer stated along with the County's approval, the ACSA, the City, and Rivanna, they got the Buck Mountain Surcharge joint agreement executed, which ended the Buck Mountain surcharge on new water connections in the City and County.

Mr. Mawyer stated they completed a bathymetric study of the Lickinghole stormwater basin, which measures the volume available within the basin and what siltation has occurred. He stated he would likely give the board more information about that in the near future.

Mr. Mawyer stated they have completed the Water Demand and Safe Yield studies, which would be provided to the board the next month, along with the Lickinghole Basin Report in July. He stated the Water Demand and Safe Yield predicts how much water the community needs for the next 50 years, what the water supply capacity is, and when they might have to add a new water supply.

Mr. Mawyer stated the EPA required Rivanna to do a Risk and Resiliency Assessment, which was due and successfully completed in March. He stated this was considering the risk and resiliency for the drinking water facilities. He stated they have optimized corrosion control product in the water treatment plants, which has been somewhat delayed due to COVID-19, as in-house testing must be done in people's homes to collect samples and ensure the product is at the appropriate levels. He stated along with the ACSA and City, this has been delayed somewhat until they get past the COVID-19 concerns.

Mr. Mawyer stated they are proud and pleased that, driven by the Strategic Plan goal to continually evaluate, prioritize, and improve key business operation processes, they have found over \$500,000 in annual savings, substantially by re-procuring their GAC media products and getting competitive bids. He stated Mr. Wood's staff did a good job refinancing bonds for Rivanna, which saved \$162,000. He stated they re-procured the waste containers that collect wastewater debris and other waste, saving \$74,000. He stated they rebid one of the treatment chemicals (glycerin), which saved almost \$28,000.

Mr. Mawyer stated they had 62 radios and decided they did not need this many. He stated they were able to eliminate a number of radios, and they pay a pro rata amount to the regional Emergency Operations Communications system based on the number of radios, so this will save them money every year.

Mr. Mawyer stated they even got down to the minutia of what products they have in first aid and safety supply boxes, as they had an expense close to \$10,000 per year, which they thought was high. He stated staff and the safety manager were able to optimize that to reduce \$7,000 a year they were spending on those supplies.

Mr. Mawyer stated they would have a one-time savings next year from not having to buy new radios, as the new EOC system will require all the radios to be replaced. He stated because they

554 don't need so many radios, they will not have to buy as many, and will save \$97,000. Mr.
555 Mawyer stated they were pleased about the half-million dollars they have saved, going forward.
556 He stated next year, there were major projects coming up with the water treatment plant
557 renovations that are underway at Crozet, South Rivanna, and Observatory. He stated they have a
558 pipeline project from South Rivanna to the Ragged Mountain Reservoir, where they acquired a
559 number of easements already.

560
561 Mr. Mawyer stated they will complete an Urban Area Finished Water Master Plan to tell them
562 where they need to expand, replace pipes, and build pump stations or tanks within the urban
563 water system. He stated the real issue is about where a new central water line should be located
564 to supply the community (likely to be in the City of Charlottesville).

565
566 Mr. Mawyer stated they have a wastewater flow equalization tank that is going to be constructed
567 soon to support Crozet and minimize wastewater overflows. He explained they pump and pipe
568 all the wastewater from Crozet to Moores Creek, and they have to make sure the wastewater
569 stays in the pipe along that path.

570
571 Mr. Mawyer stated they would complete the Buck Mountain Master Plan and provide the board a
572 presentation in the coming months with options about management of that property.

573
574 Mr. Mawyer stated they have two regulatory actions they need to submit. The first is for a new
575 Virginia Water Protection Permit for the Crozet water system, to increase the amount of water
576 they can withdraw from Beaver Creek Reservoir, and also to renew permits for the urban water
577 system as they withdraw water from Ragged Mountain and Rivanna Reservoirs. He stated that
578 those permits expire in 2023, and need to be renewed in 2022. He stated one of the board's
579 Consent Agenda items was to authorize the engineer to get started with the investigations and
580 research required to complete a new permit application, and so that is underway.

581
582 Mr. Mawyer stated the budget is proposed to be \$37.1 million, which is 2.6% above last year. He
583 stated the increases include a \$163,000 increase in operating expenses, with the majority
584 (\$780,000) being debt service for projects that are already underway. He stated these charges
585 were essentially unavoidable. He stated they did speak with the City and ACSA, and they have
586 asked RWSA to have a zero cost increase for next year. He stated they have been working to do
587 their best to be able to achieve that goal.

588
589 Mr. Mawyer stated the City charges for next year would be around \$14.8 million. He stated the
590 Service Authority charges would be \$18.5 million. He stated they have other revenue they collect
591 from private septage haulers, who make 4,000 trips to Moores Creeks to dispose of septage. He
592 stated they are using \$1.7 million from Rivanna reserves to help balance the budget.

593
594 Mr. Mawyer presented the 15-year history of the operating budget. He stated that since 2016,
595 they have been above the average budget and improving the facilities that need to be repaired,
596 such as the water treatment plant renovations and wastewater work from the past.

597
598 Mr. Mawyer stated they have five reservoirs holding 3.3 billion gallons, six water treatment
599 plants, four wastewater treatment plants, a number of pump stations for water and wastewater, as

600 well as over 100 miles of water and wastewater piping. He stated they diversify their portfolio
601 with the stormwater facility at Lickinghole Creek. He stated they do this with 93.4 employees in
602 the RWSA. He stated their capital assets are \$257 million.

603
604 Mr. Mawyer stated of the budget increase (\$946,000), \$163,000 of it is for operating expenses,
605 largely made up of healthcare premiums. He stated they get their health insurance through
606 Anthem, and there are premiums required from Rivanna. He stated they have minor personnel
607 changes. He noted that the lease on the Observatory Water Treatment Plant will increase from
608 \$33,000 to \$100,000 on July 1. He stated debt service is increasing almost \$800,000 for projects
609 that are underway. He stated they have borrowed the money, and the debt payments have to be
610 made. He stated Crozet, Rivanna, and Observatory Water Treatment Plants are under
611 construction.

612
613 Mr. Mawyer stated the Crozet Wastewater Equalization Tank is going out to bid within a month
614 or two. He stated in the near future, they would have the Beaver Creek dam and pump station
615 improvements project underway that the Department of Conservation and Recreation is
616 requiring. He stated DCR passed new regulations in 2016 that required a spillway that would
617 pass 31 inches of rainfall water per day, and currently, Rivanna passes about 15 inches, so they
618 have a large project to make improvements to that spillway. He stated in order to do this, they
619 must move the pump station, which collectively totals a \$27 million project.

620
621 Mr. Mawyer noted revenues that will be lost next year. He stated they would no longer collect
622 the Buck Mountain surcharge (\$125,000). He stated they estimate that the wastewater nutrient
623 credits will be reduced by about \$45,000 because of the State's new WIP III requirements on
624 how they meet the EPA stormwater and water pollution reduction requirements for the
625 Chesapeake Bay.

626
627 Mr. Mawyer stated in February, when he initially met with Ms. Hildebrand and Mr. O'Connell,
628 the budget was \$38.4 million, which was \$1.3 million higher. He stated they did go back and
629 reduce it to meet the zero cost increase objective. He presented a list of things that had to be
630 eliminated in order to try to meet that objective including a merit increase for staff, three
631 positions that had been planned, and a reduction in consultant studies. He stated they estimate
632 they will not replace the GAC media quite as quickly to reduce expenses. He stated they have
633 other maintenance and a bathymetric survey items they eliminated from the FY 21 budget. He
634 stated deferring these items saved approximately \$1.3 million.

635
636 Mr. Mawyer stated that Rivanna would use reserves to help fund the expenses next year. He
637 stated they were using a total of \$1.7 million of reserve funds, and presented a list of things they
638 would use it on including the GAC media replacement in the urban system, Crozet, and
639 Scottsville; and other minor projects. He stated debt service is the largest driver of budget
640 increases, and they are funding all of that this year from reserves, with a note that this is a
641 practice they cannot continue and maintain a sound financial position.

642
643 Mr. Mawyer stated this year, they were asked to try to get the budget to a zero increase for the
644 City and the ACSA, which is what they proposed for FY 21. He stated in the preliminary budget,
645 they were proposing a 5.7% increase to the City, and 8.8% increase to the ACSA, so they had to

646 make a number of revisions to decrease both of those charges to zero. He stated in FY 22, there
647 are large charge increases planned, and they would schedule time to meet with Mr. O'Connell
648 and Ms. Hildebrand to work through what they can do and what the alternatives are to try to
649 reduce or spread out those increases in FY 22 to the latter years.

650
651 Mr. Mawyer stated these charges do include all operating expenses as well as debt service costs.
652 He stated they are using reserves of \$1.7 million for operating and debt and that collectively,
653 over the next five years, they have planned to use almost \$11 million of their reserves to help
654 fund the CIP.

655
656 Mr. Mawyer stated they anticipate issuing a revenue bond in FY 22 of around \$45 million. He
657 stated every couple years, they would need to issue a new bond to fund the CIP.

658
659 Mr. Mawyer presented the debt status. He stated currently, they have about \$200 million in debt,
660 for which they are paying over \$17 million per year in debt service payments.

661
662 Mr. Mawyer stated in 2019 he showed the board the chart of the debt service profile, and that in
663 FY 21, the profile is very similar. He stated the annual debt service payment has increased,
664 however, from \$15.7 million to \$17.7 million. He pointed to the total debt service, and to another
665 line that shows how the debt will increase with the proposed five-year CIP. He noted that around
666 2030-2031, they see some debt capacity, which is where they have programmed the beginning of
667 construction for the Rivanna Reservoir to Ragged Mountain Reservoir Pipeline Project.

668
669 Mr. Mawyer stated the budget proposed is \$37.1 million, at a 2.6% increase. He stated they
670 propose an operating budget of \$19.4 million, and debt service of \$17.7 million. He stated there
671 are no salary increases for staff, and no additional staff or any additional programs included in
672 the proposed budget. He stated this was in order to help them get to the zero percent increase for
673 the City and ACSA.

674
675 Mr. O'Connell thanked Mr. Mawyer, Mr. Wood, and Ms. Whittaker for all their work. He stated
676 there was a quick turnaround with the COVID-19 impacts on the economy, and that Mr. Mawyer
677 and his staff worked hard to get the increase down to zero for next year, which is a great benefit
678 to all the customers.

679
680 Dr. Palmer stated there would be a lot of work next year, or very soon, to deal with those
681 increases for FY 22. She thanked Mr. Mawyer as well.

682
683 Mr. Mawyer stated he was scheduling meetings with Mr. O'Connell and Ms. Hildebrand within
684 the next month to get started on that effort, as they have projects that are under construction, they
685 have borrowed the money for them, and they must be paid. He stated they do not have much
686 flexibility, but they will see what they can come up with.

687
688 Mr. Snook asked what cash reserves Rivanna has.

689

690 Mr. Mawyer replied they have about \$13 million for Urban Water, and \$12 M for Urban
691 Wastewater. He stated the reserves are segregated by cost into reserves for urban water, urban
692 wastewater, and non-urban cost centers.

693
694 Mr. Snook stated he assumed this was for management purposes rather than any legal
695 requirement.

696
697 Mr. Mawyer stated he believed so. He asked Mr. Wood if all the reserves were available, or if
698 some were restricted by the debt service covenants.

699
700 Mr. Wood replied that the reserves he has shown Mr. Mawyer are all the discretionary reserves
701 and are available for spending. He stated they are segregated out into rate centers because the
702 four-party agreement does separate out charges and costs to different rate centers. He stated the
703 two urban cost centers are shared by the City and County. He stated the other four non-urban rate
704 centers are supported by the Service Authority only. He stated 10-15 years ago, they separated
705 the reserves by rate centers for that purpose.

706
707 Mr. Snook clarified that he was not asking because he wanted to spend it, but was curious about
708 how close to the line they were coming.

709
710 Mr. Wood stated they have sufficient reserves currently, and that next month they were planning
711 to bring information to the board on reserves and how the bond rating agencies evaluate
712 Rivanna. He stated they were carrying quite a large amount of debt, and more so than most
713 normal service authorities like Rivanna. He stated one of the ways they do have to mitigate
714 having such a large debt load is having a very liquid balance in reserves. He stated it is one of the
715 ways they counterbalance it out. He stated roughly, they have around \$25 million estimated at
716 the end of 2020 to start 2021.

717
718 Mr. Snook stated he was looking at the graph of the total outstanding debt, showing that it
719 essentially quadrupled over the last decade. He asked if there was some sort of rule that as long
720 as one is below a certain percentage they are okay, but if they are over it, they are in trouble.

721
722 Mr. Wood stated there were several different rules and that it wasn't really based on debt load,
723 but on their capacity to generate revenue. He stated it is called a debt service ratio, and is how
724 much revenue they can generate net of expenses to pay for debt service.

725
726 Mr. Snook asked how Rivanna fares there.

727
728 Mr. Wood replied that they have a financial policy target of 1.5, meaning that for every \$100 of
729 debt payment obligation, the Authority must generate \$150 in net revenues, and the excess \$50 is
730 generated for reserves. He stated they have been meeting this for probably three out of the last
731 five years. He stated it has been a little tight over the past couple years, but this is what reserves
732 are for -- to be able to use them when needed, as they do now, and be able to build them back up
733 at a different time.

735 Mr. Snook asked if the ratio Mr. Wood used was a generally-accepted ratio within the industry as
736 far as being a sound business practice.

737
738 Mr. Wood replied yes.

739
740 Mr. Gaffney asked Mr. Mawyer what Rivanna's credit rating is.

741
742 Mr. Mawyer replied they were recently received an unsolicited review by Moody's, who
743 affirmed Rivanna's rating as AA2. He stated above rating that would be AA1, and then AAA. He
744 stated they are within the "premium investment" category as an AA2. He stated Moody's
745 commented on Rivanna being a strong utility, but did identify some weaknesses with the
746 significant debt load. He stated they would bring the board a report and more information on this
747 in the coming months.

748
749 Mr. Wood stated for S&P, they have an AA+ rating.

750
751 Mr. Gaffney asked Mr. Wood what their last rating was with their financing.

752
753 Mr. Wood replied that the last public offering they did was in 2012 to finance the Ragged
754 Mountain Dam, and that they received an AA+ from S&P and an AA2 from Moody's at that
755 time.

756
757 Mr. Gaffney asked if they have maintained these ratings throughout.

758
759 Mr. Wood replied yes.

760
761 Mr. Snook asked for the interest rate of those bonds.

762
763 Mr. Wood replied they are anywhere from 3.5-4.5%.

764
765 **Dr. Palmer moved the board adopt the attached preliminary rate schedule in order to hold**
766 **the public hearing the next month. The motion was seconded by Mr. O'Connell, and**
767 **passed unanimously (7-0).**

768
769 ***12. OTHER ITEMS FROM BOARD/STAFF NOT ON AGENDA***

770 Mr. Gaffney stated he had a question in reference to if, for some reason, the federal government
771 comes out with an infrastructure stimulus package. He asked if there were any shovel-ready
772 projects, and if they would even qualify to put those in.

773
774 Mr. Mawyer replied that they are taking a look at what they projects they have, and are trying to
775 read all the information available about the possibility of another federal stimulus program. He
776 stated the State Revolving Fund is available to Rivanna, and that Mr. Wood has worked with that
777 fund in the past. He stated the Crozet wastewater storage tank project will be "shovel ready" in
778 the coming months, so he was taking a look at this, but was not extremely optimistic that he has
779 projects that will receive any federal funding.

781 Mr. O'Connell stated he was also hearing that for the \$27 million project for Crozet, 40% of that
782 may be eligible for separate infrastructure funding.
783

784 Mr. Mawyer stated he understood that it was usually a 60/40 split, with the owner and the NRCS.
785 He stated they were pleased that they got the first round of the preliminary engineering approved,
786 which was a good step forward, and that they would like to get the preliminary engineering and
787 final design completed, and be ready for any available construction dollars.
788

789 ***13. CLOSED MEETING***

790 There was no closed meeting.
791

792 ***14. ADJOURNMENT***

793 **At 3:48 p.m., Dr. Palmer moved to adjourn the meeting of the Rivanna Water and Sewer**
794 **Authority. The motion was seconded by Mr. O'Connell and passed unanimously (7-0).**
795



MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

FROM: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: EXECUTIVE DIRECTOR'S REPORT

DATE: JUNE 23, 2020

STRATEGIC PLAN GOAL: WORKFORCE DEVELOPMENT

Recognitions

The professional qualifications of our staff continue to improve and enhance our services. The following employee has successfully completed the requirements for a license from the State:

- Christopher Weigel earned his Class 1 Water Operator's License.

STRATEGIC PLAN GOAL: INFRASTRUCTURE AND MASTER PLANNING

S. Rivanna to Ragged Mtn Reservoir Water Line Easements

Progress continues in our efforts to acquire the necessary easements. Offers have been made to 11 of 12 private property owners, and through negotiations, agreements have been reached with 7 property owners. Progress is also being made on easements from 3 public property owners (VDOT, City, County School Board).

Negotiations with two private owners, UVA, the UVA Foundation and the Virginia Department of Forestry are also ongoing for water line easements between Ragged Mtn Reservoir and the Observatory Water Treatment Plant.

Observatory Water Treatment Plant Lease

Discussions and surveying are continuing with UVA.

Natural Resources Conservation Service Grant

We received a \$341,000 grant from the federal NRCS to support engineering planning costs for the Beaver Creek Dam Improvements Project. Upon completion of the

planning study, we will request grant funding for design and construction of these modifications, typically a cost share (30% RWSA, 70% NRCS) of the estimated \$27 M project.

STRATEGIC PLAN GOAL: OPERATIONAL OPTIMIZATION

CARES ACT Funding

We are coordinating with the City and County for reimbursement of about \$70,000 in COVID related expenses, if federal funds become available.

STRATEGIC PLAN GOAL: ENVIRONMENTAL STEWARDSHIP, COMMUNICATION & COLLABORATION

Virginia Department of Health Grant

RWSA has been awarded a \$19,200 grant from the Virginia Department of Health (VDH) to establish watershed and reservoir protection signs in the following watersheds:

- Beaver Creek Reservoir Watershed: 4 signs
- Totier Creek Reservoir Watershed: 2 signs
- North Rivanna intake watershed: 2 signs.

Previously, the VDH has aided the RWSA in developing Source Water Protection Plans for these source waters, which each serve less than 10,000 customers. The establishment of these signs will fulfill action items in those Plans.

RWSA has coordinated with the VA Department of Transportation regarding rules about sign size and color. A VDOT representative said that this is the first time a public utility in Virginia has requested source water protection signs for their water supply watershed. This work is expected to be completed by June 2021.



MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

**FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND
ADMINISTRATION**

REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: MAY MONTHLY FINANCIAL SUMMARY – FY 2020

DATE: JUNE 23, 2020

Urban Water flow and rate revenues are 1.7% under budget estimates through May of this fiscal year, and Urban Wastewater flow and rate revenues are 6.5% over budget. Revenues and expenses are summarized in the table below:

	Urban Water	Urban Wastewater	Total Other Rate Centers	Total Authority
Operations				
Revenues	\$ 6,971,313	\$ 8,467,560	\$ 2,130,469	\$ 17,569,342
Expenses	(7,315,129)	(8,242,039)	(1,940,705)	(17,497,873)
Surplus (deficit)	<u>\$ (343,816)</u>	<u>\$ 225,521</u>	<u>\$ 189,764</u>	<u>\$ 71,469</u>
Debt Service				
Revenues	\$ 6,134,847	\$ 7,973,233	\$ 1,368,550	\$ 15,476,630
Expenses	(6,131,344)	(7,940,340)	(1,366,792)	(15,438,476)
Surplus (deficit)	<u>\$ 3,503</u>	<u>\$ 32,893</u>	<u>\$ 1,758</u>	<u>\$ 38,154</u>
Total				
Revenues	\$ 13,106,160	\$ 16,440,793	\$ 3,499,019	\$ 33,045,972
Expenses	(13,446,473)	(16,182,379)	(3,307,497)	(32,936,349)
Surplus (deficit)	<u><u>\$ (340,313)</u></u>	<u><u>\$ 258,414</u></u>	<u><u>\$ 191,522</u></u>	<u><u>\$ 109,623</u></u>

When reviewing the Authority as a whole, operating expenses are running \$296,400 over budget. The two Urban rate centers are seeing significant unbudgeted expenses for professional services, utility costs, and pipeline repairs. A more detailed summary is as follows:

A. Annual Transactions

Some revenues and expenses are over the prorated year-to-date budget due to one-time annual payments made or revenues received for the year. These transactions appear to be significant impacts on the budget vs. actual monthly comparisons but will even out as the year progresses. Examples are payments made for health savings accounts, certain

maintenance agreements, lease payments, intern program costs, and insurance. Revenues received annually are the Nutrient Exchange payment of \$78,763 and the annual septage receiving support of \$109,441 from the County.

- B. Professional Services (Urban Water, Urban Wastewater, Administration, Engineering – pages 2, 5, 8, 11) – Urban Water legal fees are over budget related to the Observatory plant lease negotiations and Buck Mountain land issues, and Administration incurred extra legal fees related to COVID-19 issues. Engineering has incurred unbudgeted expenditures for engineering and technical services for an addition to the engineering trailer. Urban Wastewater engineering/technical services is over budget for several unbudgeted items such as temporary flow meter installation, maintenance and data analysis, an exterior lighting plan for Moores Creek AWRRF as well as for septage handling, stormwater management (SWPPP) and spill prevention (SPCC) support. Urban Water also incurred unbudgeted engineering/technical services related to the Buck Mountain Master Plan.
- C. Other Services and Charges (Urban Water, Urban Wastewater, Maintenance – page 2, 5, 9) – Utilities are running high for Urban Water and Urban Wastewater. Urban Water is over budget on pipeline costs due to emergency line break repairs at Observatory, Meriwether, McIntire Park, and Georgetown/Hydraulic and Pen Park Lane, but this is currently offset by being under budget on chemical costs. The Maintenance department is over budget on safety supply purchases related to COVID-19.
- D. Communications (Urban Water – page 2) – Telephone and data services are running high due to needed upgrades to data lines.
- E. Information Technology (Glenmore Wastewater, Engineering – pages 6, 11) – Glenmore has spent more than the annual budget on SCADA maintenance and support. Engineering is over the annual budget related to the purchase of a computer program to assist with capturing data from engineering/inspector personnel while in the field into the GIS system.
- F. Operations & Maintenance (Glenmore Wastewater, Maintenance – page 6, 9) – Glenmore Wastewater is over budget on equipment maintenance and repair costs for blower replacement and actuator control repairs. The Maintenance department is over budget on vehicle repairs and pipeline maintenance costs.
- G. Equipment Purchases (Maintenance, Lab – pages 10, 11) The Lab made a \$42,000 unbudgeted purchase of an analyzer to be used for wastewater nutrient and drinking water quality testing. The Maintenance department also incurred some unbudgeted equipment purchases.

Attachments

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020
Fiscal Year 2020

Consolidated
Revenues and Expenses Summary

Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 17,381,293	\$ 15,932,852	\$ 16,298,990	\$ 366,138	2.30%
Lease Revenue	100,000	91,667	97,723	6,057	6.61%
Admin., Maint. & Engineering Revenue	478,000	438,167	457,639	19,473	4.44%
Other Revenues	562,478	515,605	867,091	351,486	68.17%
Use of Reserves	667,000	611,417	275,400	(336,017)	-54.96%
Interest Allocation	31,500	28,875	30,139	1,264	4.38%
Total Operating Revenues	\$ 19,220,271	\$ 17,618,582	\$ 18,026,983	\$ 408,401	2.32%

Expenses

Personnel Cost	A \$ 8,760,078	\$ 8,070,627	\$ 7,916,189	\$ 154,438	1.91%
Professional Services	B 666,050	610,546	1,010,906	(400,360)	-65.57%
Other Services & Charges	C 2,980,612	2,732,228	2,928,066	(195,838)	-7.17%
Communications	D 142,593	130,710	151,008	(20,298)	-15.53%
Information Technology	E 352,750	323,354	268,375	54,979	17.00%
Supplies	46,180	42,332	30,264	12,068	28.51%
Operations & Maintenance	F 5,069,478	4,647,022	4,471,334	175,688	3.78%
Equipment Purchases	G 359,550	329,588	406,621	(77,034)	-23.37%
Depreciation	843,000	772,750	772,750	-	0.00%
Reserve Transfers	-	-	-	-	
Total Operating Expenses	\$ 19,220,291	\$ 17,659,156	\$ 17,955,513	\$ (296,357)	-1.68%
Operating Surplus/(Deficit)	\$ (20)	\$ (40,574)	\$ 71,470		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 15,861,022	\$ 14,539,270	\$ 14,539,272	\$ 2	0.00%
Septage Receiving Support - County	109,440	100,320	109,441	9,121	9.09%
Buck Mountain Surcharge	125,900	115,408	102,500	(12,908)	-11.18%
Buck Mountain Lease Revenue	1,600	1,467	4,747	3,280	223.63%
Trust Fund Interest	158,200	145,017	183,675	38,658	26.66%
Reserve Fund Interest	690,000	632,500	536,996	(95,504)	-15.10%
Total Debt Service Revenues	\$ 16,946,162	\$ 15,533,982	\$ 15,476,630	\$ (57,352)	-0.37%

Debt Service Costs

Total Principal & Interest	\$ 14,473,236	\$ 13,267,133	\$ 13,267,133	\$ -	0.00%
Reserve Additions-Interest	690,000	632,500	536,996	95,504	15.10%
Debt Service Ratio Charge	725,000	664,583	664,583	-	0.00%
Reserve Additions-CIP Growth	1,057,925	969,765	969,765	-	0.00%
Total Debt Service Costs	\$ 16,946,161	\$ 15,533,981	\$ 15,438,476	\$ 95,504	0.61%
Debt Service Surplus/(Deficit)	\$ 1	\$ 1	\$ 38,154		

Summary

Total Revenues	\$ 36,166,433	\$ 33,152,564	\$ 33,503,613	\$ 351,049	1.06%
Total Expenses	36,166,452	33,193,137	33,393,989	(200,853)	-0.61%
Surplus/(Deficit)	\$ (19)	\$ (40,573)	\$ 109,623		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Urban Water Rate Center
Revenues and Expenses Summary

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 7,118,541	\$ 6,525,329	\$ 6,416,017	\$ (109,312)	-1.68%
Lease Revenue	70,000	64,167	72,162	7,995	12.46%
Miscellaneous	-	-	252,966	252,966	
Use of Reserves	600,000	550,000	217,600	(332,400)	-60.44%
Interest Allocation	13,200	12,100	12,568	468	3.87%
Total Operating Revenues	\$ 7,801,741	\$ 7,151,596	\$ 6,971,313	\$ (180,282)	-2.52%

Expenses

Personnel Cost	\$ 1,861,134	\$ 1,714,011	\$ 1,671,991	\$ 42,020	2.45%
Professional Services	207,200	189,933	324,952	(135,019)	-71.09%
Other Services & Charges	574,963	527,049	714,835	(187,786)	-35.63%
Communications	65,100	59,675	75,641	(15,966)	-26.76%
Information Technology	77,000	70,583	47,712	22,871	32.40%
Supplies	6,100	5,592	5,360	231	4.14%
Operations & Maintenance	2,356,590	2,160,208	2,017,080	143,128	6.63%
Equipment Purchases	50,500	46,292	59,061	(12,769)	-27.58%
Depreciation	300,000	275,000	275,000	-	0.00%
Reserve Transfers	-	-	-	-	
Subtotal Before Allocations	\$ 5,498,587	\$ 5,048,343	\$ 5,191,633	\$ (143,290)	-2.84%
Allocation of Support Departments	2,303,155	2,121,081	2,123,497	(2,415)	-0.11%
Total Operating Expenses	\$ 7,801,742	\$ 7,169,424	\$ 7,315,129	\$ (145,706)	-2.03%
Operating Surplus/(Deficit)	\$ (1)	\$ (17,828)	\$ (343,816)		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 6,178,598	\$ 5,663,715	\$ 5,663,713	\$ (2)	0.00%
Trust Fund Interest	54,000	49,500	62,633	13,133	26.53%
Reserve Fund Interest	387,000	354,750	301,255	(53,495)	-15.08%
Buck Mountain Surcharge	125,900	115,408	102,500	(12,908)	-11.18%
Lease Revenue	1,600	1,467	4,747	3,280	223.63%
Total Debt Service Revenues	\$ 6,747,098	\$ 6,184,840	\$ 6,134,847	\$ (49,993)	-0.81%

Debt Service Costs

Total Principal & Interest	\$ 5,223,498	\$ 4,788,207	\$ 4,788,207	\$ -	0.00%
Reserve Additions-Interest	387,000	354,750	301,255	53,495	15.08%
Debt Service Ratio Charge	400,000	366,667	366,667	-	0.00%
Reserve Additions-CIP Growth	736,600	675,217	675,217	-	0.00%
Total Debt Service Costs	\$ 6,747,098	\$ 6,184,840	\$ 6,131,344	\$ 53,495	0.86%
Debt Service Surplus/(Deficit)	\$ -	\$ -	\$ 3,503		

Rate Center Summary

Total Revenues	\$ 14,548,839	\$ 13,336,436	\$ 13,106,161	\$ (230,275)	-1.73%
Total Expenses	14,548,840	13,354,264	13,446,474	(92,210)	-0.69%
Surplus/(Deficit)	\$ (1)	\$ (17,828)	\$ (340,313)		
Costs per 1000 Gallons Operating and DS	\$ 2.30		\$ 2.39		
	\$ 4.28		\$ 4.39		
Thousand Gallons Treated or Flow (MGD)	3,397,700	3,114,558	3,062,538	(52,020)	-1.67%
	9.309		9.115		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Crozet Water Rate Center
Revenues and Expenses Summary

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 1,028,808	\$ 943,074	\$ 943,074	\$ -	0.00%
Lease Revenues	30,000	27,500	25,561	(1,939)	-7.05%
Use of Reserves	52,000	47,667	42,800	(4,867)	-10.21%
Interest Allocation	1,800	1,650	1,748	98	5.94%
Total Operating Revenues	\$ 1,112,608	\$ 1,019,891	\$ 1,013,183	\$ (6,707)	-0.66%

Expenses

Personnel Cost	\$ 300,589	\$ 276,816	\$ 267,593	\$ 9,223	3.33%
Professional Services	12,850	11,779	1,000	10,779	91.51%
Other Services & Charges	137,816	126,331	98,332	27,999	22.16%
Communications	4,950	4,538	5,331	(793)	-17.48%
Information Technology	2,600	2,383	1,811	573	24.03%
Supplies	1,395	1,279	601	678	53.00%
Operations & Maintenance	398,400	365,200	272,848	92,352	25.29%
Equipment Purchases	6,500	5,958	9,425	(3,467)	-58.18%
Depreciation	30,000	27,500	27,500	-	0.00%
Reserve Transfers	-	-	-	-	-
Subtotal Before Allocations	\$ 895,100	\$ 821,784	\$ 684,440	\$ 137,345	16.71%
Allocation of Support Departments	217,513	200,313	199,915	398	0.20%
Total Operating Expenses	\$ 1,112,613	\$ 1,022,098	\$ 884,355	\$ 137,743	13.48%
Operating Surplus/(Deficit)	\$ (5)	\$ (2,207)	\$ 128,828		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 1,311,312	\$ 1,202,036	\$ 1,202,036	\$ -	0.00%
Trust Fund Interest	5,500	5,042	6,429	1,387	27.51%
Reserve Fund Interest	21,500	19,708	16,647	(3,061)	-15.53%
Total Debt Service Revenues	\$ 1,338,312	\$ 1,226,786	\$ 1,225,111	\$ (1,675)	-0.14%

Debt Service Costs

Total Principal & Interest	\$ 1,230,815	\$ 1,128,247	\$ 1,128,247	\$ -	0.00%
Reserve Additions-Interest	21,500	19,708	16,647	3,061	15.53%
Reserve Additions-CIP Growth	86,000	78,833	78,833	-	0.00%
Total Debt Service Costs	\$ 1,338,315	\$ 1,226,789	\$ 1,223,727	\$ 3,061	0.25%
Debt Service Surplus/(Deficit)	\$ (3)	\$ (3)	\$ 1,384		

Rate Center Summary

Total Revenues	\$ 2,450,920	\$ 2,246,677	\$ 2,238,295	\$ (8,382)	-0.37%
Total Expenses	2,450,928	2,248,886	2,108,082	140,804	6.26%
Surplus/(Deficit)	\$ (8)	\$ (2,210)	\$ 130,212		
Costs per 1000 Gallons	\$ 5.59		\$ 4.44		
Operating and DS	\$ 12.31		\$ 10.59		
Thousand Gallons Treated	199,053	182,465	199,060	16,595	9.09%
Flow (MGD)	0.545		0.592		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Scottsville Water Rate Center
Revenues and Expenses Summary

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 520,812	\$ 477,411	\$ 477,411	\$ -	0.00%
Use of Reserves	15,000	13,750	15,000	\$ 1,250	9.09%
Interest Allocation	800	733	784	50	6.86%
Total Operating Revenues	\$ 536,612	\$ 491,894	\$ 493,195	\$ 1,300	0.26%

Expenses

Personnel Cost	\$ 197,349	\$ 181,761	\$ 177,458	\$ 4,303	2.37%
Professional Services	20,000	18,333	1,675	16,658	90.86%
Other Services & Charges	33,318	30,542	22,750	7,791	25.51%
Communications	3,430	3,144	4,685	(1,541)	-49.00%
Information Technology	800	733	880	(147)	-20.04%
Supplies	410	376	172	204	54.24%
Operations & Maintenance	121,340	111,228	73,278	37,950	34.12%
Equipment Purchases	3,200	2,933	6,899	(3,965)	-135.18%
Depreciation	20,000	18,333	18,333	(0)	0.00%
Reserve Transfers	-	-	-	-	-
Subtotal Before Allocations	\$ 399,847	\$ 367,384	\$ 306,131	\$ 61,253	16.67%
Allocation of Support Departments	136,770	125,946	124,521	1,425	1.13%
Total Operating Expenses	\$ 536,617	\$ 493,330	\$ 430,651	\$ 62,678	12.71%
Operating Surplus/(Deficit)	\$ (5)	\$ (1,435)	\$ 62,543		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 128,749	\$ 118,020	\$ 118,019	\$ (1)	0.00%
Trust Fund Interest	1,700	1,558	1,837	278	17.87%
Reserve Fund Interest	8,400	7,700	6,444	(1,256)	-16.31%
Total Debt Service Revenues	\$ 138,849	\$ 127,278	\$ 126,300	\$ (979)	-0.77%

Debt Service Costs

Total Principal & Interest	\$ 129,524	\$ 118,730	\$ 118,730	\$ -	0.00%
Reserve Additions-Interest	8,400	7,700	6,444	1,256	
Reserve Additions-CIP Growth	925	848	848	-	
Total Debt Service Costs	\$ 138,849	\$ 127,278	\$ 126,022	\$ 1,256	0.99%
Debt Service Surplus/(Deficit)	\$ -	\$ -	\$ 277		

Rate Center Summary

Total Revenues	\$ 675,461	\$ 619,173	\$ 619,494	\$ 322	0.05%
Total Expenses	675,466	620,608	556,673	63,934	10.30%
Surplus/(Deficit)	\$ (5)	\$ (1,435)	\$ 62,821		
Costs per 1000 Gallons	\$ 29.56		\$ 26.61		
Operating and DS	\$ 37.21		\$ 34.40		
Thousand Gallons Treated or Flow (MGD)	18,151	16,638	16,184	(454)	-2.73%
	0.050		0.048		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Urban Wastewater Rate Center
Revenues and Expenses Summary

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 8,033,620	\$ 7,364,152	\$ 7,839,601	\$ 475,450	6.46%
Stone Robinson WWTP	22,478	20,605	15,299	(5,306)	-25.75%
Septage Acceptance	450,000	412,500	519,563	107,063	25.95%
Nutrient Credits	90,000	82,500	78,763	(3,737)	-4.53%
Miscellaneous Revenue	-	-	500	500	
Interest Allocation	14,400	13,200	13,834	634	4.80%
Total Operating Revenues	\$ 8,610,498	\$ 7,892,957	\$ 8,467,560	\$ 574,604	7.28%

Expenses

Personnel Cost	\$ 1,281,463	\$ 1,180,346	\$ 1,164,376	\$ 15,970	1.35%
Professional Services	B 175,000	160,417	401,593	(241,177)	-150.34%
Other Services & Charges	C 2,030,825	1,861,590	1,924,032	(62,442)	-3.35%
Communications	10,430	9,561	10,121	(560)	-5.86%
Information Technology	62,500	57,292	32,014	25,277	44.12%
Supplies	2,700	2,475	1,665	810	32.73%
Operations & Maintenance	A 1,724,650	1,580,929	1,660,125	(79,196)	-5.01%
Equipment Purchases	77,500	71,042	77,849	(6,807)	-9.58%
Depreciation	470,000	430,833	430,833	(0)	0.00%
Reserve Transfers	-	-	-	-	
Subtotal Before Allocations	\$ 5,835,068	\$ 5,354,484	\$ 5,702,609	\$ (348,125)	-6.50%
Allocation of Support Departments	2,775,430	2,555,887	2,539,430	16,457	0.64%
Total Operating Expenses	\$ 8,610,498	\$ 7,910,371	\$ 8,242,039	\$ (331,668)	-4.19%
Operating Surplus/(Deficit)	\$ (0)	\$ (17,414)	\$ 225,521		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 8,229,143	\$ 7,543,381	\$ 7,543,382	\$ 1	0.00%
Septage Receiving Support - County	109,440	100,320	109,441	9,121	9.09%
Trust Fund Interest	96,900	88,825	112,593	23,768	26.76%
Reserve Fund Interest	266,900	244,658	207,817	(36,841)	-15.06%
Total Debt Service Revenues	\$ 8,702,383	\$ 7,977,184	\$ 7,973,233	\$ (3,951)	-0.05%

Debt Service Costs

Total Principal & Interest	\$ 7,880,079	\$ 7,223,406	\$ 7,223,406	\$ -	0.00%
Reserve Additions-Interest	266,900	244,658	207,817	36,841	15.06%
Debt Service Ratio Charge	325,000	297,917	297,917	-	0.00%
Reserve Additions-CIP Growth	230,400	211,200	211,200	-	0.00%
Total Debt Service Costs	\$ 8,702,379	\$ 7,977,181	\$ 7,940,340	\$ 36,841	0.46%
Debt Service Surplus/(Deficit)	\$ 4	\$ 4	\$ 32,893		

Rate Center Summary

Total Revenues	\$ 17,312,881	\$ 15,870,141	\$ 16,440,793	\$ 570,652	3.60%
Total Expenses	17,312,877	15,887,552	16,182,378	(294,827)	-1.86%
Surplus/(Deficit)	\$ 4	\$ (17,411)	\$ 258,415		
Costs per 1000 Gallons	\$ 2.54		\$ 2.49		
Operating and DS	\$ 5.11		\$ 4.89		
Thousand Gallons Treated	3,390,400	3,107,867	3,309,245	201,378	6.48%
or					
Flow (MGD)	9.289		9.849		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Glenmore Wastewater Rate Center
Revenues and Expenses Summary

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 370,524	\$ 339,647	\$ 339,647	\$ -	0.00%
Interest Allocation	700	642	663	21	3.34%
<i>Total Operating Revenues</i>	\$ 371,224	\$ 340,289	\$ 340,310	\$ 21	0.01%

Expenses

Personnel Cost	\$ 95,340	\$ 87,813	\$ 86,009	\$ 1,803	2.05%
Professional Services	-	-	2,194	(2,194)	
Other Services & Charges	35,210	32,276	29,508	2,768	8.57%
Communications	3,000	2,750	3,114	(364)	-13.24%
Information Technology	E 3,700	3,392	12,780	(9,388)	-276.81%
Supplies	100	92	-	92	100.00%
Operations & Maintenance	F 119,450	109,496	129,270	(19,775)	-18.06%
Equipment Purchases	2,900	2,658	2,200	458	17.24%
Depreciation	5,000	4,583	4,583	0	0.00%
<i>Subtotal Before Allocations</i>	\$ 264,700	\$ 243,059	\$ 269,659	\$ (26,600)	-10.94%
Allocation of Support Departments	106,527	98,088	96,495	1,593	1.62%
<i>Total Operating Expenses</i>	\$ 371,227	\$ 341,148	\$ 366,154	\$ (25,007)	-7.33%
<i>Operating Surplus/(Deficit)</i>	\$ (3)	\$ (859)	\$ (25,844)		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 3,778	\$ 3,463	\$ 3,465	\$ 2	0.05%
Trust Fund Interest	-	-	-	-	
Reserve Fund Interest	3,100	2,842	2,685	(157)	-5.51%
<i>Total Debt Service Revenues</i>	\$ 6,878	\$ 6,305	\$ 6,150	\$ 2	0.03%

Debt Service Costs

Total Principal & Interest	\$ 1,578	\$ 1,447	\$ 1,447	\$ -	0.00%
Reserve Additions-CIP Growth	2,200	2,017	2,017	-	0.00%
Reserve Additions-Interest	3,100	2,842	2,685	157	5.51%
<i>Total Debt Service Costs</i>	\$ 6,878	\$ 6,305	\$ 6,148	\$ 157	2.49%
<i>Debt Service Surplus/(Deficit)</i>	\$ -	\$ -	\$ 2		

Rate Center Summary

Total Revenues	\$ 378,102	\$ 346,594	\$ 346,460	\$ (133)	-0.04%
Total Expenses	378,105	347,453	372,303	(24,850)	-7.15%
Surplus/(Deficit)	\$ (3)	\$ (859)	\$ (25,843)		
Costs per 1000 Gallons	\$ 9.31		\$ 11.19		
Operating and DS	\$ 9.48		\$ 11.38		
Thousand Gallons Treated or Flow (MGD)	39,892	36,568	32,724	(3,844)	-10.51%
	0.109		0.097		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Scottsville Wastewater Rate Center
Revenues and Expenses Summary

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Operations Rate Revenue	\$ 308,988	\$ 283,239	\$ 283,239	\$ -	0.00%
Interest Allocation	600	550	542	(8)	-1.37%
Total Operating Revenues	\$ 309,588	\$ 283,789	\$ 283,781	\$ (8)	0.00%

Expenses

Personnel Cost	\$ 95,366	\$ 87,836	\$ 86,009	\$ 1,828	2.08%
Professional Services	2,000	1,833	-	1,833	100.00%
Other Services & Charges	28,000	25,667	19,487	6,179	24.08%
Communications	3,930	3,603	3,253	349	9.69%
Information Technology	1,700	1,558	-	1,558	100.00%
Supplies	25	23	-	23	100.00%
Operations & Maintenance	58,850	53,946	42,618	11,328	21.00%
Equipment Purchases	3,200	2,933	2,200	733	25.00%
Depreciation	18,000	16,500	16,500	-	0.00%
Subtotal Before Allocations	\$ 211,071	\$ 193,899	\$ 170,067	\$ 23,832	12.29%
Allocation of Support Departments	98,523	90,720	89,477	1,243	1.37%
Total Operating Expenses	\$ 309,594	\$ 284,619	\$ 259,545	\$ 25,075	8.81%
Operating Surplus/(Deficit)	\$ (6)	\$ (830)	\$ 24,237		

Debt Service Budget vs. Actual

Revenues

Debt Service Rate Revenue	\$ 9,442	\$ 8,655	\$ 8,657	\$ 2	0.02%
Trust Fund Interest	100	92	184	92	100.41%
Reserve Fund Interest	3,100	2,842	2,148	(694)	-24.41%
Total Debt Service Revenues	\$ 12,642	\$ 11,589	\$ 10,989	\$ (600)	-5.18%

Debt Service Costs

Total Principal & Interest	\$ 7,742	\$ 7,097	\$ 7,097	\$ -	0.00%
Reserve Additions-Interest	3,100	2,842	2,148	694	24.41%
Estimated New Principal & Interest	1,800	1,650	1,650	-	0.00%
Total Debt Service Costs	\$ 12,642	\$ 11,589	\$ 10,895	\$ 694	5.99%
Debt Service Surplus/(Deficit)	\$ -	\$ -	\$ 94		

Rate Center Summary

Total Revenues	\$ 322,230	\$ 295,378	\$ 294,770	\$ (607)	-0.21%
Total Expenses	322,236	296,208	270,439	25,769	8.70%
Surplus/(Deficit)	\$ (6)	\$ (830)	\$ 24,331		
Costs per 1000 Gallons	\$ 14.28		\$ 13.48		
Operating and DS	\$ 14.87		\$ 14.05		
Thousand Gallons Treated	21,677	19,871	19,252	(619)	-3.11%
or					
Flow (MGD)	0.059		0.057		

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Administration

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Payment for Services SWA	\$	466,000	\$	427,167	\$	427,167	\$	(0)	0.00%
Miscellaneous Revenue		2,000		1,833		16,414		14,581	795.33%
Total Operating Revenues	\$	468,000	\$	429,000	\$	443,581	\$	14,581	3.40%

Expenses

Personnel Cost	A	\$	1,841,351	\$	1,697,082	\$	1,732,737	\$	(35,655)	-2.10%
Professional Services	B		229,000		209,917		219,359		(9,442)	-4.50%
Other Services & Charges			106,400		97,533		83,118		14,415	14.78%
Communications			18,500		16,958		18,118		(1,160)	-6.84%
Information Technology			174,250		159,729		134,748		24,981	15.64%
Supplies			21,500		19,708		17,785		1,923	9.76%
Operations & Maintenance			64,500		59,125		59,927		(802)	-1.36%
Equipment Purchases			24,000		22,000		13,173		8,827	40.12%
Depreciation			-		-		-		-	
Total Operating Expenses		\$	2,479,501	\$	2,282,053	\$	2,278,966	\$	3,087	0.14%

Department Summary

Net Costs Allocable to Rate Centers		\$	(2,011,501)	\$	(1,853,053)	\$	(1,835,385)	\$	(17,668)	0.95%
<u>Allocations to the Rate Centers</u>										
Urban Water	44.00%	\$	885,060	\$	815,343	\$	807,569	\$	7,774	
Crozet Water	4.00%	\$	80,460		74,122		73,415		707	
Scottsville Water	2.00%	\$	40,230		37,061		36,708		353	
Urban Wastewater	48.00%	\$	965,520		889,465		880,985		8,481	
Glenmore Wastewater	1.00%	\$	20,115		18,531		18,354		177	
Scottsville Wastewater	1.00%	\$	20,115		18,531		18,354		177	
	100.00%	\$	2,011,501	\$	1,853,053	\$	1,835,385	\$	17,668	

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Maintenance

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual

Notes

Revenues

Payment for Services SWA	\$	10,000	\$	9,167	\$	-	\$	9,167	100.00%
Miscellaneous Revenue		-		-		8,122		8,122	
Total Operating Revenues	\$	10,000	\$	9,167	\$	8,122	\$	17,288	

Expenses

Personnel Cost	\$	1,345,633	\$	1,239,766	\$	1,126,126	\$	113,641	9.17%
Professional Services		-		-		-		-	
Other Services & Charges	C	14,500		13,292		21,873		(8,581)	-64.56%
Communications		17,600		16,133		17,206		(1,072)	-6.65%
Information Technology		6,500		5,958		2,360		3,598	60.39%
Supplies		2,000		1,833		494		1,340	73.06%
Operations & Maintenance	F	77,400		70,950		96,086		(25,136)	-35.43%
Equipment Purchases	G	147,150		134,888		147,577		(12,690)	-9.41%
Depreciation		-		-		-		-	
Total Operating Expenses		\$ 1,610,783	\$	1,482,821	\$	1,411,722	\$	71,098	4.79%

Department Summary

Net Costs Allocable to Rate Centers		\$ (1,600,783)	\$	(1,473,654)	\$	(1,403,601)	\$	(53,810)	3.65%
<u>Allocations to the Rate Centers</u>									
Urban Water	30.00%	\$ 480,235	\$	442,096	\$	421,080	\$	21,016	
Crozet Water	3.50%	56,027		51,578		49,126		2,452	
Scottsville Water	3.50%	56,027		51,578		49,126		2,452	
Urban Wastewater	56.50%	904,442		832,614		793,034		39,580	
Glenmore Wastewater	3.50%	56,027		51,578		49,126		2,452	
Scottsville Wastewater	3.00%	48,023		44,210		42,108		2,102	
	100.00%	\$ 1,600,783	\$	1,473,654	\$	1,403,601	\$	70,053	

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Laboratory

Budget FY 2020	Budget Year-to-Date	Actual Year-to-Date	Budget vs. Actual	Variance Percentage
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Operating Budget vs. Actual

Notes

Revenues

N/A

Expenses

Personnel Cost		\$ 394,222	\$ 363,257	\$ 349,481	\$ 13,776	3.79%
Professional Services		-	-	-	-	
Other Services & Charges		9,230	8,461	6,427	2,034	24.04%
Communications		1,153	1,057	1,245	(189)	
Information Technology		2,500	2,292	113	2,178	95.05%
Supplies		2,150	1,971	649	1,322	67.07%
Operations & Maintenance	F	61,500	56,375	74,601	(18,226)	-32.33%
Equipment Purchases	G	2,200	2,017	44,060	(42,044)	-2084.81%
Depreciation		-	-	-	-	
Total Operating Expenses		\$ 472,955	\$ 435,429	\$ 476,577	\$ (41,148)	-9.45%

Department Summary

Net Costs Allocable to Rate Centers		\$ (472,955)	\$ (435,429)	\$ (476,577)	\$ 41,148	-9.45%
<u>Allocations to the Rate Centers</u>						
Urban Water	44.00%	\$ 208,100	\$ 191,589	\$ 209,694	\$ (18,105)	
Crozet Water	4.00%	18,918	17,417	19,063	(1,646)	
Scottsville Water	2.00%	9,459	8,709	9,532	(823)	
Urban Wastewater	47.00%	222,289	204,652	223,991	(19,339)	
Glenmore Wastewater	1.50%	7,094	6,531	7,149	(617)	
Scottsville Wastewater	1.50%	7,094	6,531	7,149	(617)	
	100.00%	\$ 472,955	\$ 435,429	\$ 476,577	\$ (41,148)	

Rivanna Water & Sewer Authority
Monthly Financial Statements - May 2020

Engineering

<i>Budget FY 2020</i>	<i>Budget Year-to-Date</i>	<i>Actual Year-to-Date</i>	<i>Budget vs. Actual</i>	<i>Variance Percentage</i>
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Operating Budget vs. Actual**Revenues**

Payment for Services SWA

Total Operating Revenues

\$ -	\$ -	\$ 5,937	\$ 5,937	
\$ -	\$ -	\$ 5,937	\$ 5,937	

Expenses

Personnel Cost

Professional Services

Other Services & Charges

Communications

Information Technology

Supplies

Operations & Maintenance

Equipment Purchases

Depreciation & Capital Reserve Transfers

Total Operating Expenses

	\$ 1,347,631	\$ 1,241,939	\$ 1,254,409	\$ (12,470)	-1.00%
B	20,000	18,333	60,133	(41,799)	-228.00%
	10,350	9,488	7,703	1,785	18.81%
	14,500	13,292	12,293	998	7.51%
E	21,200	19,433	35,956	(16,523)	-85.02%
	9,800	8,983	3,537	5,446	60.62%
	86,798	79,565	45,501	34,064	42.81%
	42,400	38,867	44,177	(5,310)	-13.66%
	-	-	-	-	
	\$ 1,552,679	\$ 1,429,899	\$ 1,463,709	\$ (33,810)	-2.36%

Department Summary

Net Costs Allocable to Rate Centers

\$ (1,552,679)	\$ (1,429,899)	\$ (1,457,773)	\$ 39,747	-2.78%
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Allocations to the Rate Centers

Urban Water

47.00%

\$ 729,759	\$ 672,053	\$ 685,153	\$ (13,100)
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Crozet Water

4.00%

\$ 62,107	\$ 57,196	\$ 58,311	\$ (1,115)
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Scottsville Water

2.00%

\$ 31,054	\$ 28,598	\$ 29,155	\$ (557)
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Urban Wastewater

44.00%

\$ 683,179	\$ 629,156	\$ 641,420	\$ (12,264)
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Glenmore Wastewater

1.50%

\$ 23,290	\$ 21,448	\$ 21,867	\$ (418)
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Scottsville Wastewater

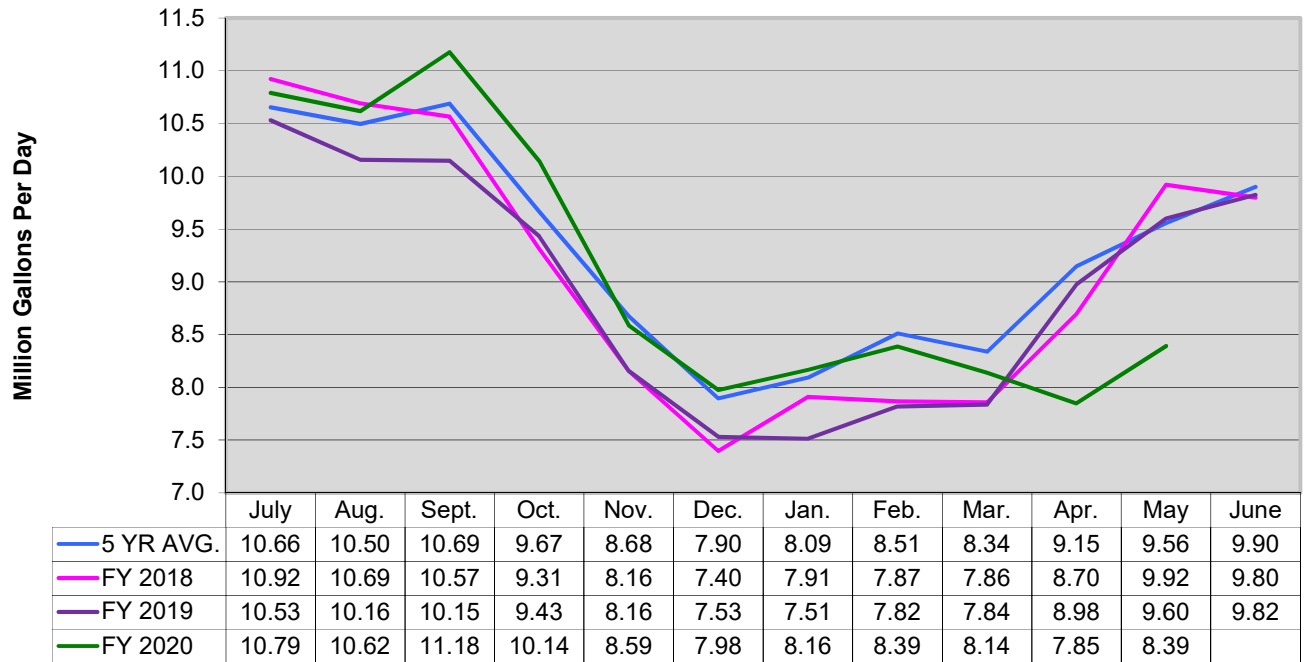
1.50%

\$ 23,290	\$ 21,448	\$ 21,867	\$ (418)
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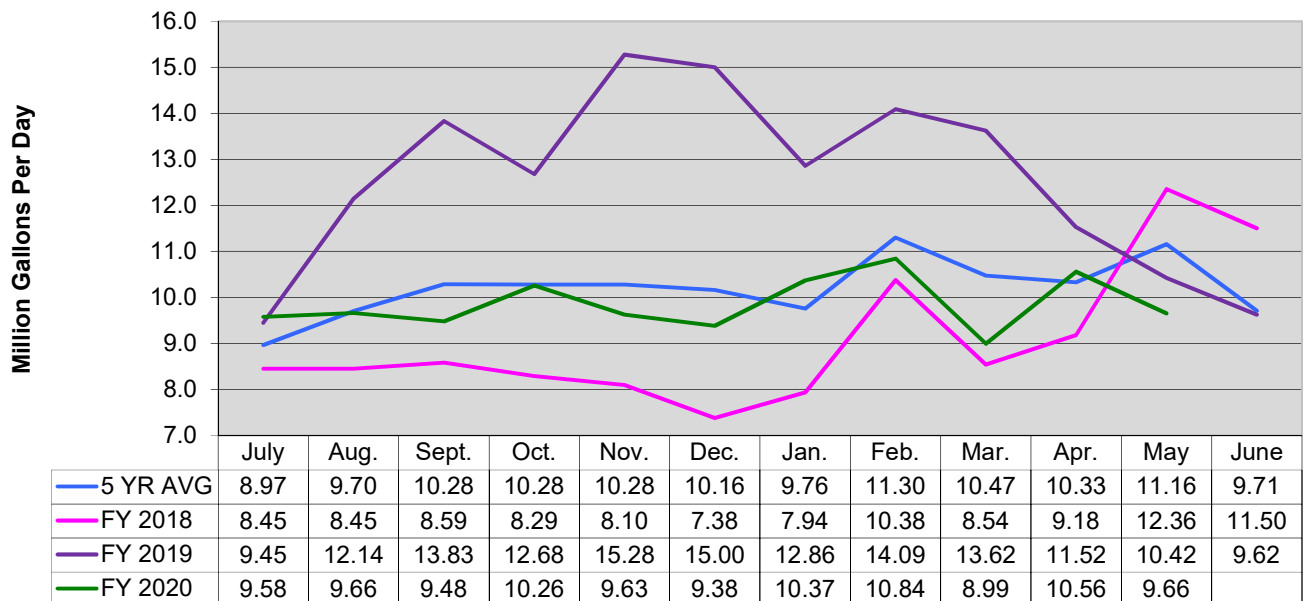
100.00%	\$ 1,552,679	\$ 1,429,899	\$ 1,457,773	\$ (27,873)
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**Rivanna Water and Sewer Authority
Flow Graphs**

Urban Water Flows



Urban Wastewater Flows



MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

FROM: DAVE TUNGATE, DIRECTOR OF OPERATIONS

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: OPERATIONS REPORT FOR MAY 2020

DATE: JUNE 23, 2020

WATER OPERATIONS:

The average daily/monthly total water distributed for May 2020 was as follows:

<i>Water Treatment Plant</i>	<i>Average Daily Production (MGD)</i>	<i>Total Monthly Production (MG)</i>	<i>Maximum Daily Production in the Month (MGD)</i>
Observatory	0.86	26.77	1.56 (05/08/20)
South Rivanna	7.16	222.14	8.48 (05/16/20)
North Rivanna	<u>0.36</u>	<u>11.26</u>	0.71 (05/29/20)
Urban Total	8.39	260.17	10.60 (05/29/20)
Crozet	0.60	18.66	0.78 (05/06/20)
Scottsville	<u>0.051</u>	<u>1.59</u>	0.125 (05/03/20)
RWSA Total	9.04	280.42	---

- All RWSA water treatment facilities were in regulatory compliance during the month of May.

Status of Reservoirs (as of June 9, 2020):

- Urban Reservoirs: 99.6% of Total Useable Capacity
- Ragged Mountain Reservoir is -0.12 feet (99.26%)
- Sugar Hollow Reservoir is full (100%)
- South Rivanna Reservoir is full (100%)
- Beaver Creek Reservoir is full (100%)
- Totier Creek Reservoir is full (100%)

WASTEWATER OPERATIONS:

All RWSA Water Resource Recovery Facilities (WRRFs) were in regulatory compliance with their effluent limitations during May 2020. Stone-Robinson School was closed for the month of May and had zero discharge. Performance of the WRRFs in May was as follows compared to the respective VDEQ permit limits:

WRRF	Average Daily Effluent Flow (mgd)	Average CBOD₅ (ppm)		Average Total Suspended Solids (ppm)		Average Ammonia (ppm)	
		RESULT	LIMIT	RESULT	LIMIT	RESULT	LIMIT
Moore's Creek	9.68	3.0	10	<QL	22	<QL	2.2
Glenmore	0.117	6.0	15	5.0	30	NR	NL
Scottsville	0.073	4.0	25	1.0	30	NR	NL
Stone Robinson	0.000	NR	30	NR	30	NR	NL

NR = Not Required

NL = No Limit

<QL: Less than analytical method quantitative level (2.0 ppm for CBOD, 1.0 ppm for TSS, and 0.1 ppm for Ammonia).

Nutrient discharges at the Moore's Creek AWRRF were as follows for May 2020.

State Annual Allocation (lb./yr.) Permit		Average Monthly Allocation (lb./mo.) *	Moore's Creek Discharge May (lb./mo.)	Performance as % of monthly average Allocation*	Year to Date Performance as % of annual allocation
Nitrogen	282,994	23,583	4,858	21%	13%
Phosphorous	18,525	1,544	467	30%	7%

*State allocations are expressed as annual amounts. One-twelfth of that allocation is an internal monthly benchmark for comparative purposes only.

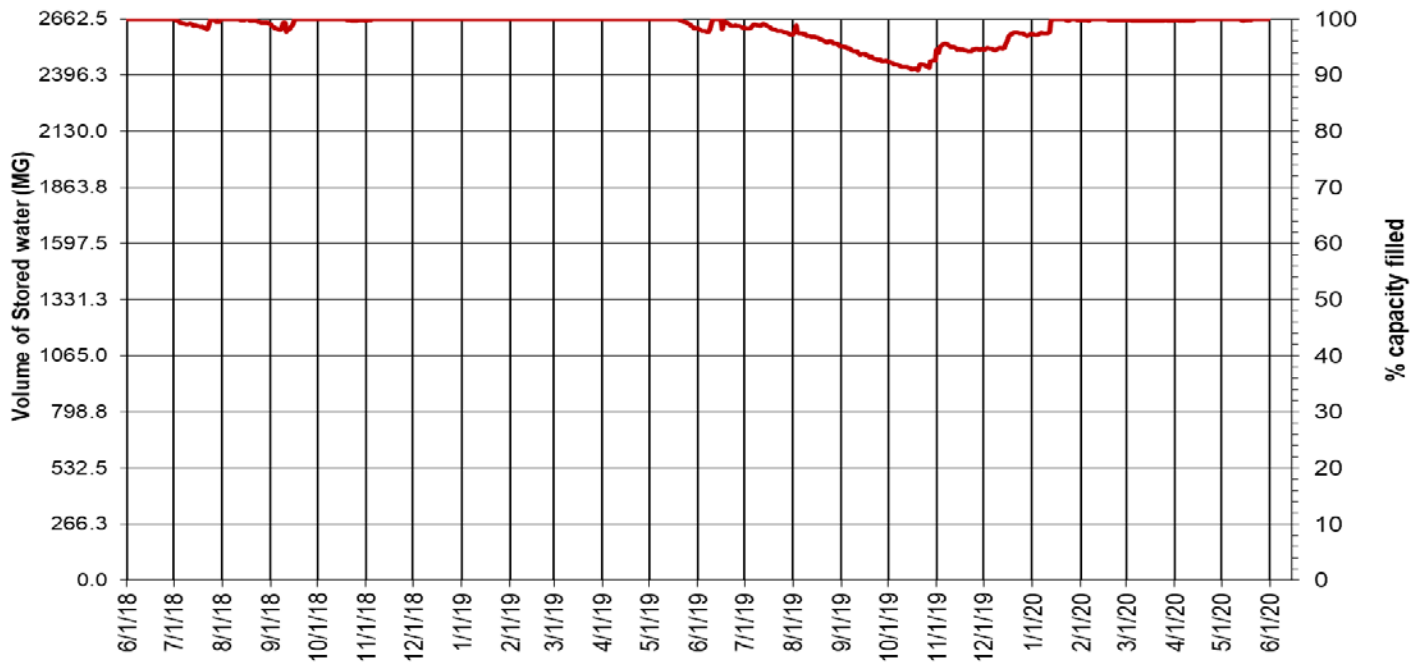
WATER AND WASTEWATER DATA:

The following graphs are provided for review:

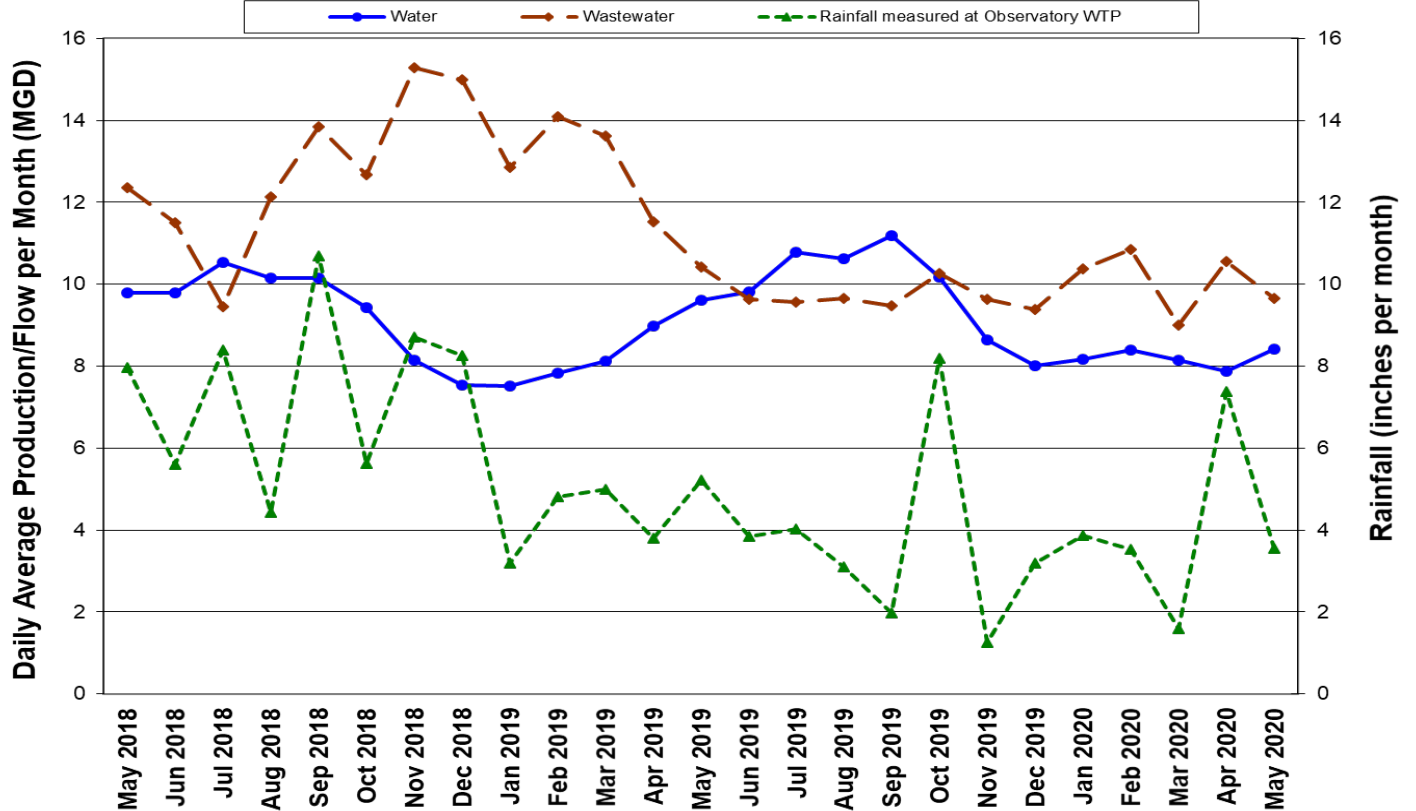
- Usable Urban Reservoir Water Storage
- Urban Water and Wastewater Flows versus Rainfall

Usable Urban Reservoir Water Storage

Maximum 2,662.5 MG after 5/1/19



Urban Water and Wastewater Flows versus Rainfall



MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

**FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING &
MAINTENANCE**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: STATUS REPORT: ONGOING PROJECTS

DATE: JUNE 23, 2020

This memorandum reports on the status of the following Capital Projects as well as other significant operating, maintenance and planning projects.

For the current, approved CIP, please visit: <https://www.rivanna.org/wp-content/uploads/2019/06/CIP-FINAL-5.28.19.pdf>

Under Construction

1. Crozet Water Treatment Plant Expansion
2. Valve Repair – Replacement (Phase 2)
3. South Rivanna and Observatory Water Treatment Plant Renovations
4. Albemarle-Berkley Basin Demolition

Design and Bidding

5. Ragged Mtn Reservoir to Observatory WTP Raw Water Line and Pump Station
6. Crozet Flow Equalization Tank
7. Beaver Creek Dam and Pump Station Improvements
8. MC Digester Sludge Storage Improvements
9. MC Aluminum Slide Gate Replacements
10. Sugar Hollow Dam –Gate Replacement and Intake Tower Repairs
11. Airport Road Water Pump Station and Piping
12. South Rivanna Dam – Gate Repairs

Planning and Studies

13. South Rivanna Reservoir to Ragged Mtn Reservoir Water Line Right-of-Way
14. Urban Water Demand and Safe Yield Study
15. Urban Finished Water Infrastructure Master Plan
16. Upper Schenks Branch Interceptor, Phase II

- 17. Asset Management Plan
- 18. Albemarle-Berkeley PS Capacity Analysis
- 19. Buck Mountain Master Plan
- 20. MC Facilities Master Plan

Other Significant Projects

- 21. Urgent and Emergency Repairs
- 22. Interceptor Sewer & Manhole Repair
- 23. Security Enhancements

Under Construction

1. Crozet Water Treatment Plant Expansion

Design Engineer:	Short Elliot Hendrickson (SEH)
Construction Contractor:	Orders Construction Co. (WVA)
Construction Start:	December 2018
Percent Completion:	67%
Base Construction Contract + Change Order to Date = Current Value:	\$7,170,000- \$225,600.80 = \$6,944,399.20
Expected Completion Date:	May 2021
Total Capital Project Budget:	\$8,500,000

Current Status: Work continues on the expansion of the Chemical Building, improvements to the sedimentation basins and filters, and backwash tank construction.

2. Valve Repair – Replacement (Phase 2)

Design Engineer:	RWSA / Dewberry
Construction Contractor:	Garney Construction
Construction Start:	May 2019
Percent Complete:	35%
Base Construction Contract + Change Orders to Date = Current Value:	\$843,460.00 - \$33,525.21 + \$178,322.33 = \$988,257.12
Expected Completion:	October 2020
Total Capital Project Budget:	\$1,132,914

Current Status: Valve replacements resumed in late May. Three additional valve replacements have been completed. Seven of 12 remaining valves must be replaced.

3. South Rivanna and Observatory Water Treatment Plant Renovations

Design Engineer:	Short Elliot Hendrickson, Inc. (SEH)
Construction Contractor:	English Construction Company, Inc.
Construction Start:	May 2020

Percent Complete:	2%
Base Construction Contract + Change Orders to Date = Current Value:	\$36,748,500
Completion:	March 2023
Total Capital Project Budget:	\$43,000,000

Current Status: Construction of the liquid lime enclosure and yard piping modifications is underway.

4. Albemarle-Berkley Basin Demolition

Design Engineer:	Short Elliot Hendrickson (SEH)
Contractor:	Pleasant View Developers, Inc
Construction Start:	July 2020
Status:	0% Complete
Completion:	August 2020
Base Construction Contract	\$62,645

Current Status: The concrete basin will be removed and the excavation filled with compacted soil. A small concrete structure, as well as some yard piping and utilities, will also be abandoned or removed.

Design and Bidding

5. Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Pump Station

Design Engineer:	Michael Baker International (Baker)
Project Start:	August 2018
Project Status:	Prelim Design & Easement Acquisition in Progress
Construction Start:	2022
Completion:	2026
Approved Capital Budget:	\$3,877,000
Current Project Estimate:	\$18,000,000

Current Status: Easement discussions with private owners and UVA are underway.

6. Crozet Flow Equalization Tank

Design Engineer:	Schnabel Engineering
Project Start:	October 2016
Project Status:	Bidding
Construction Start:	September 2020
Completion:	December 2021
Approved Capital Budget:	\$4,860,000

Current Status: Construction bids are due on July 14, 2020.

7. Beaver Creek Dam and Pump Station Improvements

Design Engineer:	Schnabel Engineering (Dam)
Design Engineer:	Hazen & Sawyer (Pump Station)
Project Start:	February 2018
Project Status:	5% Design and Permitting Underway
Construction Start:	2023
Completion:	2026
Approved Capital Budget:	\$9,036,000
Current Project Estimate:	\$27,000,000

Current Status: A site selection study for the new Raw Water Pump Station and Intake has been completed. Hazen is moving forward with environmental investigations required for development of a Joint Permit Application to be submitted to the VDEQ in the fall of 2020. A federal grant totaling \$341,000 was secured from the Natural Resources Conservation Service (NRCS) to cover the costs of an Environmental Assessment for the dam modifications. Staff will continue to pursue federal funding in the later phases of the project to cover a portion (up to 70%) of final design and construction costs.

8. MC Digester Sludge Storage Improvements

Design Engineer:	TBD
Project Start:	Summer 2019
Project Status:	Preliminary Design
Construction Start:	Fall 2020
Completion:	Spring 2021
Approved Capital Budget:	\$313,000

Current Status: Staff is reviewing the Digester No. 4 Condition Assessment and overall scope of this project.

9. MC Aluminum Slide Gate Replacements

Design Engineer:	Hazen and Sawyer
Project Start:	November 2018
Project Status:	Bidding
Construction Start:	August 2020
Completion:	August 2021
Approved Capital Budget:	\$470,000

Current Status: The project has been split into two different sections. The portion related to the replacement of gates at the UV Facility and Holding Pond PS was advertised on June 10, 2020 and bids are due on July 8, 2020. Award is anticipated at the July 2020 Board Meeting. The portion related

to replacement of gates at the Moores Creek PS will begin with a Request for Proposals for gate inspections. Advertisement of the RFP is expected in July 2020.

10. Sugar Hollow Dam – Gate Replacement and Intake Tower Repairs

Design Engineer:	Schnabel Engineering
Project Start:	January 2019
Project Status:	Design 80%
Construction Start:	Spring 2021
Completion:	Fall 2021
Approved Capital Budget:	\$1,140,000

Current Status: Schnabel is proceeding with design of the new rubber crest gate and anticipates advertising for construction bids in July of 2020.

11. Airport Road Water Pump Station and Piping

Design Engineer:	Short Elliot Hendrickson (SEH)
Project Start:	July 2019
Project Status:	Preliminary Design 30%
Construction Start:	2021
Completion:	2022
Approved Capital Budget:	\$5,800,000

Current Status: Preliminary Engineering Report is being reviewed.

12. South Rivanna Dam – Gate Repairs

Design Engineer:	N/A
Contractor:	Bander Smith, Inc.
Project Start:	July 2019
Project Status:	Pre-Construction
Construction Start:	Fall 2020
Completion:	2020
Approved Capital Budget:	\$900,000

Current Status: A condition assessment of the 36” mud gates has been completed. Gate repairs are expected to be completed in the fall of 2020.

Planning and Studies

13. South Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way

Design Engineer:	Michael Baker International (Baker)
Project Start:	October 2017
Project Status:	Easement Acquisition Underway
Completion:	2021
Approved Capital Budget:	\$2,295,000

Current Status: Acquisition efforts continue. Offers have been made to 11 of 13 private property owners, and ten easements have been accepted. Most of the remaining easements are on publicly owned property (VDOT, City, County School Board,). Negotiations with two private owners, UVA, the UVA Foundation and the Virginia Department of Forestry are also ongoing for water line easements between Ragged Mtn Reservoir and the Observatory Water Treatment Plant.

14. Urban Water Demand and Safe Yield Study

Design Engineer:	Hazen and Sawyer
Project Start:	November 2018
Project Status:	99% complete
Completion:	July 2020
Approved Capital Budget:	\$154,000

Current Status: A presentation will be given to the Board in June.

15. Urban Finished Water Infrastructure Master Plan

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2018
Project Status:	65% complete
Completion:	October 2020
Approved Capital Budget:	\$253,000

Current Status: Baker is developing and conducting hydraulic model runs to indicate infrastructure piping and storage tank requirements at specific locations.

16. Upper Schenks Branch Interceptor, Phase II

Design Engineer:	Frazier Engineering, P.A.
Project Start:	TBD
Project Status:	Alignment Analysis
Construction Start:	TBD
Completion:	TBD
Approved Capital Budget:	\$3,985,000

Current Status: Discussions about the pipe alignment have been renewed with the County and the City.

17. Asset Management Plan

Design Consultant:	GHD, Inc.
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Project Start:	July 2018
Project Status:	Phase 2 – 50% Complete
Completion:	2020
Approved Capital Budget:	\$500,000

Current Status: Development of an asset register, condition assessment protocols, and a pilot study of the asset management process is underway. A request for quotations for procurement of computerized maintenance management software (CMMS) is being developed.

18. Albemarle-Berkley PS Capacity Analysis

Design Consultant:	Short Elliot Hendrickson (SEH)/GHD, Inc.
Project Start:	September 2019
Project Status:	10% Complete
Completion:	December 2020
Approved Capital Budget:	\$40,000

Current Status: Capacity analysis is underway.

19. Buck Mountain Master Plan

Design Consultant:	LPDA (Charlottesville)
Project Start:	November 2019
Project Status:	90% Complete
Completion:	July 2020
Budget:	\$56,000

Current Status: Study results may be presented to the Board in July.

20. MC Facilities Master Plan

Design Consultant:	Hazen and Sawyer
Project Start:	August 2019
Project Status:	45% Complete
Completion:	March 2021
Budget:	\$275,000

Current Status: Study is underway.

Other Significant Projects

21. Urgent and Emergency Repairs

Staff are currently working on several urgent repairs within the water and wastewater systems as listed below:

Project No.	Project Description	Approx. Cost
2018-06	South Rivanna Dam Apron and River Bank Repairs	\$200,000
2019-07	Urban Water Line Valve and Blow-off Repair	\$80,000
2020-06	Erosion between WBI MH-22 and MH-23	TBD
2020-07	Stillhouse Waterline Exposure @ Ivy Creek	\$182,000
2020-10	Erosion along access road to South Rivanna RWPS	\$10,000
2020-12	NRW-093 Valve Failure	TBD

- [South Rivanna Dam Apron and River Bank Repairs:](#) Repairs to the north and south concrete aprons will be designed by Schnabel Engineering and those services will be procured from the on-call contractor.
- [Urban Water Line Valve and Blow-off Repair:](#) Faulconer Construction has completed the installation of a new drain valve, as well as the associated modifications to the drain line outlet and creek bank. With the installation of the new drain valve on March 18th, any leakage in this location has ceased. Staff continues to coordinate the logistics of the UWL-025 replacement near Gasoline Alley, including the appropriate location of the discharge. Staff has also been notified of a similar (slight leakage) issue at UWL-010 near Route 29. Staff will continue coordinating and planning these repairs with Faulconer Construction.
- Erosion over WBI Between MH-22 and MH-23: While performing routine line inspections in March, the RWSA Maintenance Department discovered that an adjacent creek had eroded its way over the top of RWSA's 12" Woodbrook Interceptor (WBI). While no infrastructure is exposed at this time, the sewer was not designed to run under the creek (no encasement present), and future high flow events will continue to erode cover from the top of the pipe (currently estimated at 2-4'). Staff is currently evaluating the repair and coordinating with the applicable regulatory agencies, with the goal to begin construction following the STW Exposure at Ivy Creek (see below for more information). RWSA has also coordinated a site visit with Faulconer Construction to begin coordinating the logistics of this repair.
- STW Exposure @ Ivy Creek: While performing routine line inspections in April, the RWSA Maintenance Department identified that RWSA's 12" Stillhouse Waterline (STW) had become exposed on the bank of Ivy Creek. Maintenance Department staff was able to temporarily protect the waterline with nearly 500 sandbags, and Engineering Department staff began coordination with the U.S. Army Corps of Engineers, Virginia Marine Resources Commission, and RWSA's On-Call Maintenance Contractor, Faulconer Construction. All appropriate regulatory approvals have been received, and Faulconer Construction mobilized to the site to begin the placement of 175-200 LF of large rip-rap along the creek bank on May 11th. The creek bank armament/repairs are complete, and Faulconer Construction is currently working on the site restoration aspects of the job.

- Erosion along access road to South Rivanna Raw Water Pump Station/Dam: Staff was notified in April that the access road to the South Rivanna Raw Water Pump Station and Dam had become undermined, caused by the lack of an armored v-ditch. RWSA Maintenance staff has been working on installing fresh fill and a rip-rap v-ditch along the road, in order to fill in the undermined locations and allow for better control of stormwater. Staff is evaluating the need for additional improvements, which may be required to ensure that the stormwater makes it to the culvert located adjacent to the pump station.
- NRW-093 Valve Failure: On Friday Morning, May 29, following the successful replacement of NRW-096 under RWSA's ongoing Valve Repair-Replacement Project, RWSA Maintenance and Engineering staff was slowly refilling the 24" South Rivanna and 12" North Rivanna Waterlines (SRW and NRW, respectively), when RWSA valve NRW-093 unexpectedly failed after being completely opened. Using the brand new NRW-096, the issue was quickly isolated to the 12" NRW, and RWSA mobilized its On-Call Maintenance Contractor, Faulconer Construction. Extensive efforts by Faulconer Construction, as well as RWSA Maintenance and Engineering staff, continued on the necessary line repairs overnight into Saturday Morning, when the line was reopened by RWSA and ACSA Maintenance staffs. This work also required extensive efforts to repave approximately 150' of Route 29, which was completed by S.L. Williamson as a subcontractor to Faulconer Construction.

22. Interceptor Sewer and Manhole Repair

Design Engineer:	Frazier Engineering
Construction Contractor:	IPR Northeast
Construction Start:	November 2017
Percent Complete:	40%
Base Construction Contract + Change Orders to Date = Current Value:	\$1,244,337.19
Expected Completion:	June 2021
Total Capital Project Budget:	\$1,088,330 (Urban) + \$625,000 (Crozet) = \$1,713,330

Current Status: Repairs to the Upper Morey Creek Interceptor remain underway, with one final section of sewer remaining to be lined. Staff is continuing to coordinate in order to complete rehabilitation of this portion of MRI, as well as evaluate the current condition of the overall interceptor system and prioritize for the next round of repairs.

23. Security Enhancements

Design Engineer:	N/A
Construction Contractor:	Security 101
Construction Start:	March 2020
Percent Complete:	40%
Based Construction Contract + Change Orders to Date = Current Value:	\$744,136.80 - \$25,708.80 = \$718,428.00 (WA #1)

Completion:	2021
Approved Capital Budget:	\$1,000,000

Current Status: Access control system installation is underway for all exterior doors at MCAWRRF, as well as all WTP motorized gates. Conduit and panel installation at MCAWRRF remains underway, with Security 101 having installed downstream devices inside of select panels. Main server installation is slated for the week of June 15th.

History

Under Construction

1. Crozet Water Treatment Plant Expansion

This project was created to increase the supply capacity of the existing Crozet WTP by modernizing plant systems. The goal was to not drastically increase the plant footprint in regard to the existing filter plant, flocculation tanks, and sedimentation basins. By modernizing the outdated equipment within these treatment systems, the plant treatment capacity will be improved by approximately 100% (from 1 to 2 MGD). A Notice to Proceed was issued on December 13, 2018 and the contractor mobilized on February 26, 2019.

2. Valve Repair – Replacement (Phase 2)

This project will replace the highest-priority valves that are identified during the condition assessment as not operable and not repairable. Phase 2 will continue replacing inoperable and unrepairable valves in the North Rivanna Finished Water System, but it will also replace (and potentially repair) valves on the South Rivanna, Crozet, Pantops, and Southern Loop Finished Water Systems. Once all specified valves have been repaired/replaced in Phase 2, the focus will shift to replacing older isolation valves in subsequent phases.

A Request for Bids (RFB) was issued on November 6, 2018. RWSA staff opened bids for the project on December 11, 2018, and Garney Companies, Inc. was the apparent low bidder (\$843,460). The RWSA Board of Directors approved the bid award recommendation and Capital Improvement Plan Budget Amendment on January 22, 2019. A Notice to Proceed was issued on May 6, 2019.

Two (2) valve replacements were completed in May 2019; one (1) valve was replaced on the Crozet Waterline, and one (1) valve was replaced on the South Rivanna Waterline. Due to the unavailability of certain valves and lead times on selected materials, the contractor demobilized from the project in late May. The Capital Improvement Plan was further amended on October 22, 2019 to compensate the contractor for this extra demobilization/remobilization, as well as the installation of a necessary bypass line that will keep South Rivanna WTP in service during one of the valve replacements.

Valve replacements resumed in late May 2020. Two (2) additional 12” valve replacements have been completed on the North Rivanna Waterline, while one (1) 18” valve replacement was completed on the South Rivanna Waterline on June 9, 2020.

3. South Rivanna and Observatory Water Treatment Plant Renovations

An informational meeting with prospective contractors was held on September 26, 2019 to maximize interest in the project. A project kickoff meeting with staff was held on November 14, 2018 and 30% design documents were provided in February. A Value Engineering Workshop took place the week of April 8, 2019, and a memo summarizing the results has been completed. Agreed upon results were incorporated into the project.

Observatory: This project will upgrade the plant from 7.7 to 10 MGD capacity. Costs to upgrade the plant to 12 MGD were determined to be too high at this time. Much of the Observatory Water Treatment Plant is original to the 1953 construction. A Condition Assessment Report was completed by SEH in October of 2013. The approved Capital Improvement Plan project was based on the findings from this report. The flocculator systems were replaced and upgraded as part of the Drinking Water Activated Carbon and WTP Improvements project (GAC). Four additional GAC contactors will be included in the design.

South Rivanna: The work herein includes expansion of the coagulant storage facilities; installation of additional filters to meet firm capacity needs; the addition of a second variable frequency drive at the Raw Water Pump Station; the relocation for the electrical gear from a sub terrain location at the Sludge Pumping Station; a new building on site for additional office, lab, control room and storage space; improvements to storm sewers to accept allowable WTP discharges; of new metal building to cover the existing liquid lime feed piping and tanks. The scope of this project will not increase the 12 MGD plant treatment capacity.

4. Albemarle-Berkley Basin Demolition

The Albemarle-Berkley Wastewater Pump Station was located adjacent to an open-air basin on the Albemarle County Public Schools (ACPS) Campus on Lambs Lane that occasionally collected raw sewage during power outages. With the addition of a back-up power generator in 2006, the basin no longer serves a technical purpose. Given the proximity of the deteriorating structure to school property, this project serves to demolish and fill the area of the existing basin to allow for a more beneficial use of the property. Design of the basin demolition was completed in March 2020, with demolition work scheduled for completion by Summer 2020. In addition to the demolition of the storage basins, this project also includes demolition/abandonment of existing yard piping and other smaller structures.

Bids were opened on May 11, 2020. Five (5) bids were received, with Pleasant View Developers being the low bidder at \$62,645. The Notice of Award was issued on June 2, 2020.

Design and Bidding

5. Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Raw Water Pump Station

A Work Authorization was executed in December 2018 with Michael Baker International for the raw water line routing study, preliminary design, plat creation and the easement acquisition process for this portion of the project. Raw water is transferred from the Ragged Mountain Reservoir (RMR) to the Observatory Water Treatment Plant (WTP) by way of two 18-inch cast iron pipelines, which have

been in service for more than 110 and 70 years, respectively. The increased frequency of emergency repairs and expanded maintenance requirements are one impetus for replacing these pipelines. The proposed water line will be able to reliably transfer water to the expanded Observatory plant. The new pipeline will be constructed of 36-inch ductile iron and will be approximately 2.6 miles feet in length. The segment of the project immediately east of the RMR will constitute a portion of the proposed South Rivanna Reservoir to RMR raw water main project as part of the approved 50-year Community Water Supply Plan.

The RMR to Observatory WTP raw water pump station is planned to replace the existing Stadium Road and Royal pump stations, which have exceeded their design lives or will require significant upgrades with the Observatory WTP expansion. The pump station will pump up to 10 million gallons per day (MGD) of raw water to the Observatory WTP. The new pump station site selection and design are being conducted in coordination with the South Rivanna Reservoir to RMR pipeline in the interest of improved operational and cost efficiencies. An integrated pump station would also include the capacity to transfer up to 16 MGD of raw water from RMR back to the SR WTP.

6. Crozet Flow Equalization Tank

A 2016 update to the 2006 model was completed which evaluated the I&I reduction goals previously established and future capital project needs. Based on the results of that study, it was determined that the Crozet Interceptor system and the existing Crozet Pump Stations (1 through 4) have adequate capacity to handle the 2015 peak wet weather flow from the Crozet Service Area during a two-year storm. However, as projected growth in the service area occurs, peak wet weather flows in the area under the storm conditions established in the updated model will begin to exceed the firm capacities of the pump stations by 2025. Additional I&I reductions in order to reduce flows enough to not exceed the pump station firm capacities are not feasible and as a result, the construction of a flow equalization tank was identified as the best method to alleviate wet weather capacity issues.

While the study indicates that capacity should not be an issue until 2025, a flow equalization tank would also provide a significant benefit to the maintenance of the Crozet Pumping Station system which currently lacks system storage necessary to allow adequate time to perform repairs on the pumps and the associated force mains while the system is down.

Greeley and Hansen completed a siting study to determine the location for the flow equalization tank based on the results of the comprehensive model update. The results of the siting study were reviewed with ACSA and a final tank location was determined.

A work authorization with Schnabel Engineering was finalized and a Project Kick-off Meeting was held on July 12, 2018.

7. Beaver Creek Dam and Pump Station Improvements

Dam: RWSA operates the Beaver Creek Dam and reservoir as the sole raw water supply for the Crozet Area. In 2011, an analysis of the Dam Breach inundation areas and changes to Virginia Department of Conservation and Recreation (DCR) *Impounding Structures Regulations* prompted a change in hazard classification of the dam from Significant to High Hazard. This change in hazard classification requires that the capacity of the spillway be increased. This CIP project includes investigation, preliminary design, public outreach, permitting, easement acquisition, final design, and construction

of the anticipated modifications. Work for this project will be coordinated with the new relocated raw water pump station and intake and a reservoir oxygenation system project.

Schnabel Engineering developed three alternatives for upgrading the capacity of the Beaver Creek Dam Spillway in 2012. Following the adoption of a new Probable Maximum Precipitation (PMP) Study on December 9, 2015 and the release of DCR guidelines for implementing the PMP study in March of 2016, RWSA determined it would proceed with an updated alternatives analysis and Preliminary Engineering Report for upgrading the dam spillway. Following the completion of an updated alternatives analysis by Schnabel Engineering, staff met with members of Albemarle County and ACSA staff to discuss the preferred alternative. It was determined that staff would proceed with design of a labyrinth spillway and chute through the existing dam with a bridge to allow Browns Gap Turnpike to cross over the new spillway.

Pump Station: The Drinking Water Infrastructure Plan for the Crozet water service area, developed by Hazen and Sawyer, recommends installation of a new Raw Water Pump Station and Intake at the Beaver Creek Dam in order to meet new minimum instream flow requirements and provide adequate raw water pumping capacity to serve the growing Crozet community for the next 50 years. The pump station will be moved out of its existing location at the toe of the dam to a new location, to be determined during design. The new intake structure will include enhanced controls to allow for access to the best quality water at any given time.

8. MC Digester Sludge Storage Improvements

With the second centrifuge installation, additional capacity for storage of digested sludge would provide the Authority operational flexibility it does not currently have. Additionally, the sole sludge storage tank at the MCAWRRF was constructed in 1959 of reinforced concrete and is in need of repairs. This project would convert one of the three existing anaerobic digesters (Digester No. 1) into a sludge storage tank through piping modifications, and would provide redundancy to the existing sludge storage tank so it can be removed from service, cleaned, inspected, and repaired with minimal impact to the existing sludge dewatering operations. The piping configuration would also allow flexibility for the anaerobic digester to be used as either an anaerobic digester or sludge storage tank as needed for operations. The scope of work would include piping modifications, hydraulic improvements, tank safety improvements such as handrail and lights, and structural improvements to the existing sludge storage tank roof.

9. MC Aluminum Slide Gate Replacements

Several large aluminum slide gates are located at the influent side of the Moores Creek Pump Station. These gates allow staff to stop or divert flow to perform maintenance activities. After repeated attempts to repair the deteriorated gates, it is now necessary to replace the gates and modify the gate arrangement. There are also several deteriorated gates at the Ultraviolet disinfection facility that leak water, causing a reduced capacity of the facility. Replacement of these gates will restore the process to full capacity.

10. Sugar Hollow Dam – Rubber Crest Gate Replacement and Intake Tower Repairs

In 1998, the Sugar Hollow Dam underwent a significant upgrade to improve structural stability and spillway capacity. The original metal spillway gates were replaced with a manufactured five-foot-high inflatable rubber dam that is bolted to the existing concrete structure. This rubber dam allows for the

normal storage of water in the reservoir with the ability to be lowered during extreme storm events. The rubber dam has an approximate service life of twenty years and is therefore now due for replacement. The aging intake tower structure has been inspected and evaluated. Recommended repairs will include repairs to the intake gate valves and tower walls, including repair or replacement of intake trash racks, and sealing/grouting of minor concrete wall cracks.

11. Airport Road Water Pump Station and Piping

The Rt. 29 Pump Station and Pipeline master plan was developed in 2007 and originally envisioned a multi-faceted project that reliably connected the North and South Rivanna pressure bands, reduced excessive operating pressures, and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan update was completed in June of 2018 to reflect the changes in the system and demands since 2007. This project, along with the South Rivanna River Crossing and North Rivanna Transmission Main project, will provide a reliable and redundant finished water supply to the North Rivanna area. The proposed pump station will be able to serve system demands at both the current high pressure and future low pressure conditions. These facilities will also lead to future phase implementation which will include a storage tank and the creation of the Airport water pressure zone. The North Rivanna Transmission Main improvements included under a separate CIP project have been added to this project to allow connection of the pump station to the distribution system.

12. South Rivanna Dam – Gate Repairs

The South Rivanna Dam, originally constructed in 1965, is equipped with two 36” diameter slide gates and conduits, one each on the north and south abutments of the dam, which can be utilized to dewater the facility or to meet minimum instream flow (MIF) requirements when the dam is not spilling. These gates are original to the dam and while they are operable and are exercised regularly, they are deteriorated and can no longer provide a complete seal, therefore allowing some leakage through the dam. RWSA has protocols in place to temporarily stop leakage through the gates when necessary to conserve water; however, there is a desire to repair or replace the gates and components as needed to restore full functionality. The project includes other repairs to the facility, including improvements to the concrete wall adjacent to the Raw Water Pump Station as well as improvements to the north dam tower to provide safer access by staff while still discouraging access by the general public.

Planning and Studies

13. South Rivanna Reservoir to Ragged Mtn. Reservoir Water Line Right-of-Way

The approved 50-year Community Water Supply Plan includes the construction of a raw water line from the South Rivanna Reservoir to the Ragged Mountain Reservoir. This water line will replace the existing Upper Sugar Hollow Pipeline and increase raw water transfer capacity in the Urban Water System. The preliminary route for the water line followed the proposed Route 29 Charlottesville Bypass; however, the Bypass project was suspended by VDOT in 2014, requiring a more detailed routing study for the future water line. This project includes a routing study, preliminary design and preparation of easement documents, as well as acquisition of water line easements along the approved route.

Baker has completed the routing study. Preliminary design, plat creation and the acquisition of easements are underway. Property owners were contacted to request permission to access properties for topographical surveying. A community information meeting was held in June 2018.

14. Urban Water Demand and Safe Yield Study

The City of Charlottesville, Albemarle County Service Authority, and RWSA entered into the Ragged Mountain Dam Project Agreement in 2012. This Agreement included provisions to monitor the bathymetric capacity of the Urban water reservoirs as well as a requirement to conduct reoccurring demand analysis, demand forecasting and safe yield evaluations. This study will evaluate and calculate current and future demands and present safe yield. Per the project Agreement, these analyses shall be completed by calendar year 2020.

15. Urban Finished Water Infrastructure Master Plan

As identified in the 2017 Strategic Plan, the Authority has a goal to plan, deliver and maintain dependable infrastructure in a financially responsible manner. Staff has identified asset master planning as a priority strategy to improve overall system development. Many previously identified projects in the urban finished water treatment and distribution system are in preliminary engineering, design or construction. As such, staff have identified a need to develop a current and ongoing finished water master plan.

16. Upper Schenks Branch Interceptor, Phase II

The Schenks Branch Sanitary Sewer interceptor is a pipeline operated by RWSA that serves the City of Charlottesville. The 21-inch sewer line was originally constructed by the City in the 1950s. Evaluations from the flow metering and modeling from the Comprehensive Sanitary Sewer Interceptor Study, and negotiations with the ACSA and City, resulted in an inflow and infiltration reduction plan from which it was concluded that increased capacity of the Schenks Branch Interceptor was needed for wet weather peak flow. Due to several road construction projects and the construction of the Meadow Creek Interceptor project along the sewer alignment, Schenks Branch was to be constructed in multiple phases. The completed sections, collectively known as the Lower Schenks Branch Interceptor, include the Tie-in to Meadow Creek, the section along McIntire Road Ext, and the section through the Route 250 Interchange.

The remaining sections, which are considered the Upper Schenks Branch Interceptor, were split into 2 phases. The first phase has been completed and is located within City-owned Schenks Greenway adjacent to McIntire Road, and the second phase is to be located on County property (baseball field and County Office Building) adjacent to McIntire Road or within McIntire Road.

17. Asset Management Plan

Asset management is the practice of managing our infrastructure to minimize the total cost of owning and operating these assets while providing desired service levels. In doing so, it is used to make sure planned maintenance activities take place and that capital assets are replaced, repaired or upgraded at the right time, while ensuring that the money necessary to perform those activities is available. RWSA has some components of an asset management program in place (i.e. GIS, work order system), but has identified the need to further develop the program as part of our Strategic Planning process. In order to continue to build the program, a consultant has been procured to assist with a three-phase process that will include facilitation and development of an asset management strategic plan, development and

management of a pilot study where the results of the strategic plan will be applied to a specific class of assets, and assistance through a full implementation process. As part of this three-phase process, the consultant will also assist RWSA with the procurement of a software package to facilitate the overall program.

18. Albemarle-Berkeley PS Capacity Analysis

The Albemarle Berkeley wastewater pump station serves the schools and other connections in the area near Albemarle High School. Due to unacceptably high run times on the pumps, a capacity analysis of the pump station, given the current and projected upstream conditions, will be completed to provide design data for replacement of the pump station.

19. Buck Mountain Master Plan

The purpose of this Master Plan is to consider alternatives for use of the 1300 acre property purchased in the 1980's for a water supply reservoir, which was never built. 600 acres are currently under deed restrictions to mitigate the environmental impacts of the expanded Ragged Mountain Dam. Development of the Buck Mountain Master Plan will consider past and current uses of the property, identify alternatives, and provide recommendations for strategic use of the property into the future.

20. MC Facilities Master Plan

The majority of the Moores Creek Water Resource Recovery Facility was constructed in the early 1980's. At the time, the plant layout was developed with space held open for future process expansion. With the Enhanced Nutrient Removal (ENR) project in 2009, the operation and layout of the plant was fundamentally altered, as needed to meet the new regulation. The project did anticipate the need for future expansion and some of the processes have readily available space. However, a full expansion plan was not developed at the time. As identified in the Strategic Plan, the Authority has a goal to plan, deliver and maintain dependable infrastructure in a financially responsible manner. Staff has identified asset master planning as a priority strategy to improve overall system development. As such, this project will serve to evaluate and plan for future space and process needs to accommodate capacity expansion and/or anticipated regulatory changes.

Other Significant Projects

21. Urgent and Emergency Repairs

- **South Rivanna Dam Apron and River Bank Repairs**

Intense rainfall between May 30-31, 2018 resulted in extensive flooding throughout Charlottesville and parts of Albemarle County, with flows over the South Fork Rivanna Dam reaching more than 7 feet over the spillway crest at its peak. Staff has inspected the dam and abutments to determine the extent of damage resulting from the extreme flooding. Although there is no discernible damage to the dam itself, staff found erosion damage to the north downstream river bank and substantial displacement of large stone downstream of the dam to form a rock dam and pool below the north apron. Additionally, some damage to concrete structures on both aprons was noted, including possible

creation of voids beneath the concrete and loss of concrete joint filler. Repairs to the river bank and removal of the rock dam were completed June 3-7, 2019 under RWSA's on-call construction contract.

- **Urban Water Line Valve and Blow-off Repair**

During its routine inspections of the Water System, the Maintenance Department discovered a blowoff (drain) valve along the Urban Waterline (UWL-017) that had significant leakage. In addition, during one of the numerous heavy rain events received in 2018, the water in the creek adjacent to the drain line rose, eroding the area around the drain line and causing the headwall to become disconnected from the end of the pipe. Staff will be coordinating internally to confirm the overall scope of the project, including whether the drain line will need to be further reinforced or restrained.

22. Interceptor Sewer and Manhole Repair

Results from sewer flow monitoring and modeling under the Comprehensive Sanitary Sewer Study provided awareness to specific inflow and infiltration (I&I) concerns in the collection system and resulted in strengthened commitments from the City, ACSA and RWSA to continue professional engineering services to aid in the rehabilitation and repair of the sewer collection system. Engineering services will be used for sewer infrastructure condition assessments and the development of a sewer rehabilitation bid package for the procurement of a contractor to perform the recommended rehabilitation work.

23. Security Enhancements

As required by the Federal Bioterrorism Act of 2002 and the American Water Infrastructure Act of 2018, water utilities must conduct Vulnerability Assessments and have Emergency Response Plans. RWSA recently completed an updated Risk Assessment of its water system in collaboration with the Albemarle County Service Authority (ACSA), City of Charlottesville (City), and University of Virginia (UVA). A number of security improvements that could be applied to both the water and wastewater systems were identified. The purpose of this project will be to install security improvements at RWSA facilities including additional security gate and fencing components, vehicle bollards, facility signage, camera system enhancements, additional security lighting, intrusion detection systems, door and window hardening, installation of industrial strength locks, communication technology and cable hardening, and an enhanced access control program.

RWSA Engineering staff held a meeting with Operations staff to discuss overall project needs and priorities in October 2018. Meetings with ACSA and City staff were held in Fall/Winter 2018-2019 to discuss how access control and intrusion detection systems have been implemented into the day-to-day operations of the two utilities. A Request for Proposal (RFP) for an Implementer to facilitate selection of an access control system, confirmation of design requirements based upon RWSA's facilities and project goals, and installation of the selected system was issued on June 6, 2019. RWSA conducted a Pre-Proposal Meeting on June 14, 2019, and proposals were opened on June 27, 2019. Interviews were conducted on July 15-16, 2019, and a Contract Award Recommendation was approved by the Board on July 23, 2019.

MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

**FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING &
MAINTENANCE**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: WHOLESALE METERING REPORT FOR MAY 2020

DATE: JUNE 23, 2020

The monthly and average daily Urban water system usages by the City and the ACSA for May 2020 were as follows:

	<i>Month</i>	<i>Daily Average</i>	
City Usage (gal)	114,620,314	3,697,429	44.1%
ACSA Usage (gal)	145,551,342	4,695,205	55.9%
Total (gal)	260,171,656	8,392,634	

The *RWSA Wholesale Metering Administrative and Implementation Policy* requires that water use be measured based upon the annual average daily water demand of the City and ACSA over the trailing twelve (12) consecutive month period. The *Water Cost Allocation Agreement (2012)* established a maximum water allocation for each party. If the annual average water usage of either party exceeds this value, a financial true-up would be required for the debt service charges related to the Ragged Mountain Dam and the SRR-RMR Pipeline projects. Below are graphs showing the calculated monthly water usage by each party, the trailing twelve-month average (extended back to June 2019*), and that usage relative to the maximum allocation for each party (6.71 MGD for the City and 11.99 MGD for ACSA).

Notes:

*Usage data through October 2019 are based on retail metered flows due to the unavailability of wholesale metering data. Data shown from November 2019 forward represents the usage calculated through the RWSA Wholesale Metering program.

Figure 1: City of Charlottesville Monthly Water Usage

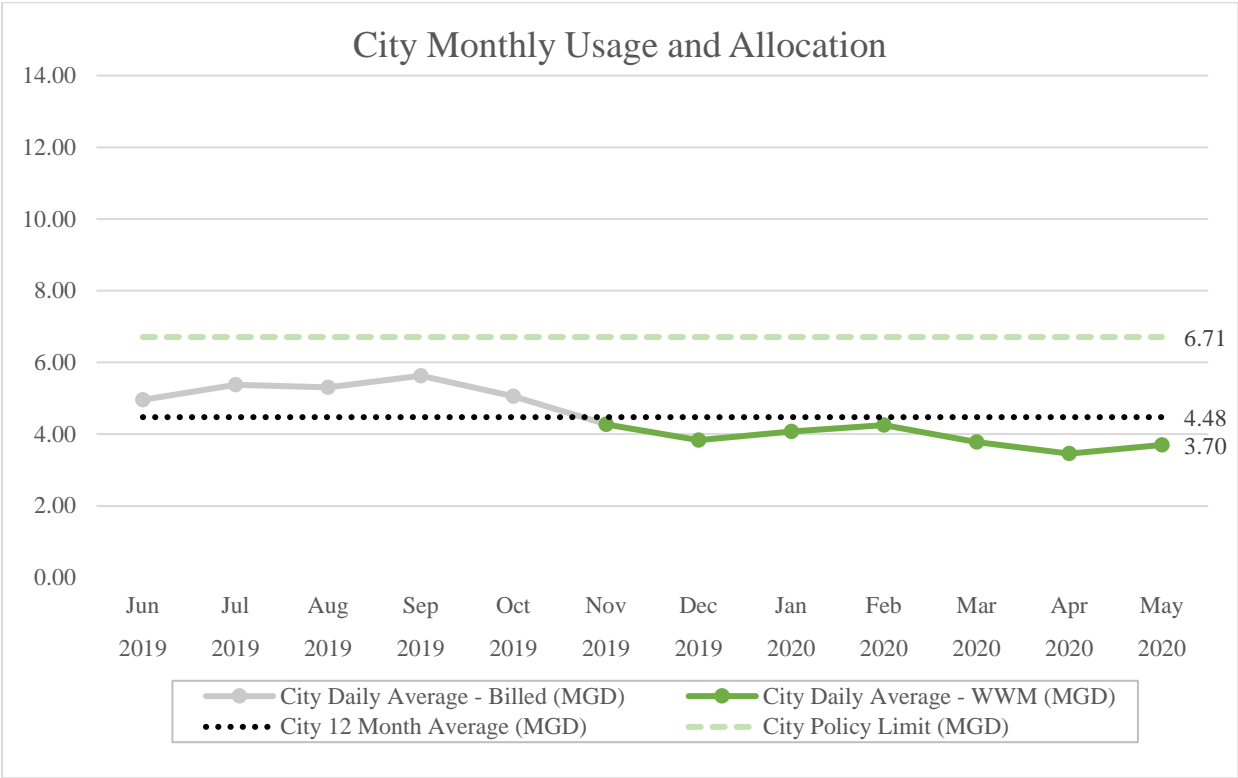
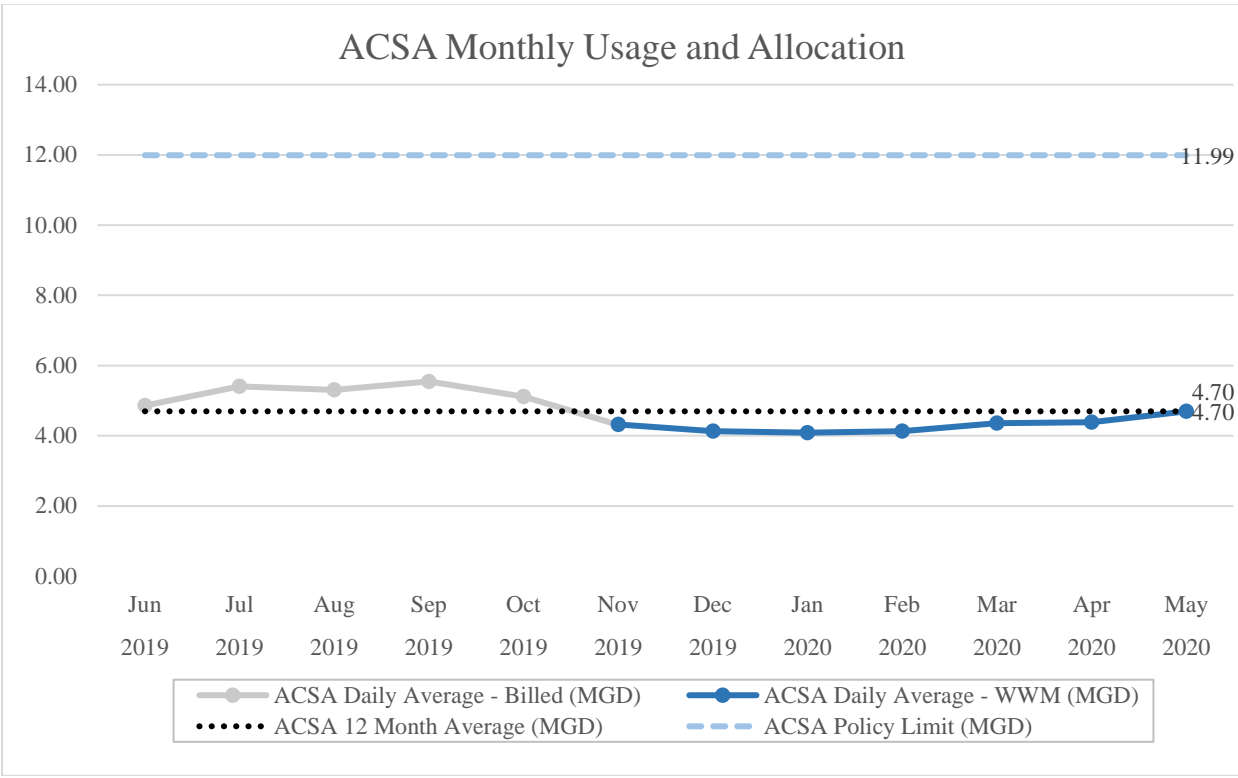


Figure 2: Albemarle County Service Authority Monthly Water Usage and Allocation



MEMORANDUM

TO: RIVANNA SOLID WASTE AUTHORITY BOARD OF DIRECTORS
RIVANNA WATER & SEWER AUTHORITY BOARD OF DIRECTORS

FROM: BETSY NEMETH, HUMAN RESOURCES MANAGER
LONNIE WOOD, DIRECTOR OF FINANCE & ADMINISTRATION

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: FY 2021 PERSONNEL MANAGEMENT PLAN REVISIONS

DATE: JUNE 23, 2020

The following updates and changes to the Employee Handbook and Personnel Management Plan are proposed:

- **Employee Handbook**
Updated to include all policy changes and new policies.
- **Section B – Recruitment and Hiring Policy**
 - B.1. Policy** – Adding the language “gender identity” as is required by §15.2-965 of the Code of Virginia.
 - B.7. Orientation Policy** – Adding the language “and the Safety Manager” in reference to who performs new hire orientation sessions. New hire orientation was changed to an all-day orientation to include a comprehensive review of safety procedures. This was part of a Workforce Development team goal.
- **Section E – Harassment Policy**
 - E.1. Policy** – Adding additional language regarding discriminating behavior. Adding the language “gender identity” as is required by §15.2-965 of the Code of Virginia.
- **Section F – Leave Policy and Rules**
 - F.2. Holiday Leave** – Adding Veterans Day, November 11th, as a floating holiday during which the Rivanna Authorities offices will be open.
 - F.4. Sick Leave** – Allows up to 40 hours of sick leave to be used as bereavement leave, per instance. Allows up to 40 hours of sick leave to be use as family sick leave per year which allows an employee to use sick leave to care for an immediate family member who is ill.
- **Section G – Disciplinary Policy**
 - G.2.q. Unsatisfactory Work Performance or Misconduct** – Removes language to be in compliance with §15.2-915 of the Code of Virginia.

- **Section I – Administrative Policies**

I.19. Essential Employees – New policy to clarify which employees are essential and non-essential.

- **Section L – Substance Abuse Policy**

Section 1, 3. Selection Process, c & d – Changes language in order to allow the Executive Director to decrease or suspend Non-CDL drug and alcohol testing if it is potentially hazardous or unsafe to send an employee to the testing facility.

Board Action Recommended:

It is respectfully recommended that the Board of Directors approve the changes to Employee Handbook and the Personnel Management Plan.

Attachments: Redline changes of Employee Handbook and Personnel Management Plan

RIVANNA WATER & SEWER AUTHORITY

RIVANNA SOLID WASTE AUTHORITY

EMPLOYEE HANDBOOK



June 2020

WELCOME! As an employee of the Rivanna Water and Sewer Authority or the Rivanna Solid Waste Authority (Authority), we hope that you will find your association with this organization to be both pleasant and rewarding. This handbook is intended to give you basic information about personnel policies, operating rules, and benefits. Nothing in this handbook is to be construed as a contract of employment. Please talk to your immediate department manager or the Human Resources Manager if you have any questions not fully answered by this handbook or the Personnel Management Plan. Copies of the Personnel Management Plan are maintained by the department managers and divisional directors, a current copy can be found on our network in the Employee Drive Q: Personnel Management Plan\Personnel Management Plan_Aproved.

AUTHORITY

The Rivanna Water and Sewer Authority (RWSA) and Rivanna Solid Waste Authority (RSWA) are independent public agencies that serve the citizens of Charlottesville and Albemarle County.

The Rivanna Water & Sewer Authority is a wholesale agency with two customers, the City of Charlottesville and the Albemarle County Service Authority, which in turn provide service to individual retail customers. We provide clean drinking water to the community and treat wastewater and return it to the environment. We operate several water treatment plants and wastewater treatment plants throughout the Charlottesville and Albemarle County area.

The Rivanna Solid Waste Authority is an independent public agency formed to develop and operate regional garbage and refuse disposal services, including systems and facilities for transferring, recycling, waste reduction and other disposal alternatives, for the Charlottesville and Albemarle County area as well as to acquire and operate current facilities. The RSWA provides disposal services and does not collect solid waste.

The Authority has an Executive Director who is appointed and supervised by a Board of Directors. Under the supervision of the Executive Director are the Director of Operations, who supervises the Water, Wastewater, and Laboratory Departments; the Director of Engineering and Maintenance, who supervises the Maintenance and Engineering Departments; the Director of Finance and Administration, who handles administrative functions, including finance, data processing, accounting, budget, personnel, and purchasing; and the Director of Solid Waste who manages all solid waste services. All employees are expected to carry out the practices and policies established by the Board of Directors and administered by the Executive Director.

EMPLOYMENT

The Authority seeks to employ people who seek the challenge and rewards of meeting our critical public service needs. In return, the Authority offers on-the-job training, opportunity for advancement in most positions, good benefits and working conditions, and a fair wage.

Job applicants are evaluated for the ability, training, and experience necessary to perform the tasks for the position applied for. Race, color, sex, religion, sexual orientation, gender identity, national origin, age, marital status or non-job related disabilities are not considered in the selection or promotion of employees.

Employees are hired as either: 1) Full-time for a position of at least 2,080 hours annually and are eligible to receive benefits; 2) Part-time for positions either working less than 32 hours a week. Part-time employees do not receive benefits. Work hours are specified at the time of employment. They may vary for each employee depending upon the position, the shift schedule, or the work site.

The Main Office maintains a Personnel File for each employee dating from time of employment. It contains copies of all promotions, merit reviews, pay changes, commendations, reprimands, tax withholding forms, retirement and life insurance forms, and other materials. It is available for your inspection, by appointment. Any and all changes to your vital information, such as address, home phone number, marital status, emergency contact and the like must be reported immediately to the Human Resources Manager.

COMPENSATION PLAN

The Authority uses a pay scale and each position has a range from entry level to maximum as defined in the Personnel Management Plan (*Section D. Compensation Plan and Administration*). Positions are classified to a pay range according to job requirements and responsibilities. All employees are paid biweekly on Fridays. Paychecks may be automatically deposited. All new employees are requested to have their paychecks automatically deposited into a checking or savings account.

Work schedules vary by department and position. Non-exempt employees are paid overtime for hours worked in excess of forty in a workweek. Overtime pay at blended rate based on hours actually worked and compensation on those hours actually worked. Overtime does not include time for sick, vacation, or other leave. Additionally, employees will be paid a premium rate of 50% their hourly base pay rate regardless of the number of hours worked in the workweek for unscheduled hours worked due to emergency call-in or covering another employee's work schedule. Part-time employees receive overtime pay for work hours exceeding 40 in a workweek. Any other overtime which is not specified above, must be preauthorized by your immediate department manager on a daily basis. In all instances of overtime, the employee may request in lieu of overtime pay an annual leave credit at a rate of 1.5 times the overtime hours worked for up to 20 overtime hours per calendar year.

Certain positions are required to participate in an on-call rotating schedule. Currently, only one mechanic and one engineering staff member is on-call during the normal off-duty hours. In the event of an emergency, this on-call employee is expected to respond promptly and be fit for duty. Non-exempt employees that are placed on-call will receive a wage rate of 10% of their normal hourly rate for every hour waiting to be called outside of their normal work schedule. Lunchtime during the normal workweek is not considered on-call time. Should the employee be required to come into work during their on-call schedule, he/she will receive overtime pay for two hours or the actual hours worked, whichever is greater. In the case of emergency operation status, as determined by the Executive Director, other positions may temporarily be included in the on-call schedule.

Your performance is evaluated annually by your immediate department manager. Evaluations determine annual merit increases and also give you a concrete idea of job performance standards. The evaluation gives you an opportunity to discuss strengths and weaknesses in job performance and to express to the immediate department manager any problems found in performing the job. Further details of the performance evaluation/merit increase plan are available from your department manager or the Personnel Management Plan (*Section D. Compensation Plan and Administration*). Please remember that you do not have to wait for an evaluation to discuss how you are doing with your immediate department supervisor. The job descriptions used in performance evaluation have been worked out with contributions from all levels of employees. If you have suggestions for improving them let your department manager or the Human Resources Manager know.

PROBATION PERIOD

New employees must successfully complete a six-month probation period. During probation your immediate department supervisor has the opportunity to observe you on the job and determine your suitability for the job.

Your performance will be evaluated in writing after 3 months and after 6 months, with minimum scores of 1.5 points after 3 months and 1.75 points after 6 months required for success during probation. Lower scores are grounds for termination. Accrued annual balances will not be paid should you terminate during initial probation. Dismissals during probation cannot be appealed under the Authority's grievance procedure. Employees who score below 1.60 on any subsequent evaluation after the initial probation period will reenter the probation period.

BENEFITS

The following benefits are provided or are available to all full-time employees. Further, medical insurance and prorated annual leave are offered to part-time employees working at least 30 hours per week. Nothing in this manual shall prevent the Authority from changing, altering or discontinuing Authority provided benefits.

HOLIDAYS

The following 12 and a half days are paid holidays:

- New Year's Day
- Martin Luther King Jr. Day (3rd Monday in January)
- Washington's Birthday/Presidents' Day (3rd Monday in February)
- Thomas Jefferson's Birthday (April 13, Floating Holiday)
- Memorial Day (Last Monday in May)
- Independence Day (July 4)
- Labor Day (1st Monday in September)
- Veterans Day (November 11, ~~Floating Holiday~~)
- Thanksgiving (half day on the 4th Wednesday, 4th Thursday and Friday in November)
- Christmas Eve and Christmas Day (December 24 and 25)

In the case of Monday-Friday work schedules, if a holiday falls on a Sunday, it is observed the following Monday. If it falls on a Saturday, it is observed the preceding Friday. An employee scheduled to work on the actual day on which a holiday falls, will receive holiday premium pay for each hour worked. All employees will receive 8 hours of regular holiday pay. Thomas Jefferson's Birthday ~~and Veterans' Day-is-aare~~ floating holidays and can be taken any time during the year. Holiday premium pay is not paid for work on the ~~eseis~~ days.

ANNUAL LEAVE

Full-time employees accumulate annual leave at the following rates:

Years of Service	<5 Years	5 to <10 Years	10 to <15 Years	15 to <20 Years	20 to <25 Years	25 + Years
Annual Accrual Rate	96 hours	120 hours	144 hours	168 hours	192 hours	216 hours

Annual leave hours may be accumulated until they equal twice the annual accrual rate. Annual leave accumulations over the allowed amount will be lost as of January 1 of each year. Unused annual leave hours are paid upon separation provided that at least two-weeks' notice is given if the separation is voluntary.

SICK LEAVE

Full-time employees who participate in Plan 1 or Plan 2 of the Virginia Retirement System accrue 96 hours of sick leave per year. Sick leave is accrued at a rate of 3.69 hours per pay period. Full-time employees who participate on the Virginia Retirement System Hybrid Plan earn sick time every January 1st based on their service (see the chart below).

Sick leave is for personal illness, medical and dental appointments, or after exposure to a contagious disease. Sick leave used to attend members of your immediate family for the reasons above is limited to 40 hours per year (January 1 – December 31). Immediate family includes spouse, parents, parents-in-law, children, step-children, foster children, or other relatives or individuals residing in the same household. A supervisor may require a medical certificate for sick leave when leave is taken before or after a holiday or other scheduled day off, or when leave taken is in excess of three working days. A supervisor may also require a medical certificate when a sick leave occurrence exceeds one sick leave occurrence per three months.

Sick leave may also be used as bereavement leave in the event of a death in the immediate family, for up to ~~40~~24 hours per occurrence. Your immediate family in this case includes spouse, children, parents, foster children, siblings, grandparents, grandchildren, step-children, step-parents, guardian or same relative of spouse and any other relatives or individuals residing with the employee.

SICKNESS DISABILITY AND PERSONAL TIME OFF POLICY (SDPTO)

This policy applies to all employees that are enrolled in the VRS Hybrid Plan. Full-time employees earn SDPTO hours as follows:

Months of Service	Sick Leave Accruals (hours)
Less than 60	96 (8 hours per month)
60 to 119	104
120 or more	120

SDPTO can be used for personal illness, medical and dental appointments, or after exposure to contagious diseases. SDPTO can be used for family illness or injury, or bereavement. The first year of employment, a new hire will be credited for the accruals based on their anticipated months of service; thereafter, the employee will receive their annual accrual on January 1. SDPTO cannot be carried forward year-to-year

SHORT-TERM LONG-TERM DISABILITY INSURANCE

Disability insurance is provided to employees enrolled in the VRS Hybrid Plan. After meeting specific eligibility requirements, an employee receives partial salary for a maximum of 26-weeks each year beginning the 8th calendar day after illness/disability. A disability lasting longer than 26-weeks requires coverage to transition to a Long-Term Disability Plan.

FAMILY AND MEDICAL LEAVE

All employees are eligible for up to 12 weeks per year of Family and Medical Leave in the circumstances of birth, adoption or foster placement of child, and of serious medical condition of a family member or the employee. In many cases, use of annual and sick leave will count toward the twelve weeks. Any Family and Medical Leave not covered by current paid leave benefits will be Leave Without Pay. Please see the Personnel Management Plan,

(Section F., Leave Policy and Rules) your immediate department manager, or the Human Resources Manager if you have questions.

WORKER'S COMPENSATION

If you are hurt on the job and the injury is considered compensable under the Worker's Compensation Act, the costs of your treatment, medicines, supplies, therapy, hospital, and other items will be paid through our Worker's Compensation insurance. This insurance also provides for 66^{2/3} pay during time lost from the job should the lost time exceed seven calendar days. It is important that employee:

- Report every injury immediately to your immediate department manager and go to a doctor if necessary. Get help, don't tough it out. The Authority has a panel of physicians that handle all employee injuries or illnesses. Going to a physician other than a panel physician may result in you being personally responsible for these bills.
- Tell the doctor and others you were injured on the job and make sure the Authority receives the bill, not you. Do not provide your personal insurance information. If you do get a bill, give it to the Human Resources Manager as soon as possible for payment or reimbursement; and
- Cooperate with your immediate department manager, the insurance company and the Safety Committee in investigating the accident.

You are also required to review the Safety Manual and sign an acknowledgement.

MEDICAL INSURANCE

You as an employee may participate in the Authority group health, dental and vision insurance plans. Please see the plan handbook for more details. You will be provided a copy of the summary plans on your first day of employment. The Authority contributes toward whichever option and plan you choose. The Authority will not contribute to any other insurance plan you may wish to substitute for this group plan.

RETIREMENT

Full-time employees must participate in the Virginia Retirement System (VRS). On a biannual basis, the VRS actuarially determines the Authority's contribution rate. This contribution is a percentage of the employee's monthly credible compensation and is paid by the Authority into the VRS retirement funds for each employee. In addition, depending on an employee's enrollment in VRS Plan 1, VRS Plan 2 or VRS Hybrid the employee is required to make a minimum payment of 5% of their compensation into the VRS retirement fund. This member contribution is deducted on a pre-tax basis from the employee's biweekly pay. Please see the current VRS handbook for information on retirement, disability, and death benefits and options. There is no mandatory retirement age. A copy of the handbook can be found at www.varetire.org.

SOCIAL SECURITY (FICA)

Social Security is another part of our retirement benefit. A payment is withheld from your gross pay and this payment is matched by the Authority.

LIFE INSURANCE

Participation in VRS includes a group life insurance plan, paid for by the Authority. The amount of insurance provided is your annual wage rounded to the next higher thousand and then multiplied by two. See the VRS

booklet for details. Employees may also elect to purchase additional life insurance for family members through optional insurance.

OPTIONAL BENEFITS

The Authority supplements its core benefits package with various voluntary or optional benefits. The optional benefits currently offered include a 457 Deferred Compensation plan, Flexible Dependent and Medical Spending Accounts, Health Savings Accounts, health club membership at reduced rates, Legal Resources and Liberty Mutual group auto and homeowners group discounted rates. These benefits are subject to review and may be altered, changed or discontinued.

OTHER BENEFITS

Military leave, court leave (jury or witness duty), supplemental leave, leave without pay, and educational assistance are described in the Personnel Manual, available from your immediate department manager, or can be viewed on our network in the Employee Drive Q: Personnel Management Plan\Personnel Management Plan Approved. Further information is available from your immediate department manager or the Human Resources Manager.

DEDUCTIONS

The following deductions must be taken from your pay: Federal and State tax withholding, Social Security taxes, VRS member contributions, garnishments, and mandated child support payments. Voluntary deductions may be taken for the following: optional medical and dental insurance, AFLAC insurance, Credit Union, Deferred Compensation, Flexibility Spending Accounts, Health Club memberships, Health Savings Accounts, or others as the need arises.

DEPARTMENT MANAGERS

Every employee has an immediate department manager (IDM) to whom he or she is responsible for the effective job performance. Your IDM's main responsibility is to see that the job gets done and that you are treated fairly. Together you and your IDM can work out most problems. You are expected to carry out your duties thoughtfully and thoroughly in accordance with the performance standards for your position. Disciplinary problems are handled through the Disciplinary Policy in the Personnel Management Plan (*Section G., Disciplinary Policy*).

Disciplinary action options include reprimands, suspension, demotion, reduction in pay, or dismissal for such offenses as (examples only and not limited to):

- Tardiness
- Absenteeism
- Neglect of duty
- Sleeping on the job
- Dishonesty
- Insubordination
- Fighting
- Incompetence
- Criminal convictions
- Harassment
- Work rules violations
- Unauthorized use of Authority Property

UNIFORMS

Uniforms are provided to all operators, maintenance and certain engineering employees. You are expected to report to work in uniform and to remain in uniform until relieved of duty. You are required to wear your complete uniform while on the job and to wear appropriate shoes at all times. Failure to wear the complete uniform may result in disciplinary action. Uniforms may be worn home, but it is your responsibility to turn in uniforms for

cleaning on the scheduled days so that clean uniforms will be available. Employees who prefer to launder their uniforms may do so. If you leave the Authority, all uniforms and other equipment must be returned. You will be expected to reimburse the Authority for the cost of items not returned.

Operators, maintenance employees and certain other employees are required to wear approved steel-toe safety shoes on the job. The Authority gives an allowance credited July 1st of each year as set out in the Personnel Management Plan (*Section I., Administrative Policies*).

SAFETY

Safety is important to everyone at the Authority. Your immediate department manager is expected to train you in the safety rules for your position and make sure that you have the proper equipment, use it properly, and follow the safety rules. Department managers are expected to provide continuing safety education. On-the-job accidents must be reported promptly to your department manager to ensure treatment and proper reporting. Employees must promptly report all accidents and injuries, no matter how slight. You are expected and encouraged to report to your department manager any unsafe conditions immediately and to bear safety in mind both on the job and at home. You may take safety concerns directly to the Safety Manager and/or the Safety Committee if you are not satisfied with your immediate department manager's response.

Our safety program is administered and advised by the Employee Safety Committee. Members serve two-year terms. This committee is charged with maintaining and improving our safety consciousness as well as improving the safety rules and safety education. Each accident is investigated to determine unsafe acts or unsafe conditions. The Authority has a safety incentive program. Please refer to the Safety Manual to which you will be provided access on your first day of employment.

SPECIAL INFORMATION FOR TREATMENT PLANT OPERATORS

Most operators are expected to remain at the plant while on duty and are not to leave the plant site during their shift without the plant supervisor's or department manager's permission. The operator on duty is expected to remain on duty and in uniform until he/she has been relieved. Every effort will be made to minimize overtime and shift schedule changes, but the plant has to be staffed at all scheduled times. Acceptance of overtime to fill in for sickness, vacation, and emergencies is expected.

A good work habit is to report to work sufficiently early to receive any special instructions from the operator on duty or to learn of any equipment problems so that the operator being relieved can leave on time. Repeated tardiness will result in disciplinary action. The fact that treatment plants operate around the clock puts special requirements on the operators to ensure good control of the process. It is your responsibility to notify your plant supervisor or department manager with as much advance notice as possible (a minimum of four hours) when you will be absent or late to work. Having some other person call the operator on duty is not acceptable and may result in disciplinary action. Only rare exceptions will be made to this policy.

Operators who pass a licensing exam for a higher class license than the one currently held will be reclassified and be paid either the minimum for the new class or a rate in the new range 5% above the current salary, whichever is greater, provided the experience requirements have been met.

These provisions are intended to help insure proper training and qualification of water and wastewater treatment plant operators. Each operator is required to earn a Class 1 license level. Failure to obtain the required license will be grounds for termination or other disciplinary action.

GRIEVANCES

The Authority hopes that all complaints and grievances can be resolved between you and your immediate department manager. If not, you deserve and have the right to submit grievances resulting from work situations and have them resolved speedily. The Personnel Management Plan contains a grievance procedure (*Section H., Grievance Procedure*) to be used when a grievable instance, situation or condition arises. Grievances cannot be used to change policy, but in general may be used to resolve interpretation/application of rules and policies, acts of reprisal for filing a grievance, certain disciplinary matters, or complaints of discrimination.

INCLEMENT WEATHER POLICY

The objective of this policy is to establish procedures and guidelines for all Authority employees concerning the potential closings or delays in opening Authority facilities. For more information, refer to the Personnel Management Plan (*Section I., Administrative Policies*).

ROLES AND RESPONSIBILITIES

The Executive Director will be responsible for determining whether a delayed opening or closing of some or all Authority facilities is necessary due to inclement weather.

Essential employees will be expected to report to work regardless of the weather. It is immediate department manager's responsibility to ensure their employees know whether they are considered essential or non-essential employees.

Notice of delayed opening or closing may be announced via local radio and local television announcements. These announcements are opening and closing notices to the general public that use these facilities and not Authority employee work schedule announcements. Non-essential employees should call (434) 977-2970 extension 333 for weather-related delays or closings that effect their work schedules.

SNOW/ICE REMOVAL

Snow and ice removal will be based on the following priorities:

- Public parking and travel ways into and around all Authority facilities;
- Employee parking areas and travel ways;
- Main pedestrian walkways and ramps; and
- Other Authority driveways and facilities that are not maintained by other outside agencies.

These priorities may be altered as deemed necessary by the Department Manager when considering special events or circumstances.

USE OF LEAVE DURING INCLEMENT WEATHER INCIDENTS

In order to address the questions regarding time that has to be made up or leave debited, the following shall apply:

- **Delayed Opening and/or Early Closing**

Non-essential employees will not be required to make up time missed due to weather-related delayed opening or early closing. However, if the employee leaves work prior to an early closing, the time between the departure and the early closing time must be made up in the same payroll week or annual leave or comp time debited. Should the employee report to work after the delayed opening time, the time between the delayed opening time and the actual time the employee reported to work must be made up in the same payroll week or annual leave debited.

- **Closed for the Entire Day**

Non-essential employees will not be required to make up lost time if offices are closed for the entire day.

- **Open or Close on Regular Scheduled Time**

Non-essential employees who are delayed due to weather conditions on days when the offices are opened at its regular time or who need to leave early due to weather-related concerns when the facility remains open until its normal closing time will be expected to account for time missed. Any time missed can be accounted for through either making up time or using annual leave. All time made up must be within the same payroll week.

- **Employee on Leave**

When an individual is on leave during a day that there is a delayed opening, early closing, or a complete closing, the time assessed for such leave is not adjusted for the changed schedule. An individual will be charged the full time that they are not at work.

GENERAL INFORMATION AND BEHAVIOR GUIDELINES

The following information summarizes miscellaneous Authority policies from the Personnel Management Plan, previously written directives, and policy interpretations. It is not all-inclusive, and some information applies only to certain groups of employees, but the intent is to answer some of the more common questions as to what is expected with respect to attendance, work habits, and the like. All employees are expected to abide by these rules and guidelines and violation may result in disciplinary action.

Every effort will be made to minimize overtime and schedule changes, but certain staffing requirements must be met regardless of circumstances. Acceptance of overtime when necessary for operations is expected but immediate department managers are expected to be reasonable and fair in scheduling overtime and in making schedule changes.

Employees are expected to report to work on time. Repeated tardiness will result in disciplinary action. It is your responsibility to notify your immediate department manager with as much advance notice as possible, but a minimum of 4 hours before your shift starts, when you will be absent or late to work.

It is understood that treatment plant operators are to take time to eat between duties during their shifts. All other departments have a scheduled non-paid meal break. Limited kitchen facilities are available, but extensive meals should be prepared at home, not on the job. Normal work schedules vary from 8-hour, 9-hour, 10-hour to a 12-hour work day. The workweek may also vary among position and department.

Outside interests that conflict with your ability to be alert and attentive to your job are discouraged. Any employee that has another job outside of the Authority must advise their immediate department manager of this. It may be necessary that your extra employment be reviewed by the Executive Director for any conflicts of interests with your Authority position. Working a second job may not allow you sufficient rest to do a satisfactory job here and may

result in poor performance evaluations. Should your outside interests or other job have an adverse impact on the Authority, you may be asked to terminate your outside job or activity if you wish to remain with the Authority.

Telephones are for Authority business and personal calls should be minimized. No personal long-distance calls may be charged to the Authority. You are expected to handle incoming calls politely and efficiently. Entertaining visitors while on duty is not permitted. If you want to show friends or relatives where you work, schedule visits on daylight hours during weekdays. You are not permitted to carry firearms while on duty or on Authority premises without prior permission from the Executive Director.

Employees who use, are under the influence of, or have possession of intoxicants or controlled substances (as defined by the Code of Virginia) while on duty either on or off Authority premises or in an Authority vehicle are subject to immediate dismissal. See Section L., Substance Abuse Policy of the Personnel Manual for further information.

You are responsible for the proper use and maintenance of equipment and vehicles used in your work. You are expected to report any defect you cannot fix to your immediate department manager as soon as possible. Do not operate any equipment or vehicle if its safety is questionable.

The personal use of Authority equipment or facilities is permitted to a reasonable extent; however, permission must be obtained from a department manager each time something is borrowed or used. The personal use of Authority vehicles is not permitted. Abuse of this privilege or of the equipment may result in the loss of this privilege for everyone. Use of Authority equipment or facilities, including personal car washing, is limited to off-duty hours or scheduled breaks.

Computers, internet, e-mail and voicemail are tools available to employees to perform the duties of their position. No user should presume that any file or message generated, received, transmitted or stored on any Authority system is private. This includes, but is not limited to, e-mail, voicemail, text documents, graphics files, executable files, audio files and printouts. No web page viewed using the Authority equipment or accounts are private. The Authority reserves the right to inspect any hardware, software or file at any time for any reason. The Authority reserves the right to monitor internet usage, including the logging of sites visited. If password protection is used on any file, directory, software package or machine, a copy of the password used must be forwarded to the appropriate department manager and the Human Resources Manager. Before any software or hardware is purchased or installed, you must check with the Information Systems Administrator first. Personal use of computers, printers, e-mail and the internet must be kept to a minimum. In addition, personal use should be confined to personal time. Excessive personal use may, at your immediate department manager's discretion, result in loss of the privilege of personal use. E-mail attachments should only be opened if they are from a trusted source. Users will be held responsible for damage done by computer viruses that come in attached to personal e-mail. The use of any of the Authority's equipment, e-mail or internet connections for any illegal, discriminatory, offensive, obscene, threatening, harassing, intimidating, or disruptive purpose is strictly prohibited and will result in disciplinary action. See Personnel Management Plan for more information (*Section I-9, Administrative Policies, Technology System Acceptable Use Policy*).

As a vital part of the Authority's security system, an identification badge with the employee's name, photo and department will be issued to employees on their first day of employment. All employees are required to carry an

ID badge during their shift or while conducting any Authority business on or off premises. All employees are required to produce their ID badge when requested.

If an identification badge is lost or stolen, the employee must obtain a replacement. A fee of \$5.00 will be assessed for all replacement badges. Lost or stolen cards should be reported to your immediate department manager, as soon as possible. Failure to be able to display or produce your ID badge when requested or excessive loss or damage to cards can lead to disciplinary action.

Upon termination, employees will be required to return ID badges to Human Resources.

STANDARDS OF CONDUCT

The Authority is a public corporation and thus special demands and responsibilities must be met by its employees. We are always in the public eye, with our work subject to critical review by the people who pay our wages through their water and wastewater rates. Also, our facilities by their nature lie across the property of many landowners who have their own expectations of our conduct. We are required by these facts to conduct ourselves with courtesy, fairness, honesty, and efficiency while maintaining our own dignity.

Our function in the community is a critical one. This great responsibility requires conduct that not only meets the demands and responsibilities above but also helps ensure safe, effective, and efficient operations. The standards of conduct below define general and specific behavioral guides to which all employees are expected to conform. You are hired with this expectation and breaches of these standards will be met by a range of disciplinary actions. It is the intent of this policy to establish fair and objective process means for correcting and treating unacceptable conduct and to distinguish between less serious and more serious misconduct and provide for timely correct action. While the standards cannot cover all circumstances, you should remember that your actions with the public and your co-workers are expected to be and to appear to be courteous, fair, honest, non-discriminatory and efficient.

All employees are expected to have timely and regular attendance, their time at work applied to the duties of their position, satisfactory work performance, and appropriate work attire. See the Personnel Management Plan (*Section I., Administrative Policies*).

CONFLICT OF INTEREST

Employees must not have a material financial interest in or engage in any business or profession that conflicts or appears to conflict with job responsibilities or that tends to impair independence of judgment or action on the job. Likewise, employees must not use their positions for personal gain beyond wages and benefits and must keep confidential all information acquired through employment when that information is not available to the public. See the Personnel Management Plan (*Section I., Administrative Policies*).

- **Gifts**

Employees must not accept gifts of goods, favors, services, or money from any person or firm which would influence or could be inferred to influence the impartial discharge of duties. Employees also must not accept such gifts for services the Authority pays them to provide. If such gifts cannot be gracefully declined, the employee should either donate them to charity or in some cases make them available department-wide or Authority-wide. Promotional items such as individual caps, pens, pencils and the like can usually be accepted without fear of violating this standard. Likewise, acceptance of occasional meals or attendance at social activities provided by business contacts or vendors can usually be accepted. Favoritism will not be tolerated. Employees should remember that donors of gifts will probably expect or

seek preferential treatment. If you have **any** doubts as to what to do, ask your department manager or the Executive Director before accepting any gift.

- **Nepotism**

No employee in a supervisory position shall have under his or her direct supervision any employee whose relationship is of the first or second degree either by blood or marriage. In the event of a promotion which brings about the conditions thus described, the employee of lower rank shall be transferred to another position for which he or she is qualified when a vacancy occurs.

Relationship of the first or second degree shall mean: father, mother, brother, sister, spouse, son, daughter, aunts, uncles, son-in-law or daughter-in-law, brother-in-law, step-family members and any other relatives or individuals residing with the employee.

- **Discrimination**

Employees must not discriminate on the basis of race, color, religion, age, sex, sexual orientation, gender identity, disability, political affiliation, or national ancestry. Equal employment opportunity is not just a set of words but a commitment by the Authority to make affirmative action to provide a work place in which employee qualifications, merit, and fairness are the governing rules regarding hiring, assigning work schedules, promotion, compensation, benefits, educational opportunities, and disciplinary actions. If you see an apparent act of discrimination or feel you have been discriminated against, speak up or use the Grievance Procedure. The Human Resources Manager is available as a sounding board and any charges brought forth will be held in confidence as much as is legally allowable.

- **Harassment**

The Authority is committed to provide a work environment that is free from all forms of conduct that can be considered harassing, coercive, or disruptive, including sexual harassment. Actions, words, jokes, or comments based on an individual's sex, sexual orientation, gender identity, race, color, national origin, age, religion, disability, or any other legally protected characteristic will not be tolerated. Specifically related to sexual harassment, it is illegal for any employee, male or female, to harass another employee by (1) making unwelcome sexual advances or requests for sexual favors, or engaging in other verbal or physical conduct of a sexual nature; (2) making submission to or rejection of such conduct a basis for employment decisions affecting the employee; or, (3) creating an intimidating, hostile, or offensive working environment by such conduct. See the Personnel Management Plan for more information (*Section E., Harassment Policy*).

If you see an apparent act of harassment of any nature or feel you have been harassed, speak up and/or use the Grievance Procedure. The Human Resources Manager is available as a sounding board and any charges brought forth will be held in confidence as much as is legally allowable.

- **Outside Activities**

Employees are encouraged to be active in professional, civic, and charitable organizations. With department manager approval, employees may occasionally work for such organizations (other than religious or partisan political organizations) during working hours, provided there is a reasonable relationship to work duties.

- **Ethics in Purchasing**

Those employees responsible for purchasing, that is, divisional directors, department managers, and the Accounting/Purchasing Technician are expected to be familiar with the code of ethics incorporated into the Authority's Purchasing Manual.

- **Other Standards of Conduct**

See the Personnel Management Plan for additional expectations for standards of conduct.

- **Violations**

Any employee, who is found in violation of the Standards of Conduct after the appropriate investigation, will be subject to disciplinary action depending upon the circumstances, from a warning in his or her personnel file up to and including immediate dismissal from employment.

FURTHER INFORMATION

The Human Resources Manager, the Director of Finance and Administration, and your department manager are the people to contact for general information about topics in this Handbook. They can also give you copies of such material as the Grievance Procedure if you need them. Don't hesitate to call, because there are no "silly" questions if you are concerned about work matters.

B. Recruitment and Hiring Policy

7. Orientation Policy

All new employees will receive a copy of the Authority Employee Handbook prior to their first day of employment. New employees will attend an orientation session with the Human Resources Manager, ~~and~~ the Payroll and Benefits Coordinator and the Safety Manager on their first day of employment, during which all of their employment documentation, to include Employment Eligibility forms, will be completed.

B. Recruitment and Hiring Policy

1. Policy

It is the policy of the Authority to hire employees through a systematic recruitment and selection process that identifies, attracts, and selects the most qualified applicants for employment. All applicants are considered on the basis of job requirements and applicant qualifications and otherwise without regard to race, color, religion, sex, sexual orientation, gender identity, national or ethnic origin, age, marital status, status as a veteran, disability, or any other non-job-related factor. The Authority's programs and practices seek to foster internal advancement opportunities for current employees. The Human Resources Department is responsible for overseeing the recruitment and selection process. All recruitment and selection will be done in accordance with applicable policies and laws and no selection decision will be made that would constitute unlawful discrimination in violation of state or federal laws.

L. Substance Abuse Policy

Section I: General Policy, Provisions and Definitions

3. Selection Process

- a. All employees are subject to unannounced testing based on random selection.
- b. The random selection procedure will be a computer-based number generator and conducted by the Medical Review Officer (MRO) facility.
- c. The Authority will maintain two separate random drug testing pools: a CDL Drivers testing pool and a Non-CDL Drivers testing pool. "Covered positions" include both Commercial Driver's License (CDL) positions and Non-Commercial Driver's License (Non-CDL) positions from which selection will take place. The Non-CDL pool selection will be 10% for the first twelve months after the adoption of this policy, and will remain 10% in subsequent years unless the Executive Director determines on a year-to-year basis that the percentage needs to be increased, decreased, or suspended. ~~not to exceed 25% without Board of Directors' approval,~~ on the basis of statistics showing increased number of positive Non-CDL alcohol or drug tests in the preceding year or due to unforeseen circumstances that may cause regular testing of Non-CDL employees to potentially be hazardous or unsafe. Non-CDL testing should not to exceed 25% without Board of Directors' approval The CDL pool selection will be based on the requirements from the United States Department of Transportation.
- d. Within every twelve (12) month calendar period, the Authority shall randomly test from each pool unless the Executive Director has suspended Non-CDL testing. An employee may be randomly picked more than once or not picked at all during a twelve-month period.
- e. An employee shall only be tested for alcohol while the employee is performing, just before the employee is to perform, or just after the employee has performed their work tasks. It is the Authority's position that covered employees are expected to perform their work functions any time that they are on duty or on paid on-call to report to duty.

E. Harassment Policy

1. Policy

It is the policy of the Authority to provide a working environment that is free from all forms of discrimination and conduct that is considered harassing, coercive, intimidating, or disruptive, to include sexual harassment. Actions, words, jokes or comments based on an individual's sex (including pregnancy), race, color, national origin, age (over 40), religion, disability, genetic information, sexual orientation, gender identity, and any other legally protected characteristic will not be tolerated. This policy includes reporting procedures and remedies in the event of harassing behavior.

F. Leave Policy and Rules

2. Holiday Leave

It is the policy of the Authority to ensure that all regular employees enjoy the same number of holidays each year, irrespective of the provisions of the section below on granting holiday leave. The standard shall be the number of holidays in a year which will be celebrated by regular employees.

The following holidays are observed by the Authority and shall be granted to all full-time employees with pay, and to part-time, non-benefited employees without pay, unless such employees are required to be on duty as scheduled:

- New Year's Day, January 1
- Martin Luther King Day, Third Monday in January
- Presidents' Day, Third Monday in February
- *Jefferson's Birthday, April 13 (Floating)
- Memorial Day, Last Monday in May
- Independence Day, July 4
- Labor Day, First Monday in September
- *Veterans Day, November 11 (Floating)
- Thanksgiving, close at 12:00 pm the fourth Wednesday, closed on fourth Thursday and Friday of November
- Christmas Eve, December 24
- Christmas Day, December 25

*The RWSA/RSWA offices will be open on Jefferson's Birthday, April 13 and Veterans Day, November 11. Holiday leave may be taken on the formal holiday with the department manager's approval. If leave is not taken on the holiday, it will become 8 hours of annual leave and will be treated as such. Holiday premium pay will not be paid for time worked on April 13 and November 11.

F. Leave Policy and Rules

4. Sick Leave

Sick leave is leave with pay granted to an employee for an illness, bodily injury resulting in temporary disability, medically required confinement and medical/dental appointments. Up to 40 hours of Sick leave may also be used for bereavement leave in the event of the death of an immediate family member, per instance. and Up to 40 hours of sick leave may be used as immediate family sick leave per year. Immediate family ~~in this event~~ includes spouse, children, parents, step-siblings, foster children, siblings, grandparents, grandchildren, step-children, step-parents, guardian or same relative of spouse and any other relatives or individuals residing with the employee. The FMLA policy may apply in some instances of sick leave after the first 12 months of employment.

A doctor's certificate or other documentation of illness may be required by a department manager should absence exceed three days or when misuse of sick leave is suspected. This certificate or documentation will include the nature of the employee's condition and the expected date on which the employee will be able to return to work and perform their normal job duties.

G. Disciplinary Policy

1. Unsatisfactory Work Performance or Misconduct

Each need for discipline has varying circumstances and requires the exercise of discretion on the part of the employee's department manager. Disciplinary action may be taken for any of the following examples of unsatisfactory work performance and misconduct. These examples are not in any way to be construed as a comprehensive listing of possible violations nor are they to be considered as rigid guidelines.

- a. Recurring tardiness
- b. Absence without leave
- c. Violation of the Substance Abuse Policy
- d. Sleeping on the job
- e. Serious neglect of work
- f. Serious neglect of duty
- g. Insubordination, defined as refusal to comply with a direct order from a department manager
- h. Deliberate or careless conduct endangering the safety of oneself or other employees
- i. Pattern(s) of safety violations, severity of risk to be determined
- j. Negligence in the care and handling of Authority or customer property
- k. Theft or unauthorized use of Authority property or of another employee's property
- l. Incompetence or inefficiency in the performance of required job duties
- m. Use of offensive, abusive, threatening, coercive, indecent or discourteous language toward department managers, divisional directors, other employees, or members of the public
- n. Intentional falsification of personnel records, time records, or any other Authority records or reports
- o. Provoking, instigating or participating in a fight while on duty or on Authority property or in an Authority vehicle
- p. Harassing other employees
- q. ~~Carrying of a firearm during work hours or on Authority property or in Authority vehicles~~
- ~~r-q.~~ Violation of Section I.1., "Administrative Policies, Conflict of Interest/Accepting Gifts".
- ~~s-r.~~ Violation of Authority Policies

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I. Administrative Policies

19. Essential Employees – New Policy

Employees who are designated as required to work when the main office is closed due to weather or other emergencies are considered essential. Essential employees generally must work to maintain ongoing and safe operations and basic public services, such as Water Operators, Wastewater Operators, Chemists and Mechanics.

Occasionally, employees who are not normally considered essential may be required to work if the circumstances require it. This determination will be made by the Executive Director and/or an employee's Manager or Divisional Director.

MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
RIVANNA SOLID WASTE AUTHORITY
BOARD OF DIRECTORS**

**FROM: LONNIE WOOD, DIRECTOR OF FINANCE AND
ADMINISTRATION**

REVIEWED: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: PURCHASING MANUAL AND POLICY UPDATES

DATE: JUNE 23, 2020

The Authorities Purchasing Manual was last updated in February 2018, as adopted by the Boards. Since that time, several changes have been made to the Virginia Public Procurement Act (VPPA). It is recommended that the policy changes outlined below be incorporated into the Authorities Purchasing Manual as the VPPA has been traditionally followed by the Authorities.

Purchasing Thresholds

- The Small Purchase Threshold was increased from \$5,000 to \$10,000. At this level, verbal quotes are required for the purchase of goods and services (non-professional and professional).
- The Professional Services Threshold increased from \$60,000 to \$80,000. At this level, a formal Request for Proposal is required.
- The largest change in the VPPA this year is for the formal procurement threshold for goods and services. This was increased from the current \$100,000 level to \$200,000 level. This is applicable to either bidding or competitive negotiation. Additionally, all procurements under \$200,000 (currently \$100,000) will now be awarded by the Executive Director.

Changes to purchasing thresholds have not changed since 2013 and are as follows:

Procurement Thresholds for Goods & Non-Professional Services	Current Manual 2018	Draft Manual 2020
• Purchase Requisition/Purchase Order Required	\$5,000 and above	\$10,000 and above
• Soliciting verbal quotes required (3)	\$5,000 - 29,999	\$10,000.01 - 50,000
• Soliciting written quotes required (4)	\$30,000 - 99,999	\$50,000.01 - 200,000
• Formal invitation for bid	\$100,000 and over	\$200,000.01 and over
• Formal Request for Proposal, Non-Professional Services (competitive negotiation)	\$100,000 and over	\$200,000.01 and over

Procurement Thresholds for Professional Services	Current Manual 2018	Draft Manual 2020
• Purchase Requisition/Purchase Order Required	\$5,000 and above	\$10,000 and above
• Soliciting verbal quotes required (4)	\$5,000 - 59,999	\$10,000 - 80,000
• Formal Request for Proposal, Professional Services (competitive negotiation)	\$60,000 and above	\$80,000.01 and above

Health Insurance Contracts

It is recommended to include health insurance and other employee health benefit contracts to the sections allowing the Executive Director to award contracts. (See Section VIII and Section XI). Insurance industry practices do not allow for the Request for Proposal (RFP) process to begin before the April board meeting. Therefore, the Authorities must conduct the RFP process within a limited timeframe. This includes the soliciting and review of proposals, contract award and preparation of employee open enrollment documents. The Authorities conduct open enrollment mid-May, making it too late to make an award recommendation at the May board meeting. This exception was previously approved for the purchase bulk chemicals.

Other Items

Since the last adoption of the Authorities Purchasing Manual, several other minor changes were made as needed from the amended code. This includes changing or adding *Code of Virginia* sections to match the current code, and minor clarifications in wording. A red-lined version is attached to this memo for your review.

Board Action Requested

It is requested that the Board of Directors approve the updated Purchasing Manual effective July 1, 2020. (as shown in the attached red-lined version).

PURCHASING MANUAL

RIVANNA WATER & SEWER AUTHORITY AND RIVANNA SOLID WASTE AUTHORITY

DRAFT

Revised and adopted draft — March 24~~February 27~~, 2020~~18~~

TABLE OF CONTENTS

I.	Introduction	3
II.	Purchasing Staff Organization	4
III.	Policy	5
IV.	Ethics	6
V.	Authorized Methods of Procurement and Thresholds	8
VI.	Exemptions to Bidding	10
VII.	Small Purchases	12
VIII.	Request for Proposal – Other than Professional Services	13
IX.	Request for Proposal – Professional Services	15
X.	Request for Proposal – Professional Services for Multiple Projects and Multiple Years	18
XI.	Competitive Sealed Bid	20
XII.	Prequalification Process for Construction Contracts	23
XIII.	Bonds	25
XIV.	Withdrawal of Bids	26
XV.	Sole Source	28
XVI.	Emergency	29
XVII.	Use of State and Other Cooperative Contracts	31
XVIII.	Purchase Requisition	32
XIX.	Specifications	34
XX.	Purchase Order	35
XXI.	Change Order	36
XXII.	Procurement Under Assistance Agreements	37
XXIII.	Disadvantaged Business Program	38
XXIV.	Disposal of Surplus Property	40
XXV.	Debarment of Prospective Contractors	42
XXVI.	Vendor Appeals Procedure	44
XXVII.	Glossary of Commonly Used Terms	45
Appendix A	PPEA Guidelines	
Appendix B	Internal Guidelines and Procedures	
Appendix C	Virginia Public Procurement Act – Unofficial Copy	
Appendix D	Threshold Guidelines and Related Documents	

I. INTRODUCTION

This Manual has been prepared as a reference and guide for the purchasing policies and procedures adopted by the Rivanna Water & Sewer Authority and the Rivanna Solid Waste Authority (together “Authority”). This Manual is designed to guide all Authority employees involved in some way in the purchasing function in implementing the Authority’s procurement regulations in the acquisition of all goods and services, including construction services to make the policies and procedures clearly understood resulting in a more effective and efficient system.

The requirements of this Manual are intended to assure fair and ethical procurement practices for the cost-effective acquisition of all goods and services, including construction services, and to promote good, continuous relations with suppliers. The Manual is also intended to assure compliance with the Virginia Public Procurement Act, as amended (Virginia Code § [2.2-4300](#) et seq.) and other applicable law. By buying competitively the Authority will obtain maximum value for public funds spent. Nothing in this Manual and no deviation from its guidance by Authority staff is intended to nor shall create rights in any third person, including but not limited to Authority suppliers, contractors, service providers, bidders or proposers.

No person shall purchase or contract for any goods, services, insurance or construction except as provided by this Manual. The Authority shall not be bound by any purchase order or contract made contrary to these procedures. Any person responsible for such purchase shall be held personally liable for such purchase, and, if already paid for out of Authority funds, the amount may be recovered in the name of the Authority.

The Manual shall be subject to the requirements of the Virginia Public Procurement Act as amended. This Manual was adopted with all provisions effective as of July 1, 2013 (Subsequently revised and adopted – October 27, 2015, February 27, 2018). To the extent any provision in this Manual is deemed inconsistent with the Code of Virginia, Title 2.2, Chapter 43, the Virginia Public Procurement Act, whether due to amendment of that Chapter or otherwise, then the provisions of that Chapter shall control as to such inconsistency.

II. PURCHASING STAFF ORGANIZATION

The Executive Director is authorized to enter into, administer, terminate and otherwise manage contracts subject to any approval thresholds that may be established by the Board. The Executive Director, or his designee, shall have the sole authority to authorize, in writing:

- 1) extension of professional services contracts per the renewals authorized in the original terms and conditions of the contract and within the limitations specified in law; and
- 2) use of competitive negotiation for construction services as provided by law.

The Executive Director has delegated to the Director of Finance/Administration the role of Purchasing Agent.

The Purchasing Agent:

- 1) manages the purchasing function, with certain exceptions related to capital project contracts as noted below*;
- 2) helps set policy; and
- 3) supervises all procedures including interpretation of policies and procedures.

The Purchasing Agent is responsible for the:

- 1) procurement of insurance, goods, non-professional services, and non-capital construction services*;
- 2) general supervision of all inventories of goods held by the Authority;
- 3) the development and enforcement of specifications;
- 4) the disposal of surplus property;
- 5) the enforcement of these policies and procedures; and
- 6) ensuring that this Manual maintains conformance with the Code of Virginia and other applicable law and with efficient Authority operations.

The Purchasing Agent has delegated certain authority and responsibility to the Buyer and, under the Small Purchase Procedure, to the Managers and Directors. The Purchasing Agent monitors all purchasing activity, including that managed by the Executive Director, for compliance with these rules and regulations and applicable laws.

The Accounts Payable/Purchasing Technician is designated the Authority's Buyer and is responsible for:

- 1) following procedures;
- 2) the selection of vendors and ordering (with certain exceptions noted below*);
- 3) follow through;
- 4) record keeping; and
- 5) verification of coding of purchases.

The Buyer is under the regular supervision of the Purchasing Agent and delegates Buyer functions to staff as appropriate.

**Exception: The hiring of legal and other professional services and the procuring of contracts for construction or capital related projects are managed by the Executive Director with the technical assistance of the Purchasing Agent.*

III. POLICY

Purchasing staff has the responsibility to purchase or contract for all insurance, materials, equipment, professional and non-professional services. The Authority strives to achieve the goal of securing the best value in acquiring materials or services through open and fair competition among vendors. This Manual is intended to assist responsible Authority staff to ensure that all procurements:

- 1) are made in an ethical manner that is impartial and above reproach, with preferential treatment for none;
- 2) are made efficiently and economically through open and fair competition among vendors;
- 3) ensure, at a minimum, that:
 - a) solicitations and contracts are properly advertised, posted and issued;
 - b) the methods of contractor selection and contract type are appropriate to the procurement and represent the Authority's best interest;
 - c) bonding and security are obtained when appropriate;
 - d) contractors have the necessary insurance to protect the Authority's interests;
 - e) liquidated damages, when appropriate, are included in contracts;
 - f) contractors perform in accordance with the terms and conditions of their contracts; and
 - g) payments are made only for goods and services, including construction services, received and authorized in the contract.
- 4) are made only to contractors selected in accordance with the stated evaluation criteria;
- 5) are made without restrictive specifications that limit or inhibit full and open competition;
- 6) are made on a sole-source or limited competition basis only after justification in writing and public posting as required;
- 7) include reasonable efforts to increase the opportunity for participation by business enterprises eligible under the Authority's Disadvantaged Business Enterprise Program;
- 8) are approved at the proper level; and
- 9) have approved funding.

IV. ETHICS

The Authority recognizes its special responsibilities under the Code of Virginia and incorporates Article Six, "Ethics in Public Contracting," of the Virginia Public Procurement Act, Article 6, Virginia Code § [2.2-4367](#) et seq., Virginia State and Local Government Conflict of Interests Act, Va. Code § [2.2-3100](#) et seq., Virginia Governmental Frauds Act § [18.2-498.1](#) et seq., and Articles 2 (§ [18.2-438](#) et seq.) and 3 (§ [18.2-446](#) et seq.) of Chapter 10 of Title 18.2 into its Policies and Procedures. The Standards of Conduct section of the Authority Personnel Manual are also part of the behavior requirements.

The following rules should guide Authority employees involved in the procurement process:

- 1) All employees having official responsibility in the procurement process are subject to and should become familiar with its provisions.
- 2) Definitions:
 - a) "Official responsibility" means administrative or operating authority, whether intermediate or final, to initiate, approve, disapprove or otherwise affect a procurement transaction, or any claim resulting therefrom.
 - b) "Procurement transaction" means all functions that pertain to the obtaining of any goods, services or construction, including description of requirements, selection and solicitation of sources, preparation and award of contract and all phases of contract administration.
 - c) "Immediate family" shall mean a spouse, children, parents, brothers and sisters, and any other person living in the same household as the employee.
 - d) "Public employee" shall mean any person employed by a public body, including elected officials or appointed members of governing bodies.
- 3) No employee having official responsibility for a procurement transaction shall participate in that transaction on behalf of the Authority when that employee knows that:
 - a) the employee is contemporaneously employed by a bidder, offeror or contractor involved in the procurement transaction;
 - b) the employee, the employee's partner, or any member of the employee's immediate family holds a position with a bidder, offeror or contractor such as an officer, director, trustee, partner or the like, or is employed in a capacity involving personal and substantial participation in the procurement transaction, or owns or controls an interest of more than five (5) percent;
 - c) the employee, the employee's partner or any member of the employee's immediate family has a pecuniary interest arising from the procurement transaction; or
 - d) the employee, the employee's partner or any member of the employee's immediate family is negotiating, or has an arrangement concerning, prospective employment with a bidder, offeror or contractor.
- 4) Vendor contacts should be limited to the purpose of obtaining information related to an actual Authority purchase.
- 5) No employee will accept any gifts, meals, or free trips prior to the awarding of a purchase contract or subsequent to award of a contract except as may be provided for as a part of the contract.
 - a) Should any bid, proposal or contract require travel outside the Authority's service area, all travel related expenses shall have been provided for as part of the contract or they shall be paid for by the Authority.

- b) This section shall not prohibit employees from accepting items of nominal value which are generally available and are primarily intended for advertising. The Authority has determined nominal value to be \$25.00.
- 6) No employee or former employee having official responsibility for procurement transactions shall accept employment with any bidder, offeror or contractor with whom the employee or former employee dealt in an official capacity concerning procurement transactions for a period of one (1) year from the cessation of employment by the Authority unless the employee, or former employee, provides written notification to the Executive Director prior to commencement of employment by that bidder, offeror or contractor.
- 7) No employee may contract to provide goods or services to the Authority.
- 8) No employee shall have a financial interest in the purchase of Authority surplus material and equipment in excess of \$500 or purchase such surplus material unless allowed by law.

Gifts

The following rules should guide employees' acceptance of gifts related to services provided in the course of their job.

- 1) Employees will not accept any personal gift, favor, service, money, business or professional opportunity, or anything of value which might reasonably be inferred as having the potential to influence the impartial discharge of duties, or as a reward for an official action.
- 2) Gifts should be discouraged. If the gifts cannot be declined gracefully, and are of more than nominal value (see 5b above) the gifts shall be declared surplus property and addressed accordingly unless the gifts are consumables, e.g. cookies, in which they will be set out for all to consume. Employees should bear in mind that the donor of gifts, presents and favors may come to expect or seek preferential treatment. Therefore, the perception of an individual's action is as important as the monetary value of the gift.
- 3) Employees with procurement responsibilities will not accept gifts or money for services the Authority pays them to perform.
- 4) Favoritism, especially as a result of acceptance of a gift or favor, will not be tolerated. Employees will not give any special consideration, treatment or advantage to any vendor or citizen beyond that which is available to every other vendor or citizen.
- 5) Nothing contained herein prohibits employees from attending vendor-sponsored seminars or trade shows where they will benefit from receiving product information and learning of new techniques and product or service trends. Food, drinks and give-away items offered to all participants at such functions may be accepted by Authority employees attending.

V. AUTHORIZED METHODS OF PROCUREMENT AND THRESHOLDS

Authorized Purchase Methods

- 1) Field Purchase (See below)
- 2) Small Purchase (Section VII)
 - a) Goods and Services
 - b) Professional Services
- 3) Request for Proposals
 - a) Goods and Services (Section VIII)
 - b) Professional Services (Section IX & X)
- 4) Invitation for Bids (Competitive Sealed Bid) (Section XI)
- 5) Sole Source (Section XV)
- 6) Emergency (Section XVI)
- 7) Cooperative Procurements (Section XVII)
- 8) Public Auction (See below)
- 9) Public-Private Partnership in Education and Infrastructure Act (PPEA) (See below)

Thresholds – Small or Informal Purchases

- 1) **Under \$1,500 - Field Purchase, Small Purchases ~~below \$510,000~~ and below**
Small purchases under \$1,500 are considered field purchases for operational needs by Directors and Managers (or as delegated) for time and convenience purposes. Field purchases are to be held to a minimum and all are subject to review by the Purchasing Agent. Only in unusual circumstances may \$1,500.00 be exceeded.

Procedures for the purchase of goods and services from \$1,500 to ~~\$510,000~~ will be prescribed by the Purchasing Agent or the Executive Director. The Purchasing Agent shall from time to time evaluate the use of field purchases and purchases ~~below \$510,000 and below~~ to determine whether warehousing of spare parts or the like is advantageous. Single transactions ~~under \$510,000 and under~~ do not require competition, though it's always advisable.
- 2) **All Purchases over ~~\$105,000~~**
All purchases over ~~\$105,000~~ must have a purchase order.
- 3) **Goods, Non-Professional Services and Construction: ~~\$510,000.01~~ to ~~\$50,00029,999.99~~**
Requires soliciting at least three (3) written or verbal quotes from valid sources. Include businesses, if available, from the annual listing provided by the Authorities which includes businesses certified by the Virginia Department of Small Business and Supplier Diversity that sell the products and services most commonly purchased by the Authorities. Requisition to be prepared and a tabulation of the quotes received should be forwarded to Purchasing where the documentation will be audited and, if approved, a purchase order will be prepared and mailed. Files are required for the annual audit. Requisitions without proper documentation may be returned. It is strongly recommended that all quotes over ~~\$510,000~~ be confirmed in writing.
- 4) **Goods, Non-Professional Services and Construction: ~~\$350,000.01~~ to ~~\$199,999.99~~**
Requires soliciting at least four (4) written quotes from valid sources. No fewer than four (4) valid sources shall be solicited to submit written quotations for purchases between ~~\$350,000~~ and ~~\$199,999.99~~. Include businesses, if available, from the annual listing provided by the Authorities which includes businesses certified by the Virginia Department of Small Business and Supplier Diversity that sell the products and services most commonly purchased by the Authorities.

5) **Professional Services: ≥\$510,000 - \$59,999.9980,000**

Requires soliciting at least four (4) written quotes from valid sources. Include businesses, if available, from the annual listing provided by the Authorities which includes businesses certified by the Virginia Department of Small Business and Supplier Diversity that sell the products and services most commonly purchased by the Authorities. Professional services are defined in the Glossary (Section XXVII). All other services are classified as non-professional. The VPPA provides the authority for local public bodies to develop procedures to solicit single or term contracts for professional services without requiring competitive negotiation, provided the aggregate or the sum of all phases is not expected to exceed \$680,000 (refer to Small Purchase procedures for professional services Page 13).

Thresholds – Formal Procurement Procedures

1) **Professional Services above \$680,000-and-above**

Requires a formal Request for Proposal.

2) **Goods and Non-Professional Services: Over \$100,000200,000 and above**

All purchases for goods and non-professional services over \$100,000200,000 must have a formal procurement process, either a competitive sealed bid or competitive negotiation, unless exceptions apply.

Other Purchasing Methods

3) **Public Auction**

Upon a written determination made in advance that the purchase of goods, products or commodities from a public auction sale is in the best interests of the public, such items may be purchased at the auction, including online public auctions. The written determination, approved by the Purchasing Agent, is required stating the basis for the determination. All requests for using a public auction on procurements exceeding the formal competitive sealed bidding process requirements must be reviewed and approved by the Executive Director or his designee. The written determination must be retained in the contract file.

4) **Public-Private Partnership in Education and Infrastructure Act (PPEA)**

When authorized in advance by the Board of Directors, the Authority may solicit proposals for projects under the Virginia Public-Private Partnership in Education and Infrastructure Act as an alternative means of procurement to the options represented in this Manual. In soliciting proposals under the PPEA, the Authority shall follow the PPEA Guidelines (previously adopted by the Board of Directors of the RWSA only) and included as **Appendix A** to this Purchasing Manual as adopted by the Board of Directors of both the RWSA and the RSWA in 2013.

The Authority may also receive unsolicited proposals from potential contractors as prescribed in the Authority's PPEA Guidelines.

VI. EXEMPTIONS TO PROCUREMENT (QUOTES, BIDS, OR PROPOSALS)

The Authority has determined that the following categories of purchases are often not susceptible to competitive purchasing and thus are either exempt from the relevant requirements in the purchasing procedure or are treated explicitly in sections of this Manual. However, one quote must be obtained and documented, and a purchase order must be issued for requirements over the delegated purchase limit.

Those categories are:

- 1) purchases ~~under~~ less than or equal to the delegated purchase limit of \$510,000;
- 2) The following selected categories of goods and services up to and including the formal competitive process requirement:
 - a) legal services or expert witnesses or other services associated with litigation or regulatory proceedings;
 - b) books, pre-printed materials, reprints and subscriptions (e.g., print or electronic), pre-recorded audio and videocassettes, compact discs, slide presentations, etc., when only available from the publisher/producer;
 - c) academic/research consulting services;
 - d) honoraria, entertainment (speakers, lecturers, musicians, performing artists);
 - e) training that is specialized, proprietary, and not typically available to the general public for which competition is generally unavailable, off-site, and requires a registration fee. Contact the Procurement Division to ascertain if the training being requested is available through an existing contract or another source;
 - f) royalties and film rentals when only available from the producer or protected distributors;
 - g) professional organizational membership dues;
 - h) writers;
 - i) artists (does not include graphic artists); original works of art; and original, or authentic antique period art frames (does not include newly created replacement or reproduction frames);
 - j) photographers other than for graduations and yearbooks, e.g., for official photographs/portraits;
 - k) advertisements such as in newspapers, magazines, journals, radio, television, etc.;
 - l) utility charges, where competition is not practicably available;
 - m) accreditation fees and academic testing services; and
 - n) pumps and other equipment repair services when the initial anticipated cost is expected to be under the delegated purchase limit of \$510,000, but after equipment tear down it is realized additional repair work is needed and the ability to obtain competition is limited due to the circumstances. Documentation of a fair and reasonable price must be made prior to processing payment for any such purchase.
- 3) purchases of used equipment up to and including the formal competitive sealed bidding requirement. This also includes used equipment purchased at a public auction, if determined in writing that the purchase would be in the best interest of the Authority;
- 4) purchases from the federal government, other states and their agencies or institutions, and public bodies, if the terms and conditions of their contract permit such purchases and meet the requirement of the VPPA. Care must be exercised to be certain that the price is fair and reasonable. This exemption

includes all purchased for good and/or services obtained within the Virginia Water and Wastewater Agency Response Network (VA WARN) emergency assistance program;

- 5) surplus property;
- 6) purchases for testing or evaluation services (limited to purchases of quantities considered necessary for complete and adequate testing) not to exceed the dollar threshold defined above for formal procurement of goods and non-professional services;
- 7) emergency purchases (competition obtained when practicable);
- 8) purchase or lease of real estate and easements;
- 9) travel services; and
- 10) purchase under a cooperative procurement contract through another state or local public agency as described in Section XVII of this Manual provided pricing under such contract was competitive.

VII. SMALL OR INFORMAL PURCHASES

This section covers procedures for informal procurements of goods and non-professional services based on price, to include processes requiring both verbal and written quotes. For thresholds on informal purchases, to include thresholds that require written quotes, see Section V of this Manual. This Section does not include the procurement of non-professional services by competitive negotiations (see Section VIII for competitive procurement procedures).

Your total requirements should be considered in determining the value of the purchase. You cannot use an informal, small purchase to drive a large sole source award later.

Obtaining Quotes

When you get a verbal or written quote, make sure you get complete information. Oral or written quote records must show:

- 1) name and address of vendor;
- 2) complete item description or service offered;
- 3) price quoted;
- 4) delivery/performance date(s);
- 5) payment terms;
- 6) FOB point (see definition in Glossary); and
- 7) name of person quoting prices, and date received, if not confirmed in writing.

When complete send a requisition with all documentation to Purchasing to have a purchase order issued.

FOB Destination Prepaid and Allowed is preferred and should be requested. You can also request this by asking for “a delivered price”. This is important because title and risk of loss are borne by the vendor until the Authority actually receives the goods. In a written quote “FOB Destination Prepaid and Allowed” should be specified.

Evaluation

There are three determining factors when evaluating quotes:

- 1) **Responsive:** Did the vendor meet all minimum requirements requested, including specifications payment terms, and delivery time?
- 2) **Responsible:** Is the vendor deemed capable of doing the job, based on references or knowledge of prior jobs? *Since you are selecting the vendors to contact, a majority of the time you should know this before you contact them for a price.*
- 3) **Price:** Is the price reasonable and within budget?

When evaluating price, make sure you have “apples and apples”. Specifically, ensure that the items are equal or meet your minimum requirements, shipping is included in all quotes, and consider reasonable prompt payment discounts.

If the price is not reasonable, or affordable, you can try to get a lower price. You can:

- 1) revise your specifications or delivery schedule and ask everyone to re-quote; or
- 2) cancel the procurement.

You **CANNOT:**

- 1) "Auction"; or
- 2) let vendors know what other quotes are until after award.

SOLICIT QUOTES FROM VENDORS YOU BELIEVE ARE QUALIFIED TO DO THE WORK REQUESTED. DO NOT SOLICIT FROM UNQUALIFIED VENDORS.

VIII. REQUEST FOR PROPOSAL - OTHER THAN PROFESSIONAL SERVICES

Competitive negotiation is a method for purchasing non-professional services, and goods as well as construction in limited circumstances. The “professional services” definition is included in the Glossary to this Manual (Section XXVII). All other services are categorized as non-professional.

Unlike the use of the RFP process for professional services, which prohibits the consideration of cost in the initial evaluation process, cost can be a consideration when using competitive negotiation for other than professional services and should always be included within Evaluation Criteria, though it need not be the sole determining factor.

Procedure:

1) The RFP is prepared and stating in general terms:

- a) the services sought as well as related contingent services that may be needed;
- b) the time and place for receipt of proposals;
- c) the factors to be used in evaluating proposals, including cost;
- d) the contractual terms and conditions; to include whether services are specific to a single project for the duration of that project, or multiple project for a specific term; and
- e) any unique capabilities or qualifications required of the proposers.

2) A Public Notice of RFP's exceeding ~~\$100,000~~200,000 for goods and non-professional services shall be:

- a) Posted on the eVA website and/or advertised in The Daily Progress and/or Cville Weekly at least ten (10) business days prior to receipt of proposals; and
- b) posted on the Authority's Procurement website at least ten (10) business days prior to the date set for receipt of proposals.

~~3) A Public Notice of RFP's exceeding \$100,000 for goods:~~

- c) may be sent directly to firms that have requested to be notified of work;
- d) may be sent to those firms believed to be qualified to perform the work; and
- e) if potential offerors are solicited directly, the Authority must include businesses certified by the Virginia Department of Small Business and Supplier Diversity as a small business, a women-owned business, a minority-owned business, a service disabled veteran-owned business and/or a micro business. Public posting on the eVA website meets this requirement.

Proposals are:

- 1) Received in the manner stated in the RFP, and at the specified location and receipt is documented.
- 2) Proposals not received by the due date and time specified in the RFP at the specified time shall not be opened and should be returned unopened.
- 3) All RFP responses are to be evaluated:
 - a) Proposals not meeting requirements should be evaluated lower but only bids in response to an IFB may be determined to be nonresponsive.
- 4) Proposals are evaluated solely on the basis of the criteria set forth in the RFP, using the scoring criteria (qualitative and/or quantitative) previously determined, including cost. Prior to scoring, if a proposal is missing any needed information in order to evaluate or the committee has any specific questions regarding information in the proposal, a short period of time may be provided to the offeror to answer questions and provide missing information. A deadline should be set for receipt of the information, and if the offeror does not meet the deadline, it may be necessary to score the proposal lower in the areas affected by the lack of information/questions;
- 5) A short list of firms is developed and presentations or discussions with offerors may be scheduled, as necessary, to clarify material in the proposal, to help determine those fully qualified and best suited.

- 6) A final ranking is done at the completion of the interview process if interviews are conducted, or after receipt of answer to questions, if asked, are received. Negotiations are then conducted with each of the two or more offerors selected (at least the top two) as being fully qualified and best suited among those submitting proposals.
- 7) After negotiations have been conducted with each offeror selected, the Authority shall select the one (or more than one when allowed by the RFP) which, in its opinion, has made the best proposal and provides the best value, and award the contract to that offeror.
- 8) If the Authority determines, in writing and in its sole discretion, that only one offeror is fully qualified, or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror.
- 9) When multiple awards have been approved by the Executive Director or Purchasing Agent in advance of the RFP and the terms and conditions of multiple awards have been included in the RFP, awards may be made to more than one offeror.

Any agreement reached as a result of negotiation must incorporate all agreements from negotiations into the written contract.

Any offeror may inspect proposal records after the evaluation and negotiation are completed but prior to award of the contract, except in cases where the Purchasing Agent or Executive Director have decided not to accept any of the proposals and to reopen the procurement. All records subject to public disclosure under the Virginia [Freedom of Information Act](#) shall be open to public inspection only after award of the contract.

When the terms and conditions of multiple awards have been included in the RFP in advance, awards may be made to more than one offeror.

VPPA

§ [2.2-4302.2](#). Process for competitive negotiation.

A (3) For goods, nonprofessional services, and insurance, selection shall be made of two or more offerors deemed to be fully qualified and best suited among those submitting proposals, on the basis of the factors involved in the Request for Proposal, including price if so stated in the Request for Proposal. In the case of a proposal for information technology, as defined in § [2.2-2006](#), a public body shall not require an offeror to state in a proposal any exception to any liability provisions contained in the Request for Proposal. Negotiations shall then be conducted with each of the offerors so selected. The offeror shall state any exception to any liability provisions contained in the Request for Proposal in writing at the beginning of negotiations, and such exceptions shall be considered during negotiation. Price shall be considered, but need not be the sole or primary determining factor. After negotiations have been conducted with each offeror so selected, the public body shall select the offeror which, in its opinion, has made the best proposal and provides the best value, and shall award the contract to that offeror. When the terms and conditions of multiple awards are so provided in the Request for Proposal, awards may be made to more than one offeror. Should the public body determine in writing and in its sole discretion that only one offeror is fully qualified, or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror

For a detailed sample format for a Request for Proposal refer to the Commonwealth of Virginia Department of General Services, Division of Purchases and Supply, Agency Procurement and Surplus Property Manual (APSPM), Chapter 7, Annex A

Contract awards from all formal Requests for Proposals with competitive negotiation for which fees may exceed ~~\$100,000~~\$200,000 shall be made by affirmative action of the Authority's Board of Directors upon recommendation of the Executive Director, except that with respect to awards of contracts for time-sensitive health insurance and related employee benefits contracts affecting open enrollment, and awards of contracts for purchase of chemicals (including GAC materials) used at various plants in the normal course of operations, which the Board's approved yearly operation budget contemplates as an operating expense, no additional affirmative action by the Board shall be required to proceed with the purchase.- Affirmative action of the Board may be in the form an approved annual budget and/or capital budget, and approval of Capital Improvement

Program. -The Executive Director may appoint a Selection Committee to review proposals, conduct competitive negotiations, and rank proposals.

The Executive Director is authorized to award contracts from Request for Proposals whenever fees are ~~\$100,000~~200,000 or less.

IX. REQUEST FOR PROPOSAL - PROFESSIONAL SERVICES

Except as otherwise allowed by the Authority's small purchase procedures, competitive negotiation must, by law, be used for purchasing professional services if the estimated cost for such services is expected to be \$680,000 or more. Professional Services are defined in the VPPA as "work performed by an independent contractor within the scope of the practice of accounting, actuarial services, architecture, land surveying, landscape architecture, law, dentistry, medicine, optometry, pharmacy or professional engineering." All other services are categorized as non-professional.

A difference between the RFP process for professional services is that, for professional services, the law prohibits the consideration of cost in the initial evaluation process though it can be considered with the introduction of "non-binding cost estimates" after the responses have been evaluated and a short list developed for interviews.

Procedure:

1) The RFP is prepared and stating in general terms:

- a) the services sought;
- b) the time and place for receipt of proposals;
- c) the factors to be used in evaluating proposals;
 - i. *The RFP must not request estimates of labor hours or cost for services.*
- d) the contractual terms and conditions; and
- e) any unique capabilities or qualifications required of the proposers.

2) A Public Notice of the RFP shall be:

- a) [Posted on the eVA website and/or](#) advertised in The Daily Progress or Cville Weekly at least ten (10) business days prior to receipt of proposals;
- b) posted on the Authority Procurement website at least ten (10) business days prior to receipt of proposals.
- c) may be sent directly to firms that have requested to be notified of work;
- d) may be sent to those firms believed to be qualified to perform the work; and
- e) if potential offerors are solicited directly, the Authority must include businesses certified by the Virginia Department of Small Business and Supplier Diversity as a small business, a women-owned business, a minority-owned business, a service-disabled veteran-owned business and/or a micro business. [Public posting on the eVA website meets this requirement.](#)

3) ~~Sealed~~ Proposals are:

- a) Received ~~at the specified location~~ [as specified in the RFP](#) and receipt is documented.
- b) Proposals not received [by the due date and time specified in the RFP](#) ~~at the specified time~~ shall not be opened and should be returned unopened.
- c) None of the information in the proposal is disclosed.
- d) All RFP responses are to be evaluated
- e) Proposals not meeting requirements should be ranked lower but only bids in response to an invitation for bid may be determined to be nonresponsive.
- f) Proposals are evaluated solely on the basis of the criteria set forth in the RFP, ranking offerors using previously determined qualitative or quantitative means.
- g) A short list of firms is developed and the Authority shall engage in individual discussions with two or more offerors deemed fully qualified. Repetitive informal interviews are permissible.
- h) *At the discussion stage, the Authority may discuss nonbinding estimates of total project costs, including, but not limited to, life-cycle costing, and where appropriate, nonbinding estimates of price for services.*

- i) At the conclusion of discussions, a final ranking is done on the basis of evaluation factors published in the RFP and all information developed in the selection process to this point.
- j) The Authority shall select, in the order of preference, two or more offerors whose professional qualifications and proposed services are deemed most meritorious.
- k) Negotiations shall then be conducted, beginning with the offeror ranked first.
 - i. If a contract satisfactory and advantageous to the public body can be negotiated at a price considered fair and reasonable, the award shall be made to that offeror.
 - ii. Otherwise, negotiations with that offeror are formally *terminated* and the Authority cannot re-engage that offeror in further negotiations. Then negotiations shall be conducted with the offeror ranked second, and so on until such a contract can be negotiated at a fair and reasonable price.
- l) When multiple awards have been approved in advance of the RFP by the Executive Director or [Purchasing Agent](#) and the terms and conditions of multiple awards have been included in the RFP, awards may be made to more than one offeror.

Should the Authority determine in writing and in its sole discretion that only one offeror is fully qualified, or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror.

Any agreement reached as a result of negotiation must incorporate all agreements from negotiations into the written contract.

Any offeror may inspect proposal records after the evaluation and negotiation are completed but prior to award of the contract, except in cases where the Purchasing Agent or Executive Director have decided not to accept any of the proposals and to reopen the procurement. All records subject to public disclosure under the Virginia Freedom of Information Act shall be open to public inspection only after award of the contract.

VPPA

§ [2.2-4302.2](#) Process for competitive negotiation.

A (4). For professional services, the public body shall engage in individual discussions with two or more offerors deemed fully qualified, responsible and suitable on the basis of initial responses and with emphasis on professional competence, to provide the required services. Repetitive informal interviews shall be permissible. The offerors shall be encouraged to elaborate on their qualifications and performance data or staff expertise pertinent to the proposed project, as well as alternative concepts. In addition, offerors shall be informed of any ranking criteria that will be used by the public body in addition to the review of the professional competence of the offeror. The Request for Proposal shall not, however, request that offerors furnish estimates of man-hours or cost for services. At the discussion stage, the public body may discuss nonbinding estimates of total project costs, including, but not limited to, life-cycle costing, and where appropriate, nonbinding estimates of price for services. In accordance with § [2.2-4342](#), proprietary information from competing offerors shall not be disclosed to the public or to competitors. For architectural or engineering services, the public body shall not request or require offerors to list any exceptions to proposed contractual terms and conditions, unless such terms and conditions are required by statute, regulation, ordinance, or standards developed pursuant to § [2.2-1132](#), until after the qualified offerors are ranked for negotiations. At the conclusion of discussion, outlined in this subdivision, on the basis of evaluation factors published in the Request for Proposal and all information developed in the selection process to this point, the public body shall select in the order of preference two or more offerors whose professional qualifications and proposed services are deemed most meritorious.

Negotiations shall then be conducted, beginning with the offeror ranked first. If a contract satisfactory and advantageous to the public body can be negotiated at a price considered fair and reasonable and pursuant to contractual terms and conditions acceptable to the public body, the award shall be made to that offeror. Otherwise, negotiations with the offeror ranked first shall be formally terminated and negotiations conducted with the offeror ranked second, and so on until such a contract can be negotiated at a fair and reasonable price.

Notwithstanding the foregoing, if the terms and conditions for multiple awards are included in the Request for Proposal, a public body may award contracts to more than one offeror.

Should the public body determine in writing and in its sole discretion that only one offeror is fully qualified or that one offeror is clearly more highly qualified and suitable than the others under consideration, a contract may be negotiated and awarded to that offeror.

Contract awards from all formal Requests for Proposals with competitive negotiation which fees may exceed ~~\$100,000~~200,000 shall be made by affirmative action of the Authority's Board of Directors upon recommendation of the Executive Director. The Executive Director may appoint a Selection Committee to review proposals, conduct competitive negotiations and rank proposals.

The Executive Director is authorized to award contracts from Request for Proposals whenever fees are ~~\$100,000~~200,000 or less.

X. REQUEST FOR PROPOSAL - PROFESSIONAL SERVICES CONTRACTS FOR MULTIPLE PROJECTS AND MULTIPLE YEARS

A contract for architectural or professional engineering services relating to construction projects may be negotiated by a public body, for multiple projects within limits outlined in the VPPA. The procurement process is the same as that used for professional services.

The VPPA allows such contracts providing:

- 1) the projects require similar experience and expertise;
- 2) the nature of the projects is clearly identified in the Request for Proposal; and
- 3) the contract term is limited to one year or when the cumulative total project fees reach the maximum cost authorized in the VPPA, whichever occurs first.

The Authority may award contracts renewable, with the written approval of the Executive Director, for four additional one-year terms at the option of Authority.

The law requires that in such contracts:

- 1) the fair and reasonable prices, as negotiated, shall be used in determining the cost of each project performed;
- 2) the sum of all such projects within a single one-year term shall not exceed \$6 million; and
- 3) the sum for any single project within a single one-year term shall not exceed \$2.5 million as specified in § [2.2-4303.1](#).

Any unused amounts from the first contract term shall *not* be carried forward to the additional term in determining the sum of all projects within a term. However, costs against the allowed limit for a single project shall be cumulative from the initial one-year term and subsequent additional terms.

Competitive negotiations for such contracts may result in awards to more than one offeror provided:

- 1) the RFP so states; and
- 2) the Authority has established procedures for distributing multiple projects among the selected contractors during the contract term. Such procedures shall prohibit requiring the selected contractors to compete for individual projects based on price.

VPPA

§ [2.2-4303.1](#) Architectural and professional engineering term contracting; limitations.

A. A contract for architectural or professional engineering services relating to multiple construction projects may be awarded by a public body, provided (i) the projects require similar experience and expertise, (ii) the nature of the projects is clearly identified in the Request for Proposal, and (iii) the contract is limited to a term of one year or when the cumulative total project fees reach the maximum authorized in this section, whichever occurs first.

Such contracts may be renewable for four additional one-year terms at the option of the public body. The fair and reasonable prices as negotiated shall be used in determining the cost of each project performed.

B. 2. Any locality with a population in excess of 78,000 or school division within such locality, or any authority, sanitation district, metropolitan planning organization, transportation district commission, or planning district commission, or any city within Planning District 8, the sum of all projects performed in a one-year contract term shall not exceed \$6 million;

C. Competitive negotiations for such architectural or professional engineering services contracts may result in awards to more than one offeror, provided (i) the Request for Proposal so states and (ii) the public body has established procedures for distributing multiple projects among the selected contractors during the contract term. Such procedures shall prohibit requiring the selected contractors to compete for individual projects based on price.

D. 2. Any locality with a population in excess of 78,000 or school division within such locality, or any authority, transportation district commission, or sanitation district, or any city within Planning District 8, the project fee shall not exceed \$2.5 million.

E. For the purposes of subsection B, any unused amounts from one contract term shall not be carried forward to any additional term, except as otherwise provided by the Restructured Higher Education Financial and Administrative Operations Act (§ [23.1-1000](#) et seq.).

XI. COMPETITIVE SEALED BID

Competitive sealed bidding is required for procurements over ~~\$100,000~~200,000 where performance specifications can be written in specific detail and price is the basis of award. In competitive sealed bidding the Invitation for Bid (IFB) is the tool used to list the purchase specifications or scope of work and all contractual terms and conditions. IFBs are posted on the Authority's Public Announcement Board and the "Proposals & Procurement" section of its website. IFBs may also be posted on other websites such as the state's Virginia Business Opportunities site. IFBs are not required by law to be advertised in newspapers. In addition to the public notice, bids ~~may~~must be solicited directly from potential qualified bidders. At a minimum, and any such direct solicitations shall include businesses selected from an electronic list made available by the Virginia Department of Small Business and Supplier Diversity (SBSD). [Public posting on the eVA website fulfills the requirement to directly solicit potential qualified bidders and to include businesses certified by SBSD.](#)

Bids shall be received at the specified location and remain unopened in a secure area until the date and time established for opening. When bids are received they should be date and time stamped on the envelope showing the date and time of receipt. The Purchasing Agent shall be responsible for deciding when the receipt deadline has arrived and no bids shall be accepted after that time. Late bids cannot be opened or considered.

Unlike RFP processing, competitive sealed bids are publicly opened and the following information read aloud:

- 1) bidders' names;
- 2) significant unit prices or lot prices as may be deemed appropriate by the Authority;
- 3) discount terms offered, if discount terms are to be considered in making the award,
 - a) if the Authority is certain that it can regularly process payments within a prescribed time frame and wants to consider cash discounts in its evaluation, then it may do so by including a statement in the bid document such as "discounts for prompt payment within __#__ (state number of days, e.g., 10, 20, etc.) days will be considered in determining net low bid"; and
- 4) brand names and model numbers only if requested by the attendees otherwise can be provided on bid tabulation provided later.

Any competitive sealed bidding bidder, upon request, shall be afforded the opportunity to inspect bid records within a reasonable time after opening of all bids but prior to award, except in the event the agency decides not to accept any of the bids and to reopen the contract. Otherwise, bid records shall be open to public inspection only after award of the contract. (VPPA, § [2.2-4342C](#)).

Awards are, by law, based on a determination of the lowest responsive and responsible bidder. Responsible and responsive bidder/offeree are defined in Section XXVII of this Manual. When the terms and conditions of multiple awards are so provided in the IFBs, awards may be made to more than one bidder.

A responsive bid must comply in all material aspects with the terms and conditions and specifications in the IFB. Bids shall be evaluated based upon the requirements set forth in the invitation, which may include special qualifications of potential contractors, life-cycle costing, value analysis, and any other criteria such as inspection, testing, quality, workmanship, delivery, and suitability for a particular purpose, which are helpful in determining acceptability. Failure to comply with the requirements set forth in the IFB may result in a bid being declared non-responsive. For example, and not by way of limitation: failure to sign the bid; return required bid documents; substitution of a vendor's terms for the Authority's; deletion of terms and conditions stated in the IFB; or failure to offer a product or service that meets the specifications may be grounds for this finding. A non-responsive bid is removed from consideration for award. The Authority has the right to waive informalities.

Caution must be exercised in words used in all aspects of the IFB from specifications to terms and conditions for words such as "may", "should", "could", "will" and "must". If you say a specific action "may cause rejection of the bid" you have leeway to exercise your discretion. However, if you say a specific action "shall cause rejection of the bid" you have no discretion as "shall" is an imperative.

No contract may be awarded to a bidder who is determined by the Purchasing Agent to be non-responsible. The Purchasing Agent must follow the procedure per the [VPPA 2.2-4359](#) for declaration of non-responsibility of a bidder. Responsible bidder/offeror and responsive bidder are defined in Section XXVII of this Manual. In determining the responsibility of a bidder, the following criteria will be considered:

- 1) the ability, capacity or skill of the bidder to perform the contract or provide the services required;
- 2) whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;
- 3) the character, integrity, reliability, reputation, judgment, experience and efficiency of the bidder;
- 4) the quality of performance on previous contracts or services, for the Authority or others;
- 5) the previous and existing compliance by a bidder with laws and ordinances relating to the contract or service;
- 6) the sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
- 7) the quality, availability, and adaptability of the goods or services to the particular use required;
- 8) the number and scope of any conditions attached to the bid;
- 9) whether the bidder is in arrears to the Authority on a debt or contract or is in default on a surety to the Authority; and
- 10) such other information as may be secured by the Purchasing Agent, having a bearing on the decision to award the contract.

Contract awards from competitively sealed bids exceeding \$~~100,000~~[200,000](#) shall be made by affirmative action of the Authority's Board of Directors upon recommendation of the Executive Director, except that with respect to [awards of contracts for time-sensitive health insurance and related employee benefits contracts affecting open enrollment, and](#) awards of contracts for purchase of chemicals [\(including GAC materials\)](#) used at various plants in the normal course of operations, which the Board's approved yearly operation budget contemplates as an operating expense, no additional affirmative action by the Board shall be required to proceed with the purchase.

Negotiation with the Lowest Responsible Bidder: If the bid from the lowest responsible bidder exceeds available funds, the Authority may negotiate with the apparent low bidder to obtain a contract price within available funds if the solicitation contains the appropriate clause to do so within the IFB, Virginia Code § [2.2-4318](#).

The Authority's process for negotiations includes:

- 1) The requesting department shall provide the Executive Director with a written determination that the apparent low bid exceeds available funds. Such determination shall be confirmed in writing by the Executive Director or his designee. The requesting department shall also provide the Executive Director with a suggested reduction in scope or other suggested bid modification(s) to obtain a contract price within available funds.
- 2) The Executive Director or designee shall advise the lowest responsible bidder in writing that the proposed purchase exceeds available funds. He shall further suggest a reduction in scope or other bid modification(s) for the proposed purchase and invite the lowest responsible bidder to amend its bid based upon the proposed reduction in scope or other bid modification(s).
- 3) Informal discussions shall be commenced with the low bidder, and repetitive informal discussions for the purposes of obtaining a contract within available funds shall be permissible.

- 4) The low bidder shall submit an addendum to its bid, which addendum shall include the change in scope for the proposed purchase, the reduction in price and the new contract value. If the addendum is acceptable to the Authority, the Authority may award a contract within funds available to the lowest responsible bidder based upon the amended bid proposal.
- 5) The Authority reserves the right to infuse additional funds during, or subsequent to negotiations to meet a negotiated price.
- 6) If the Authority and the lowest responsible bidder cannot negotiate a contract within available funds, all bids shall be rejected.

Determinations of responsiveness and responsibility shall be made by the Purchasing Agent in consultation, if necessary, with the Authority's Attorney.

For a detailed sample format for an Invitation for Bid refer to the Commonwealth of Virginia Department of General Services, Division of Purchases and Supply, Agency Procurement and Surplus Property Manual (APSPM), Chapter 6, Annex B.

XII. PREQUALIFICATION PROCESS FOR CONSTRUCTION CONTRACTS

- 1) The Executive Director or his designee may, in his discretion and when he believes it to be in the best interests of the Authority, require prequalification of prospective contractors to bid on a specific construction project and/or future projects for the Authority defined by category, e.g. mechanical projects for the Authority. The purpose of such prequalification shall be to limit prospective bidders for such construction project to contractors who show themselves to be qualified to construct the project. In addition, the IFB may waive the requirement for certain bonds when the pre-qualification process is used. When the prequalification process is used for a project, only contractors who have complied with the prequalification process and have been determined qualified will be eligible to submit bids for the project.
- 2) The Executive Director or his designee shall develop the appropriate documentation for potential contractors to apply for prequalification. The Executive Director or his designee may prescribe in such documentation specific mandatory requirements contractors must meet to prequalify for specific projects.
- 3) In conducting prequalification of potential contractors, the Executive Director or his designee shall follow this prequalification process and the requirements of Virginia Code § [2.2-4317](#).
- 4) The documentation used in the Authority's prequalification process shall set forth the criteria upon which the qualifications of such contractors will be evaluated. The documentation shall request of prospective contractors only such information as is appropriate for an objective evaluation of all prospective contractors pursuant to such criteria. The documentation shall allow the prospective contractor seeking prequalification to request, by checking the appropriate box, that all information voluntarily submitted by the contractor pursuant to this subsection shall be considered a trade secret or proprietary information subject to the provisions of subsection F of § [2.2-4342](#).
- 5) In all instances in which the Authority requires prequalification of potential contractors for construction projects, advance notice shall be given of the deadline for the submission of prequalification applications. The deadline for submission shall be sufficiently in advance of the date set for the submission of bids for such construction so as to allow the procedures set forth in this subsection to be accomplished.
- 6) At least 30 days prior to the date established for submission of bids or proposals under the procurement of the contract for which the prequalification applies, the Authority shall advise in writing each contractor who submitted an application whether that contractor has been prequalified. In the event that a contractor is denied prequalification, the written notification to the contractor shall state the reasons for the denial of prequalification and the factual basis of such reasons.
- 7) A decision by the Executive Director or his designee denying prequalification under the provisions of this subsection shall be final and conclusive unless the contractor appeals the decision as provided in § [2.2-4357](#).
- 8) The Authority may deny prequalification to any contractor only if the public body finds one of the following:
 - a) the contractor does not have sufficient financial ability to perform the contract that would result from such procurement. If a bond is required to ensure performance of a contract, evidence that the contractor can acquire a surety bond from a corporation included on the United States Treasury list of acceptable surety corporations in the amount and type required by the Authority shall be sufficient to establish the financial ability of the contractor to perform the contract resulting from such procurement;
 - b) the contractor does not have appropriate experience to perform the construction project in question;

- c) the contractor or any officer, director or owner thereof has had judgments entered against him within the past ten years for the breach of contracts for governmental or nongovernmental construction, including, but not limited to, design-build or construction management;
 - d) the contractor has been in substantial noncompliance with the terms and conditions of prior construction contracts with the Authority without good cause. If the Authority has not contracted with a contractor in any prior construction contracts, the public body may deny prequalification if the contractor has been in substantial noncompliance with the terms and conditions of comparable construction contracts with another public body without good cause. The Authority may not utilize this provision to deny prequalification unless the facts underlying such substantial noncompliance were documented in writing in the prior construction project file and such information relating thereto given to the contractor at that time, with the opportunity to respond;
 - e) the contractor or any officer, director, owner, project manager, procurement manager or chief financial official thereof has been convicted within the past ten years of a crime related to governmental or nongovernmental construction or contracting, including, but not limited to, a violation of (i) Article 6 (§ [2.2-4367](#) et seq.) of the Virginia Public Procurement Act, (ii) the *Virginia Governmental Frauds Act* (§ [18.2-498.1](#) et seq.), (iii) Chapter 4.2 (§ [59.1-68.6](#) et seq.) of Title 59.1, or (iv) any substantially similar law of the United States or another state;
 - f) the contractor or any officer, director or owner thereof is currently debarred pursuant to an established debarment procedure from bidding or contracting by any public body, agency of another state or agency of the federal government; and
 - g) the contractor failed to provide to the public body in a timely manner any information requested by the public body relevant to subdivisions a through f of this subsection.
- 9) In determining if a contractor has the “appropriate experience” to be prequalified, the Authority may consider and use specific minimum experience requirements established by the Executive Director or his designee for the specific project. The Authority may also consider the contractor’s past performance on the projects that provide its past experience to determine if the projects provide the appropriate experience required.
 - 10) To the extent any provision in this process is deemed inconsistent with Virginia Code § [2.2-4317](#), whether due to amendment of that statutory provision or otherwise, then the provisions of Virginia Code § [2.2-4317](#) shall control as to such inconsistency.
 - 11) The provisions of this process and its implementation are intended to be severable, and if any provision is deemed invalid, this shall not be deemed to affect the validity of other provisions.
 - 12) This prequalification process does not apply to any procurement done under the Public-Private Education facilities and Infrastructure Act of 2002 (“PPEA”), Code of Virginia § [56-575.1](#), et seq., and is in no way intended to limit the Authority’s discretion in the way it selects contractors under PPEA.
 - 13) A determination that a contractor is prequalified does not necessarily preclude the Authority from determining that such contractor is not responsible following bid opening. Among other things, a change in circumstances or change in information, as well as different criteria allowed to be considered for prequalification versus responsibility, may lead to a different result. For example, a prequalified contractor that becomes debarred between prequalification and bid opening, or a contractor who is subsequently discovered not to have been totally candid in answering its prequalification questionnaire, might be deemed non-responsible.
 - 14) Prequalification of a contractor to bid on one project does not prequalify that contractor to bid on a different project or mean that the contractor will necessarily be deemed to be a responsible bidder for a different project.
 - 15) Neither the Prequalification Process nor its implementation by the Authority shall be deemed to create and contract right in any prospective contractor or to give any prospective contractor any right beyond

that conferred by Code of Virginia § [2.2-4317](#). All prospective contractors shall be responsible for their own expenses in applying for prequalification, and the Authority shall have no liability for any such expense.

XIII. BONDS

Bid Bonds

Except in cases of emergency or prequalification, all bids or proposals for non-transportation-related construction contracts in excess of \$500,000 shall be accompanied by a bid bond from a surety company selected by the bidder that is legally authorized to do business in Virginia. The specified amount of the bid bond shall not exceed five percent of the amount bid (*Code of Virginia*, § [2.2-4336](#)). For non-transportation-related construction contracts in excess of \$100,000 but less than \$500,000, the bid bond requirements may be waived provided that prospective contractors shall be prequalified for each individual project in accordance with § [2.2-4317](#). However, the Authority ~~a locality~~ may waive the requirement for prequalification of a bidder with a current Class A contractor license for contracts in excess of \$100,000 but less than \$300,000 upon a written determination made in advance by the Authority's ~~local~~ governing body that waiving the requirement is in the best interests of the ~~the Authority~~locality. The Authority ~~A locality~~ shall not enter into more than 10 such contracts per year.

Performance and Payment Bonds (*Code of Virginia*, § [2.2-4337](#)).

Unless otherwise authorized in this section, upon the award of any (i) public construction contract exceeding \$500,000 awarded to any prime contractor; (ii) construction contract exceeding \$500,000 awarded to any prime contractor requiring the performance of labor or the furnishing of materials for buildings, structures or other improvements to real property owned by the Authority, or (iii) construction contract exceeding \$500,000 in which the performance of labor or the furnishing of materials will be paid with public funds, the contractor shall furnish to the Authority the following bonds:

- 1) a performance bond in the sum of the contract amount conditioned upon the faithful performance of the contract in strict conformity with the plans, specifications and conditions of the contract;
- 2) a payment bond in the sum of the contract amount. The bond shall be for the protection of claimants who have and fulfill contracts to supply labor or materials to the prime contractor to whom the contract was awarded, or to any subcontractors, in furtherance of the work provided for in the contract, and shall be conditioned upon the prompt payment for all materials furnished or labor supplied or performed in the furtherance of the work; and
- 3) nothing in this section shall preclude the Authority from requiring payment or performance bonds for construction contracts below \$500,000 for non-transportation-related projects.

For non-transportation-related construction contracts in excess of \$100,000 but less than \$500,000, where the performance and payment bond requirements are waived, prospective contractors shall be prequalified for each individual project in accordance with § 2.2-4317. However, the Authority may waive the requirement for prequalification of a contractor with a current Class A contractor license for contracts in excess of \$100,000 but less than \$300,000 upon a written determination made in advance by the Authority's governing body ~~Executive Director~~ that waiving the requirement is in the best interests of the Authority. The Authority shall not enter into more than 10 such contracts per year.

Bonds on Other Than Construction Contracts

The Authority may require bid, payment, or performance bonds for contracts for goods or services if provided in the Invitation for Bids or Request for Proposal.

Alternative Forms of Security

A certified check, cashier's check or cash escrow may be accepted in lieu of a bid, payment, or performance bond in the face amount required for the bond. If approved by Authority's attorney, a bidder may furnish a personal bond, property bond or bank or savings institution's letter of credit on certain designated funds in the face amount required for the bid, payment, or performance bond. Approval shall be granted only upon a

determination by the attorney that the alternative form of security proffered affords protection to the Authority equivalent to a corporate surety's bond. (*Code of Virginia*, § [2.2-4338](#)).

XIV. WITHDRAWAL OF BIDS

The Authority recognizes that errors can occur in bidding and has established procedures for withdrawal of bids for other than construction contracts and incorporates the procedure per § [2.2-4330](#) of the VPPA for withdrawal of a bid for a public construction contract, other than a contract for construction or maintenance of public highways, to provide a consistent and fair means of allowing a bidder to withdraw a bid due to error.

For construction contracts the Authority shall specify which procedure listed under paragraph B will be used in the Invitation for Bids.

Procedure for withdrawal of a bid for other than a construction contract:

A bidder for *other than a contract for construction* may withdraw a bid from consideration if the price was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the Purchasing Agent, in his sole discretion, determines in writing that the mistake was a clerical mistake as opposed to a judgmental mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, or if the purchasing agent determines that it is in the best interest of the Authority to allow the withdrawal of the bid.

- 1) The bidder shall give notice in writing to the Purchasing Agent of a claim of right to withdraw a bid within two business days after the conclusion of the opening of the bids. The Purchasing Agent may, if there is sufficient cause to suspect an error exists, suggest that a bidder review a bid and offer an opportunity to withdraw the bid in question.
- 2) If the Purchasing Agent denies the withdrawal of a bid under the provisions of this section, he or she shall notify the bidder in writing stating the reasons for the decision.
- 3) No bid may be withdrawn under this section when the result would be to award the contract on another bid of the same bidder or of another bidder in which the ownership of the withdrawing bidder is more than five percent (5%).
- 4) If a bid is withdrawn under the authority of this section, the lowest remaining bid shall be deemed to be the low bid.

Withdrawal of a bid for a public construction contract, other than a contract for construction or maintenance of public highways shall be in accordance with Virginia Code repeated below:

VPPA

§ [2.2-4330](#) Withdrawal of bid due to error.

A. A bidder for a public construction contract, other than a contract for construction or maintenance of public highways, may withdraw his bid from consideration if the price bid was substantially lower than the other bids due solely to a mistake in the bid, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

If a bid contains both clerical and judgment mistakes, a bidder may withdraw his bid from consideration if the price bid would have been substantially lower than the other bids due solely to the clerical mistake, that was an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of a bid that shall be clearly shown by objective evidence drawn from inspection of original work papers, documents and materials used in the preparation of the bid sought to be withdrawn.

B. One of the following procedures for withdrawal of a bid shall be selected by the Authority and stated in the advertisement for bids:

1. bidder shall give notice in writing of his claim of right to withdraw his bid within two business days after the conclusion of the bid opening procedure and shall submit original work papers with such notice; or

2. Where the Authority opens the bids one day following the time fixed for the submission of bids, the bidder shall submit to the public body or designated official his original work papers, documents and materials used in the preparation of the bid at or prior to the time fixed for the opening of bids. The work papers shall be delivered by the bidder in person or by registered mail. The bidder shall have two hours after the opening of bids within which to claim in writing any mistake as defined herein and withdraw his bid. The contract shall not be awarded by the Authority until the two-hour period has elapsed.

Under these procedures, the mistake shall be proved only from the original work papers, documents and materials delivered as required herein. The work papers, documents and materials submitted by the bidder shall, at the bidder's request, be considered trade secrets or proprietary information subject to the conditions of subsection F of § [2.2-4342](#).

C. The Authority may establish procedures for the withdrawal of bids for other than construction contracts (see A above).

D. No bid shall be withdrawn under this section when the result would be the awarding of the contract on another bid of the same bidder or of another bidder in which the ownership of the withdrawing bidder is more than five percent.

E. If a bid is withdrawn in accordance with this section, the lowest remaining bid shall be deemed to be the low bid.

F. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.

G. The Authority shall notify the bidder in writing within five business days of its decision regarding the bidder's request to withdraw its bid. If the Authority denies the withdrawal of a bid under the provisions of this section, it shall state in such notice the reasons for its decision and award the contract to such bidder at the bid price, provided such bidder is a responsible and responsive bidder. At the same time that the notice is provided, the Authority shall return all work papers and copies thereof that have been submitted by the bidder.

Bids can always be withdrawn at any time before the time specified for opening.

XV. SOLE SOURCE

Competitive procedures are waived when a determination is made that the goods or services required are practicably available from only one source. The procurement record for a sole source procurement must include the appropriate approval in support of the action to forego the competitive process, and be posted to the Authority's website identifying that which is being procured, the contractor selected, and the date of the decision.

Negotiations for a sole source contract or purchase order award may commence without providing for full and open competition only after the Purchasing Agent justifies the use of such actions in writing, certifies the accuracy and completeness of the justification, and obtains any required approvals. A justification must contain sufficient facts and rationale to justify the use of the sole source method. In making this determination, the Purchasing Agent shall determine whether there is, in fact, only one vendor practicably available to provide the goods and services. Prior to making a determination, the Purchasing Agent may conduct their own investigation, request additional information or consult with the Authority's attorney. If the request is denied the normal procurement procedures will be followed.

Before award of any sole source procurement, the proposed price must be determined to be fair and reasonable using the method most appropriate to the procurement.

VPPA

§ [2.2-4303](#) Methods of procurement.

E. Upon a determination in writing that there is only one source practicably available for that which is to be procured, a contract may be negotiated and awarded to that source without competitive sealed bidding or competitive negotiation. The writing shall document the basis for this determination. The public body shall issue a written notice stating that only one source was determined to be practicably available, and identifying that which is being procured, the contractor selected, and the date on which the contract was or will be awarded. This notice shall be posted on the Department of General Services' central electronic procurement website or other appropriate websites, and in addition, public bodies may publish in a newspaper of general circulation on the day the public body awards or announces its decision to award the contract, whichever occurs first. Posting on the Department of General Services' central electronic procurement website shall be required of any state public body. Local public bodies are encouraged to utilize the Department of General Services' central electronic procurement website to provide the public with centralized visibility and access to the Commonwealth's procurement opportunities.

XVI. EMERGENCY

Reasonable steps shall be taken to avoid using non-competitive emergency procurement methods. An emergency situation occurs when the failure to acquire the goods, services, or construction in a timely manner would seriously threaten the health or safety of any person; the preservation or protection of property; the continuation of necessary Authority functions; or the Authority's compliance with legal requirements.

Parts or services greater than ~~\$5~~10,000 when time or other circumstance does not permit full review may be classed an emergency if so approved by the Executive Director or the Purchasing Agent. For parts and services ~~under~~ \$10,000 and less the Small Purchase Procedure shall apply.

For an emergency purchase the employee responsible should find an appropriate source and then direct the vendor to proceed. Even in an emergency, the procurement shall be made with such competition as is practicable under the circumstances, obtaining a fair and reasonable price, and documenting the procurement action. In an emergency competition is not necessarily limited to cost. Since immediate action is required, factors such as delivery, availability and response time can be more critical than cost. By definition an emergency purchase should immediately address the problem. Emergency procurements must be limited to only the emergency procurement need. Additional goods and services not needed for the emergency procurement are not allowed.

When placing an emergency order, the following information must be obtained from the vendor and entered on a confirming requisition to be sent to the Purchasing Agent:

- 1) accurate prices if possible (for services this may be hourly rates for services and equipment);
- 2) payment terms;
- 3) method of shipment (Ship Via);
- 4) delivery date or completion date (the purchase must immediately address the problem so this should not be in terms of weeks or months);
- 5) accurate FOB point;
- 6) how ordered (by telephone, email, fax, etc.);
- 7) first and last name of vendor representative who accepts the order; and
- 8) obtain a written quote (email or fax is acceptable) if possible.

On the requisition clearly indicate that this is a "Confirming Telephone Order (or email or fax)" complete with:

- a) the date the order was phoned in;
- b) the name of the person at the company accepting the order;
- c) the name of the departmental personnel placing the order; and
- d) details of all other quotes solicited and/or received.

Include with the requisition an explanation of:

- a) the emergency, stating the urgent nature of the emergency;
- b) the reasons this vendor was selected; and
- c) all details of the agreement made with the vendor.

The Purchasing Agent will review the transaction and process the requisition through normal channels. If goods or services have been ordered or received, no purchase order will be issued. The requisition will be submitted to the appropriate director for review.

Emergency procedures may be utilized only to purchase the goods or services necessary to address the emergency. Subsequent requirements shall be obtained using normal purchasing procedures. The emergency

purchase procedure is not intended to be used to cover inadequate planning or control or to by-pass the normal procedure.

The Authority shall issue a written notice stating that the contract is being awarded on an emergency basis, identifying that which is being procured, the contractor selected, and the date on which the contract was or will be awarded. This notice shall be posted on the Authority website.

VPPA

§ 2.2-4303. Methods of procurement.

F. In case of emergency, a contract may be awarded without competitive sealed bidding or competitive negotiation; however, such procurement shall be made with such competition as is practicable under the circumstances. A written determination of the basis for the emergency and for the selection of the particular contractor shall be included in the contract file. The public body shall issue a written notice stating that the contract is being awarded on an emergency basis, and identifying that which is being procured, the contractor selected, and the date on which the contract was or will be awarded. This notice shall be posted on the Department of General Services' central electronic procurement website or other appropriate websites, and in addition, public bodies may publish in a newspaper of general circulation on the day the public body awards or announces its decision to award the contract, whichever occurs first, or as soon thereafter as is practicable. Posting on the Department of General Services' central electronic procurement website shall be required of any state public body. Local public bodies are encouraged to utilize the Department of General Services' central electronic procurement website to provide the public with centralized visibility and access to the Commonwealth's procurement opportunities.

XVII. USE OF STATE AND OTHER COOPERATIVE CONTRACTS AND JOINT PROCUREMENTS

The Authority may participate in, sponsor, conduct, or administer a joint procurement agreement on behalf of or in conjunction with one or more other public bodies, or public agencies or institutions or localities of the several states, of the United States or its territories, the District of Columbia, the U.S. General Services Administration, or the Metropolitan Washington Council of Governments, for the purpose of combining requirements to increase efficiency or reduce administrative expenses in any acquisition of goods, services, or construction (VPPA § [2.2-4304.A](#)).

The Authority may from time to time participate in, sponsor, conduct, or administer a cooperative procurement agreement with one or more public bodies for reasons of efficiency and/or cost savings in accordance with the VPPA § [2.2-4304.B](#).

The most commonly used cooperative contracts are state contracts, including:

- 1) [Virginia State Contracts](#);
- 2) [Virginia Information Technology Agency Contracts](#);
- 3) Virginia Office of Fleet Management [Fuel Programs](#);
- 4) [Division of Engineering and Buildings](#); and
- 5) [Other Virginia localities and authorities](#).

The Authority may purchase from another public body's contract or from the contract of the Metropolitan Washington Council of Governments or the Virginia Sheriffs' Association even if it did not participate in the request for proposal or invitation to bid, if the request for proposal or invitation to bid specified that the procurement was a cooperative procurement being conducted on behalf of other public bodies, except for:

- a) contracts for architectural or engineering services; or
- b) construction, except for the installation of artificial turf and track surfaces, including all associated and necessary construction, which shall not be subject to the limitations prescribed in this subdivision.

Consistent with applicable federal regulations and provided the terms of the contract permit such purchases, the Authority may purchase goods and nonprofessional services from a U.S. General Services Administration contract. The [GSA Cooperative Purchasing Program](#) makes available GSA Schedules 70 and 84. GSA Schedule 70 is available for the acquisition of Information Technology goods and services and Schedule 84 contracts are available for the acquisition of security, fire and law enforcement equipment. Note that some GSA contracts are pre-qualification lists with the direction to compete amongst those vendors that have been prequalified, so a procurement process may still be required. Follow the direction of the specific GSA schedule.

If a vendor recommends a cooperative contract to you, the Purchasing Agent should be consulted to ensure the contract is in compliance with all legal requirements and can be used by the Authority.

The Authority will generally be responsible for contracting directly with the vendor under cooperative contracts.

XVIII. PURCHASE REQUISITION

A requisition is a request for goods or services necessary for the day to day operation of a department. It is to be filled in COMPLETELY as shown below and sent to Purchasing. Be sure you allow adequate time for processing, ordering and shipping. The requisition is used to collect all information to support the issuance of the Purchase Order described in Section XX.

All purchases over \$~~105~~,000 must be placed on a purchase requisition. Requisitioned purchases are reviewed for appropriateness, required approvals, and funds availability.

All requisitions must be approved by the department director, their delegate or the Purchasing Agent before a purchase order is prepared:

- 1) Director of Administration/Finance, approving director for:
 - a) Administration Department; and
 - b) Information Systems Department
- 2) Director of Engineering and Maintenance, approving director for:
 - a) Engineering Department; and
 - b) Maintenance Department
- 3) Director of Operations, approving director for:
 - a) Laboratory Department;
 - b) Wastewater Department; and
 - c) Water Department
- 4) Executive Director, approving director for:
 - a) Solid Waste Operations; and
 - b) Recycling Operations

Purchase Requisition Instructions:

- 1) **Requester:** person to contact for further information
- 2) **Date:** date requisition is completed
- 3) **For:** facility and what used for or on
- 4) **Budget Acct:** account from which payment is to be made
- 5) **Vendor Information:** if you have received quotes and selected a vendor put all pertinent information on the selected vendor – legal name, address, contact name, phone number, fax number and email address. If this has been purchased from a vendor before, if you know where it's available or if you've talked about it to a particular vendor, put that vendor's name here or list under Vendor Research below or attach a separate sheet.
- 6) **Vendor Data:** indicate the appropriate box and provide detail if either Only Source or Best Vendor (and not the lowest cost) and provide reasons under Vendor Research or attach an additional sheet.
- 7) **Quantity:** how many of what unit such as each (ea), dozen (dz), pounds (lbs), square feet (sf), square yards (sy) etc.
- 8) **Part number:** any identification, from catalog, parts list, manual or the like. Indicate source of information. If known provide the serial number here.
- 9) **Description:** Fill in with the most complete description possible including size, color, manufacturer, model number, special requirements.

10) **Unit Cost:** price per unit

11) **Total Cost:** total cost for that line item

12) **Vendor Research:** If you have received quotes and selected a vendor put all pertinent information on the selected vendor and information on the solicitations and, if applicable, attach all written quotes. If Purchasing is soliciting bids/proposals and this has been purchased from a vendor before, if you know where it's available or if you've talked about it to a particular vendor, put that vendor's name here. If there are multiple possible sources available attach a separate sheet

13) Approved, Verified, Purchase Order # and date will be completed by the Purchasing Agent

Confirming requisitions are to be used after an emergency purchase of goods or services.

XIX. SPECIFICATIONS

Purpose

To describe as completely and accurately as reasonably possible the goods or services required and to allow purchase of those goods or services on a competitive basis with the goal that the Authority receives the best value for the level of quality required.

The Virginia Public Procurement Act [§2.2-4300](#) (C) requires “that specifications reflect the procurement needs of the purchasing body rather than being drawn to favor a particular vendor” and that “all procurement procedures be conducted in a fair and impartial manner” and “that rules governing contract awards be made clear in advance of competition”. Specifications must be written to allow for competitive bids and not to arbitrarily exclude a particular firm or product. They're written so as to promote competition.

Preparation

Specifications are developed by purchasing staff with the assistance of the other Authority staff, vendors, other agencies, and other resources. Contact with prospective contractors is allowed to learn industry capabilities but care must be taken to not use information provided to create a proprietary non-competitive specification. Also, no person who, for compensation, prepares an Invitation to Bid or Request for Proposal for or on behalf of the Authority shall:

- 1) submit a bid or proposal for that procurement or any portion thereof; or
- 2) disclose to any bidder or offeror information concerning the procurement which is not available to the public.

However, the Authority may permit such person to submit a bid or proposal for that procurement or any portion thereof if Authority, in writing, determines that the exclusion of such person would limit the number of potential qualified bidders or offerors in a manner contrary to the best interests of the Authority (*Code of Virginia*, [§ 2.2-4373](#)).

Specifications and purchase descriptions shall state Authority needs in a manner designed to promote full and open competition or maximum practicable competition based on the nature of the goods and services including construction being procured.

To the maximum practicable extent requirements should be stated in terms of:

- 1) functions to be performed;
- 2) performance required; or
- 3) essential physical characteristics.

Requirements should be defined in terms that enable and encourage the offer of commercial items to the extent that commercial items that meet Authority needs are available.

The Authority may describe a requirement by use of a brand name. Unless otherwise provided in the solicitation, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand or manufacturer named. The brand name description shall be used only when adequate specifications or a more detailed purchase description cannot be reasonably employed. When using a brand name or equal purchase description, the description shall also list the salient characteristics and minimum acceptable features. Restrictive provisions or conditions may be used only to the extent necessary to satisfy Authority needs. Any article that the public body in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. If the Authority justifies, in writing, use of a brand name only specification, then state as “brand name-no substitute.”

XX. PURCHASE ORDER

The purchase order is a legal contract between the Authority and the vendor specified to deliver the goods or services. The vendor is to deliver the goods or services specified at the quoted prices and the Authority is obligated to pay the amount shown in the time specified.

A purchase order is prepared from an approved requisition (see Section XVII.) after all necessary information has been obtained by one of the purchase methods previously outlined and after the availability of funds has been verified. Purchase orders are assigned by the Purchasing Agent or Accounts Payable/Purchasing Technician and are valid only when signed by the Purchasing Agent or his/her designee.

The purchase order is distributed as follows:

- 1) **Vendor Copy**: This is the vendor's authorization to ship as specified.
- 2) **Purchasing Copy**: Retained in Purchasing as permanent record. Provides reference for order, record of receipt and vendor performance. Filed after completed with all associated documents in completed purchase order history files.
- 3) **Requestor Copy**: Sent to using agency for their records. Should be checked against requisition immediately upon receipt to insure that goods or services ordered are as requested. To be used as reference when receiving and inspecting goods or approving service performance. It is also to be used to acknowledge receipt of the goods or performance of the service and returned for payment processing with packing tickets attached to ultimately be filed in vendor files

Confirming purchase orders are used to document orders that were placed by telephone to help ensure speedy delivery and are so marked to avoid duplicate orders. Purchase orders can have attached agreements with additional terms over the standard form purchase order or specifications detailing the services or goods to be provided and are part of the purchase order if referenced.

XXI. CHANGE ORDER & CONTRACT MODIFICATIONS

Any modification in a purchase order or contract requires issuance of a change order. This is legal authorization for the change to be made by the vendor and for the Authority to accept and pay for goods or services that vary from those originally ordered.

To change a purchase order a requisition is required specifying the change required and authorized, whether it be to the quantity, specification or price. The requisition should be clearly marked "Change to Purchase Order Number_____". A purchase order is then prepared as before except that it will indicate that it is a change order. The body of the order will explain the purpose of the change order. If a price change is involved it will show an "adjusted net total". It will, in the body, reflect the change made whether to quantity, delivery or price requisition in the case of a purchase order.

Where a formal contract exists, a change order or contract modification request form, with appropriate approvals, is required for the issuance of a change order or contract modification. All change orders and contract modifications must be approved and issued by the Purchasing Agent, Executive Director or the Board of Directors as required below.

ALL CHANGES TO A CONTRACT MUST BE IN WRITING. This provides legal authority for the change and also provides a record of the history of the delivery/performance for future reference.

A contract may include provisions for modification of the contract during performance, but no fixed-price contract may be increased by more than the allowable increase specified in the VPPA, § [2.2-4309](#), without the advance written approval of the Board of Directors. This limitation applies to the aggregate change orders in a contract. The term of an existing contract may be extended for services to allow completion of any work undertaken but not completed during the original term of the contract.

VPPA

§ [2.2-4309](#). Modification of the contract.

- A. A public contract may include provisions for modification of the contract during performance, but no fixed-price contract may be increased by more than twenty-five percent of the amount of the contract or \$50,000, whichever is greater, without the advance written approval of the governing body. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of an offeror from the consequences of an error in its bid or offer.
- B. Any public body may extend the term of an existing contract for services to allow completion of any work undertaken but not completed during the original term of the contract.
- C. Nothing in this section shall prevent any public body from placing greater restrictions on contract modifications.
- D. The provisions of this section shall not limit the amount a party to a public contract may claim or recover against a public body pursuant to § 2.2-4363 or any other applicable statute or regulation. Modifications made by a political subdivision that fail to comply with this section are voidable at the discretion of the governing body, and the unauthorized approval of a modification cannot be the basis of a contractual claim as set forth in § 2.2-4363.

XXII. PROCUREMENT UNDER ASSISTANCE AGREEMENTS

Procurements funded with federal, state, or local funds, shall be guided by the Purchasing Manual except as necessary to conform to the requirements of the funding source, provided that such conformance does not violate the terms and conditions of other applicable federal, state, or local laws.

Under the Virginia Public Procurement Act, Article 3, Exemptions and Limitation, § [2.2-4343](#) the Authority is authorized to conform to mandatory conditions on Federal grants or contracts that are in conflict with the Act if the Board of Directors determines in writing that such conformation is in the public interest. The specific provision of the Act conflicting with the special conditions shall be identified.

No such conflict is yet apparent in the Environmental Protection Agency's Procurement under Assistance Agreements (40 CFR Part 33) with which the Authority must comply as a condition of receiving EPA State Revolving Loan funds. Therefore, the Agreements are regarded for the purposes of compliance as a part of this Manual. The Agreements in certain circumstances generally place more stringent procurement requirements upon the Authority for certain circumstances than does the Procurement Act.

VPPA

§ [2.2-4343](#). Exemption from operation of chapter for certain transactions.

(B) Where a procurement transaction involves the expenditure of federal assistance or contract funds, the receipt of which is conditioned upon compliance with mandatory requirements in federal laws or regulations not in conformance with the provisions of this chapter, a public body may comply with such federal requirements, notwithstanding the provisions of this chapter, only upon the written determination of the governing body, in the case of political subdivisions, that acceptance of the grant or contract funds under the applicable conditions is in the public interest. Such determination shall state the specific provision of this chapter in conflict with the conditions of the grant or contract.

XXIII. DISADVANTAGED BUSINESS PROGRAM

Purpose

By adoption of this program the Authorities affirm their policy to make every reasonable effort to maintain and increase opportunities for small, minority and women owned businesses, micro businesses and businesses owned by service-disabled veterans to participate in Authority purchasing activities.

Definitions

Minority individual means an individual who is a citizen of the United States or a legal resident alien and who satisfies one or more of the following definitions:

- 1) "African American" means a person having origins in any of the original peoples of Africa and who is regarded as such by the community of which this person claims to be a part.
- 2) "Asian American" means a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Mariana, the Philippines, a U.S. territory of the Pacific, India, Pakistan, Bangladesh, or Sri Lanka and who is regarded as such by the community of which this person claims to be a part.
- 3) "Hispanic American" means a person having origins in any of the Spanish-speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who is regarded as such by the community of which this person claims to be a part.
- 4) "Native American" means a person having origins in any of the original peoples of North America and who is regarded as such by the community of which this person claims to be a part or who is recognized by a tribal organization.

A minority-owned business means a business that is at least 51% owned by one or more minority individuals who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more minority individuals.

A women-owned business means a business that is at least 51% owned by one or more women who are U.S. citizens or legal resident aliens, or in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest is owned by one or more women who are U.S. citizens or legal resident aliens, and both the management and daily business operations are controlled by one or more women.

A small business means a business, independently owned and controlled by one or more individuals who are U.S. citizens or legal resident aliens, and together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years. One or more of the individual owners shall control both the management and daily business operations of the small business.

A micro business means a certified Small Business under the SWaM Program and has no more than twenty-five (25) employees AND no more than \$3 million in average annual revenue over the three-year period prior to their certification.

Service-disabled veteran means a veteran who (i) served on active duty in the United States military ground, naval, or air service, (ii) was discharged or released under conditions other than dishonorable, and (iii) has a service-connected disability rating fixed by the United States Department of Veterans Affairs.

A service disabled veteran business means a business that is at least 51% owned by one or more service disabled veterans or, in the case of a corporation, partnership, or limited liability company or other entity, at least 51% of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is

owned by one or more individuals who are service disabled veterans and both the management and daily business operations are controlled by one or more individuals who are service disabled veterans.

Policy

The Authorities through their employees and agents shall make reasonable efforts to increase and maintain opportunities for small, minority, micro, service disabled veterans and women owned businesses to participate in Authority purchasing procedures. All such efforts shall be consistent with all local, state, and federal laws and regulations and with the other sections of this Purchasing Manual. Following are examples of actions the Authority shall take to promote purchasing of facilities, equipment, materials, supplies and services from disadvantaged businesses:

- 1) assuring such businesses are included on bidder's lists;
- 2) assuring solicitation of such businesses when appropriate;
- 3) dividing purchases when economically feasible to promote broader participation;
- 4) establishing delivery schedules whenever feasible to encourage broader participation;
- 5) using the services of the Small Business Administration, the Office of Minority Business Enterprise, local professional and business organizations, and other groups to help promote participation of such businesses; and
- 6) requiring prime contractors to take such affirmative action steps when letting subcontracts.

Responsibilities

Responsibilities for development, implementation and management of this program rest with the Purchasing Agent, who shall:

- 1) develop means to ensure inclusion of disadvantaged businesses on Authority bidder lists and to ensure they have open opportunity to compete for purchasing contracts;
- 2) develop and maintain lists of disadvantaged businesses for prime contractor use;
- 3) develop a system to monitor program effectiveness;
- 4) plan and conduct training seminars as necessary for disadvantaged businesses; and
- 5) participate when able to in small and/or minority, service-disabled veteran or female owned business purchasing exhibitions.

Procedures

Authority purchasing staff shall follow these procedures as a minimum effort to implement this program:

- 1) provide copies as requested of RFP's and IFB's;
- 2) remain open and cooperative in answering questions regarding the program;
- 3) encourage disadvantaged businesses to compete for Authority purchases; and
- 4) review bid and proposal specifications to ensure they protect the Authority's interests and conform to legal requirements without unnecessarily restricting disadvantaged firms from bidding or proposing.

XXIV. DISPOSAL OF SURPLUS PROPERTY

From time to time the Authority may choose to dispose of surplus property that is either in excess of requirements, no longer used, obsolete, worn out, or scrapped. The Purchasing Agent shall use his/her best judgment to dispose of surplus property by one of the following means:

Surplus materials means personal property including, but not limited to, materials, supplies, equipment, and recyclable items, but does not include property as defined in *Code of Virginia*, § [2.2-1147](#) (real property or real estate), that is determined to be surplus.

Surplus property must be handled carefully and stored properly, in a manner that minimizes breakage or damage from rough handling, improper stacking, excessive wear, or inappropriate storage outside that exposes property to weather, or any other poor storage condition. Surplus property, including recyclable materials, shall NOT be taken for personal use or personal sale by any Authority employee.

Methods of Disposal

Sales/Transfers to Governmental Institutions: Sales may be made to governmental entities at the item's fair market value. Occasionally, a no-cost transfer is appropriate, for example, to facilitate a cooperative program between governmental institutions. Donations of surplus property may be utilized for items which remain unsold after a public sale or when the cost of handling the sale would exceed expected returns. Donations will only be authorized for governmental entities and non-profits providing services to the local community. A donation or no-cost transfer shall be approved by the Executive Director. Sales to other public bodies are not governed by the VPPA.

Competitive Sealed Bidding: Property may be sold by competitive sealed bidding on an individual item or lot basis. Advertisements ~~may be are~~ posted on the Authority's Bid Board, in newspapers, web sites, and/or solicitations are sent to persons or firms on bidder's lists maintained by the Purchasing Agent.

Department of General Services Office of Surplus Property Management: The Authority is authorized to use the services or facilities of the Commonwealth's DGS/OSPM to dispose of their surplus property, pursuant to the OSPM policies, procedures, and guidelines. For questions or information about the disposal of surplus property contact the Director, DGS/OSPM at (804) 236-3675 or email statesurplus@dgs.virginia.gov with a description of their surplus material. Proceeds from the sale of the surplus property shall be returned to the Authority minus a service fee. The service fee charged by the Department shall be consistent with the fee charged by the Department to state public bodies.

Advertisement for a fixed price: The sale price shall be at fair market value. Sale shall be advertised to the public and notices may be sent to persons or firms known to be interested in the sale. Procedures must be established for sale on a "first come - first served" basis such as a sale at designated location and specific time when sale shall be open to the public.

Fixed price sale: Surplus property may be offered to the public at a set- or fixed-price with approval of the Executive Director. The sales price of an item is based on known sales experience and/or assessed current market value. Generally, set-price sales should be publicly advertised at least a week in advance including the procedures established for the sale.

Negotiated Sale: Under exceptional circumstances, surplus property may be sold through negotiation, such as when property has not been sold despite efforts of public sales, or where timely removal from the department's premises is crucial.

On-line Public Auctions: Property may be sold through internet on-line auctions, which generally allows items to remain at the Authority while posted for sale. Surplus items may be sold through a contracted on-line auction vendor or through the Commonwealth's DGS/OSPM Division which has contracted with a vendor for on-line auction sales.

Live Public Auction: A live advertised public auction may be conducted if sufficient surplus property exists and the value is sufficient to justify the expenses and labor including the fee paid for advertising and an auctioneer. The auctioneer should be obtained using the required procurement procedures based on the expected fee or through an available cooperative agreement.

Recycling: Recycling of eligible unsold surplus property such as computer monitors, large amounts of surplus paper products, etc. is strongly encouraged.

Spot Bid: For the disposal of scrap materials such as aluminum, steel, brass, copper wire, etc., the spot bid procedure may be used for selling items. This procedure involves contacting buyers on an informal basis to determine the best price under the current market conditions. Use of this method streamlines the disposal effort and eliminates storage of items until a sufficient quantity is available for competitive sealed bidding. The Spot Bidding procedure is also authorized for the Authority's sale of recyclable material received at solid waste centers including the McIntire Recycling Center.

Trade-ins: Obsolete, worn out, inactive, or uneconomical operating equipment may be traded in on the purchase of new equipment. Trade-in procedures should not be used if the monetary allowance offered is substantially below the known current sales price less expected administration costs associated with other disposal options. Items for trade-in must be fully described on the requisition and purchase order with the trade-in allowance shown on the purchase order. Authority property may not be used as credit on future purchases or to pay for a service provided to the Authority.

Computers and other information technology (IT) Assets including copiers: The state has a contract available to public bodies for the provision of Secure Data Destruction and Recycling Services available on the Virginia Information Technology (VITA) website. Prior to the disposal, regardless of the method used, sale, trade, recycling or any other transfer of computers or other IT assets, the Purchasing Agent must ensure that all hard drives or other sources of secure data or any other confidential Authority data or personal identifying information of employees have been removed.

Disposition and Accountability of Federally Funded Property: Disposition of any material or equipment purchased with Federal Funds must be accounted for in accordance with current Federal regulations.

Purchases by Authority Employees and Their Families.

Except within the limits noted below, the *Code of Virginia*, § [2.2-3100](#) of the Conflict of Interests Act prohibits employees and their immediate family from engaging in certain transaction with a public employer, including purchasing surplus property valued at over \$500. An employee's immediate family includes a spouse, children, parents, brothers and sisters, and any other person living in the same household as the employee. A \$500 limit to purchasing surplus property applies to surplus property sales, such as auctions or internet sales even if the buyer works for a different agency than the selling agency unless the property is purchased in any sale of surplus property at uniform (fixed) prices that are available to the public. Employees of the Authority should not purchase property if they influence the maintenance, surplus designation, pricing or disposition of the property item.

XXV. DEBARMENT OF PROSPECTIVE CONTRACTORS

General

The Purchasing Agent may, in the public interest and consistent with § [2.2-4321](#) of the VPPA, Debarment, debar a prospective contractor (including a prospective subcontractor, supplier, insurer or surety) for any of the causes listed in section 1 below, using procedures described in section 2. The existence of a cause for debarment under section 1, however, does not necessarily require that the contractor be debarred. The seriousness of the contractor's acts or omissions and any mitigating factors should be considered in making any debarment decision. When debarment occurs, such debarment shall be considered to be just cause for cancellation of any existing contracts held by the person or business debarred.

1) Causes

The purchasing agent may, after consulting with the Authority's attorney, debar a prospective contractor for any of the following causes:

- a) Conviction of, or civil judgment establishing the contractor's:
 - i. commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public contract or subcontract;
 - ii. commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
 - iii. commission of any other offense indicating a lack of business integrity or business honesty that seriously and directly affects the present responsibility of the prospective contractor;
 - iv. failing to disclose a condition constituting a conflict of interest by any officer, director, owner, partner, or agent of the vendor in a contract or purchase order awarded by Authority;
 - v. conviction under state or federal antitrust statutes arising out of the submission of bids or proposals; or
 - vi. conviction of any officer, director, owner, partner, or agent of the vendor of any criminal offense involving public contracting.
- b) Violation of the terms of a government contract or subcontract so serious as to justify debarment, such as (but not limited to) willful failure to perform in accordance with the terms of one (1) or more contracts, or a history of failure to perform, or of unsatisfactory performance of one (1) or more contracts.
- c) Debarment by a federal, state or local government, a public authority, or other agency or entity subject to public procurement laws and requirements.
- d) Any other cause of so serious or compelling a nature that it affects the present responsibility of a government contractor or subcontractor.

2) Debarment Procedures

The following procedures governing the debarment decision-making process are designed to be as informal as practicable, consistent with principles of fundamental fairness:

- a) Notice to contractor.
 - i. Debarment shall be initiated by advising the prospective contractor, by hand-delivery or by certified mail, return receipt requested, that debarment is being considered. Such notice shall include the reasons for the proposed debarment in terms sufficiently detailed to put the contractor on notice of the conduct or transaction(s) upon which the debarment is based, and shall identify the specific period of debarment under consideration. Unless a response is received from the prospective contractor within ten (10) working days of the date of this notice, the Purchasing Agent's decision shall be

final. For the purposes of this subsection the "date of the notice" shall be deemed to be the date on which the notice is hand-delivered to the contractor or is deposited in the United States Mail.

b) Opportunity of contractor to respond.

- i. The prospective contractor or his authorized representative may submit to the purchasing agent, in writing, and within ten (10) working days of the date of the notice described in subparagraph 3(a), any information or argument that the contractor deems relevant to the proposed debarment, including, without limitation, any specific information that raises a genuine dispute as to a fact that is material to the purchasing agent's findings or conclusions. Following timely receipt of information from the contractor, the purchasing agent shall review the proposed debarment and shall, within ten (10) working days thereafter, render a final determination. During the ten-day review period, the prospective contractor shall provide the purchasing agent with such additional information as he may request in order to complete his review of the proposed debarment.

3) Appeals

A decision to debar or suspend shall be final and conclusive, unless the debarred or suspended person within five (5) working days after receipt of the decision protests the decision in writing to the Executive Director. The Executive Director shall issue a decision in writing within ten (10) working days after receipt of the protest stating the reasons for the action taken. This decision shall be final unless legal action as provided for in § [2.2-4364](#) Code of Virginia is taken within ten (10) working days of the Executive Director's decision.

2) Notice of Decision

A copy of the decision to debar or suspend shall be mailed or otherwise furnished immediately to the debarred or suspended person, with a copy to the Executive Director.

3) Period of Debarment

A debarment shall be and remain effective for a period commensurate with the seriousness of the cause, as determined by the purchasing agent in his discretion, but shall not exceed three (3) years or for the length of the contract upon which debarment is based, whichever is longer.

XXVI. VENDOR APPEALS PROCEDURE

While the Authority is authorized in § [2.2-4365](#) of the VPPA, to “establish an administrative procedure for hearing (i) protests of a decision to award or an award, (ii) appeals from refusals to allow withdrawal of bids, (iii) appeals from disqualifications and determinations of non-responsibility, and (iv) appeals from decisions on disputes arising during the performance of a contract, or (v) any of these” the Authority has determined that the Virginia Public Procurement Act and the courts provide adequate review and remedies of Authority procurement practices. Therefore, no other administrative appeals procedure has been established.

Any inquiring vendors should be directed to the Virginia Public Procurement Act, Article 5, Remedies, and their contract or purchase order if applicable.

XXVII. GLOSSARY OF COMMONLY USED TERMS

available funds

The term Available Funds means that the authority has or shall have the funds available for the project. This includes existing approved budget and additional funds approved by the Authority for potential use prior to entering into negotiations with the lowest responsible bidder

bid bond

An insurance agreement in which a third party agrees to be liable to pay a certain amount of money in the event a selected bidder fails to accept the contract as bid.

brand name or equal specification

A specification limited to one or more items by manufacturers' names or catalogue numbers to describe the standard of quality, performance, and other salient characteristics needed to meet requirements and which provides for the submission of equivalent products.

business

Any type of corporation, partnership, limited liability company, association, or sole proprietorship operated for profit.

change order (unilateral)

A written order signed and unilaterally issued by the Authority directing any contractor to make changes which the "changes" clauses of the contract authorizes the Authority to order without the consent of the contractor.

claim

A written assertion or demand, by one of the parties to a contract, which seeks, as a contractual right, payment of money, adjustment of contract terms, or other relief, for injury, loss, or damage arising under or relating to the contract.

competitive negotiation

A method for purchasing goods and services, usually of a complex and technical nature whereby qualified individuals or firms are solicited by

means of a Request for Proposals (RFP). Negotiations are conducted with selected offerors and the best proposal, as judged against criteria contained in the Request for Proposals, is accepted and an award issued.

competitive sealed bidding

The offer of firm bids by individuals or firms competing for a contract, privilege, or right to supply specified services or goods bid submitted in a sealed envelope to prevent disclosure of its contents before the deadline set for the receipt of all bids. Competitive sealed bidding shall not be used to contract for professional services.

construction

Construction shall mean building, altering, repairing, improving or demolishing any structure, building or highway, and any draining, dredging, excavation, grading or similar work upon real property;

contract

An agreement enforceable by law, between two or more competent parties, to do or not to do something, not prohibited by law, for a consideration. A contract is any type of agreement or order for the procurement of goods or services.

contract modification

Any written alteration in specifications, delivery point, rate of delivery, period of performance, price, quantity, or other provision of any contract accomplished by mutual action of the parties of the contract.

contractor

Any person having a contract with the Authority.

cooperative procurement

A procurement by a public body with one or more other public bodies, for the purpose of combining requirements for the purchase of like goods and/or services in order to increase efficiency and/or reduce administrative expenses.

direct or indirect participation in procurement process

Involvement through decision, approval, disapproval, recommendation, preparation of any part of a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity.

disadvantaged business

A business which is owned or controlled by a majority of persons, not limited to members of minority groups, who have been deprived of the opportunity to develop and maintain a competitive position in the economy because of social disadvantages.

F.O.B. (free on board)

Term designating ownership of shipped goods and assigning liability for freight costs and damaged or lost goods. Most commonly used are:

- a) *Shipping Point* - Prepay and Add: title of goods passes to buyer when goods leave vendors' dock, buyer is liable for loss or damage in transit; seller pays freight costs and adds to invoice
- b) *Destination* - Prepaid and allowed: title passes to buyer upon receipt; seller is liable for loss or damage in transit; seller pays freight costs; preferred

governing body

The Board of Directors.

immediate family

A spouse, children, parents, brothers and sisters, and any other person living in the same household as the employee.

informality

A minor defect or variation of the bid or proposal from the exact requirements of the Invitation for Bids or the Request for Proposals, which does not affect the price,

quality, quantity, or delivery schedule for the goods, services or construction being procured.

invitation for bids

A document, containing or incorporating by reference the specifications or scope of work and all contractual terms and conditions, that is used to solicit written bids for a specific requirement for goods or nonprofessional services.

late bid or proposal

A bid or proposal which is received at the place designated in the Invitation for Bids or Request for Proposals after the deadline established by the solicitation.

liquidated damages

A sum stated in a contract to be paid as ascertained damages for failure to perform in accordance with the contract. The damage figure stipulated must be a reasonable estimate of the probable loss to the agency, and not calculated simply to impose a penalty on the contractor.

minority individual:

an individual who is a citizen of the United States or a non-citizen who is in full compliance with United States immigration law and who satisfies one or more of the following definitions:

- a) "African American" means a person having origins in any of the original peoples of Africa and who is regarded as such by the community of which this person claims to be a part.
- b) "Asian Americans" means a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands, including but not limited to Japan, China, Vietnam, Samoa, Laos, Cambodia, Taiwan, Northern Marinas, the Philippines, a U. S. territory of the Pacific, India, Pakistan, Bangladesh or Sri Lanka and who is regarded as such by the community of which this person claims to be a part.

c) "Hispanic American" means a person having origins in any of the Spanish speaking peoples of Mexico, South or Central America, or the Caribbean Islands or other Spanish or Portuguese cultures and who is regarded as such by the community of which this person claims to be a part.

d) "Native American" means a person having origins in any of the original peoples of North America and who is regarded as such by the community of which this person claims to be a part or who is recognized by a tribal organization.

minority-owned business

Minority-owned business means a business concern that is at least 51% owned by one or more minority individuals or in the case of a corporation, partnership or limited liability company or other entity, at least 51% of the equity ownership interest in the corporation, partnership, or limited liability company or other entity is owned by one or more minority individuals and both the management and daily business operations are controlled by one or more minority individuals.

nonprofessional services

Any services not specifically identified as professional services in the definition of professional services.

notice of intent to award

The Notice of Intent to Award is a written notice, or bid tabulation sheet publicly displayed, prior to award, that shows the selection of a vendor for the award of a specific contract or purchase order. This decision may be changed prior to the actual award of a contract or purchase order.

potential bidder or offeror

A person who, at the time an agency awards or proposes to award a contract, is engaged in the sale or lease of goods, or the sale of services, insurance or construction of the type to be procured under such contract, and who at such time

is eligible and qualified in all respects to perform that contract, and who would have been eligible and qualified to submit a bid or proposal had the contract been procured through competitive sealed bidding or competitive negotiation.

professional services

Shall mean work performed by an independent contractor within the scope of the practice of accounting, actuarial services, architecture, land surveying, landscape architecture, dentistry, law, medicine, optometry, pharmacy, or professional engineering.

prequalification

A procedure to prequalify products or vendors and limit consideration of bids or proposals to only those products or vendors which have been prequalified.

public body

Any legislative, executive or judicial body, agency, office, department, authority, post, commission, committee, institution, board or political subdivision created by law to exercise some sovereign power or to perform some governmental duty, and empowered by law to undertake the activities described in this chapter.

request for proposals

All documents, whether attached or incorporated by reference, utilized for soliciting proposals; the RFP procedure requires negotiation with offerors as distinguished from competitive bidding when using an Invitation for Bids.

responsible bidder or offeror

A person or firm who has the capability, in all respects, to perform fully the contract requirements and the moral and business integrity and reliability which will assure good faith performance, and who has been prequalified, if required.

responsive bidder: A person or firm who has submitted a bid which

conforms in all material respects to the Invitation for Bids.

services

Any activities performed by an independent contractor wherein the service rendered does not consist primarily of acquisition of equipment or materials, or the rental of equipment, materials and supplies.

shall, must

As used in specifications or requirements of a Request for Proposals (RFP), the terms "must" and "shall" identify requirements whose absence will have a major negative impact on the suitability of the proposed solution. Items labeled as "should" or "may" are highly desirable, although their absence will not have a large impact and would be useful, but are not necessary.

small business

An independently owned or operated business by one or more persons who are citizens of the United States or non-citizens who are in full compliance with United States immigration law, which, together with affiliates, has 250 or fewer employees, or average annual gross receipts of \$10 million or less averaged over the previous three years.

sole source

A product or service which is practicably available only from one source.

specification

A description of the technical requirements for a material, product, or service that includes the criteria for determining whether these requirements are met. A specification may describe the performance parameters which a supplier has to meet, or it may provide a complete design disclosure of the work or job to be done. Specifications for service contracts normally take the form of a statement of work.

SWAM

The acronym SWAM, includes small businesses, women-owned businesses and minority-owned businesses.

termination for convenience

The termination by the owner, at its discretion, of the performance of work in whole or in part and makes settlement of the contractor's claims in accordance with appropriate policy and procedures.

termination for default

Action taken by a purchasing office to order a contractor to cease work under the contract, in whole or in part, because of the contractor's failure to perform in accordance with the contract's terms and conditions.

Virginia Public Procurement Act (VPPA)

Chapter 43 of Title 2.2, *Code of Virginia*, which enunciates the public policies pertaining to governmental procurement from non-governmental sources.

women-owned business

A business concern that is at least 51% owned by one or more women who are citizens of the United States or non-citizens who are in full compliance with United States immigration law, or in the case of a corporation, partnership or limited liability company or other entity, at least 51% of the equity ownership interest is owned by one or more women who are citizens of the United States or non-citizens who are in full compliance with United States immigration law, and both the management and daily business operations are controlled by one or more women who are citizens of the United States or non-citizens who are in full compliance with the United States immigration law.



MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

**FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING AND
MAINTENANCE**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

**SUBJECT: CONSTRUCTION CONTRACT AWARD – REMOVAL AND
DISPOSAL OF SOLIDS FROM HOLDING PONDS – MERRILL
BROS, INC.**

DATE: JUNE 23, 2020

Over the last 10 – 20 years, grit and organic material have accumulated in the Wet Weather Holding Ponds and Equalization Basins at the Moores Creek Advanced Water Resource Recovery Facility (MC). Following extensive liquid and vapor phase testing and computer modeling, these solids were identified as a major source of odor in Hazen and Sawyer's Phase 2 Odor Control Plan, and approved at the January 2015 Board of Directors meeting for incorporation into the 2015-19 Capital Improvement Plan. Now that all other Phase 2 Odor Control projects have been completed, this final phase of the project is to remove these accumulated solids.

Our consultant engineer, Short Elliot Hendrickson, prepared construction documents for this work. Three proposals for removal and disposal of the solids (RFP No. 20-06) were received on May 14, 2020 and evaluated in accordance with the Competitive Negotiation provisions of the VPPA. Negotiations were performed with two of the preferred offerors, and based on the results of that process, RWSA determined that Merrill Bros out of Kokomo, Indiana was the most meritorious candidate. The work will include the removal, dewatering, and disposal of approximately 1,725 dry tons of solids out of the holding ponds (2) and equalization basins (2) for \$839,785. Cleanout of the holding ponds and equalization basins will utilize the remaining Odor Control Phase 2 capital budget of \$975,000, which includes Merrill Bros' construction costs, construction contingency, and engineering design and construction administration costs.

Board Action Requested:

Staff recommends the Board of Directors authorize the Executive Director to enter into a contract for the Removal and Disposal of Solids from Holding Ponds at MCAWRRF (RFP No. 20-06) project in the amount of \$839,785 with Merrill Bros, and to approve any change orders to the contract up to 10% of the original contract amount.



MEMORANDUM

**TO: RIVANNA WATER & SEWER AUTHORITY
BOARD OF DIRECTORS**

FROM: BILL MAWYER, EXECUTIVE DIRECTOR

**SUBJECT: ADOPTION OF PROPOSED FY 2020-2021 BUDGET AND FY 2021 – 2025
CAPITAL IMPROVEMENT PROGRAM, APPROVAL OF FY 2021
PRELIMINARY RATE SCHEDULE RESOLUTION**

DATE: JUNE 23, 2020

The FY 2020-21 Budget totaling \$37,133,000 was introduced to the Board on May 23, 2020. The proposed budget includes \$19,384,000 for Operating expenses and \$17,729,000 for Debt Service charges, and represents a 2.6% increase above the current budget. These cost increases will be funded from our reserves to maintain annual charges to the City and to the ACSA at FY 2019-2020 levels. The proposed budget does not include any additional programs, positions or salary increases for staff.

The Board will be asked at this meeting in June to approve the attached Preliminary Rate Schedule Resolution showing the proposed wholesale rates required to support the proposed budget. The proposed budget includes resources required to manage our infrastructure, meet debt service obligations, and comply with regulatory mandates. Wholesale water and wastewater services will be provided to the City of Charlottesville and the Albemarle County Service Authority (ACSA) in a collaborative, effective, and fiscally responsible manner. Costs to the City and to the ACSA will remain at FY 2019 – 20 levels. The proposed budget includes a \$163,000 increase in Operating expenses primarily to support increased health insurance costs and an increase in the rental cost of the Observatory Water Treatment Plant. Debt Service costs will increase \$783,000 to support ongoing renovations to our water treatment plants (Crozet, S. Rivanna and Observatory), as well as completion of the Crozet Flow Equalization Tank and the Beaver Creek Dam Improvements projects, both of which are required to meet regulatory standards for wastewater and dam safety, respectively.

A Preliminary Rate Schedule to establish wholesale water and wastewater rates for FY 2020 - 21 was reviewed with the Board during the May meeting, and authorized for publication and a public hearing. A Public Notice of the Proposed Rates and Public Hearing was advertised twice in the local newspaper on June 9 and 15, 2020.

Board Action Requested:

It is respectfully requested that the Board of Directors:

1. Hold a public hearing, and after considering comments, approve wholesale water and wastewater rates and charges to the City and the ACSA for FY 2020 – 2021, to be effective on July 1, 2020.
2. Adopt the FY 2020 - 2021 Budget and the FY 2021 – 2025 CIP.

Attachment



695 Moores Creek Lane | Charlottesville, Virginia 22902-9016

434.977.2970
434.293.8858
www.rivanna.org

RESOLUTION

PRELIMINARY RATE SCHEDULE

WHEREAS, the Rivanna Water and Sewer Authority Board of Directors has reviewed the proposed budget and associated rate changes for Fiscal Year 2020-2021; and

WHEREAS, the Rivanna Water and Sewer Authority conducted a public hearing on June 23, 2020 after advertising the actual date fixed for the public hearing;

NOW, THEREFORE, BE IT RESOLVED that the Rivanna Water and Sewer Authority hereby approves the preliminary rate schedule for FY 2020-2021, which was unchanged from FY 2019-2020, effective on July 1, 2020.

Water Rates & Charges				Wastewater Rates & Charges			
Urban Area				Urban Area			
City & ACSA	Operating	\$2.095	Per 1,000 gallons	City & ACSA	Operating	\$2.369	Per 1,000 gallons
City	Debt Service	\$193,580	Per month	City	Debt Service	\$407,588	Per month
ACSA	Debt Service	\$321,303	Per month	ACSA	Debt Service	\$278,174	Per month
Crozet Water				Glenmore Wastewater			
ACSA	Operating & Debt Service	\$195,010	Per month	ACSA	Operating & Debt Service	\$31,192	Per Month
Scottsville Water				Scottsville Wastewater			
ACSA	Operating & Debt Service	\$54,130	Per month	ACSA	Operating & Debt Service	\$26,536	Per month

PUBLIC NOTICE



RIVANNA WATER & SEWER AUTHORITY PUBLIC HEARING CONCERNING THE PROPOSED RATES FOR FY 2020 - 2021, EFFECTIVE JULY 1, 2020

Public Hearing:

Rivanna Water & Sewer Authority will hold a Public Hearing on Tuesday, June 23, 2020, at 2:15 p.m. during the regular Rivanna Water & Sewer Authority Board of Directors meeting. This meeting will be held virtually, via Zoom. Please visit: <https://www.rivanna.org/virtual-board-meeting/> for meeting details. The public hearing is to consider the following wholesale water and wastewater rates and charges to the City of Charlottesville and the Albemarle County Service Authority. Adopted rates may or may not be what are advertised.

URBAN RATE CENTERS			FY 2020	FY 2021	\$ Change	% Change
<u>Operating Rates</u> (\$ per 1,000 Gallons)						
	Operations	Water	\$ 2.095	\$ 2.095	\$ -	0.00%
	Operations	Wastewater	2.369	2.369	-	0.00%
<u>Debt Service Charges</u> (\$ Monthly Charge)						
<u>Water</u>						
	Debt Service	CITY	\$ 193,580	\$ 193,580	\$ -	0.00%
	Debt Service	ACSA	321,303	321,303	-	0.00%
<u>Wastewater</u>						
	Debt Service	CITY	\$ 407,588	\$ 407,588	\$ -	0.00%
	Debt Service	ACSA	278,174	278,174	-	0.00%
OTHER RATE CENTERS (Monthly)			FY 2020	FY 2021	\$ Change	% Change
<u>Crozet Water</u>						
	Operations		\$ 85,734	\$ 85,734	\$ -	0.00%
	Debt Service		109,276	109,276	-	0.00%
<u>Scottsville Water</u>						
	Operations		\$ 43,401	\$ 43,401	\$ -	0.00%
	Debt Service		10,729	10,729	-	0.00%
Water Total			\$ 249,140	\$ 249,140	\$ -	0.00%
<u>Glenmore Wastewater</u>						
	Operations		\$ 30,877	\$ 30,877	\$ -	0.00%
	Debt Service		315	315	-	0.00%
<u>Scottsville Wastewater</u>						
	Operations		\$ 25,749	\$ 25,749	\$ -	0.00%
	Debt Service		787	787	-	0.00%
Wastewater Total			\$ 57,728	\$ 57,728	\$ -	0.00%
Total Monthly Other Rate Center Charges - ACSA			\$ 306,868	\$ 306,868	\$ -	0.00%

The Rivanna Water & Sewer Authority (Rivanna) was created by the City of Charlottesville (City) and the County of Albemarle to supply and treat water for drinking and to provide wastewater treatment. The above fees represent Rivanna's fees and charges to the City and the Albemarle County Service Authority (ACSA) for these services and are not the same as the City and ACSA charges to individual residents and businesses. Debt Service covers capital related project costs and are different for the City and ACSA reflecting terms of contractual agreements.

The City and the ACSA distribute drinking water and collect wastewater from individual residents and businesses and charge retail rates that combine charges from the above schedule to reflect their service costs, including Rivanna's costs.

Information about the proposed budget may be obtained on the Rivanna website at rivanna.org. Please call 977-2970 ext. 0 or send e-mail to info@rivanna.org with any questions you may have.

Capital Improvement Plan

Fiscal Years 2021 – 2025

Drafted May 2020



Glenmore Secondary Clarifier Coating



Upper Schenks Branch Interceptor

OUR MISSION

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



Observatory Water Treatment Plant



Moores Creek AWWRF



Sugar Hollow Dam

Rivanna Water & Sewer Authority
695 Moores Creek Lane
Charlottesville, Virginia 22902



I.	INTRODUCTION	2
II.	FINANCIAL SUMMARY BY CATEGORY	4
III.	PROJECT DETAILS	7
	Completed Projects	8
	Urban Water	
	Community Water Supply Plan	11
	Observatory WTP and Ragged Mountain/Sugar Hollow Reservoir System	14
	Finished Water Storage/Transmission	17
	South and North Rivanna Water Systems	20
	Non-Urban Water	
	Crozet Water System	23
	Scottsville Water System	26
	Urban Wastewater	
	Wastewater Interceptors/Pumping Stations	28
	Moore's Creek Advanced Water Resource Recovery Facility	32
	Non-Urban Wastewater	
	Scottsville Wastewater System	39
	Glenmore Wastewater System	41
	All Systems	43
IV.	APPENDIXES	
	CIP Financial Summary	47
	Water System Summary	52
	Wastewater System Summary	53
	All Systems Summary	54

Introduction

The Capital Improvement Plan (CIP) for Fiscal Years 2021-2025 has been prepared as a strategic and financially responsible plan for the Rivanna Water and Sewer Authority (RWSA) to complete major infrastructure construction projects. The projects included in the CIP are necessary to achieve the RWSA's core mission of providing safe, high-quality drinking water and environmentally responsible wastewater treatment services for the City of Charlottesville and the Albemarle County Service Authority (ACSA). The CIP is a 5-year planning document which provides an estimated budget and schedule for projects as they advance through the design and construction process.

The infrastructure requirements of the Capital Improvement Plan are developed through our Asset Management and Master Planning programs to address water and wastewater capacity demands, regulatory mandates and rehabilitation needs. Each year, these projects are reviewed and prioritized by the RWSA management team and brought forth for review by the Board of Directors.

During the past year, several capital projects were completed, and as such are being removed from the 2021-2025 CIP. These projects account for approximately \$5.1 million or 5.2% of FY 2020-2024 CIP. These projects include:

- 5 Birdwood Golf Course Waterline
- 9 Piney Mountain Tank Rehabilitation
- 11 Water Demand Projection and Safe Yield Study
- 21 Buck's Elbow Ground Storage Tank Chlorination System
- 23 Scottsville WTP Finished Water Flow Meter
- 43 Glenmore WRRF Secondary Clarifier Coating

The total 5-year 2021-2025 CIP is approximately \$132.5 million, with the previous expenditures on active projects totaling approximately \$5.4 million, leaving a net proposed 5-year projected expenditure of \$127.1 million.

There are eleven new projects added to the CIP this year. The total estimated expenditures for the projects equal \$4.61 million from 2021-2025 and include:

- 18 Crozet Ground Storage Tank Leak Repair (\$0.1 million)
- 19 Buck's Elbow Tank and Waterball Painting (\$0.083 million)
- 21 Scottsville WTP Lagoon Liner Replacement (\$0.315 million)
- 29 Interceptor Sewer and Manhole Repair (Phase 2) (\$0.7 million)
- 41 Moores Creek AWWRF Inplant Clarifier and Lime Silo Demolition (\$0.65 million)
- 42 Moores Creek AWWRF Generator Fuel Storage Expansion (\$0.1 million)
- 43 Moores Creek AWWRF Meter and Valve Replacements (\$0.66 million)
- 44 Moores Creek AWWRF Facility Renovations (\$0.375 million)
- 45 Moores Creek AWWRF 5kV Electrical System Upgrade (\$0.5 million)
- 46 Moores Creek AWWRF Lighting Upgrade (\$1.0 million)
- 48 Scottsville WRRF Generator and ATS (\$0.13 million)

An additional seven projects that were in the previous 10-year plan that are now transitioning into the 5-year horizon. These projects equal \$3.04 million from 2021-2025 and include:

- 27 Albemarle-Berkley Pump Station Upgrade (\$0.04 million)
- 31 Moores Creek AWRRF Engineering and Administration Building (\$0.25 million)
- 35 Moores Creek AWRRF Mechanical Thickener Improvement (\$0.1 million)
- 37 Moores Creek AWRRF Gas Sphere Rehabilitation (\$0.08 million)
- 38 Moores Creek AWRRF Cogeneration Upgrades (\$1.9 million)
- 39 Moores Creek AWRRF Maintenance Building (\$0.1)
- 40 Moores Creek AWRRF Structural Modifications (\$0.57 million)

There are several projects where the proposed budgets have been modified based on the anticipated project requirements and necessitate funding adjustments. The projects with changes include:

- 5 Observatory WTP Improvements (\$19.7 million existing / \$26 million proposed)
- 6 Sugar Hollow Dam Rubber Crest Gate Replacement (\$1.14 million existing / \$1.7 million proposed)
- 7 Valve Repair and Replacement – Phase 2 (\$0.883 million existing / \$1.13 million proposed)
- 9 South Rivanna River Crossing (\$5.34 million existing / \$2.8 million proposed)
- 10 Airport Road Pump Station and North Rivanna Transmission Main (\$2.3 million existing / \$5.85 million proposed)
- 13 South Rivanna WTP Improvements (\$15 million existing / \$17 million proposed)
- 15 North Rivanna WTP Upgrade (\$2.35 million existing / \$1.35 million proposed)
- 16 Beaver Creek Dam Alteration (\$4.9 million existing / \$10.5 million proposed)
- 17 Beaver Creek New Raw Water Pump Station & Intake (\$4.1 million existing / \$10.1 million proposed)
- 20 Scottsville WTP LT2 Improvements (\$0.10 million existing / \$0.16 million proposed)
- 24 Crozet Interceptor (\$0.62 million existing / \$0.73 million proposed)
- 26 Crozet WW Pump Station 1, 2, 3 Rehabilitation (\$0.54 million existing / \$0.59 million proposed)
- 32 Moores Creek AWRRF Digester Sludge Storage Improvements (\$0.31 million existing / \$0.55 million proposed)
- 33 Moores Creek AWWRF Aluminum Slide Gate Replacement (\$0.47 million existing / \$0.675 million proposed)
- 50 Radio Upgrades (\$0.65 million existing / \$0.40 million proposed)
- 51 Asset Management (\$0.50 million existing / \$1.12 million proposed)
- 52 Security Enhancements (\$1.0 million existing / \$2.73 million proposed)

FINANCIAL SUMMARY
MAJOR SYSTEM CATEGORIES

FINANCIAL SUMMARY

Major System Categories – Water

	Five-Year Capital Program			Projected Future Expenses by Year						
System Description	Current CIP	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Recommended CIP	Work-in-Progress
Urban Water (UW)										
Community Water Supply Plan	\$6,182,000	\$6,160,000	\$1,710,249	\$584,751	\$535,000	\$1,506,000	\$2,216,000	\$5,790,000	\$12,342,000	\$301,054
Observatory WTP & Ragged Mountain/Sugar Hollow Reservoir System	\$20,840,000	\$6,860,000	\$3,118,198	\$5,811,802	\$15,170,000	\$3,600,000	\$0	\$0	\$27,700,000	\$618,880
Finished Water Storage/Distribution	\$10,875,914	\$4,110,000	\$2,961,914	\$1,834,000	\$4,122,000	\$2,493,000	\$725,000	\$2,850,000	\$14,985,914	\$312,274
South & North Fork Rivanna Water System	\$18,950,000	\$1,000,000	\$10,056,415	\$7,353,585	\$2,540,000	\$0	\$0	\$0	\$19,950,000	\$746,112
Subtotal (UW)	\$56,847,914	\$18,130,000	\$17,846,776	\$15,584,138	\$22,367,000	\$7,599,000	\$2,941,000	\$8,640,000	\$74,977,914	\$1,978,320
Non-Urban Water (NUW)										
Crozet Water System	\$17,536,000	\$11,905,000	\$9,051,000	\$892,000	\$1,050,000	\$6,435,000	\$6,010,000	\$6,003,000	\$29,441,000	\$1,526,851
Scottsville Water System	\$100,000	\$375,000	\$100,000	\$60,000	\$0	\$140,000	\$175,000	\$0	\$475,000	\$0
Subtotal (NUW)	\$17,636,000	\$12,280,000	\$9,151,000	\$952,000	\$1,050,000	\$6,575,000	\$6,185,000	\$6,003,000	\$29,916,000	\$1,526,851
WATER TOTAL	\$74,483,914	\$30,410,000	\$26,997,776	\$16,536,138	\$23,417,000	\$14,174,000	\$9,126,000	\$14,643,000	\$104,893,914	\$3,505,171

FINANCIAL SUMMARY

Major System Categories – Wastewater

	Five-Year Capital Program			Projected Future Expenses by Year						
System Description	Current CIP	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Recommended CIP	Work-in-Progress
Urban Wastewater (UWW)										
Wastewater Interceptors and Pumping Stations	\$11,303,330	\$1,005,000	\$6,757,945	\$3,740,385	\$855,000	\$205,000	\$45,000	\$735,000	\$12,338,330	\$716,848
Moore's Creek AWWRF	\$3,449,632	\$6,732,000	\$3,026,632	\$2,975,000	\$2,410,000	\$510,000	\$475,000	\$785,000	\$10,181,632	\$1,007,383
Subtotal (UWW)	\$14,752,962	\$7,737,000	\$9,784,577	\$6,715,385	\$3,265,000	\$715,000	\$520,000	\$1,520,000	\$22,519,962	\$1,724,231
Non-Urban Wastewater (NUWW)										
Scottsville WRRF	\$210,000	\$125,000	\$65,000	\$145,000	\$0	\$125,000	\$0	\$0	\$335,000	\$0
Glenmore WRRF	\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$65,000	\$0
Subtotal (NUWW)	\$275,000	\$125,000	\$65,000	\$210,000	\$0	\$125,000	\$0	\$0	\$400,000	\$0
WASTEWATER TOTAL	\$15,027,962	\$7,862,000	\$9,849,577	\$6,925,385	\$3,265,000	\$840,000	\$520,000	\$1,520,000	\$22,919,962	\$1,724,231
All Systems Security & Technology	\$2,596,000	\$2,099,000	\$1,971,000	\$1,014,000	\$480,000	\$640,000	\$550,000	\$40,000	\$4,695,000	\$167,637
TOTAL	\$92,107,876	\$40,371,000	\$38,818,353	\$24,475,523	\$27,162,000	\$15,654,000	\$10,196,000	\$16,203,000	\$132,508,876	\$5,397,039

PROJECT DETAILS

Page	8	Completed Projects
Page	11	Urban Water
Page	23	Non-Urban Water
Page	28	Urban Wastewater
Page	39	Non-Urban Wastewater
Page	43	All Systems

Completed Projects

During fiscal year 2020, several capital improvement projects were completed, were advanced to the final phases of close-out, or were determined to be no longer necessary. As such they will be removed from consideration in future planning documents. Presented in the table below are the six (6) completed projects, pertinent information on the adopted budgets, as well as the projected final costs and any anticipated savings. There was a total completed projects cost savings of \$0.9 million.

5. Birdwood Golf Course Waterline: RWSA and the UVA Foundation chose to expedite construction of the portion of the future South Rivanna to Ragged Mountain 36-inch raw water main through the Birdwood property. This enabled pipeline work to proceed just ahead of the planned golf course reconstruction project to prevent subsequent disruption to the property and adjacent neighbors, as well as mitigate future increased water line construction costs. The golf course reconstruction project began in November 2018. This work was completed within budget in the summer of 2019 and included installation of approximately 5,900 linear feet of 36-inch raw water main along the eastern property boundary of the golf course.
9. Piney Mountain Tank Rehabilitation: The 700,000-gallon Piney Mountain Tank serves the North Rivanna pressure band. A routine inspection of the Piney Mountain Tank revealed several deformed roof rafters, indicating the potential for structural deficiency. An in-depth structural inspection was performed and a list of recommended roof repairs provided. This project included consultant services for design and bidding of necessary roof repairs and other ancillary items, as well as construction, construction administration, and inspection services. Long term plans for the Rt. 29 service area include the modification or elimination of this facility. The improvements included in this project are needed to maintain the existing tank in service for at least the next 10 years. The tank repairs were substantially complete in July of 2019 and the project was closed out in November 2019.
11. Water Demand Projection and Safe Yield Study: In January 2012, the City of Charlottesville, Albemarle County Service Authority, and RWSA entered into the Ragged Mountain Dam Project Agreement. Within the agreement are provisions to monitor the bathymetric capacity of the Urban water reservoirs as well as a requirement to conduct reoccurring demand analysis, demand forecasting and safe yield evaluations. The bathymetric survey of the South Rivanna Reservoir and the Ragged Mountain Reservoir were funded in the FY2019 O&M Budget. Subsequent to collecting the reservoir survey data, this study evaluated and calculated current and future demands and present safe yield. Per the project agreement, these analyses shall be completed by calendar year 2020.
21. Buck's Elbow Ground Storage Tank Chlorination System: The 2,000,000-gallon Buck's Elbow Ground Storage Tank provides finished water storage for the Crozet Area. Due to the water age that is currently present in the Buck's Elbow Ground Storage Tank, RWSA Water Department staff performs constant monitoring on the chlorine residuals in the tank. When chlorine residuals drop, staff must manually feed chlorine into the tank. Currently, this requires staff to bring all required pumping infrastructure to the site and climb the tank to access the injection point(s). To enhance the efficiency and safety of this process, a chemical feed station will be

installed at the Buck's Elbow Ground Storage Tank site. The need for staff to climb the tank will be negated, and all pumping infrastructure will remain on site in a secured area. An active mixing system will also be installed in order to supplement the existing passive mixing system and further decrease water age inside of the tank. Installation of the active mixing system and construction of the chlorine feed station at the Buck's Elbow Ground Storage Tank began in Fall 2019, and completed in early 2020.

23. Scottsville WTP Finished Water Flow Meter: The Scottsville Water Treatment Plant provides potable drinking water to Albemarle County Service Authority customers in the Scottsville service area. After water has been treated at the plant, it is collected in an existing clearwell which was constructed with the original facility. From the clearwell, the water is pumped into the distribution system by one of two high service pumps. The flow from these pumps is not metered. In order to keep a record of the total flow entering the Scottsville distribution system, plant operators must periodically conduct draw-down tests to verify the pumping rate of each of the two pumps. The total flow is then calculated based on the run time of each pump. Based on these procedures, this method of measuring flow may not be fully representative of the flow entering the system as the pumping rate will vary based on the clearwell level and the hydraulic grade line of the distribution system. In addition, the Virginia Department of Health has indicated that the flow should be metered during recent conversations related to the disinfection profile calculation throughout the plant. To resolve this issue, this project modified the high service pump discharge piping to allow for the installation of a finished water meter.
43. Glenmore WRRF Secondary Clarifier Coating: The secondary clarifiers at the Glenmore facility were painted over 10-years ago. The clarifier environment is a particularly harsh environment subject to corrosive gasses, grit abrasion and mechanical wear. Based on observations by operations staff, the coating system was in need of replacement to prevent deterioration and failure of the underlying metal superstructure. This project included the cleaning and full coating of the metal portions of the clarifier and installation of new sweeps.

Completed Projects

Five-Year Capital Program						
Line No.	Proj. No.	Project Description	Adopted Budget 5/2019	Previous Expenditures (6/30/2019)	Final Projected Costs/Close Out	Savings
5	20.05	Birdwood Golf Course Waterline	\$4,000,000	\$2,714,728	\$3,086,000	\$914,000
9	20.09	Piney Mountain Tank Rehabilitation	\$570,000	\$88,585	\$484,413	\$85,587
11	20.11	Water Demand Projection and Safe Yield Study	\$167,000	\$79,106	\$167,000	\$0
21	20.21	Buck's Elbow Ground Storage Tank Chlorination System	\$239,000	\$6,643	\$230,000	\$9,000
23	20.23	Scottsville Water Treatment Plant Finished Water Flow Meter	\$145,000	\$12,128	\$134,979	\$10,021
43	20.43	Glenmore WRRF Secondary Clarifier Coating	\$160,000	\$1,100	\$138,751	\$21,249
TOTAL			\$5,096,000	\$2,902,290	\$4,241,143	\$854,857

CIP 20-24 Total	CIP 21-25 Completed	CIP 21-25 Remaining	CIP 21-25 New Funding	CIP 21-25 New Total
\$97,203,876	\$5,096,000	\$92,107,876	\$40,371,000	\$132,508,876

Community Water Supply Plan

The Community Water Supply Plan represents the program developed with substantial community input to fulfill RWSA's contractual obligation to the City of Charlottesville (City) and the Albemarle County Service Authority (ACSA) to provide adequate drinking water for their future needs. An initiative started in 2003 to find a long-term solution that could achieve both local support and meet federal and state requirements. After multiple community meetings, updates with local officials, and frequent consultations with federal and state agencies, local support was obtained to apply for federal and state permits to expand the Ragged Mountain Reservoir and build a future pipeline between the South Rivanna and Ragged Mountain Reservoirs, with stream and wetlands mitigation to be provided through property in the Buck Mountain Creek area and property adjacent to a lower reach of Moores Creek near its confluence with the Rivanna River. Federal and state permits were granted in 2008, and amended in 2011.

The first phase of this long-term program centered around the expansion of the Ragged Mountain Reservoir, a project that would simultaneously address a legal obligation to correct safety deficiencies on the existing site. Through a combination of technical investigations, engineering evaluations, and continued public discussion, a decision was reached in February 2011 through the City Council and Board of Supervisors to build the new dam as an earthen dam, with the initial phase raising the reservoir pool height by 30 feet. The decision also outlined an objective of the further pursuit of water conservation through the City and ACSA, and the pursuit of opportunities for dredging of the South Rivanna Reservoir, with the second phase of reservoir expansion in the future as necessary.

Project Descriptions:

1. South Rivanna Reservoir to Ragged Mountain Reservoir Water Line Right-of-Way: The approved 50-year Community Water Supply Plan includes the future construction of a new raw water pipeline from the South Rivanna River to the Ragged Mountain Reservoir. This new pipeline will replace the Upper Sugar Hollow Pipeline along an alternative alignment to increase raw water transfer capacity in the Urban Water System. The project includes a detailed routing study to account for recent and proposed development and road projects in Albemarle County and the University of Virginia. Preliminary design, preparation of easement documents, and acquisition of water line easements along the approved route will also be completed as part of this project. Prior expenditures also covered a previous review of the 2009 conceptual design that was requested by the Board.
2. South Rivanna Reservoir Dredging: The South Rivanna Reservoir stores raw water for treatment at the South Rivanna Water Treatment Plant and in the future, is proposed to provide water for transfer to the enlarged Ragged Mountain Reservoir. River flow into the reservoir is from a drainage area, almost entirely within Albemarle County, of approximately 259 square miles. Soil erosion from natural events, from land use in the agricultural area, from land disturbances in the developed areas, and from re-suspension of flood plain deposits created during the 19th century (stream bank erosion), are likely the causes of sediment becoming trapped within the reservoir. The initial design of the reservoir anticipated the accumulation of

these sediments, and a significant portion of the total storage volume was designated for this purpose. Currently the sediment stored does not exceed the available sediment storage capacity.

The January 2012 Ragged Mountain Dam Project Agreement outlines that “the City and ACSA agree to direct, and RWSA agrees, to perform such dredging projects at the South Fork Rivanna Reservoir as may be specified jointly by the City and ACSA pursuant to the Water Cost Allocation Agreement.” The Cost Allocation Agreement stipulates that target maintenance dredging shall be performed, and that the dredging be market driven, cost effective, and opportunistic and shall not exceed \$3.5M. In 2012 and 2013, RWSA, via the Public-Private Education Facilities and Infrastructure Act (PPEA) process, solicited proposals to provide maintenance dredging. In July 2013, the one qualified PPEA proposer withdrew its proposal, citing difficulties in obtaining necessary land agreements.

Future Board decisions on the project contracting approach will dictate the next steps. This project remains in the CIP as the fulfillment of a contractual obligation from the January 2012 Ragged Mountain Dam Cost Allocation Agreement, and RWSA counsel has offered an opinion that consent to amend the Agreement from the City and ACSA is required before the RWSA Board can amend or cancel the project. The project has been moved to FY 2026.

3. Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line: Raw water is transferred from the Ragged Mountain Reservoir (RMR) to the Observatory Water Treatment Plant by way of two 18-inch cast iron pipelines, which have been in service for more than 110 and 70 years, respectively. The increased frequency of emergency repairs and expanded maintenance requirements are one impetus for replacing these pipelines. The proposed water line will be able to reliably transfer water to the expanded Observatory plant, which will have the capacity to treat 10 million gallons per day (mgd). The new pipeline is expected to be constructed of 36-inch ductile iron and approximately 14,000 feet in length.
4. Ragged Mountain Reservoir to Observatory Raw Water Pump Station: The Ragged Mountain Reservoir (RMR) to Observatory WTP raw water pump station is planned to replace the existing Stadium Road and Royal pump stations, which in part have exceeded their design lives or will require significant upgrades with the Observatory WTP expansion. The pump station will pump up to 10 mgd to the Observatory WTP. The new pump station will be integrated with the planned South Rivanna Reservoir (SRR) to RMR pipeline in the interest of improved operational and cost efficiencies. An integrated pump station will also include the capacity to transfer up to 16 million gallons per day (mgd) of raw water from RMR back to the SRR WTP. The location of this pump station will be determined and the required property purchased as part of the SRR to RMR raw water main preliminary design and right of way acquisition, which is currently underway.

Community Water Supply Plan

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year						
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
1	20.01	South Rivanna Reservoir to Ragged Mountain Reservoir Water Line Right-of-Way	\$2,295,000		\$1,710,249	\$584,751					\$2,295,000	\$301,054
2	20.02	South Rivanna Reservoir Dredging	\$10,000	(\$10,000)							\$0	
3	20.03	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line	\$3,217,000	\$4,280,000			\$325,000	\$1,186,000	\$1,706,000	\$4,280,000	\$7,497,000	
4	20.04	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station	\$660,000	\$1,890,000			\$210,000	\$320,000	\$510,000	\$1,510,000	\$2,550,000	
		TOTAL	\$6,182,000	\$6,160,000	\$1,710,249	\$584,751	\$535,000	\$1,506,000	\$2,216,000	\$5,790,000	\$12,342,000	\$301,054

Observatory WTP and Ragged Mountain/Sugar Hollow Reservoir System

The Observatory Water Treatment Plant (WTP) and Ragged Mountain/Sugar Hollow Reservoir System is comprised of the water treatment facility on Observatory Mountain and the associated raw water infrastructure that stores and conveys source water to the plant. The raw water storage system includes the new Ragged Mountain Dam (constructed in 2014, with a useable raw water storage capacity of 1.44 billion gallons) and the Sugar Hollow Dam (originally constructed in 1947, upgraded in 1999 and downstream discharge improvements completed in September 2014, with a useable raw water storage capacity of 339 million gallons as updated by a 2015 bathymetric survey). The system also includes 17.6 miles of 18-inch raw water cast-iron mains, originally installed in 1908, 1922, and 1946. The Sugar Hollow Raw Water Main historically conveyed water from the Sugar Hollow Dam to the Observatory Water Treatment Plant, however, as a result of the New Ragged Mountain Dam project, the main now discharges directly into Ragged Mountain Reservoir. The remaining downstream section of the Sugar Hollow main now conveys raw water from the Ragged Mountain Reservoir to the treatment plant. The line crosses the Mechums River (where an abandoned pumping station is sited) on its way to Ragged Mountain Reservoir, and eventually passes through the Royal Pumping Station and terminates at the Observatory WTP. The Ragged Mountain Raw Water Main conveys water from the Ragged Mountain Reservoir through the Stadium Road Pumping Station and terminates at the Observatory Water Treatment Plant.

Project Descriptions:

5. Observatory Water Treatment Plant Improvements: The Observatory Water Treatment Plant was originally constructed in the mid-1950s, and since very little has been replaced or upgraded at the facility, much of the original equipment remains. As a result, that equipment is inefficient, prone to unexpected failure, and does not have readily accessible replacement parts. Based on a Needs Assessment Study, the plant would undergo a wholesale upgrade including improvements to the flocculators, sedimentation basins, filters, and chemical feed facilities to enhance future reliability. In addition, the existing reinforced concrete flume, which conveys treated water from the sedimentation basins to the filters, is in need of replacement, filter control valves and piping will be replaced, and electrical and SCADA control systems upgraded. A portion of this project was completed during the Granular Activated Carbon (GAC) project, where the flocculator systems were upgraded with new mechanical and electrical equipment, including variable speed drives for optimal efficiency.

In addition to providing needed equipment upgrades, these improvements will increase the plant's capacity from 7.7 million gallons per day to 10 million gallons per day based on a feasibility analysis performed during the Preliminary Engineering phase of the project. It was determined that the capacity upgrades could be performed economically and would provide needed reliability and redundancy in the Urban System. As part of this capacity increase, it was also determined that the plant's GAC treatment capacity should increase as well. As a result, this project also includes efforts required for the addition of four GAC contactors.

It should be noted that the Observatory Water Treatment Plant is sited on land leased to RWSA by the University of Virginia. The terms of the existing lease expire on April 17, 2021. The new lease is currently under negotiation.

6. Sugar Hollow Dam Rubber Crest Gate Replacement: In 1998 the Sugar Hollow Dam underwent a significant upgrade to improve structural stability and spillway capacity. The original metal spillway gates were replaced with a manufactured five-foot-high inflatable rubber dam that is bolted to the existing concrete structure. This rubber dam allows for the normal storage of water in the reservoir with the ability to be lowered during extreme storm events. The rubber dam has an approximate service life of twenty years and is therefore now due for replacement. The aging intake tower structure has been evaluated as part of the project for necessary repairs and improvements. Repairs may include components of the intake gate valves and tower walls, including repair or replacement of intake trash racks, and sealing/grouting of minor concrete wall cracks.

Observatory Water Treatment Plant and Ragged Mountain/Sugar Hollow Reservoir System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year						
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
5	20.06	Observatory Water Treatment Plant Improvements	\$19,700,000	\$6,300,000	\$2,648,198	\$5,051,802	\$14,700,000	\$3,600,000			\$26,000,000	\$618,880
6	20.07	Sugar Hollow Dam Rubber Crest Gate Replacement	\$1,140,000	\$560,000	\$470,000	\$760,000	\$470,000				\$1,700,000	
		TOTAL	\$20,840,000	\$6,860,000	\$3,118,198	\$5,811,802	\$15,170,000	\$3,600,000	\$0	\$0	\$27,700,000	\$618,880

Finished Water Storage/Transmission – Urban System

The urban finished water storage and transmission system serves to provide transmission of treated water from the three RWSA water plants (Observatory, South Rivanna, and North Rivanna) to the distribution networks of the Albemarle County Service Authority, the City of Charlottesville, and the University of Virginia. The system includes approximately 40 miles of pipeline, six water storage tanks: Avon Street (2 MG), Pantops (5 MG), Piney Mountain. (0.7 MG), Stillhouse (0.7 MG), Observatory (3 MG), and Lewis Mountain (0.5 MG), and the Alderman Road and Stillhouse pumping stations.

Project Descriptions:

7. Valve Repair & Replacement (Phase 2): Isolation valves are critical for normal operation of the water distribution system and timely emergency response to water main breaks. Staff continuously reviews results from an ongoing valve exercising and condition assessment program performed by the RWSA Maintenance Department. This project will repair any valves identified during the condition assessment as having a repairable deficiency and replace the highest priority valves that are inoperable and/or unrepairable. This phase of the Valve Repair-Replacement Project will include the repair of an existing valve on the Southern Loop Waterline and replacement of valves on the North Rivanna, South Rivanna, Pantops, and Crozet Waterlines. Completion of Phase 2 of the Valve Repair-Replacement Project is anticipated in Summer 2020.
8. Central Water Line: The southern half of the Urban Area water system is currently served by the Avon Street and Pantops storage tanks. The Avon Street tank is hydraulically well connected to the Observatory Water Treatment Plant while the Pantops tank is well connected to the South Rivanna Water Treatment Plant. The hydraulic connectivity between the two tanks, however, is less than desired, creating operational challenges and reducing system flexibility. In 1987, the City and ASCA developed the Southern Loop Agreement, outlining project phasing and cost allocations, as envisioned at the time. The first two phases of the project were constructed shortly thereafter. The third phase, known as the “Eastern Branch” is the subject of the current project. The initial funding for this project was used for route alignment determination, hydraulic modeling, and preliminary design. Due to the complicated nature of our finished water systems, it was decided at the August 2018 Board meeting that a more comprehensive approach is warranted and we should complete the Finished Water Master Plan prior to moving forward with final design and construction of the Avon to Pantops Water Main.
9. South Fork Rivanna River Crossing: RWSA has previously identified through master planning that a 24-inch water main will be needed from the South Rivanna Water Treatment Plant (SRWTP) to Hollymead Town Center to meet future water demands. Two segments of this water main were constructed as part of the VDOT Rt. 29 Solutions projects, including approximately 10,000 LF of 24-inch water main along Rt. 29 and 600 LF of 24-inch water main along the new Berkmar Drive Extension, behind the Kohl’s department store. To complete the connection between the SRWTP and the new 24-inch water main in Rt. 29, there is a need to construct a new river crossing at the South Fork Rivanna River. Acquisition of right-of-way will be required at the river crossing.

10. Airport Rd. Pump Station and North Rivanna Transmission Main: The Rt. 29 Pipeline and Pump Station master plan was developed in 2007 and originally envisioned a multi-faceted project that reliably connected the North and South Rivanna pressure bands, reduced excessive operating pressures, and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan was updated in 2018 to reflect the changes in the system and demands since 2007. This project, along with project above will provide a reliable and redundant finished water supply to the North Rivanna area. The proposed pump station will be able to serve system demands at both the current high pressure and a future low pressure condition. These facilities will also lead to future phase implementation which will include a storage tank and the creation of the Airport pressure zone.

To complete the connection between the new 24-inch water main in Rt. 29 and the pump station, construction will include two “gap” sections of 24-inch water main between the already completed sections in the vicinity of Kohl’s. Much of the new water main route is within VDOT right-of-way; however, acquisition of right-of-way will be required on the Kohl’s Property at Hollymead Town Center.

11. Finished Water System Master Plan: As identified in the 2017 Strategic Plan, the Authority has a goal to plan, deliver and maintain dependable infrastructure in a financially responsible manner. Staff has identified asset master planning as a priority strategy to improve overall system development. There are asset classes where comprehensive and ongoing plans exist or are in development (e.g. wastewater collection, raw water supply, Crozet water, etc.). In the case of the urban finished water system, many of the previously identified capital projects are in design or construction. As such, staff have identified a need to develop a current and ongoing finished water master plan. This work will utilize the demand forecasting from the Water Demand Project and Safe Yield Study.

Finished Water Storage/Transmission – Urban System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year						
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
7	20.08	Valve Repair & Replacement (Phase 2)	\$882,914	\$250,000	\$1,132,914						\$1,132,914	\$154,218
8	20.10	Central Water Line	\$2,100,000	\$2,850,000	\$1,375,000				\$725,000	\$2,850,000	\$4,950,000	\$137,749
9	20.12	South Fork Rivanna River Crossing	\$5,340,000	(\$2,540,000)		\$260,000	\$922,000	\$1,618,000			\$2,800,000	
10	20.13	Airport Rd. Pump Station and North Rivanna Transmission Main	\$2,300,000	\$3,550,000	\$201,000	\$1,574,000	\$3,200,000	\$875,000			\$5,850,000	
11	20.14	Finished Water System Master Plan	\$253,000		\$253,000						\$253,000	\$20,307
		TOTAL	\$10,875,914	\$4,110,000	\$2,961,914	\$1,834,000	\$4,122,000	\$2,493,000	\$725,000	\$2,850,000	\$14,985,914	\$312,274

South and North Rivanna Water Systems

The South Rivanna Water System is comprised of the source water, storage, conveyance and treatment infrastructure currently serving the urban area from the South Fork Rivanna River. The system includes the South Fork Rivanna Reservoir and Dam (built in 1966). The Dam is co-located with the raw water intake and pump station, as well as a small hydroelectric generation facility. The source water from the South Rivanna Reservoir is treated at the South Rivanna treatment plant (12-mgd rated capacity).

The North Rivanna Water System is comprised of a river intake and raw water pumping station on the North Fork of the Rivanna River, as well as the North Fork Water Treatment Plant (2-mgd rated capacity built in 1973). The North Rivanna System provides water to the ACSA service area located along US Route 29, between Forest Lakes subdivision and Piney Mountain Road.

Project Descriptions:

12. South Rivanna Hydropower Plant Decommissioning: The South Fork Hydropower Plant is a small hydroelectric generating facility constructed in 1987. The plant has historically operated intermittently, as river flows allow. The generated power is used at the South Rivanna Water Treatment Plant, thereby reducing power purchased off the electric grid. During an effort to troubleshoot and repair the turbine, a large rain and lightning event caused unexpected flooding into the facility. Insurance paid damages to more recent improvements, but not the pre-existing needs to repair the turbine. Engineering investigations in 2013 associated with the failed mechanical equipment and flood event confirmed the need for further disassembly and inspection of the turbine shaft and blade linkages from a remote factory location.

Due to the complexity of possible rehabilitation, the associated Federal Energy Regulatory Commission (FERC) dam permitting, and the numerous variables in the economic analysis, proposals were solicited from national hydropower experts to initiate a feasibility study to determine the cost effectiveness of rehabilitating the hydropower plant while making sure to account for FERC-related costs and issues. The feasibility study was completed in May 2016 and determined that rehabilitation of the facility had a small likelihood for a positive return on investment. This conclusion was brought to the Board of Directors along with a recommendation to initiate the surrender of the exemption to licensure and decommission the facility. The Board approved this recommendation and staff has begun the exemption surrender process. The budget includes regulatory support as well as physical improvements such as removing defunct electrical components, abandoning components of the turbine and re-establishment of the penstock as a reservoir drain.

13. South Rivanna Water Treatment Plant Improvements: The South Rivanna Water Treatment Plant recently completed upgrades as part of the Urban Granular Activated Carbon project. Over the course of that project, several other significant needs were identified and assembled into a single project within this Capital Plan. The project components include, but are not limited to, the following: a new alum and fluoride storage facility; installation of two additional filters to meet firm capacity needs and new filter control panels; building around the lime storage facilities; the addition of a second variable frequency drive at the Raw Water Pump Station as well as other general pump station improvements; the relocation for the

electrical gear from a sub terrain location at the Sludge Pumping Station to a new aboveground enclosure; a new administration building on site for additional office, meeting, and storage space; high service pump improvements and the addition of variable frequency drives to three of the pumps; sedimentation basin improvements; replacement of filter inlet valves and actuators; remodeling of the existing filter building for better lab and control space and painting throughout; new clarifier drives; and incoming electrical system improvements for the facility. Currently this facility operates at 80-90% of capacity and the identified upgrades will improve reliability and resiliency, particularly at higher flow rates.

14. South Rivanna Dam – Gate Repairs: The South Rivanna Dam, originally constructed in 1965, is equipped with two 36-inch diameter slide gates and conduits, one each on the north and south abutments of the dam, which can be utilized to dewater the facility or to meet minimum instream flow (MIF) requirements when the dam is not spilling. These gates are original to the dam and while they are operable and are exercised regularly, they can no longer provide a complete seal, therefore allowing some leakage through the dam. RWSA has protocols in place to temporarily stop leakage through the gates when necessary to conserve water; however, there is a desire to repair or replace the gates and components as needed to restore full functionality. The project includes other repairs to the facility, including improvements to the concrete wall adjacent to the raw water pump station and improvements to the north dam tower to provide safer and more secure access by staff.
15. North Rivanna Water Treatment Plant Upgrade: The North Rivanna Water Treatment Plant was recently upgraded with Granular Activated Carbon (GAC) treatment. While components of the plant's electrical system were upgraded during the GAC project, the remaining equipment and process controls are original to the plant and in need of upgrades. As a result, a needs assessment for the plant was updated to identify potential improvements and the associated costs. At the same time, future regulatory impacts to the plant are being evaluated which may limit the benefit of investing those significant dollars in plant upgrades. In order to clarify this process, this project will include an abandonment and alternatives analysis which will evaluate the costs and implications of maintaining operations at the North Rivanna Water Treatment Plant versus adjusting our Urban System operational guidelines in an attempt to maintain our overall withdrawal and finished water production capabilities should the plant be taken out of service.

South and North Rivanna Water Systems

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	
12	20.15	South Rivanna Hydropower Plant Decommissioning	\$725,000		\$725,000						\$725,000
13	20.16	South Rivanna Water Treatment Plant Improvements	\$15,000,000	\$2,000,000	\$8,046,415	\$7,353,585	\$1,600,000				\$17,000,000
14	20.17	South Rivanna Dam - Gate Repairs	\$900,000		\$900,000						\$900,000
15	20.18	North Rivanna Water Treatment Plant Upgrade	\$2,325,000	(\$1,000,000)	\$385,000		\$940,000				\$1,325,000
		TOTAL	\$18,950,000	\$1,000,000	\$10,056,415	\$7,353,585	\$2,540,000	\$0	\$0	\$0	\$19,950,000

Crozet Water System

The Crozet Water System includes the source water, raw water conveyance, finished water treatment, transmission and storage infrastructure for the Crozet community in western Albemarle County. The source water for this system is the Beaver Creek Reservoir and Garnett Dam which were built in 1964 with a current useable storage capacity of 521 million gallons. Raw water is treated at the Crozet Water Treatment Plant (1.0 mgd rated capacity) and provides finished water to the Albemarle County Service Authority. The system includes the Crozet Elevated (Waterball) Tank (0.05 MG) for water treatment plant backwash; the Crozet Ground Storage Tank (0.5 MG) and pump station, and the Buck's Elbow Storage Tank (2.0 MG).

Project Descriptions:

16. Beaver Creek Dam Alteration: RWSA operates the Beaver Creek Dam and reservoir as the sole raw water supply for the Crozet Area. In 2011, an analysis of the Dam Breach inundation areas and changes to Virginia Department of Conservation and Recreation (DCR) *Impounding Structures Regulations* prompted a change in hazard classification of the dam from Significant to High Hazard. This change in hazard classification requires that the capacity of the spillway be increased. Following the completion of an updated alternatives analysis by Schnabel Engineering in 2018, staff decided to proceed with design of a labyrinth spillway and chute through the existing dam with a bridge to allow Browns Gap Turnpike to cross over the new spillway. Work for this project will be coordinated with the new relocated raw water pump station and intake.
17. Beaver Creek New Raw Water Pump Station & Intake: The Drinking Water Infrastructure Plan for the Crozet water service area recommends installation of a new Raw Water Pump Station and Intake at the Beaver Creek Dam in order to meet new minimum instream flow requirements and provide adequate raw water pumping capacity to serve the growing Crozet community for the next 50 years. The pump station will be moved out of its existing location at the toe of the dam to a new location, to be determined during design. The new intake structure will include enhanced controls as well as a Hypolimnetic Oxygenation System that will serve to enhance water quality within the reservoir.
18. Crozet Water Treatment Plant Expansion: The Crozet water treatment system is currently permitted and rated to supply up to 1.0 mgd of water to the ACSA distribution system. Over the past several years, average day usage of water has increased steadily, with maximum day demand approaching plant capacity. In addition, much of the existing plant systems are the same as when the plant was constructed in the 1960's.

Expanding the plant capacity at Crozet WTP will require a new Virginia Department of Environmental Quality Water Withdrawal Permit and will include possible stream release requirements. In order to fully analyze all aspects of the design required for this project a Preliminary Engineering Report (PER), plant field testing, preliminary permitting work and coordination with pertinent regulators were completed. The results of the PER stated that the current treatment plant can be upgraded, and the capacity increased, through installation of newer, and more technologically advanced equipment into the existing footprint of the filter plant. Work associated with this project includes general building rehabilitation, filter

improvements, sedimentation expansion and improvements, chemical feed improvements, flocculator expansion, alum storage/containment improvements and waste sludge handling and removal improvements.

19. Crozet Ground Storage Tank Leak Repair: The 500,000-gallon Crozet Ground Storage Tank serves as the wet well for the finished water pumps at the Crozet Water Treatment Plant as well as one of two water storage tanks in the Crozet Service Area. In late 2017, a small leak at the base of the tank was discovered, and a subsequent inspection by a remotely operated vehicle (ROV) in February of 2018 confirmed that the leak was likely in the floor of the tank near the tank inlet-outlet pipe. The tank will need to be drained and cleaned, damaged sections assessed and repaired, and floor coating restored prior to putting back in service. Repair work is anticipated to take place in fall of 2020 or spring of 2021 following the completion of upgrades to the Crozet Water Treatment Plant.
20. Buck's Elbow Tank and Waterball Painting: The 2,000,000-gallon Buck's Elbow Ground Storage Tank provides finished water storage for the Crozet Area while the 50,000-gallon Crozet Waterball Tank serves as filter backwash storage at the Crozet Water Treatment Plant (CZWTP). Routine inspections of these tanks in 2012 indicated that the tanks would require recoating by 2020. The current coating system has lasted beyond this initial prediction and as such was moved to 2025. The project includes recoating the interior and top-coating the exterior of both tanks to prevent corrosion. Minor repairs and improvements to both tanks will also be included in this work, such as foundation repairs and safety enhancements.

Crozet Water System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
16	20.19	Beaver Creek Dam Alteration	\$4,898,000	\$5,700,000	\$709,000	\$136,000	\$550,000	\$655,000	\$2,938,000	\$5,610,000	\$10,598,000	\$279,288
17	20.20 21.15	Beaver Creek New Raw Water Pump Station & Intake	\$4,138,000	\$6,022,000	\$298,000	\$200,000	\$500,000	\$5,780,000	\$3,072,000	\$310,000	\$10,160,000	\$8,846
18	20.22	Crozet Water Treatment Plant Expansion	\$8,500,000		\$8,044,000	\$456,000					\$8,500,000	\$1,238,717
19	21.03	Crozet Ground Storage Tank Leak Repair		\$100,000		\$100,000					\$100,000	
20	21.01	Buck's Elbow Tank and Waterball Painting		\$83,000						\$83,000	\$83,000	
		TOTAL	\$17,536,000	\$11,905,000	\$9,051,000	\$892,000	\$1,050,000	\$6,435,000	\$6,010,000	\$6,003,000	\$29,441,000	\$1,526,851

Scottsville Water System

The Scottsville Water System is comprised of the raw water conveyance, finished water treatment, transmission and storage infrastructure for the Town of Scottsville in southern Albemarle County. The source water for this system is the Totier Creek Intake, and the backup supply is the Totier Creek Reservoir, which was built in 1971 with a current useable capacity of 182 million gallons. Raw water is treated at the Scottsville Water Treatment Plant (0.25 mgd rated capacity) and provides finished water to the Albemarle County Service Authority. The system includes the Scottsville Storage Tank (0.25 MG).

Project Description:

21. Scottsville Water Treatment Plant LT2 Improvements: RWSA conducts routine regulatory sampling of the raw water from Totier Creek and Totier Creek Reservoir for compliance with the EPA Long Term 2 Enhanced Surface Water Treatment Rule (LT2). The rule provides risk based guidance on the needed level of treatment for the deactivation of microbial pathogens. This project includes the design and construction of additional of ultraviolet (UV) disinfection to the treatment process in Scottsville.
22. Scottsville Water Treatment Plant Lagoon Line Replacement: The Scottsville Water Treatment Plant has two waste lagoons that receive filter backwash water, filter-to-waste water and flow from the sedimentation basin sludge collectors. These basins also receive drainage flows from the flocculator and sedimentation basins. The lagoons were initially lined in 2007, but that liner has now reached the end of its useful life and is showing sections of wear and degradation. In order to maintain the integrity of the lagoons, new HDPE liners need to be installed.

Scottsville Water System

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
21	20.24	Scottsville Water Treatment Plant LT2 Improvements	\$100,000	\$60,000	\$100,000	\$60,000					\$160,000	
22	21.04	Scottsville Water Treatment Plant Lagoon Liner Replacement		\$315,000				\$140,000	\$175,000		\$315,000	
		TOTAL	\$100,000	\$375,000	\$100,000	\$60,000	\$0	\$140,000	\$175,000	\$0	\$475,000	\$0

Wastewater Interceptors/Pumping Stations

The RWSA wastewater interceptors and pumping stations convey wastewater from the collection systems of the City of Charlottesville and Albemarle County Service Authority to the Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF). This grouping includes: the Crozet Interceptor and four associated pumping stations; the Moores Creek Interceptor and Relief Sewer; the Morey Creek, Maury Hills, Powell Creek, Meadow Creek, Schenks Branch, Woodbrook and Rivanna Interceptors; as well as the Albemarle-Berkley Interceptor and associated Albemarle Pumping Station. Also included in this system are the two primary pump stations into the MCAWRRF, the Rivanna and Moores Creek Pump Stations.

Project Descriptions:

23. Upper Schenks Branch Interceptor: The Schenks Branch Interceptor is located in the eastern part of the City of Charlottesville and ties into the Meadowcreek Interceptor. The interceptor was constructed in the mid-1950s of 21-inch clay and concrete pipe. The existing interceptor is undersized to serve present and future wet weather flows as determined by the City, and is to be upgraded to 30-inch pipe. The Upper Schenks Branch Interceptor consists of two sections along McIntire Road. Both of these sections have been designed with the first phase of this project located in the City's Schenks Branch Greenway, completed in early 2016. The second phase of the Upper Schenks Interceptor will be replaced by RWSA in coordination with the City of Charlottesville's sewer upgrades once easement negotiations with Albemarle County are complete (or the City authorizes the second phase project be constructed under McIntire Road).
24. Interceptor Sewer and Manhole Repair – Phase 1: This project is used to conduct assessments of various interceptors as well as rehabilitation of interceptors that do not have a separate CIP project. Planned projects to complete Phase 1 include the continuation of rehabilitation efforts along the Morey Creek Interceptor, as well as evaluation of the Upper Rivanna Interceptor. Rehabilitation of the Moores Creek, Moores Creek Relief, Powell Creek, and Upper Rivanna Interceptors will take place during subsequent phases. A sewer rehabilitation contract has been developed under this project which procured a dedicated contractor for all evaluation and rehabilitation work. The intent of this project is to complete a condition assessment of all RWSA interceptors (except those replaced during the period with new pipe) by 2021 and complete this phase of repairs as defects are identified. Such periodic assessment of all sewer pipe reflects industry best practices and the maintenance expectations of federal and state regulators as a part of avoiding sanitary sewer overflows.
25. Crozet Interceptor: The Crozet Interceptor is located in western Albemarle County and serves the Crozet area. Flow metering indicated that the interceptor experienced substantial inflow and infiltration and requires rehabilitation. In order to minimize future infrastructure improvements, ACSA and RWSA have agreed to rehabilitate this interceptor and the sewers that flow to the interceptor. The initial phase of rehabilitation to repair defects in manholes and pipelines contributing to the inflow and infiltration in the interceptor upstream of Crozet Pump Station No. 4 has been completed. The current budget accounts for rehabilitation needs for the lower portions of the interceptor based upon previously completed condition assessments. While wet weather flows have moderately improved based on the initial phase of work, the

ACSA and RWSA continue to investigate and remediate deficiencies along the entire interceptor.

The force main component of the Crozet Interceptor was installed in 1986, and it conveys wastewater from Crozet to the RWSA Urban Wastewater system through an 18” ductile iron pipeline and a series of four (4) pumping stations. Air Release Valves (ARVs) are strategically placed along the force main in order to prevent air-locking and continue conveyance of wastewater at full capacity. Over time, several of the tapping saddles that allow the ARVs to be mounted to the force main have degraded, which could lead to the ARVs becoming separated from the force main and subsequent sanitary sewer overflows. The overall goal of this project is to replace the highest-priority ARVs and/or tapping saddles along the force main. This project is slated to start immediately after the Crozet Flow Equalization Tank (FET) has come online in March 2021. The FET will allow for the force main to be taken offline for up to two (2) days, permitting the ARV assembly repairs to be performed in a safe manner and in a more feasible timeframe.

26. Crozet Flow Equalization Tank: Rehabilitation work in the RWSA and ACSA sewer systems is on-going to meet the Inflow and Infiltration (I/I) reduction goals in the Crozet Interceptor. This is based on the flow metering and modeling results of the Comprehensive Sanitary Sewer Model & Study conducted in 2006 and as part of the Crozet Interceptor CIP project. The results of the 2006 study were updated in 2016 to evaluate I/I reduction goals and future capital project needs. The need to proceed with construction of a flow equalization tank in the Crozet area was confirmed as a result of this study update, which took in to account recent flow monitoring data that had been collected following previous I/I reduction efforts. Based on those results, a preliminary engineering evaluation and siting analysis of a flow equalization tank upstream of Crozet Pump Station No. 4 was completed to ensure that the facility could be designed, permitted, constructed and ready for operation to meet projected two-year storm flow targets.
27. Crozet Pump Station 1, 2, 3 Rehabilitation: The Crozet Interceptor Pump Stations were constructed in the 1980’s and many of the components are still original. This project includes the replacement of pumps and valves at Pump Station 2 in order to improve pumping capabilities at this location and provide spare parts for the pumps at Pump Station 1. It also includes roof replacements at all four pump stations, siding replacement for the wet well enclosure at Pump Station 3, and installation of new water wells at Pump Stations 3 and 4.
28. Albemarle-Berkley Pump Station Upgrade: The Albemarle-Berkeley Pump Station was constructed in 1975 and conveys flows from several Albemarle County Public Schools and other ACSA customers into RWSA’s gravity Albemarle-Berkeley Interceptor. Recently, the pump station’s run times have increased, with the pumps running nearly continuously for some periods. It is anticipated that much of the pumping infrastructure has reached or exceeded its expected lifespan, and that the equipment may be in need of replacement.
Under this project, staff will work with a consultant to perform a Capacity Analysis for the pump station, which will help quantify the current and future flows into the pump station, based upon the present and anticipated population served by the pump station. Once the capacity analysis is complete, staff will review the results, and utilize consultant assistance in order to

formulate a set of bidding documents that will include the installation of bypass pumping, demolition of the existing pump station, and construction of a new pumping station that is sized to meet the current and future flows as determined by the Capacity Analysis.

29. Albemarle-Berkley Pump Station – Basin Demolition: Historically, the Albemarle Berkley Pump Station was located adjacent to an open-air basin that occasionally collected sewage during power outages. With the addition of a back-up power generator, the basin no longer serves a technical purpose. Given the proximity of the deteriorating structure to school property, this project serves to demolish and fill the area of the existing basin to allow for a more beneficial use of the property. Preliminary design of the basin demolition began in Fall 2019, and the demolition is scheduled to be completed by Summer 2020.
30. Interceptor Sewer and Manhole Repair – Phase 2: This project is used to conduct assessments of various interceptors as well as rehabilitation of interceptors that do not have a separate CIP project. Phase 1 of the Interceptor Sewer and Manhole Repair Project included the completion the baseline evaluation of all RWSA interceptors (except those replaced with new pipe), as well as rehabilitation of the Upper Morey Creek Interceptor, and beginning of rehabilitation on the Lower Morey Creek and Powell Creek Interceptors. Planned projects for Phase 2 include continuation of rehabilitation on the Lower Morey Creek and Powell Creek Interceptors, as well as rehabilitation along the Moores Creek, Moores Creek Relief, and Upper Rivanna Interceptors. Similar to Phase 1, a sewer rehabilitation contract will be developed under this project in order to procure a dedicated contractor for any evaluation and rehabilitation work specified. Rehabilitation of existing sanitary sewer pipe and manholes reduces Inflow & Infiltration (I & I) in the system, thus reducing the chance for sanitary sewer overflows (SSOs) during high flow events.

Urban Wastewater Interceptors/Pumping Stations

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
23	20.25	Upper Schenks Branch Interceptor	\$3,985,000		\$120,000	\$3,180,000	\$685,000				\$3,985,000	\$11,187
24	20.26	Interceptor Sewer and Manhole Repair (Phase 1)	\$1,088,330		\$1,088,330						\$1,088,330	\$268,367
25	20.27 21.10	Crozet Interceptor	\$625,000	\$225,000	\$394,615	\$395,385	\$90,000				\$880,000	\$181,975
26	20.28	Crozet Flow Equalization Tank	\$4,860,000		\$4,860,000						\$4,860,000	\$255,319
27	20.30	Crozet Pump Station 1, 2, 3 Rehabilitation	\$545,000	\$45,000	\$295,000		\$45,000	\$205,000	\$45,000		\$590,000	
28	20.31	Alb. Berkley PS Upgrade		\$40,000						\$40,000	\$40,000	
29	20.32	Alb. Berkley PS - Basin Demolition	\$200,000			\$165,000	\$35,000				\$200,000	
30	21.07	Interceptor Sewer and Manhole Repair (Phase 2)		\$695,000						\$695,000	\$695,000	
		TOTAL	\$11,303,330	\$1,005,000	\$6,757,945	\$3,740,385	\$855,000	\$205,000	\$45,000	\$735,000	\$12,338,330	\$716,848

Moores Creek Advanced Water Resource Recovery Facility

The Moores Creek Advanced Water Resource Recovery Facility (MCAWRRF) is the largest wastewater treatment facility within the RWSA system. The plant was originally constructed in 1958 and upgraded and expanded in 1981 and 1982, and currently has a rated capacity of 15 mgd. From 2009 thru 2012 the facility was upgraded to provide enhanced nutrient removal, and increased wet weather pumping and treatment capacity. This site includes the infrastructure for the wastewater treatment process as well as the RWSA administration facilities.

Project Descriptions:

31. Moores Creek AWWRF Odor Control Phase 2: As part of the implementation of the next phase of the 2007 Odor Control Master Plan at the MCAWRRF, operations audits were performed, liquid and vapor phase sampling was conducted, and a computerized dispersion model was developed from 2013 to 2014. Recommendations for odor control improvements that would significantly control odors from traveling beyond the MCAWRRF fence line were presented to the RWSA Board of Directors in December 2014 and the CIP project was approved at the January 2015 Meeting, with subsequent increases due to project challenges. The final design for odor control improvements includes covering the head works and screening channels, installing grit facilities, constructing a bypass line through one equalization basin, covering the primary clarifiers, building additional odor scrubbing facilities to treat the foul air from the covered sources, removing the post-digestion clarifiers from service, modifying the handling, and hauling and storage of bio solids, all of which has been recently completed in Odor Control Improvements Project. The remaining odor control work included in the current CIP budget includes cleaning the equalization basins and holding ponds which is anticipated to be bid this spring and coating the interior of the digesters which is ongoing.
32. Moores Creek AWWRF Engineering and Administration Building: RWSA currently has its administrative headquarters in two buildings on the grounds of the Moores Creek Advanced Water Resource Recovery Facility. The two-story Administration Building was constructed in the early 1980's and houses offices, IT server space, meeting space and a full service laboratory. The second building is a series of four trailers installed in between 2003-2010 that house the engineering department. The Administration building is located at the head of the wastewater treatment plant and is surrounded by underground piping and process functions that may conflict with existing parking and/or the building in a future plant expansion. There is currently a need to house additional staff; increase office and meeting space; plan for the replacement of the trailers; bring the IT server workrooms to modern standards; provide classroom space for education outreach. This project is currently planned to begin after the completion of the MCAWRRF Master Plan is complete.
33. Moores Creek AWWRF Digester Sludge Storage Improvements: The sole sludge storage tank at the MCAWRRF was constructed in 1959 of reinforced concrete and is in need of repairs. The scope of work would include piping modifications, hydraulic improvements, tank safety improvements such as handrail and lights, and structural improvements to the existing sludge storage tank roof.

34. Moore's Creek AWWRF Aluminum Slide Gate Replacement: Several large aluminum slide gates are located at the influent side of the Moore's Creek Pump Station. These gates allow staff to stop or divert flow to perform maintenance activities. After repeated attempts to access and repair the gates, it is now necessary to replace and modify the gate arrangement. The replacement includes new gates for greater flexibility and resiliency as well as significant flow bypass pumping. Likewise, there are several gates at the Ultraviolet disinfection facility that leak water, causing a reduced capacity of the facility. Replacement of these gates will restore the process to full capacity. Two additional gates in the holding pond pump station from the original 1977 Moore's Creek facility construction are broken and non-operational and will be replaced as part of this work. In addition, motor operated valves at the headworks will improve wet weather operations related to the new grit facility.
35. Moore's Creek AWWRF Master Plan: The majority of the Moore's Creek Water Resource Recovery Facility was constructed in the early 1980's. At the time, the plant layout was developed with space held open for future process expansion. With the Enhanced Nutrient Removal (ENR) project in 2009, the operation and layout of the plant was fundamentally altered, as needed to meet the new regulation. The project did anticipate the need for future expansion and some of the processes have readily available space. However, a full expansion plan was not developed at the time. As identified in the Strategic Plan, the Authority has a goal to plan, deliver and maintain dependable infrastructure in a financially responsible manner. Staff has identified asset master planning as a priority strategy to improve overall system development. As such, this project will serve to evaluate and plan for future space and process needs to accommodate capacity expansion and/or anticipated regulatory changes.
36. Moore's Creek AWWRF Mechanical Thickener: During the design of the Moore's Creek AWWRF Phase 2 Odor Control project, the consultants conducted a detailed evaluation of all facility odor sources. One of the key sources identified, was the post-digestion clarifiers. These clarifiers are two round open-topped tanks of digested wastewater sludge, located on the north side of the plant. During the ENR upgrade, the characteristics of the post-aeration sludge changed. This change has led to less predictable sludge handling through the existing gravity thickeners. This change in the post-aeration sludge characteristics has made obtaining a clear thickener overflow more difficult without chemical addition. Removing the post-digestion clarifiers from service combined with solids carryover from the existing gravity thickeners create a number of downstream consequences in primary clarification, sludge digestion and solids dewatering. Removing these facilities from service reduces the sludge thickness and therefore the plant's ability to adequately process it. This project includes the design and installation of a mechanical thickener prior to digestion that will increase plant solids processing reliability and capacity.
37. Moore's Creek AWWRF Compost Shed Roof Rehabilitation: In the early 1980's a large metal-framed shed roof was constructed to house the biosolids composting operations. Subsequent to stopping composting at Moore's Creek AWWRF, the shed serves as an equipment maintenance yard, solids handling facility and material storage lock-up. The shed roof is exhibiting signs of rafter deterioration and ongoing drainage issues. This project will evaluate and perform remediation needs at this facility.

38. Moore's Creek AWWRF Gas Sphere Rehabilitation: The gas sphere was constructed in 1980 and is used to house pressurized methane gas as part of the boiler and cogeneration system at the plant. The sphere was inspected in 2005 and it was determined that the coating system was near the end of its serviceable life and the tank should be recoated in addition to some minor grout repairs and safety improvements. This project will include additional inspections to update the needed improvements, a recoating of the exterior of the tank, repairs to the grout around the concrete ring wall, installation of a safety climb on the exterior of the tank and other minor repairs.
39. Moore's Creek AWWRF Cogeneration Upgrades: The MCAWWRF has an existing cogeneration facility that was constructed in 2011. The purpose of the facility was to provide a beneficial purpose for using the gas produced by the digester process at the plant, and in doing so provide both process heating fluid to the digester tanks and electrical energy to the plant's electrical distribution system. Unfortunately, the existing cogeneration facility requires expensive recurring maintenance services, has proprietary equipment which further complicates servicing needs, and has had a number of operational issues that have impeded the benefit this facility was intended to provide. As a result, a Cogeneration System Analysis was performed to determine a recommended approach for proceeding with improvements to the existing facility, installation of a new cogeneration facility without the issues of the previous facility or removing the cogeneration facility altogether and providing a backup boiler. This project includes costs of installation of a new cogeneration facility as described in the Cogeneration System Analysis.
40. Moore's Creek AWWRF Maintenance Building Space: The Moore's Creek Maintenance Department facilities are undersized to serve the current staffing; parts storage and oil and grease storage needs. The Moore's Creek Master Plan is currently evaluating plant needs into the future and will provide specific recommendations for the Maintenance Department. Preliminarily, this project will increase personal spaces such as offices and a locker room. Additionally, the project will construct a new oil and grease storage facility that will meet all current best practices for safety and fire suppression. Lastly, the project will address the need for additional conditioned parts storage.
41. Moore's Creek AWWRF Structural Modifications: The aeration basins located at Moore's Creek are a series of chambers that each have uniquely controlled oxygen and nutrient loading conditions. Mid way thru the basins are ten nitrogen recycle (NCRY) pumps. Due to the corrosive atmosphere, these submersed pumps require being pulled and rebuilt frequently. To remove the pumps, staff must currently hire a long boom crane. This project will provide the means to pull, move, and load the pumps during maintenance activities.

Two of the six pumps in the New Rivanna Pump Station are smaller and were designed to be replaced if future average day flows warrant increased capacity. The current configuration resulted in several valves being located approximately 40 feet above the pump floor level. Valve maintenance activities have been challenging due to their height. A project is proposed to install a catwalk from the upper mezzanine level to each valve to provide a safer, walkable access to each valve.

42. Moore's Creek AWWRF In-plant Clarifier and Lime Silo Demolition: The two in-plant clarifiers were constructed in the late 1950's and were taken out of service as a result of the Odor Control Project at the plant. Due to the age of the tanks, various components have significantly deteriorated over time and no additional uses for these tanks have been identified. In addition, due to their out-of-service status, they remain empty and a safety concern for plant staff and visitors. There is also an abandoned lime silo currently located adjacent to the Solids Handling Building. Lime was previously used with the old plat and frame presses before centrifuges were installed for sludge dewatering purposes. This project will include the complete demolition of the in-plant clarifiers by removing all existing components, backfilling the area and returning the area to open space and removing the lime silo from the plant and properly disposing of it.
43. Moore's Creek AWWRF Generator Fuel Storage Expansion: The Moore's Creek AWWRF south side electrical facilities have a single large system back-up power generator that was installed between 2009-2012 during the ENR plant upgrade. The generator has a belly tank that allows for approximately 22 hours of operation. This project will install an ancillary fuel tank that will allow for approximately three days of operation.
44. Moore's Creek AWWRF Meter and Valve Replacements: As part of the Odor Control Phase II Project, the post digestion clarifiers were eliminated from use and the gravity thickener overflow was diverted through existing piping directly to the Moore's Creek Pump Station at the head of the treatment facility. This resulted in less odor generation, however, the gravity thickener overflow lost its metering location at the post digestion clarifiers. A new metering manhole location was installed near the Moore's Creek Pump Station where several plant recycle flows come together. Unfortunately, this meter location has been problematic and is subject to backwater flows from the pump station and meter fouling from grease and solids. This project involves installation of individual meters on each recycle flow at locations that will provide less operation and maintenance problems.

The circulation of Waste Activated Sludge (WAS) and Return Activated Sludge (RAS) is important in the wastewater process to maintain a healthy balance of microorganisms. The existing WAS and RAS flow meters are original to the 1980's construction of the facility and are nearly 40 years old. These meters can no longer be calibrated and replacement parts are not available. Replacement of these meters is necessary for process and operational efficiency.

45. Moore's Creek AWWRF Facility Renovations: The RWSA Administration Building Board Room finishes are generally original to the facility. The proposed project will update the wall and floor coverings, alter the shelving and update the room furnishings in order to create a more modern and useable meeting space.

The Duty Pump Station was constructed in 1958 and no longer functions as an actual pump station. It currently houses electrical equipment that serves the plant, but otherwise has available space that could be beneficially used for other purposes. RWSA has a need for additional office space and has evaluated repurposing portions of the Duty Pump Station for office and work space in order to make use of all available space at the plant before proceeding with more significant administrative expansions. This project includes demolition of a select

portion of the interior of the station, cleaning and sanitizing of the areas to be repurposed, and an interior upfit of the space to provide additional office and work space.

46. Moore's Creek AWRRF 5kV Electrical System Upgrade: Much of the original 5kV wire at Moore's Creek AWRRF was replaced with the Enhanced Nutrient Removal (ENR) Upgrades and the New Rivanna Pump Station Project and brought up to current codes. Several portions of the original 50 year old wire and switchgear remain in the blower building and feed critical portions of the facility. This project will replace the remaining 5kV wire and increase the reliability of the facility.
47. Moore's Creek AWRRF Lighting Upgrade: The lighting at the 80-acre MCAWRRF consists of over 300 fixtures installed over the entire life of the facilities presence at Moore's Creek. In 2019, Albemarle County investigated the lighting plan at the facility and issued a Zoning Notice of Violation.

RWSA and Albemarle County staff have been working together to best address the issue. A photo metric plan of existing lighting was submitted to the county for review. RWSA is currently compiling a minor site plan amendment and Architectural Review Board submission that will include a large scale replacement of non-compliant fixtures as well as address industrial lighting standards for the entire facility.

Moores Creek Advanced Water Resource Recovery Facility

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
31	20.33	Moores Creek AWRRF Odor Control - Phase 2	\$2,216,632		\$2,216,632						\$2,216,632	\$1,000,530
32	20.34	Moores Creek AWRRF Engineering and Administration Building		\$250,000					\$250,000		\$250,000	
33	20.35	Moores Creek AWRRF Digester Sludge Storage Improvements	\$313,000	\$237,000	\$265,000	\$285,000					\$550,000	
34	20.36	Moores Creek AWRRF Aluminum Slide Gate Replacements	\$470,000	\$205,000	\$470,000	\$205,000					\$675,000	\$6,853
35	20.37	Moores Creek AWRRF Master Plan	\$250,000	\$25,000	\$75,000	\$200,000					\$275,000	
36	20.38	Moores Creek AWRRF Mechanical Thickener Improvement		\$100,000						\$100,000	\$100,000	
37	20.39	Moores Creek AWRRF Compost Shed Roof Rehabilitation	\$200,000				\$200,000				\$200,000	
38	20.40	Moores Creek AWRRF Gas Sphere Rehabilitation		\$80,000						\$80,000	\$80,000	
39	20.67	Moores Creek AWRRF Cogeneration Upgrades		\$1,865,000		\$245,000	\$1,620,000				\$1,865,000	
40	20.68	Moores Creek AWRRF Maintenance Building		\$105,000						\$105,000	\$105,000	
41	20.69 21.06	Moores Creek AWRRF Structural Modifications		\$575,000				\$350,000	\$225,000		\$575,000	
42	21.05	Moores Creek AWRRF In-plant Clarifier and Lime Silo Demolition		\$655,000		\$185,000	\$470,000				\$655,000	

Moores Creek Advanced Water Resource Recovery Facility (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
43	21.09	Moores Creek AWWRF Generator Fuel Storage Expansion		\$100,000		\$100,000					\$100,000	
44	21.11 21.17	Moores Creek AWWRF Meter and Valve Replacements		\$660,000		\$380,000	\$120,000	\$160,000			\$660,000	
45	21.13 21.20	Moores Creek AWWRF Facility Renovations		\$375,000		\$375,000					\$375,000	
46	21.18	Moores Creek AWWRF 5kV Electrical System Upgrade		\$500,000						\$500,000	\$500,000	
47	21.21	Moores Creek AWWRF Lighting Upgrade		\$1,000,000		\$1,000,000					\$1,000,000	
		TOTAL	\$3,449,632	\$6,732,000	\$3,026,632	\$2,975,000	\$2,410,000	\$510,000	\$475,000	\$785,000	\$10,181,632	\$1,007,383

Scottsville Wastewater System

The Scottsville Wastewater System includes the influent pumping station, the water resource recovery facility constructed in 1983, and the historical treatment lagoon (now incorporated into the plant operation). The water resource recovery facility has a rated capacity of 0.2 mgd.

Project Descriptions:

48. Scottsville WRRF Grinder and Air Control Improvements: This project will evaluate methods to automate air control for the biological treatment process. The current method of air control produces inconsistent results, adversely impacting treatment and operations.
49. Scottsville WRRF Whole Plant Generator and ATS: The current back-up power generator at the Scottsville Water Treatment Plant does not power the entire plant, serving only the facilities needed to send flow to the lagoons. This project will provide for a plant-wide generator and automatic transfer switch. This project will offer greater treatment flexibility and monitoring capability for the operations staff; particularly when the plant is unmanned and monitored remotely.

Scottsville Water Resource Recovery Facility

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
48	20.41	Scottsville WRRF Air Control Improvements	\$210,000		\$65,000	\$145,000					\$210,000	
49	20.42	Scottsville WRRF Whole Plant Generator and ATS		\$125,000				\$125,000			\$125,000	
		TOTAL	\$210,000	\$125,000	\$65,000	\$145,000	\$0	\$125,000	\$0	\$0	\$335,000	\$0

Glenmore Wastewater System

The 0.381-mgd water resource recovery facility, located within the Glenmore subdivision, is operated by RWSA. The facility includes an influent pumping station located immediately adjacent to the treatment facility.

Project Descriptions:

50. Glenmore WRRF Influent Pump & VFD Addition: The Glenmore WRRF is predicted to see additional dry and wet weather flows as construction within the service area continues. Future wet weather flows will require higher influent pumping capacity and an additional pump and electrical variable frequency drive will be required to maintain firm capacity.

Glenmore Water Resource Recovery Facility

			Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
Line No.		Project Description	Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
50	20.42	Glenmore WRRF Influent Pump and VFD Addition	\$65,000			\$65,000					\$65,000	
		TOTAL	\$65,000	\$0	\$0	\$65,000	\$0	\$0	\$0	\$0	\$65,000	\$0

All Systems

Project Descriptions:

51. Radio Upgrades: The regional 800 MHz Public Safety Communication System, in which the Rivanna Water and Sewer Authority participates to provide internal and emergency radio communication, is nearing the end of its service life. Because of technology changes (software and hardware) the Charlottesville-UVA-Albemarle County Emergency Communications Center (ECC) will need to upgrade or replace the system to keep it useable. This project plans for the upgrade or replacement of major technology components and equipment of the existing system include: electronic components at all tower sites and the prime site at the ECC facility; new console equipment at the regional ECC; equipment such as tower site generators and UPS systems; an additional tower site (to improve service in southern Albemarle County); microwave backbone; and replacement of the system recording facilities. RWSA is being apportioned a part of the \$18.8M project cost proportionately based on the number of radios (2.4% of the total project cost). In addition to this assessment from the ECC, the Authority will also be required to undertake upgrades to its fleet of portable radios.
52. Asset Management: Asset management is the practice of managing our infrastructure to minimize the total cost of owning and operating these assets while providing desired service levels. In doing so, it is used to make sure planned maintenance activities take place and that capital assets are replaced, repaired or upgraded at the right time, while ensuring that the resources necessary to perform those activities is available. RWSA has some components of an asset management program in place (i.e. GIS, work order system), but has identified the need to further develop the program as part of our Strategic Planning process. In order to continue to build the program, a consultant was procured to assist with a three-phase process that will include facilitation and development of an asset management strategic plan, development and management of a pilot study where the results of the strategic plan will be applied to a specific facility, and assistance through a full implementation process. Procurement of a software package to facilitate the overall program are also included in this project.
53. Security Enhancements: As required by the federal Bioterrorism Act of 2002, water utilities must conduct vulnerability assessments (VA) and have emergency response plans. RWSA recently completed a VA of its water system in collaboration with other regional partners and identified a number of security improvements that could be applied to both its water and wastewater systems. The purpose of this project will be to install security improvements at RWSA facilities such as an enhanced access control program, industrial strength door and window components, security gate and fencing modifications, an improved lock and key program, facility signage, closed circuit television (CCTV) enhancements, intrusion detection systems (IDS), additional security lighting, mass emergency notification systems, and emergency call stations/panic buttons. In order to implement an access control system at Authority-owned facilities, staff has procured an Implementer that will finalize system design/requirements, procure all necessary equipment, and install the chosen system. Implementation of the access control system at Authority-owned facilities began in Winter 2019-2020.

54. IT Master Plan – Software: Staff is currently updating an IT Master Plan which assessed and benchmarked current software and business practices. Work is currently underway to reconfigure the Network infrastructure and to install and implement major software initiatives. This project will continue to address those Authority wide needs.

All Systems

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
51	20.44	Radio Upgrades	\$646,000	(\$246,000)	\$521,000	(\$121,000)					\$400,000	\$75,352
52	20.45	Asset Management	\$500,000	\$615,000	\$300,000	\$435,000	\$215,000	\$130,000	\$35,000		\$1,115,000	\$92,285
53	20.46	Security Enhancements	\$1,000,000	\$1,730,000	\$1,000,000	\$550,000	\$115,000	\$510,000	\$515,000	\$40,000	\$2,730,000	
54	20.47	IT Master Plan - Software	\$450,000		\$150,000	\$150,000	\$150,000				\$450,000	
		TOTAL	\$2,596,000	\$2,099,000	\$1,971,000	\$1,014,000	\$480,000	\$640,000	\$550,000	\$40,000	\$4,695,000	\$167,637

APPENDICES

CIP Financial Summary

Water System Summary

Wastewater System Summary

All Systems Summary

CIP Financial Summary

Line No.	Proj. No.	Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
1	20.01	South Rivanna Reservoir to Ragged Mountain Reservoir Water Line Right-of-Way	\$2,295,000	\$0	\$1,710,249	\$584,751					\$2,295,000	\$301,054
2	20.02	South Rivanna Reservoir Dredging	\$10,000	(\$10,000)	\$0						\$0	\$0
3	20.03	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line	\$3,217,000	\$4,280,000	\$0		\$325,000	\$1,186,000	\$1,706,000	\$4,280,000	\$7,497,000	\$0
4	20.04	Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Pump Station	\$660,000	\$1,890,000	\$0		\$210,000	\$320,000	\$510,000	\$1,510,000	\$2,550,000	\$0
5	20.06	Observatory Water Treatment Plant Improvements	\$19,700,000	\$6,300,000	\$2,648,198	\$5,051,802	\$14,700,000	\$3,600,000			\$26,000,000	\$618,880
6	20.07	Sugar Hollow Dam Rubber Crest Gate Replacement	\$1,140,000	\$560,000	\$470,000	\$760,000	\$470,000				\$1,700,000	\$0
7	20.08	Valve Repair & Replacement (Phase 2)	\$882,914	\$250,000	\$1,132,914						\$1,132,914	\$154,218
8	20.10	Central Water Line	\$2,100,000	\$2,850,000	\$1,375,000				\$725,000	\$2,850,000	\$4,950,000	\$137,749
9	20.12	South Fork Rivanna River Crossing	\$5,340,000	(\$2,540,000)	\$0	\$260,000	\$922,000	\$1,618,000			\$2,800,000	\$0
10	20.13	Airport Rd. Pump Station and North Rivanna Transmission Main	\$2,300,000	\$3,550,000	\$201,000	\$1,574,000	\$3,200,000	\$875,000			\$5,850,000	\$0
11	20.14	Finished Water System Master Plan	\$253,000	\$0	\$253,000						\$253,000	\$20,307

CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
12	20.15	South Rivanna Hydropower Plant Decommissioning	\$725,000	\$0	\$725,000						\$725,000	\$127,081
13	20.16	South Rivanna Water Treatment Plant Improvements	\$15,000,000	\$2,000,000	\$8,046,415	\$7,353,585	\$1,600,000				\$17,000,000	\$619,031
14	20.17	South Rivanna Dam - Gate Repairs	\$900,000	\$0	\$900,000						\$900,000	\$0
15	20.18	North Rivanna Water Treatment Plant Upgrade	\$2,325,000	(\$1,000,000)	\$385,000		\$940,000				\$1,325,000	\$0
16	20.19	Beaver Creek Dam Alteration	\$4,898,000	\$5,700,000	\$709,000	\$136,000	\$550,000	\$655,000	\$2,938,000	\$5,610,000	\$10,598,000	\$279,288
17	20.20 21.15	Beaver Creek New Raw Water Pump Station & Intake	\$4,138,000	\$6,022,000	\$298,000	\$200,000	\$500,000	\$5,780,000	\$3,072,000	\$310,000	\$10,160,000	\$8,846
18	20.22	Crozet Water Treatment Plant Expansion	\$8,500,000	\$0	\$8,044,000	\$456,000					\$8,500,000	\$1,238,717
19	21.03	Crozet Ground Storage Tank Leak Repair	\$0	\$100,000	\$0	\$100,000					\$100,000	\$0
20	21.01	Buck's Elbow Tank and Waterball Painting	\$0	\$83,000	\$0					\$83,000	\$83,000	\$0
21	20.24	Scottsville Water Treatment Plant LT2 Improvements	\$100,000	\$60,000	\$100,000	\$60,000					\$160,000	\$0
22	21.04	Scottsville Water Treatment Plant Lagoon Liner Replacement	\$0	\$315,000	\$0			\$140,000	\$175,000		\$315,000	\$0
23	20.25	Upper Schenks Branch Interceptor	\$3,985,000	\$0	\$120,000	\$3,180,000	\$685,000				\$3,985,000	\$11,187

CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
24	20.26	Interceptor Sewer and Manhole Repair - Phs 1	\$1,088,330	\$0	\$1,088,330						\$1,088,330	\$268,367
25	20.27 21.10	Crozet Interceptor	\$625,000	\$225,000	\$394,615	\$395,385	\$90,000				\$880,000	\$181,975
26	20.28	Crozet Flow Equalization Tank	\$4,860,000	\$0	\$4,860,000						\$4,860,000	\$255,319
27	20.30	Crozet Pump Station 1, 2, 3 Rehabilitation	\$545,000	\$45,000	\$295,000		\$45,000	\$205,000	\$45,000		\$590,000	\$0
28	20.31	Alb. Berkley Pump Station Upgrade	\$0	\$40,000	\$0					\$40,000	\$40,000	\$0
29	20.32	Alb. Berkley Pump Station - Basin Demolition	\$200,000		\$0	\$165,000	\$35,000				\$200,000	\$0
30	21.07	Interceptor Sewer and Manhole Repair - Phs 2	\$0	\$695,000	\$0					\$695,000	\$695,000	\$0
31	20.33	Moore's Creek AWWRF Odor Control Phase 2	\$2,216,632	\$0	\$2,216,632						\$2,216,632	\$1,000,530
32	20.34	Moore's Creek AWWRF Engineering and Administration Building	\$0	\$250,000	\$0				\$250,000		\$250,000	\$0
33	20.35	Moore's Creek AWWRF Digester Sludge Storage Improvements	\$313,000	\$237,000	\$265,000	\$285,000					\$550,000	\$0
34	20.36	Moore's Creek AWWRF Aluminum Slide Gate Replacements	\$470,000	\$205,000	\$470,000	\$205,000					\$675,000	\$6,853

CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
35	20.37	Moores Creek AWWRF Master Plan	\$250,000	\$25,000	\$75,000	\$200,000					\$275,000	\$0
36	20.38	Moores Creek AWWRF Mechanical Thickener Improvement	\$0	\$100,000	\$0					\$100,000	\$100,000	\$0
37	20.39	Moores Creek AWWRF Compost Shed Roof Rehabilitation	\$200,000		\$0		\$200,000				\$200,000	\$0
38	20.40	Moores Creek AWWRF Gas Sphere Rehabilitation	\$0	\$80,000	\$0					\$80,000	\$80,000	\$0
39	20.67	Moores Creek AWWRF Cogeneration Upgrades	\$0	\$1,865,000	\$0	\$245,000	\$1,620,000				\$1,865,000	\$0
40	20.68	Moores Creek AWWRF Maintenance Building	\$0	\$105,000	\$0					\$105,000	\$105,000	\$0
41	20.69 21.06	Moores Creek AWWRF Structural Modifications	\$0	\$575,000	\$0			\$350,000	\$225,000		\$575,000	\$0
42	21.05	Moores Creek AWWRF In-plant Clarifier and Lime Silo Demolition	\$0	\$655,000	\$0	\$185,000	\$470,000				\$655,000	\$0
43	21.09	Moores Creek AWWRF Generator Fuel Storage Expansion	\$0	\$100,000	\$0	\$100,000					\$100,000	\$0
44	21.11 21.17	Moores Creek AWWRF Meter and Valve Replacements	\$0	\$660,000	\$0	\$380,000	\$120,000	\$160,000			\$660,000	\$0
45	21.13 21.20	Moores Creek AWWRF Facility Renovations	\$0	\$375,000	\$0	\$375,000					\$375,000	\$0
46	21.18	Moores Creek AWWRF 5kV Electrical System Upgrade	\$0	\$500,000	\$0					\$500,000	\$500,000	\$0

CIP Financial Summary (Continued)

Line No.		Project Description	Five-Year Capital Program			Projected Future Expenses by Year					Recommended CIP	Work-in-Progress (Prev. Expenses 6/30/2019)
			Current CIP Adopted 5/2019	Proposed Changes	Current Capital Budget	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025		
47	21.21	Moore's Creek AWWRF Lighting Upgrade	\$0	\$1,000,000	\$0	\$1,000,000					\$1,000,000	\$0
48	20.41	Scottsville WRRF Air Control Improvements	\$210,000		\$65,000	\$145,000					\$210,000	\$0
49	21.12	Scottsville WRRF Whole Plant Generator and ATS	\$0	\$125,000	\$0			\$125,000			\$125,000	\$0
50	20.42	Glenmore WRRF Influent Pump & VFD Addition	\$65,000	\$0	\$0	\$65,000					\$65,000	\$0
51	20.44	Radio Upgrades	\$646,000	(\$246,000)	\$521,000	(\$121,000)					\$400,000	\$75,352
52	20.45	Asset Management	\$500,000	\$615,000	\$300,000	\$435,000	\$215,000	\$130,000	\$35,000		\$1,115,000	\$92,285
53	20.46	Security Enhancements	\$1,000,000	\$1,730,000	\$1,000,000	\$550,000	\$115,000	\$510,000	\$515,000	\$40,000	\$2,730,000	\$0
54	20.47	IT Master Plan - Software	\$450,000	\$0	\$150,000	\$150,000	\$150,000				\$450,000	\$0
Total			\$92,107,876	\$40,371,000	\$38,818,353	\$24,475,523	\$27,162,000	\$15,654,000	\$10,196,000	\$16,203,000	\$132,508,876	\$5,397,039

Water System Summary

	Summary			Projected Future Expenses by Year						
Urban Water System	Current CIP	Proposed Changes	Current Capital Budget	FY21	FY22	FY23	FY24	FY25	Recommended CIP	Work-in -Progress
PROJECT COSTS										
Community Water Supply Plan	\$ 10,182,000	\$ 6,160,000	\$ 1,710,249	\$ 584,751	\$ 535,000	\$ 1,506,000	\$ 2,216,000	\$ 5,790,000	\$ 12,342,000	\$ 301,054
Observatory WTP/Ragged Mtn/Sugar Hollow Systems	20,840,000	6,860,000	3,118,198	5,811,802	15,170,000	3,600,000	-	-	27,700,000	618,880
Finished Water Storage/Distribution - Urban System	11,529,914	4,238,000	2,961,914	1,834,000	4,122,000	2,493,000	725,000	2,850,000	14,985,914	312,274
South & North Fork Rivanna WTP and Reservoir System	18,950,000	2,000,000	10,056,415	7,353,585	2,540,000	-	-	-	19,950,000	746,112
Total Projects Urban Water Systems	\$ 61,501,914	\$ 19,258,000	\$ 17,846,776	\$ 15,584,138	\$ 22,367,000	\$ 7,599,000	\$ 2,941,000	\$ 8,640,000	\$ 74,977,914	\$ 1,978,320
FUNDING SOURCES URBAN SYSTEM - TO DATE										
Work-in-Progress			\$ 1,978,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,978,300	
Debt Proceeds Available 2015B			14,838,000	-	-	-	-	-	14,838,000	
Capital Funds Available			1,030,476	2,162,524	-	-	-	-	3,193,000	
SUBTOTAL			17,846,776	2,162,524	-	-	-	-	20,009,300	
FUNDING SOURCES URBAN SYSTEM - NEEDS										
Future Cash reserve transfer to Capital Fund				\$ 1,000,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 500,000	\$ 6,000,000	
New Debt Needed			-	12,421,614	20,867,000	6,099,000	1,441,000	8,140,000	48,968,614	
SUBTOTAL			-	13,421,614	22,367,000	7,599,000	2,941,000	8,640,000	54,968,614	
TOTAL URBAN WATER FUNDING			\$ 17,846,776	\$ 15,584,138	\$ 22,367,000	\$ 7,599,000	\$ 2,941,000	\$ 8,640,000	\$ 74,977,914	
									\$74,977,914	
Estimated Bond Issues					\$33,288,600		\$15,680,000			

	Summary			Projected Future Expenses by Year						
Non-Urban Water System	Current CIP	Proposed Changes	Current Capital Budget	FY21	FY22	FY23	FY24	FY25	Recommended CIP	Work-in -Progress
PROJECT COSTS										
Crozet Water System	\$ 17,723,000	\$ 11,957,000	\$ 9,051,000	\$ 892,000	\$ 1,050,000	\$ 6,435,000	\$ 6,010,000	\$ 6,003,000	\$ 29,441,000	\$ 1,526,851
Scottsville Water System	245,000	655,000	100,000	60,000	-	140,000	175,000	-	475,000	5,485
Total Rural Water Systems	\$ 17,968,000	\$ 12,612,000	\$ 9,151,000	\$ 952,000	\$ 1,050,000	\$ 6,575,000	\$ 6,185,000	\$ 6,003,000	\$ 29,916,000	\$ 1,532,336
Non-URBAN FUNDING SOURCES										
Work in Progress			\$ 1,532,300	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,532,300	
Capital Funds Available			\$ 334,300						334,300	
Debt Proceeds 2018 Bond			7,284,400	952,000	1,050,000	1,641,701	-	-	10,928,101	
Future Cash reserve transfer to Capital Fund				280,000	170,000	100,000	100,000	100,000	750,000	
New Debt Needed			-	(280,000)	(170,000)	4,833,299	6,085,000	5,903,000	16,371,299	
TOTAL NON-URBAN WATER FUNDING			\$ 9,151,000	\$ 952,000	\$ 1,050,000	\$ 6,575,000	\$ 6,185,000	\$ 6,003,000	\$ 29,916,000	
Estimated Bond Issues				\$ (450,000)			16,821,300			

Wastewater System Summary

	Summary			Projected Future Expenses by Year					
Urban Wastewater System	Current CIP	Proposed Changes	Current Capital Budget	FY21	FY22	FY23	FY24	FY25	Recommended CIP
PROJECT COSTS									
Wastewater Interceptor/Pumping Stations	\$ 11,303,330	\$ 1,290,000	\$ 6,757,945	\$ 3,740,385	\$ 855,000	\$ 205,000	\$ 45,000	\$ 735,000	\$ 12,338,330
Moores Creek WWTP	3,449,632	7,782,000	3,026,632	2,975,000	2,410,000	510,000	475,000	785,000	10,181,632
Total Urban Wastewater Systems	\$ 14,752,962	\$ 9,072,000	\$9,784,577	\$6,715,385	\$3,265,000	\$715,000	\$520,000	\$1,520,000	\$22,519,962
FUNDING SOURCES URBAN SYSTEM - IN PLACE									
Work-in-Progress			\$ 1,724,231	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,724,231
Debt Proceeds - 2018			3,722,700	-	-	-	-	-	3,722,700
Capital Funds Available			4,089,000	-	-	-	-	-	4,089,000
SUBTOTAL			9,535,931	-	-	-	-	-	9,535,931
FUNDING SOURCES URBAN SYSTEM - NEEDS									
Future Cash Reserves			\$ -	\$ 1,500,000	\$ 1,000,000	\$ 500,000	\$ 500,000	\$ -	\$ 3,500,000
New Debt Needed			248,646	5,215,385	2,265,000	215,000	20,000	1,520,000	9,484,031
SUBTOTAL			248,646	\$6,715,385	3,265,000	715,000	520,000	1,520,000	12,984,031
TOTAL URBAN WASTEWATER FUNDING			\$ 9,784,577	\$ 6,715,385	\$ 3,265,000	\$ 715,000	\$ 520,000	\$ 1,520,000	\$ 22,519,962
Estimated Bond Issues					\$ 7,729,000		\$ 1,755,000		\$ 9,484,000

	Summary			Projected Future Expenses by Year						
Non-Urban Wastewater System	Current CIP	Proposed Changes	Current Capital Budget	FY21	FY22	FY23	FY24	FY25	Recommended CIP	Work-in - Progress
PROJECT COSTS										
Glenmore WWTP	\$ 175,000	\$ 50,000	\$ -	\$ 65,000	\$ -	\$ -	\$ -	\$ -	\$ 65,000	\$ -
Scottsville WWTP	210,000	125,000	65,000	145,000	-	125,000	-	-	335,000	-
Total Rural Wastewater Systems	\$385,000	\$175,000	\$ 65,000	\$ 210,000	\$ -	\$ 125,000	\$ -	\$ -	\$ 400,000	\$ -
FUNDING SOURCES RURAL SYSTEM - NEEDS										
Capital Funds Available			\$ 46,000	\$ -					46,000	
Future Cash Reserve			-	100,000	-	-			100,000	
New Debt Needed			19,000	110,000	-	125,000	-	-	254,000	
TOTAL RURAL WASTEWATER FUNDING			\$ 65,000	\$ 210,000	\$ -	\$ 125,000	\$ -	\$ -	\$ 400,000	
Estimated Bond Issues					\$ 254,000					

All Systems Summary

	Summary			Projected Future Expenses by Year						
Shared Projects - All Rate Centers	Current CIP	Proposed Changes	Current Capital Budget	FY21	FY22	FY23	FY24	FY25	Recommended CIP	Work-in - Progress
PROJECT COSTS										
Asset management/Security/IT Master Plan	\$ 2,596,000	\$ 2,099,000	\$ 1,971,000	\$ 1,014,000	\$ 480,000	\$ 640,000	\$ 550,000	\$ 40,000	\$ 4,695,000	\$ 167,637
Total Projects Urban Water Systems	\$ 2,596,000	\$ 2,099,000	\$ 1,971,000	\$ 1,014,000	\$ 480,000	\$ 640,000	\$ 550,000	\$ 40,000	\$ 4,695,000	\$ 167,637
Completed or Closed Projects	-	-								
FUNDING SOURCES										
Work in Progress			\$167,637						\$ 167,637	
Possible Future Reserves			\$200,000	\$100,000					\$300,000	
New Debt Needed			\$ 1,603,363	\$ 914,000	\$ 480,000	\$ 640,000	\$ 550,000	\$ 40,000	\$ 4,227,363	
									-	
TOTAL URBAN WATER FUNDING			\$ 1,971,000	\$ 1,014,000	\$ 480,000	\$ 640,000	\$ 550,000	\$ 40,000	\$ 4,695,000	
Estimated Bond Issues					\$4,227,363					

	2021 - 2025 <i>Draft Proposed</i> <u>CIP</u>	2020 - 2024 <i>Adopted</i> <u>CIP</u>	<u>Change \$</u>
<u>Project Cost</u>			
Urban Water Projects	\$ 74,977,900	\$ 61,501,900	\$ 13,476,000
Urban Wastewater Projects	22,520,000	14,753,000	7,767,000
Non-Urban Projects & Shared	35,011,000	20,949,000	14,062,000
Total Project Cost Estimates	\$ 132,508,900	\$ 97,203,900	\$ 35,305,000
<u>Funding in place</u>			
Work-in-Progress (paid for)	\$ 5,402,500	\$ 2,943,110	2,459,390
Debt Proceeds Used	29,488,800	35,354,000	(5,865,200)
Cash-Capital Available	7,686,300	6,767,470	918,830
	\$ 42,577,600	\$ 45,064,580	\$ (2,486,980)
<u>Financing Needs</u>			
Possible Future Reserves	\$ 10,630,000	7,530,000	3,100,000
New Debt	79,301,300	44,609,320	34,691,980
	\$ 89,931,300	\$ 52,139,320	\$ 37,791,980
Total Funding	\$ 132,508,900	\$ 97,203,900	\$ 35,305,000
Percentage of funding in place	32.1%	46.4%	
Ratio of debt to expense	86.2%	85.3%	
Ratio of cash to expense	13.8%	14.7%	

Rivanna Water and Sewer Authority
CIP 2021-2025
Summary Information

5/21/2020

Detail by Major Systems	Total <i>Draft</i> CIP	Urban Water Projects	Urban Wastewater Projects	Shared Projects	Water Non-Urban Projects	Wastewater Non-Urban Projects
<u>Project Cost</u>						
Urban Water Projects	\$ 74,977,900	\$ 74,977,900	\$ -		\$ -	\$ -
Urban Wastewater Projects	22,520,000	-	22,520,000		-	-
Non-Urban Projects & Shared	35,011,000	-	-	4,695,000	29,916,000	400,000
Total Project Cost Estimates	\$ 132,508,900	\$ 74,977,900	\$ 22,520,000	\$ 4,695,000	\$ 29,916,000	\$ 400,000
<u>Funding in place</u>						
Work-in-Progress (paid for)	\$ 5,402,500	\$ 1,978,300	\$ 1,724,300	\$ 167,600	\$ 1,532,300	\$ -
Debt Proceeds available	29,488,800	14,838,000	3,722,700	-	10,928,100	-
Cash-Capital Available	7,686,300	3,193,000	4,089,000	-	334,300	70,000
Subtotal	\$ 42,577,600	\$ 20,009,300	\$ 9,536,000	\$ 167,600	\$ 12,794,700	\$ 70,000
<u>Financing Needs</u>						
Possible Future Reserves	\$ 10,630,000	6,000,000	3,500,000	300,000	750,000	80,000
New Debt	79,301,300	48,968,600	9,484,000	4,227,400	16,371,300	250,000
Subtotal	\$ 89,931,300	\$ 54,968,600	\$ 12,984,000	\$ 4,527,400	\$ 17,121,300	\$ 330,000
Total Funding	\$ 132,508,900	\$ 74,977,900	\$ 22,520,000	\$ 4,695,000	\$ 29,916,000	\$ 400,000
Percentage of funding in place	32.1%	26.7%	42.3%	3.6%	42.8%	17.5%
Ratio of debt to expense	86.2%	85.1%	58.6%	90.0%	91.3%	62.5%
Ratio of cash to expense	13.8%	12.3%	33.7%	6.4%	3.6%	37.5%

Rivanna Water and Sewer Authority
CIP 2021-2025
Summary Information

5/5/2020

	<u>Urban Water</u>	<u>Urban Wastewater</u>	<u>Non-Urban</u>	<u>Shared</u>	<u>Total</u>
Current Adopted CIP 2020 - 2024	\$ 61,501,900	\$ 14,753,000	\$ 18,353,000	\$ 2,596,000	\$ 97,203,900
<u>Changes:</u>					
Completed or Closed Projects	(4,654,000)	-	(442,000)	-	(5,096,000)
Adjustments on existing Projects	18,130,000	3,782,000	11,782,000	2,099,000	35,793,000
New Projects	-	3,985,000	623,000	-	4,608,000
Total Changes	13,476,000	7,767,000	11,963,000	2,099,000	35,305,000
Total Draft CIP 2021 - 2025	\$ 74,977,900	\$ 22,520,000	\$ 30,316,000	\$ 4,695,000	\$ 132,508,900

Rivanna Water and Sewer Authority
CIP 2021-2025
Summary Information

5/5/2020

		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
<u>City of Charlottesville Charges</u>								
<u>Urban Water</u>								
Operating Rate	Per 1000 gal.	2.07	2.095	2.095	2.493	2.692	2.854	3.025
	% Change		1.2%	0.0%	19.0%	8.0%	6.0%	6.0%
Debt Service Charge	Per month	\$ 181,008	\$ 193,580	193,580	236,827	257,545	278,220	298,856
			6.9%	0.0%	22.3%	8.7%	8.0%	7.4%
Revenue Requirements:								
Operating Rate Revenue	Annual	\$ 3,587,700	\$ 3,630,500	\$ 3,630,500	\$ 4,320,295	\$ 4,665,919	\$ 4,945,874	\$ 5,242,626
Debt Service Revenues	Annual	2,172,100	2,323,000	2,323,000	2,841,923	3,090,542	3,338,643	3,586,271
Total		\$ 5,759,800	\$ 5,953,500	\$ 5,953,500	\$ 7,162,218	\$ 7,756,461	\$ 8,284,517	\$ 8,828,897
	\$ Change		\$ 193,700	\$ -	\$ 1,208,718	\$ 594,243	\$ 528,056	\$ 544,380
	% Change		3.4%	0.0%	20.3%	8.3%	6.8%	6.6%
<u>Urban Wastewater</u>								
Operating Rate	Per 1000 gal.	2.146	2.369	2.369	2.653	2.812	2.981	3.160
	% Change		10.4%	0.0%	12.0%	6.0%	6.0%	6.0%
Debt Service Charge	Per month	\$ 408,260	\$ 407,588	407,588	410,168	413,088	416,038	420,868
			-0.2%	0.0%	0.6%	0.7%	0.7%	1.2%
Revenue Requirements:								
Operating Rate Revenue	Annual	\$ 3,711,300	\$ 4,016,800	\$ 3,936,500	\$ 4,408,880	\$ 4,673,413	\$ 4,953,818	\$ 5,251,047
Debt Service Revenues	Annual	4,899,100	4,891,100	4,891,100	4,922,015	4,957,055	4,992,455	5,050,415
Total		\$ 8,610,400	\$ 8,907,900	\$ 8,827,600	\$ 9,330,895	\$ 9,630,468	\$ 9,946,273	\$ 10,301,462
	\$ Change		\$ 297,500	\$ (80,300)	\$ 503,295	\$ 299,573	\$ 315,805	\$ 355,189
	% Change		3.5%	-0.9%	5.7%	3.2%	3.3%	3.6%
<u>Total all Rate Centers</u>								
Operating Rate Revenue		\$ 7,299,000	\$ 7,647,300	\$ 7,567,000	\$ 8,729,175	\$ 9,339,331	\$ 9,899,691	\$ 10,493,673
Debt Service Revenues		7,071,200	7,214,100	7,214,100	7,763,938	8,047,597	8,331,098	8,636,686
Total City All Revenues		\$ 14,370,200	\$ 14,861,400	\$ 14,781,100	\$ 16,493,113	\$ 17,386,928	\$ 18,230,789	\$ 19,130,359
	\$ Change		\$ 491,200	\$ (80,300)	\$ 1,712,013	\$ 893,815	\$ 843,861	\$ 899,569
	% Change		3.4%	-0.5%	11.6%	5.4%	4.9%	4.9%
<u>Additional for 10-Year CIP</u>								
Total Estimated Charge		\$ 14,370,200	\$ 14,861,400	\$ 14,781,100	\$ 16,661,640	\$ 17,836,003	\$ 18,970,247	\$ 20,180,767
	% Change		3.4%	-0.5%	12.7%	7.0%	6.4%	6.4%

Rivanna Water and Sewer Authority
CIP 2021-2025
Summary Information

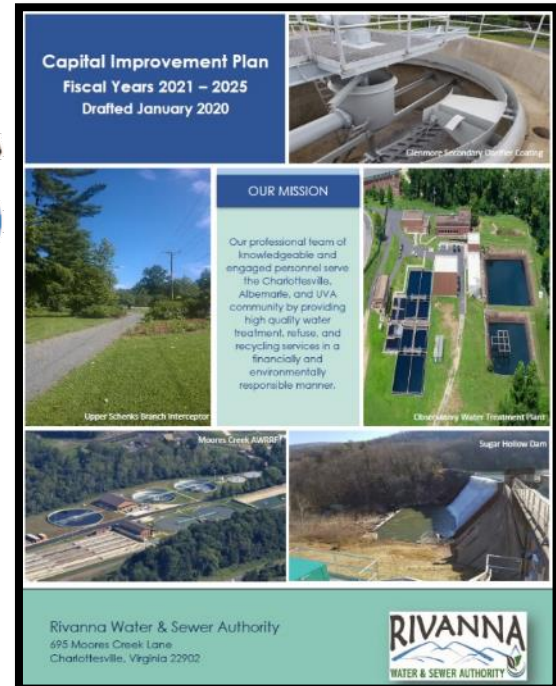
5/5/2020

		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
<u>ACSA Charges</u>								
<u>Urban Water</u>								
Operating Rate	Per 1000 gal.	2.07	2.095	2.095	2.493	2.692	2.854	3.025
	% Change		1.2%	0.0%	19.0%	8.0%	6.0%	6.0%
Debt Service Charge	Per month	\$ 307,598	\$ 321,303	321,303	379,826	406,054	433,785	458,080
			4.5%	0.0%	18.2%	6.9%	6.8%	5.6%
Revenue Requirements:								
Operating Rate Revenue	Annual	\$ 3,447,000	\$ 3,488,100	\$ 3,488,100	\$ 4,150,839	\$ 4,482,906	\$ 4,751,880	\$ 5,036,993
Debt Service Revenues	Annual	3,691,200	3,855,600	3,855,600	4,557,906	4,872,642	5,205,424	5,496,963
Total		\$ 7,138,200	\$ 7,343,700	\$ 7,343,700	\$ 8,708,745	\$ 9,355,548	\$ 9,957,304	\$ 10,533,956
	\$ Change		\$ 205,500	\$ -	\$ 1,365,045	\$ 646,803	\$ 601,756	\$ 576,652
	% Change		2.9%	0.0%	18.6%	7.4%	6.4%	5.8%
<u>Urban Wastewater</u>								
Operating Rate	Per 1000 gal.	2.146	2.369	2.369	2.653	2.812	2.981	3.160
	% Change		10.4%	0.0%	12.0%	6.0%	6.0%	6.0%
Debt Service Charge	Per month	\$ 246,308	\$ 278,174	278,174	298,484	307,364	316,274	322,674
			12.9%	0.0%	7.3%	3.0%	2.9%	2.0%
Revenue Requirements:								
Operating Rate Revenue	Annual	\$ 3,565,800	\$ 4,016,800	\$ 4,097,100	\$ 4,588,752	\$ 4,864,077	\$ 5,155,922	\$ 5,465,277
Debt Service Revenues	Annual	2,955,700	3,338,100	3,338,100	3,581,812	3,688,372	3,795,292	3,872,092
Total		\$ 6,521,500	\$ 7,354,900	\$ 7,435,200	\$ 8,170,564	\$ 8,552,449	\$ 8,951,214	\$ 9,337,369
	\$ Change		\$ 833,400	\$ 80,300	\$ 735,364	\$ 381,885	\$ 398,765	\$ 386,155
	% Change		12.8%	1.1%	9.9%	4.7%	4.7%	4.3%
<u>Non-Urban Rate Centers</u>								
Operating Rate Revenue	Annual	\$ 2,075,300	\$ 2,229,100	2,229,100	2,623,428	2,780,834	2,947,684	3,124,545
Debt Service Revenues	Annual	1,134,400	1,453,300	1,453,300	1,880,800	2,101,800	2,322,800	2,543,800
Total		\$ 3,209,700	\$ 3,682,400	\$ 3,682,400	\$ 4,504,228	\$ 4,882,634	\$ 5,270,484	\$ 5,668,345
				\$ -	\$ 821,828	\$ 378,406	\$ 387,850	\$ 397,861
				0.0%	22.3%	8.4%	7.9%	7.5%
<u>Total all Rate Centers</u>								
Operating Rate Revenue		\$ 9,088,100	\$ 9,734,000	\$ 9,814,300	\$ 11,363,019	\$ 12,127,817	\$ 12,855,486	\$ 13,626,815
Debt Service Revenues		7,781,300	8,647,000	8,647,000	10,020,518	10,662,814	11,323,516	11,912,855
Total ACSA All Revenues		\$ 16,869,400	\$ 18,381,000	\$ 18,461,300	\$ 21,383,537	\$ 22,790,631	\$ 24,179,002	\$ 25,539,670
	\$ Change		\$ 1,511,600	\$ 80,300	\$ 2,922,237	\$ 1,407,094	\$ 1,388,371	\$ 1,360,668
	% Change		9.0%	0.4%	15.8%	6.6%	6.1%	5.6%
<u>Additional for 10-Year CIP</u>								
Total Estimated Charge		\$ 16,869,400	\$ 18,381,000	\$ 18,461,300	\$ 21,655,289	\$ 23,467,441	\$ 25,278,331	\$ 27,122,423
	% Change		9.0%	0.4%	17.3%	8.4%	7.7%	7.3%

Rivanna Water and Sewer Authority
CIP 2021-2025
Summary Information

5/5/2020

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
RWSA							
Operations Revenues							
Urban Water	\$ 7,034,700	\$ 7,118,600	\$ 7,118,600	\$ 8,471,134	\$ 9,148,825	\$ 9,697,754	\$ 10,279,619
Urban Wastewater	7,277,100	8,033,600	8,033,600	8,997,632	9,537,490	10,109,739	10,716,324
Other Rate Centers	2,075,300	2,229,100	2,229,100	2,623,428	2,780,834	2,947,684	3,124,545
Total	\$ 16,387,100	\$ 17,381,300	\$ 17,381,300	\$ 20,092,194	\$ 21,467,148	\$ 22,755,177	\$ 24,120,488
Change \$		994,200	-	2,710,894	1,374,954	1,288,029	1,365,311
Change %		6.1%	0.0%	15.6%	6.8%	6.0%	6.0%
Debt Service Charge Revenues							
Urban Water	5,863,300	6,178,600	6,178,600	7,399,829	7,963,184	8,544,067	9,083,234
Urban Wastewater	7,854,800	8,229,200	8,229,200	8,503,827	8,645,427	8,787,747	8,922,507
Other Rate Centers	1,134,400	1,453,300	1,453,300	1,880,800	2,101,800	2,322,800	2,543,800
Total	\$ 14,852,500	\$ 15,861,100	\$ 15,861,100	\$ 17,784,456	\$ 18,710,411	\$ 19,654,614	\$ 20,549,541
Change \$		1,008,600	-	1,923,356	925,955	944,203	894,927
Change %		6.8%	0.0%	12.1%	5.2%	5.0%	4.6%
Total RWSA Customer Revenues	\$ 31,239,600	\$ 33,242,400	\$ 33,242,400	\$ 37,876,650	\$ 40,177,559	\$ 42,409,791	\$ 44,670,029
Change \$		\$ 2,002,800	\$ -	\$ 4,634,250	\$ 2,300,909	\$ 2,232,232	\$ 2,260,238
Change %		6.4%	0.0%	13.9%	6.1%	5.6%	5.3%
Additional for 10-Year CIP							
Total Estimated Charge	\$ 31,239,600	\$ 33,242,400	\$ 33,242,400	\$ 38,316,929	\$ 41,303,444	\$ 44,248,578	\$ 47,303,190
% Change		0.0%	0.0%	15.3%	8.9%	9.9%	11.1%

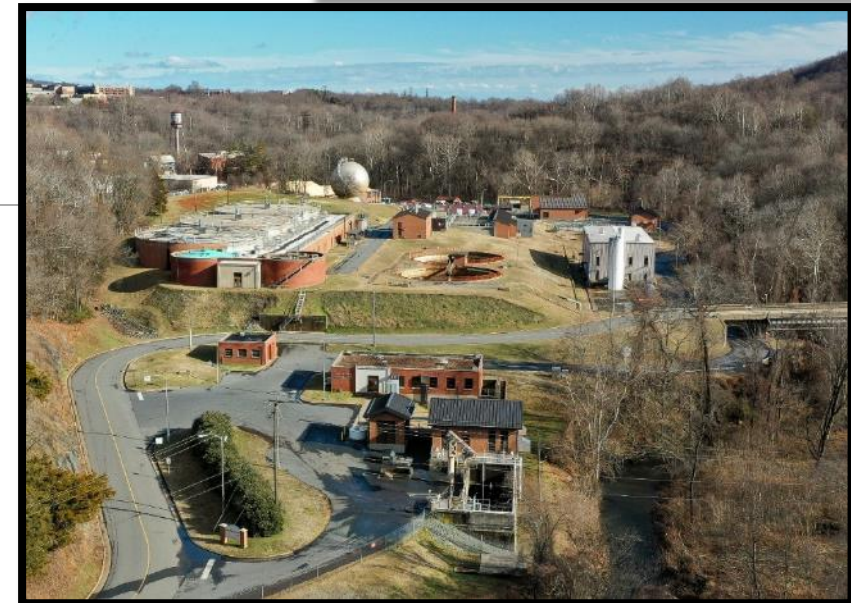


Proposed Capital Improvement Plan FY 2021-2025

FOR THE BOARD OF DIRECTORS

BY BILL MAWYER, EXECUTIVE DIRECTOR

JUNE 23, 2020



Updated FY 21 – 25 CIP

- 56 Projects; deferred 5 = 51 Projects
- \$135.2 M; deferred \$2.7 M = \$132.5 M

Water

Urban: \$76 \$74.9 M
Non-Urban: \$30 \$29.7 M

Wastewater

Urban: \$24 \$22.7 M
Non-Urban: \$0.4 M

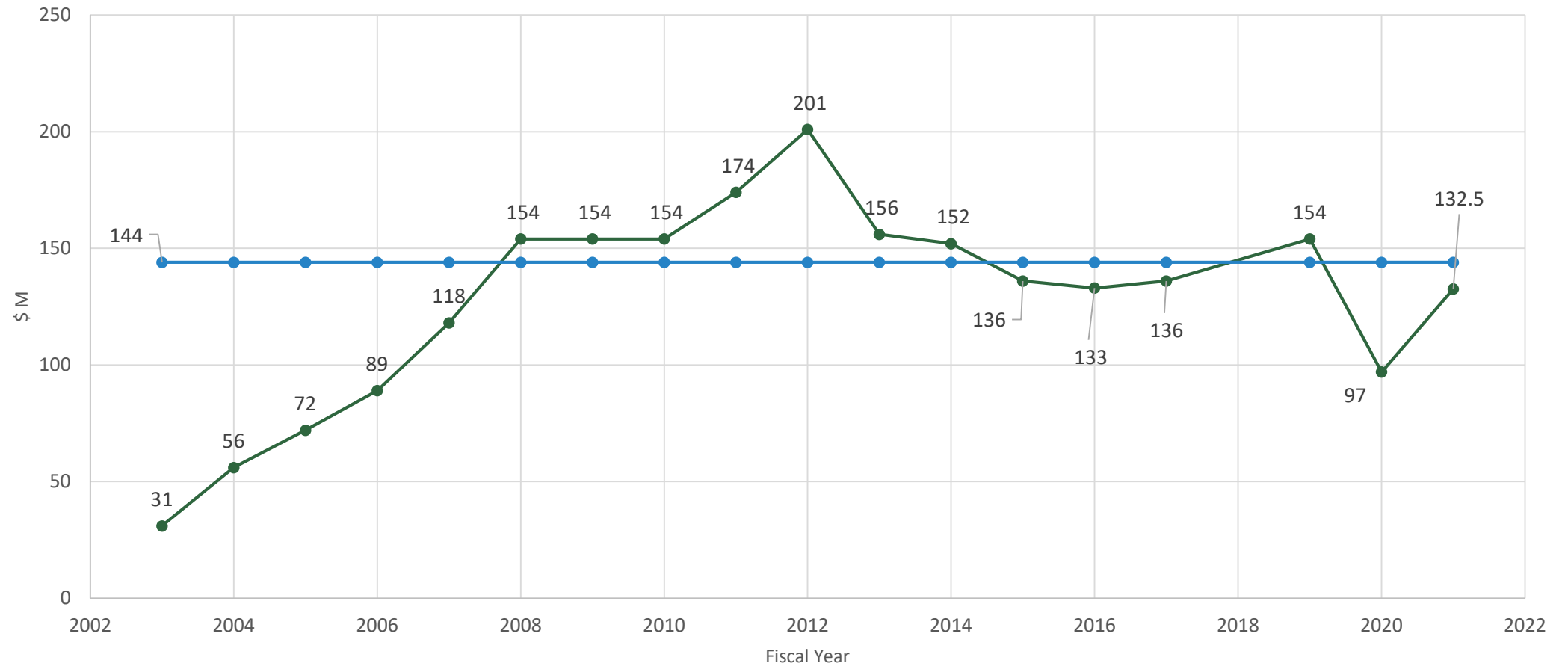
- \$4.8 M for “All Systems” support (technology, security)

CIP Project Deferrals

Projects which were deferred out of the 5 year FY 21-25 CIP and into FY 26:

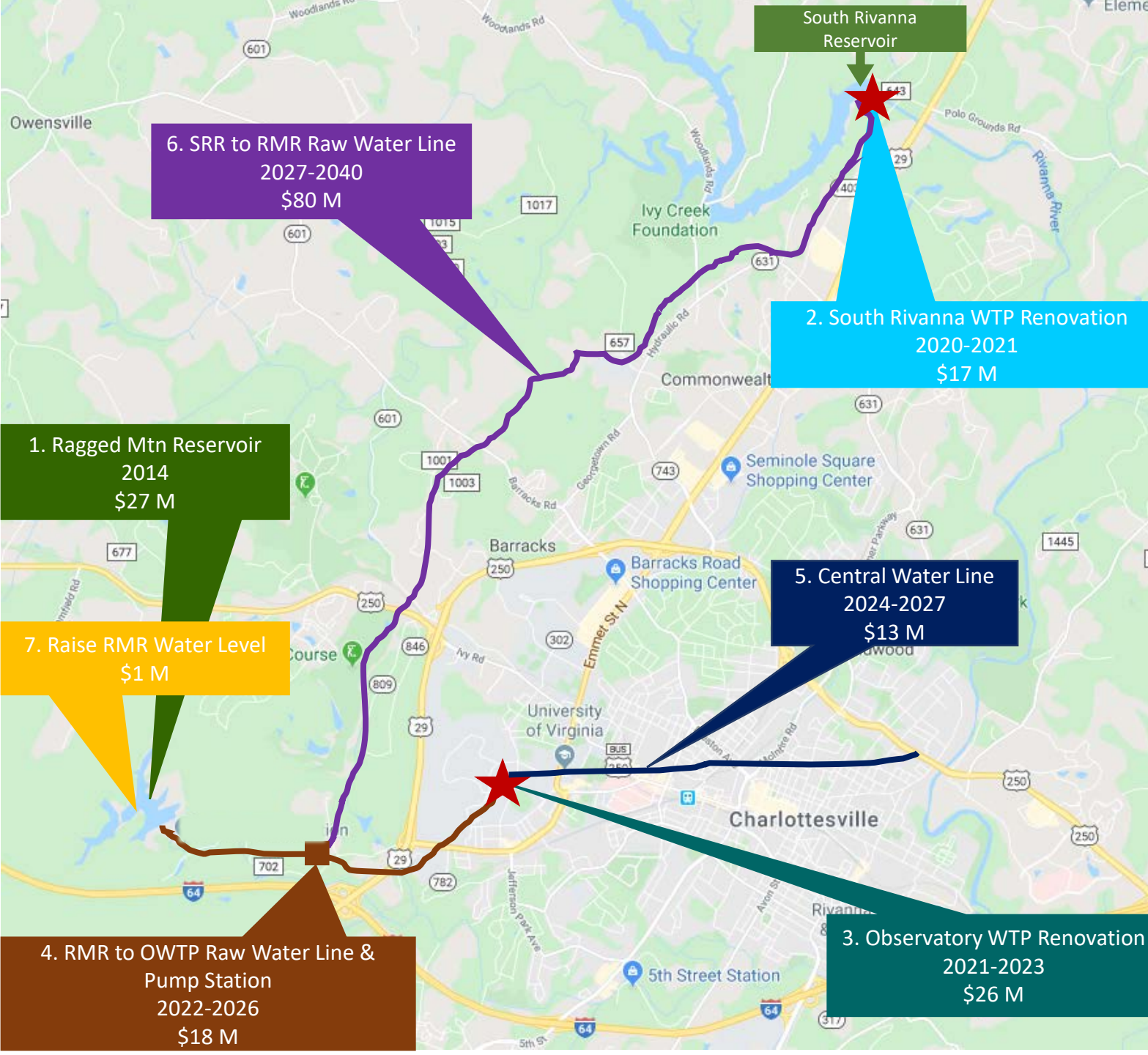
➤ #12 2nd Rivanna Water Line Crossing	\$45 k
➤ #16 N. Rivanna WTP Upgrades	\$1 M; move from FY 23 to FY 26
➤ #23 Scottsville Tank Rehabilitation	\$280 k
➤ #28 Maury Hill Sewer Replacement	\$285 k
➤ #34 Administration Building Addition	\$950 k
➤ #47 MC Renovations: Conference Room	<u>\$100 k from FY 22 to FY 26</u>
TOTAL	\$2.7 M

RWSA CIP History



15 Year CIP Planning Forecast

- FY 21-25 \$135.2 \$132.5 M
 - FY 26-30 \$ 80.3 \$83.0 M
 - FY 31-35 \$ 59.8 M \$59.8 M
- \$275.3 M



Community Water Supply Projects

1. RMR Dam Completed in 2014	\$27 M
2. SR WTP Renovation 2020-2021	\$17 M
3. OB WTP Renovation 2021-2023	\$26 M
4. RMR to OB WTP Raw Water Line & Pump Station 2022-2026	\$18 M
5. Central Water Line 2024-2027	\$13 M
6. SRR to RMR Raw Water Line 2027-2040	\$80 M
7. Raise RMR Water Level	\$1 M
\$182 M	

Five Year FY 21 – 25 CIP Summary

- 51 Projects
- \$132.5 M

Water

Urban:	\$74.9 M
Non-Urban:	\$29.7 M

Wastewater

Urban:	\$22.7 M
Non-Urban:	\$0.4 M

- \$4.8 M for “All Systems” support (technology, security)

Questions?



Proposed Budget

Fiscal Year 2020 - 2021

For the RWSA Board of Directors



June 23, 2020

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RIVANNA WATER & SEWER AUTHORITY

FY 2021 Proposed Budget

Prepared: May 1, 2020

Adopted: Draft 4

Table of Contents

	<u>Page</u>
Budget Highlights	
Narrative	i-ix
Departmental Summary of Revenues and Expenses	1
Summary of Itemized Rates	2
Summary of Charges to Customers	3
Urban Water:	Summary Sheet 7
	Expense Detail 8-9
Crozet Water:	Summary Sheet 11
	Expense Detail 12-13
Scottsville Water:	Summary Sheet 15
	Expense Detail 16-17
Wastewater:	
Urban Wastewater:	Summary Sheet 21
	Expense Detail 22-23
Glenmore Wastewater:	Summary Sheet 25
	Expense Detail 26-27
Scottsville Wastewater:	Summary Sheet 29
	Expense Detail 30-31
Support Departments:	
Administration	35-37
Maintenance	39-41
Lab	43-45
Engineering	47-49
Appendices:	
1 - Flow Projections	53
2 - Urban Water Debt Service Rates	54
3 - Urban Wastewater Debt Service Rates	55
4 - Other Rate Centers Debt Service Rates	56
5 - Debt Summary	57
6 - Stone Robinson & Red Hill Systems Costs	58
7 - Detailed Summary of Revenues	59
8 - Detailed Summary of Expenses	60-61
9 - Staffing by Department	62-63
10 - Data for ACSA	64

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Budget Highlights

***- Executive Summary Narrative
Pages i - ix***

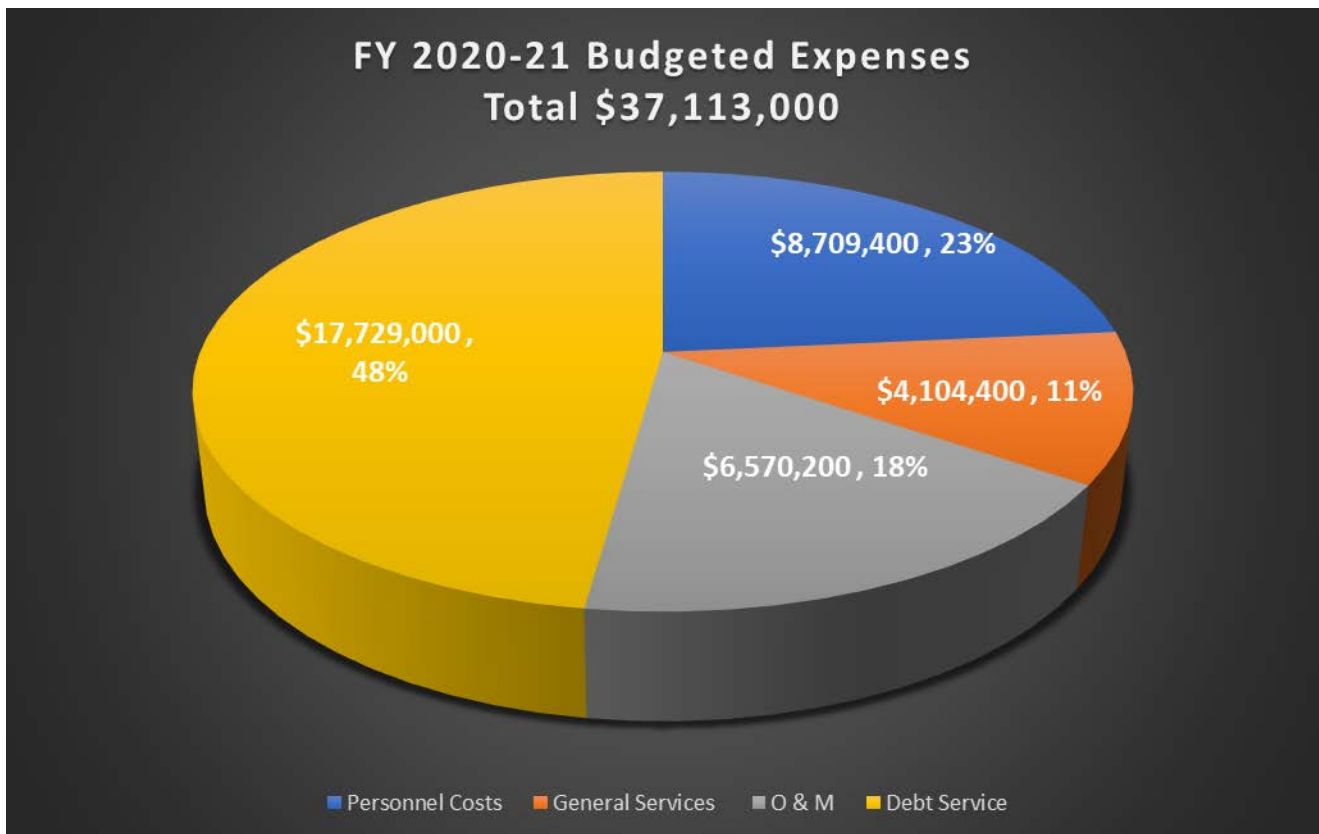
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**Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget**

Budget Overview

The Rivanna Water and Sewer Authority provides wholesale drinking water and wastewater treatment services for the City of Charlottesville and the Albemarle County Service Authority (ACSA). An FY 2020-2021 budget of \$37,133,000 is proposed to strategically provide these water and wastewater services in a financially responsible manner for our customers and the community. The FY 2020-2021 budget has been minimized to reflect the current economic challenges of our community, and proposes only essential increases of \$163,000 in Operating expenses and \$783,000 in scheduled Debt Service charges for our Capital Improvement Program, for a total budget increase of \$946,000, or 2.6%. These cost increases will be funded from our reserves to maintain charges to the City and to the ACSA at FY 2019-2020 levels. The proposed budget does not include any additional programs, positions or salary increases for staff.

The proposed budget includes \$19,384,000 for Operating expenses and \$17,729,000 for Debt Service charges. Operating expenses include Personnel costs (staff salaries and benefits), General Services costs (professional and nonprofessional contract services, utilities, insurance, permits, and data/voice communications), and Operation and Maintenance costs (chemicals, building repairs, equipment maintenance, technology and depreciation). Debt Service charges represent 48% of our budget, and provide funding to construct and renew our major infrastructure including water and wastewater treatment plants, pumping stations, piping systems and reservoir facilities.



Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget

In the Urban Rate Centers, Operating rates and Debt Service charges will remain unchanged from FY 2019 – 2020 levels:

- \$2.095 per 1000 gallons for water
- \$2.369 per 1000 gallons for wastewater

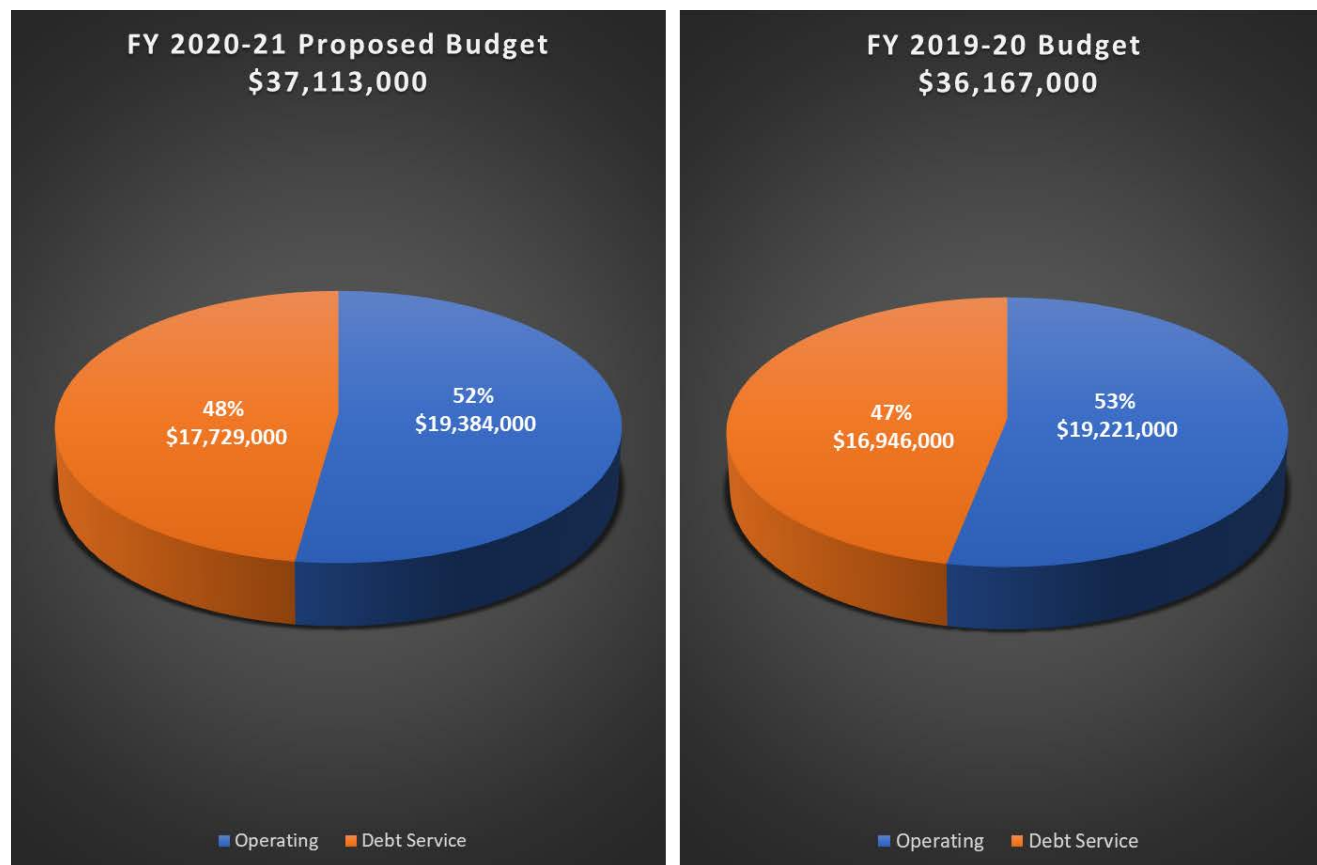
Monthly Debt Service charges to the City will remain unchanged from FY 2019 – 2020 levels:

- \$193,580 for Urban water
- \$407,588 for Urban wastewater

Monthly Debt Service charges to the ACSA will remain unchanged from FY 2019 – 2020 levels:

- \$321,303 for Urban water
- \$278,174 for Urban wastewater
- \$249,140 for Non-Urban water
- \$57,728 for Non-Urban wastewater

The FY 2020-2021 budget proposes an increase of \$163,000 in Operating expenses and an increase of \$783,000 in Debt Service charges for a total budget increase of \$946,000, as shown below:



**Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget**

A brief description of those increases includes:

A. Increase in Operating Expenses: \$163,000

1. Personnel: \$148,400

a. Health Insurance: \$120,400

Based on health care renewal premiums negotiated with our insurance provider, Anthem, and anticipated enrollment increases.

b. Net changes to personnel and benefits: \$28,000

Reclassification of a Maintenance position to Civil Engineer in FY 2019-2020.

2. Water and Wastewater Programs, Misc. Net Changes: \$15,000

a. Rent for the Observatory Water Treatment Plant: \$67,500

B. Increase in Debt Service Charges: \$783,000

Actual Water and Wastewater Flows

Actual water and wastewater retail flows reported by the City and ACSA are used to allocate the Urban Area operating rates and charges. Based on FY 2019 actual retail flow data, the allocation for Urban Wastewater flow shifted 1% (equals \$80,300 for Debt Service, and 2% change in allocated costs) between the two customers, while the allocation for Urban Water was unchanged.

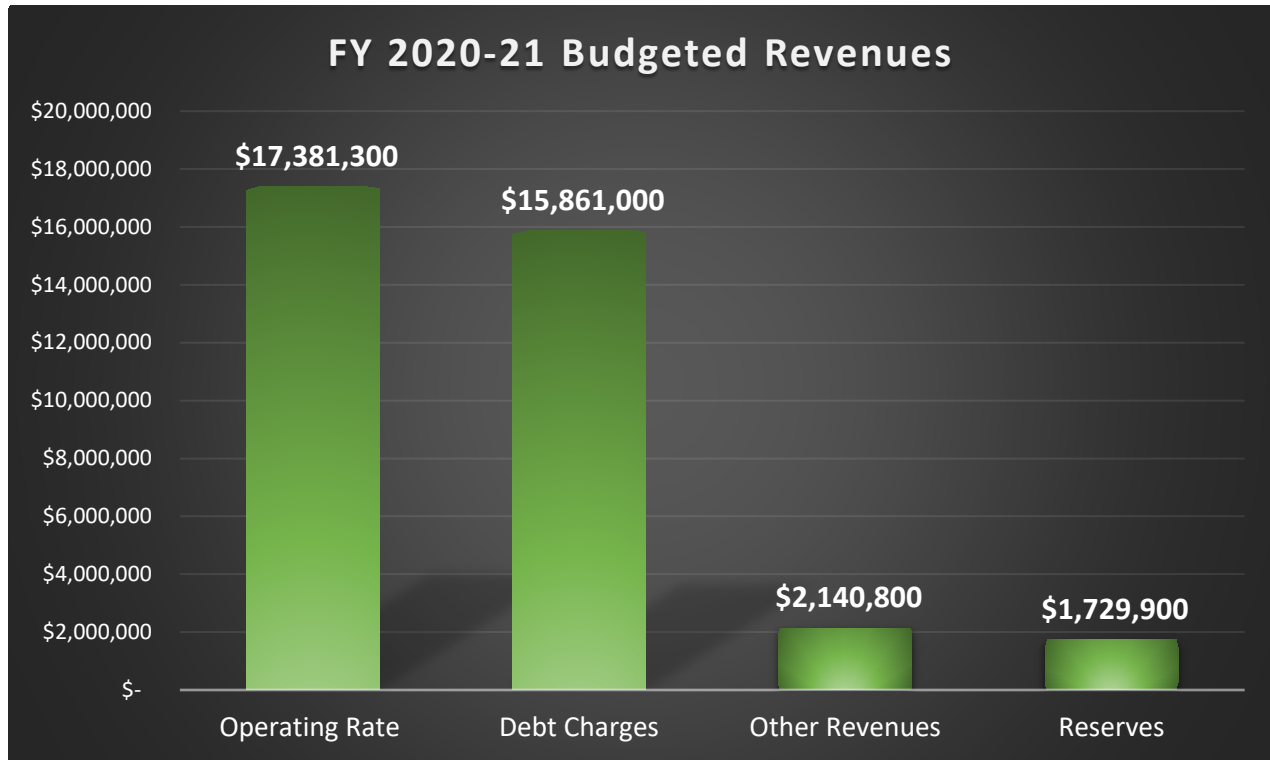
Allocation of flows (based on retail flows):

	<u>FY 2021</u>	<u>FY 2020</u>
City Wastewater	49%	50%
ACSA Wastewater	51%	50%
City Water	51%	51%
ACSA Water	49%	49%

**Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget**

Revenues & Expenses

Revenues for FY 2020 - 2021 are driven by estimated Operating Rate revenues of \$17,381,300, Debt Service charges of \$15,861,000, other non-customer revenues of \$2,140,800, and use of reserves of \$1,729,900 as shown below:

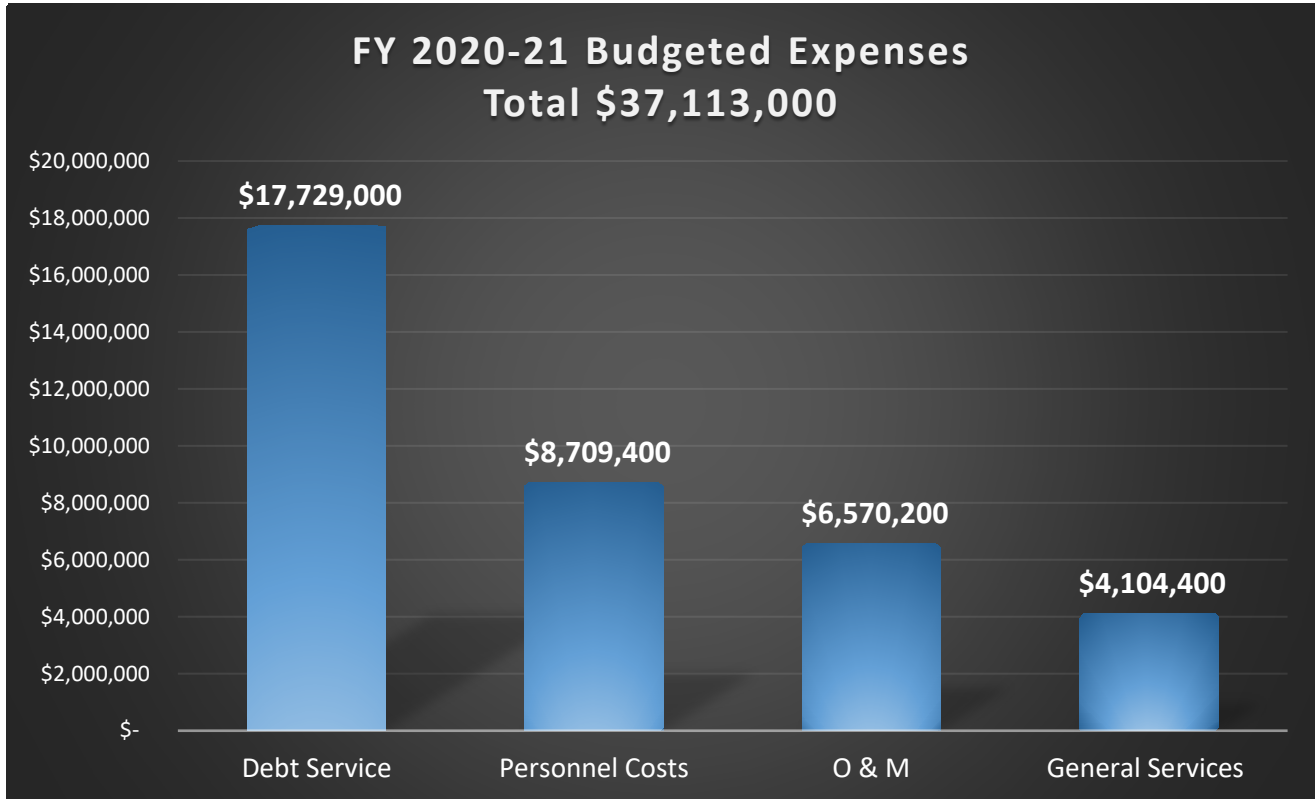


The Authority's overall ratio of Operating expenses and Debt Service costs are similar to the last several years, with Operating expenses representing roughly 52% of the total budget and Debt Service costs being 48% of the total budget.

Expenses are largely allocated to four major categories. Debt Service costs related to capital expenses are \$17,729,000. These expenses are estimated to increase \$783,000 over the FY 2019 – 20 level to support major projects including the Water Treatment Plant Upgrades, Crozet Wastewater Equalization Tank and Beaver Creek Dam and Pump Station Improvements.

**Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget**

Personnel and Benefit costs are the second largest expense with \$8,709,400 in estimated costs. Costs for Operations and Maintenance, which includes chemicals, building repairs, equipment maintenance, IT/SCADA, supplies and materials, and depreciation, will total approximately \$6,570,200. General Service costs, which includes professional and nonprofessional contract services, utilities, insurance, permits, and data / voice communications, are anticipated to be \$4,104,400, as shown below:



A summary of the major cost changes compared to last year follows, and a detailed line-by-line comparison is provided in **Appendix 8** for the Authority as a whole.

Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget

	<u>Line Item</u>	<u>Notable Items</u>	<u>Budget Change over Prior year</u>
<u>Personnel cost in general</u>			
• Merit of 4.0% Deleted	11000	\$ -	
• Personnel/Position changes:			
3 new positions (Finance, IT Tech, Water Operator) Deleted	11000	-	
Upgrade Maint. position to Civil Eng. (Already approved)	11000	40,000	
Benefit costs related to personnel changes	11XXX	16,000	
• Health Care Benefit premium renewal and enrollment increases	12020	120,400	
• All other Personnel related changes		(28,003)	
<i>Total change in personnel and benefit costs</i>			\$ 148,400
<u>General overall changes</u>			
• Professional Services - Engineering	20300		
Urban Water - Drought Modeling		\$ 15,000	
Urban Water - GAC and Corrosion support		65,700	
Scottsville Water - PER Alternative Chemical, PAC feed, ATS		50,000	
Urban Wastewater - WW Flow Agreement Consulting		50,000	
Urban Wastewater - PER Corrosion, Caustic Chemical Changes		45,000	
All Departments - ARC Flash Study and Labeling		154,000	
Total Requested FY2021		379,700	
FY 2020 Budget		(512,050)	
		\$ (132,350)	\$ (132,350)
<u>Urban Water</u>			
• Utilities - Hydro agreement with Dominion terminated	21400	\$	220,000
• Leases - Uva Lease agreement	41150		67,500
<u>Urban Wastewater</u>			
• Rental and Leases - Temporary boiler 6 months	81200		67,250
<u>All other Dept and Rate Centers</u>			
• Admin. Salary Survey and Health Insurance consultant	20200		54,000
• Engineering - Building rental & roof replacement	41100 & 41150		20,000
• Safety Programs - Maintenance (LOTO support)	21253		37,500
• All other changes			(318,200)
FY 2021 Total increases in estimated operating expenses			\$ 164,100
Rounding Adjustment			(1,100)
			\$ 163,000

Rivanna Water and Sewer Authority
Proposed
FY 2020-2021 Budget

Debt Service & Capital

Debt service needs for the Capital Improvement Plan (CIP) are included in the budget request for the coming year. The overall FY 21-25 CIP totals \$132.5 million, an increase of \$35.3 million as compared to the FY 20-24 CIP. In FY 2025, there were 14 projects totaling \$17.7 million which transitioned into the five-year CIP. In addition, there was a \$15.5 million increase in existing and reprioritized projects, as well as a \$4.7 million increase for new projects. A more detailed look at the new and adjusted costs can be found in the proposed FY 2021 – 2025 CIP, which is a separate document and can be reviewed at <http://www.rivanna.org/financials-and-procurement/>.

The table below shows the changes in estimated project costs reflected in the CIP:

	2020-2024 Adopted CIP	Projects Completed	New or Additional Project Costs	2021-2025 Adopted CIP	Change \$	Change %
Project Cost						
Urban Water Projects	\$ 61,501,900	\$ (4,654,000)	\$ 18,130,000	\$ 74,977,900	\$ 13,476,000	22%
Urban Wastewater Projects	14,753,000	-	7,767,000	22,520,000	7,767,000	34%
Shared Projects	2,596,000	(442,000)	2,099,000	4,253,000	1,657,000	39%
Non-Urban Projects	18,353,000	-	12,405,000	30,758,000	12,405,000	40%
Total Project Cost Estimates	\$ 97,203,900	\$ (5,096,000)	\$ 40,401,000	\$ 132,508,900	\$ 35,305,000	27%

The Authority has programmed into the FY 2021 budget charges that fund the additional debt service anticipated by the proposed CIP. Cumulatively, the Authority has built 35% of future debt service costs into the rates and charges for all rate centers for FY 2021. This is done by using the CIP as a guide for future debt needs to include an average charge increase over that five-year period. This helps to prevent the large spikes in charges for any given year in which new debt is actually issued - effectively leveling the impact on charges. For example, Urban Water current charges have nearly 37% of the needed future debt service revenues already built into the charges to cover the total needed for the next five years (\$3.43 million in annual debt service is estimated to be needed in the next 5 years, and \$1.275 will already be programmed into the charges). This would require the remaining \$2.155 million to be included in the future debt service charge as an annual increase ($2.155 / 5 = \$431,000$) over the next five years to fund the Water projects within the CIP.

	Next Five Years		
	Annual Estimated NEW Debt Service related to 5-year CIP <u>New Debt</u>	New Debt Service Cost built into FY 2021 Rates	Percentage of Debt Service in Adopted FY 2021 Charges
Urban Water	\$3,430,000	\$1,275,800	37.2%
Urban Wastewater	\$904,000	\$365,100	40.4%
Non-Urban Rate Centers	\$1,223,900	\$311,800	25.5%
	\$5,557,900	\$1,952,700	35.1%

Rivanna Water and Sewer Authority

Proposed FY 2020-2021 Budget

Proposed FY 2020-2021 Organization Chart

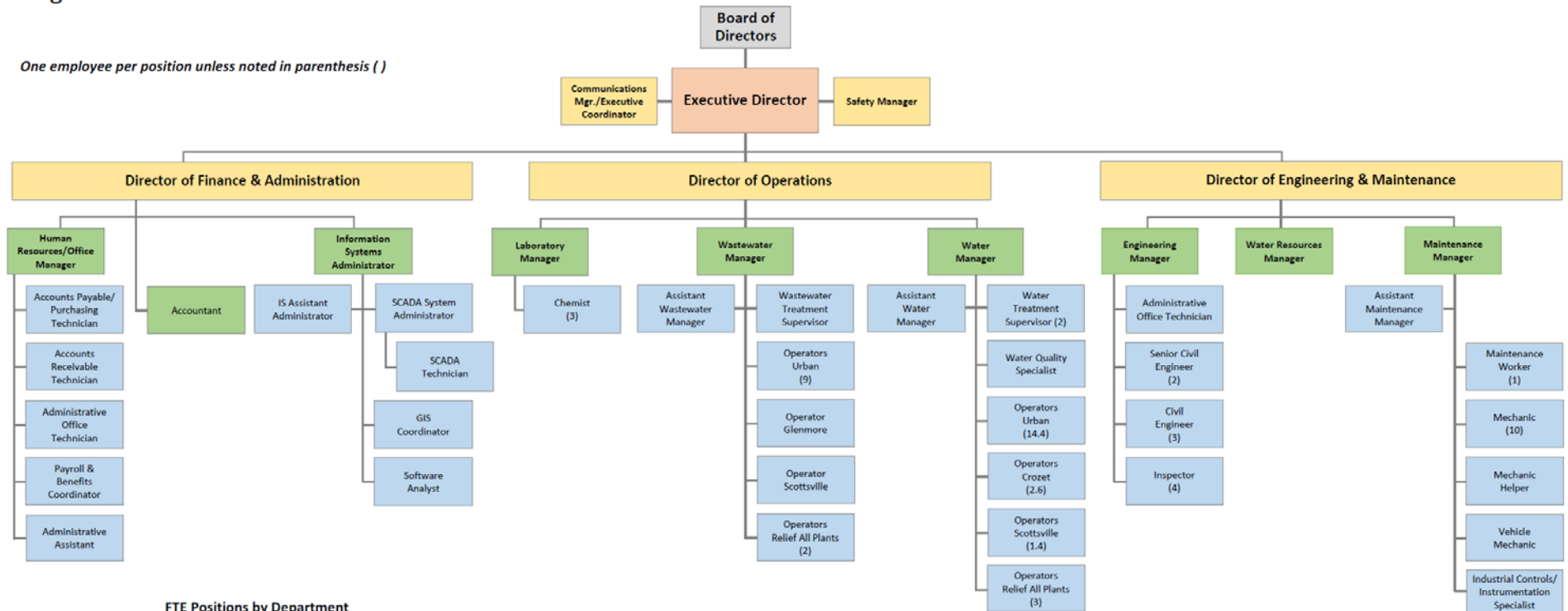
Rivanna Water & Sewer Authority

Organizational Chart

FY 2020-2021 Proposed Budget

Version No. 2

One employee per position unless noted in parenthesis ()



FTE Positions by Department

Department	FY 19-20 FTE	FY 20-21 FTE	Change + / (-)
Administration	11	11	No Change
IT/SCADA	6	6	No Change
Engineering	13	13	No Change
Maintenance	16	16	No Change
Operations	1	1	No Change
Laboratory	4	4	No Change
Wastewater	16	16	No Change
Water	26.4	26.4	No Change
Total	93.4	93.4	0

★ FY 2020-2021 FTE Changes

No changes being recommended

(FTE = Full Time Equivalent)

Budget Details

Pages 1 - 64

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Departmental Summary of Revenues and Expenses

Summary of Revenues

	FY 2020	FY 2021	\$ Change	% Change
Operations Revenues				
Urban Water	\$ 7,802,000	\$ 7,802,000	-	0.00%
Crozet Water	1,113,000	1,087,000	(26,000)	-2.34%
Scottsville Water	537,000	531,000	(6,000)	-1.12%
Urban Wastewater	8,610,000	8,713,000	103,000	1.20%
Glenmore Wastewater	371,000	396,000	25,000	6.74%
Scottsville Wastewater	310,000	310,000	-	0.00%
Administration	468,000	545,000	77,000	16.45%
Maintenance	10,000	-	(10,000)	
Lab	-	-	-	
Engineering	-	-	-	
Total	\$ 19,221,000	\$ 19,384,000	\$ 163,000	0.85%
Debt Service Revenues				
Urban Water	\$ 6,747,000	\$ 7,231,000	484,000	7.17%
Crozet Water	1,338,000	1,537,000	199,000	14.87%
Scottsville Water	139,000	138,000	(1,000)	-0.72%
Urban Wastewater	8,702,000	8,802,000	100,000	1.15%
Glenmore Wastewater	7,000	7,000	-	0.00%
Scottsville Wastewater	13,000	14,000	1,000	7.69%
Total	\$ 16,946,000	\$ 17,729,000	\$ 783,000	4.62%
Total Revenues	\$ 36,167,000	\$ 37,113,000	\$ 946,000	2.62%

Summary of Expenses

	FY 2020	FY 2021	\$ Change	% Change
Operations Expenses				
Urban Water	\$ 5,498,000	\$ 5,445,000	(53,000)	-0.96%
Crozet Water	895,000	865,000	(30,000)	-3.35%
Scottsville Water	400,000	393,000	(7,000)	-1.75%
Urban Wastewater	5,835,000	5,908,000	73,000	1.25%
Glenmore Wastewater	265,000	289,000	24,000	9.06%
Scottsville Wastewater	211,000	210,000	(1,000)	-0.47%
Administration	2,480,000	2,492,000	12,000	0.48%
Maintenance	1,611,000	1,536,000	(75,000)	-4.66%
Lab	473,000	517,000	44,000	9.30%
Engineering	1,553,000	1,729,000	176,000	11.33%
Total	\$ 19,221,000	\$ 19,384,000	\$ 163,000	0.85%
Debt Service Expenses				
Urban Water	\$ 6,747,000	\$ 7,231,000	484,000	7.17%
Crozet Water	1,338,000	1,537,000	199,000	14.87%
Scottsville Water	139,000	138,000	(1,000)	-0.72%
Urban Wastewater	8,702,000	8,802,000	100,000	1.15%
Glenmore Wastewater	7,000	7,000	-	0.00%
Scottsville Wastewater	13,000	14,000	1,000	7.69%
Total	\$ 16,946,000	\$ 17,729,000	\$ 783,000	4.62%
Total Expenses	\$ 36,167,000	\$ 37,113,000	\$ 946,000	2.62%

Total Budgetary Surplus/ (Deficit)	\$ -	\$ -	\$ -	\$ -
---	-------------	-------------	-------------	-------------

These figures are rounded from the detail pages of this budget model and some immaterial differences will be present.

Summary of Itemized Rates

URBAN RATE CENTERS			FY 2020	FY 2021	\$ Change	% Change
<u>Operating Rates</u> (\$ per 1,000 Gallons)						
	Operations	Water	\$ 2.095	\$ 2.095	\$ -	0.00%
	Operations	Wastewater	2.369	2.369	-	0.00%
<u>Debt Service Charges</u> (\$ Monthly Charge)						
<u>Water</u>						
	Debt Service	CITY	\$ 193,580	\$ 193,580	\$ -	0.00%
	Debt Service	ACSA	321,303	321,303	-	0.00%
<u>Wastewater</u>						
	Debt Service	CITY	\$ 407,588	\$ 407,588	\$ -	0.00%
	Debt Service	ACSA	278,174	278,174	-	0.00%
OTHER RATE CENTERS (Monthly)			FY 2020	FY 2021	\$ Change	% Change
<u>Crozet Water</u>						
	Operations		\$ 85,734	\$ 85,734	\$ -	0.00%
	Debt Service		109,276	109,276	-	0.00%
<u>Scottsville Water</u>						
	Operations		\$ 43,401	\$ 43,401	\$ -	0.00%
	Debt Service		10,729	10,729	-	0.00%
	Water Total		\$ 249,140	\$ 249,140	\$ -	0.00%
<u>Glenmore Wastewater</u>						
	Operations		\$ 30,877	\$ 30,877	\$ -	0.00%
	Debt Service		315	315	-	0.00%
<u>Scottsville Wastewater</u>						
	Operations		\$ 25,749	\$ 25,749	\$ -	0.00%
	Debt Service		787	787	-	0.00%
	Wastewater Total		\$ 57,728	\$ 57,728	\$ -	0.00%
Total Monthly Other Rate Center Charges - ACSA			\$ 306,868	\$ 306,868	\$ -	0.00%

Summary of Charges to Customers

	<u>FY 2020</u>	<u>FY 2021</u>	<u>Change</u> <u>\$</u>	<u>Change</u> <u>%</u>
<u>City - Charges From RWSA</u>				
Urban Water				
Operating Rate Charges	\$ 3,630,500	\$ 3,630,500	\$ -	0.0%
Debt Service Charges	2,323,000	2,323,000	-	0.0%
	<u>\$ 5,953,500</u>	<u>\$ 5,953,500</u>	<u>\$ -</u>	<u>0.0%</u>
Urban Wastewater				
Operating Rate Charges	\$ 4,016,800	\$ 3,936,500	\$ (80,300)	-2.0%
Debt Service Charges	4,891,100	4,891,100	-	0.0%
	<u>\$ 8,907,900</u>	<u>\$ 8,827,600</u>	<u>\$ (80,300)</u>	<u>-0.9%</u>
Total City Charges	<u>\$ 14,861,400</u>	<u>\$ 14,781,100</u>	<u>\$ (80,300)</u>	<u>-0.5%</u>

<u>ACSA - Charges From RWSA</u>				
Urban Water				
Operating Rate Charges	\$ 3,488,100	\$ 3,488,100	\$ -	0.0%
Debt Service Charges	3,855,600	3,855,600	-	0.0%
	<u>\$ 7,343,700</u>	<u>\$ 7,343,700</u>	<u>\$ -</u>	<u>0.0%</u>
Urban Wastewater				
Operating Rate Charges	\$ 4,016,800	\$ 4,097,100	\$ 80,300	2.0%
Debt Service Charges	3,338,100	3,338,100	-	0.0%
	<u>\$ 7,354,900</u>	<u>\$ 7,435,200</u>	<u>\$ 80,300</u>	<u>1.1%</u>
Other Rate Centers				
Operating Charges	\$ 2,229,100	\$ 2,229,100	\$ -	0.0%
Debt Service Charges	1,453,300	1,453,300	-	0.0%
	<u>\$ 3,682,400</u>	<u>\$ 3,682,400</u>	<u>\$ -</u>	<u>0.0%</u>
Total ACSA Charges	<u>\$ 18,381,000</u>	<u>\$ 18,461,300</u>	<u>\$ 80,300</u>	<u>0.4%</u>

<u>RWSA Customer Revenue Charges</u>				
Operating Rate Revenues				
Urban Water	\$ 7,118,600	\$ 7,118,600	\$ -	0.0%
Urban Wastewater	8,033,600	8,033,600	-	0.0%
Other Rate Centers	2,229,100	2,229,100	-	0.0%
	<u>\$ 17,381,300</u>	<u>\$ 17,381,300</u>	<u>\$ -</u>	<u>0.0%</u>
Debt Service Rate Revenues				
Urban Water	\$ 6,178,600	\$ 6,178,600	\$ -	0.0%
Urban Wastewater	8,229,200	8,229,200	-	0.0%
Other Rate Centers	1,453,300	1,453,300	-	0.0%
	<u>\$ 15,861,100</u>	<u>\$ 15,861,100</u>	<u>\$ -</u>	<u>0.0%</u>
Total RWSA Customer Revenues	<u>\$ 33,242,400</u>	<u>\$ 33,242,400</u>	<u>\$ -</u>	<u>0.0%</u>

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Water Rate Centers

Rivanna Water and Sewer Authority

Fiscal Year 2020-2021

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Urban Water Summary

FY 2020			FY 2021	Budget % Change
Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	
Projected Flow (MGD)	9.309		9.309	0.00%

Operations Budget

Projected Revenues

Operations Rate	\$	2.095			\$	2.095	0.00%
Revenue	\$	7,118,541	\$ 3,809,452	\$ 7,618,904	\$	7,118,541	0.00%
Lease Revenues		70,000	40,507	81,014		75,000	7.14%
Use of Reserves		600,000	-	600,000		500,000	-16.67%
Miscellaneous		-	193,294	193,294		-	
Rate Stabilization Reserves						94,254	
Interest Allocation		13,200	9,239	18,478		14,600	10.61%
Total Operations Revenues	\$	7,801,741	\$ 4,052,492	\$ 8,511,690	\$	7,802,395	0.01%

Projected Expenses

Personnel Cost	\$	1,861,134	\$ 927,867	\$ 1,845,842	\$	1,918,361	3.07%
Professional Services		207,200	175,788	351,576		134,000	-35.33%
Other Services and Charges		574,963	385,843	755,819		738,130	28.38%
Communications		65,100	39,832	75,858		76,000	16.74%
Information Technology		77,000	22,093	74,186		85,500	11.04%
Supplies		6,100	2,799	5,598		5,745	-5.82%
Operations and Maintenance		2,375,590	1,228,512	2,787,271		2,159,300	-9.10%
Equipment Purchases		31,500	12,924	22,500		28,000	-11.11%
Depreciation & Reserves		300,000	150,000	300,000		300,000	0.00%
Subtotal Before Allocations	\$	5,498,587	\$ 2,945,658	\$ 6,218,650	\$	5,445,036	-0.97%
Allocation of Support Departments		2,303,154	1,178,594	2,357,342		2,357,359	2.35%
Total Operations Expenses	\$	7,801,741	\$ 4,124,252	\$ 8,575,992	\$	7,802,395	0.01%

Operations Cost per 1,000 gallons	\$2.296	\$2.296	0.00%
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Debt Service Budget

Projected Revenue

Debt Service Rates	CITY	193,580		193,580		0.00%
	ACSA	321,303		321,303		0.00%
Debt Service Rate Revenue - CITY	\$	2,322,960	\$ 1,161,480	\$ 2,322,960	\$ 2,323,007	0.00%
Debt Service Rate Revenue - ACSA		3,855,638	1,927,818	3,855,636	3,855,638	0.00%
Trust Fund Interest		54,000	29,468	58,936	49,000	-9.26%
Reserve Fund Interest		387,000	198,656	397,312	339,600	-12.25%
Buck Mtn. Surcharge		125,900	69,600	69,600	-	-100.00%
Use of Reserves					662,000	
Lease Revenue		1,600	4,364	8,728	1,600	0.00%
Total Debt Service Revenue	\$	6,747,098	\$ 3,391,386	\$ 6,713,172	\$ 7,230,845	7.17%

Principal, Interest & Reserves

Total Principal & Interest	\$	5,223,498	2,611,749	\$ 5,223,498	\$	5,215,445	-0.15%
Reserve Additions - Interest		387,000	198,656	397,312		339,600	-12.25%
Debt Service Ratio Charge		400,000	200,000	400,000		400,000	0.00%
Est. New Debt Service - CIP Growth		736,600	368,300	736,600		1,275,800	73.20%
Total Debt Principal and Interest	\$	6,747,098	\$ 3,378,705	\$ 6,757,410	\$	7,230,845	7.17%

Rate Center Summary

Total Revenues	\$	14,548,839	\$ 7,443,878	\$ 15,224,862	\$	15,033,240	3.33%
Total Expenses		14,548,839	7,502,957	15,333,402		15,033,240	3.33%
Surplus/(Deficit)	\$	-	\$ (59,079)	\$ (108,540)	\$	-	

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Urban Water

Expense Detail							2020	2020
Rate Center: Urban Water							vs.	vs.
			Current Year Activity				2021	2021
Object		Adopted Budget	Six Month	Projected	Proposed Budget		Variance	Variance
Code	Line Item	FY 2019-2020	Actual	Year end	FY 2020-2021		\$	%
			12/31/2019	6/30/2020				
10000	Salaries & Benefits							
11000	Salaries	\$ 1,155,180	\$ 603,484	\$ 1,206,968	\$ 1,169,750	\$	14,570	1.26%
11010	Overtime & Holiday Pay	135,000	71,830	143,660	165,000		30,000	22.22%
12010	FICA	98,699	50,193	100,386	102,108		3,409	3.45%
12020	Health Insurance	266,894	116,608	233,216	288,200		21,306	7.98%
12026	Employee Assistance Program	300	88	176	350		50	16.67%
12030	Retirement	111,128	46,654	93,308	105,278		(5,850)	-5.26%
12040	Life Insurance	15,133	7,194	14,388	15,675		542	3.58%
12050	Fitness Program	3,700	1,682	3,364	3,700		-	0.00%
12060	Worker's Comp Insurance	24,600	14,838	19,784	24,600		-	0.00%
Subtotal		\$ 1,810,634	\$ 912,571	\$ 1,815,250	\$ 1,874,661	\$	64,027	3.54%
13000	Other Personnel Costs							
13100	Employee Dues & Licenses	\$ 2,000	\$ 78	\$ 156	\$ 1,500	\$	(500)	-25.00%
13150	Education & Training	21,700	5,540	11,080	15,700		(6,000)	-27.65%
13200	Travel & Lodging	7,900	94	188	5,000		(2,900)	-36.71%
13250	Uniforms	15,400	8,400	16,800	17,000		1,600	10.39%
13325	Recruiting & Medical Testing	2,000	723	1,446	2,000		-	0.00%
13350	Other	1,500	461	922	2,500		1,000	66.67%
Subtotal		\$ 50,500	\$ 15,296	\$ 30,592	\$ 43,700	\$	(6,800)	-13.47%
20100	Professional Services							
20200	Legal Fees	\$ 20,000	\$ 78,559	\$ 157,118	\$ 20,000	\$	-	0.00%
20200	Financial & Admin. Services	-	-	-	-		-	-
20250	Bond Issue Costs	-	-	-	-		-	-
20300	Engineering & Technical Services	187,200	97,229	194,458	114,000		(73,200)	-39.10%
Subtotal		\$ 207,200	\$ 175,788	\$ 351,576	\$ 134,000	\$	(73,200)	-35.33%
21100	Other Services and Charges							
21100	General Liability/Property Ins.	\$ 40,400	\$ 23,801	\$ 31,735	\$ 35,000	\$	(5,400)	-13.37%
21150	Advertising & Communication	-	-	-	3,000		3,000	-
21250	Watershed Management	87,000	42,092	84,184	55,000		(32,000)	-36.78%
21252	EMS Programs/Supplies	500	-	-	1,000		500	100.00%
21253	Safety Programs/Supplies	43,313	19,741	39,482	32,130		(11,183)	-25.82%
21300	Authority Dues/Permits/Fees	6,000	4,677	9,354	6,000		-	0.00%
21350	Laboratory Analysis	57,750	26,901	53,802	56,000		(1,750)	-3.03%
21400	Utilities	260,000	241,168	482,336	480,000		220,000	84.62%
21420	General Other Services	80,000	27,463	54,926	70,000		(10,000)	-12.50%
21430	Governance & Strategic Support	-	-	-	-		-	-
21450	Bad Debt	-	-	-	-		-	-
Subtotal		\$ 574,963	\$ 385,843	\$ 755,819	\$ 738,130	\$	163,167	28.38%
22000	Communication							
22100	Radio	\$ 4,700	\$ 4,253	\$ 4,700	\$ 5,000	\$	300	6.38%
22150	Telephone & Data Service	50,000	31,737	63,474	61,000		11,000	22.00%
22200	Cell Phones & Pagers	10,400	3,842	7,684	10,000		(400)	-3.85%
Subtotal		\$ 65,100	\$ 39,832	\$ 75,858	\$ 76,000	\$	10,900	16.74%
31000	Information Technology							
31100	Computer Hardware	\$ 12,000	\$ 1,178	\$ 2,356	\$ 12,000	\$	-	0.00%
31150	SCADA Maint. & Support	62,000	18,526	67,052	71,500		9,500	15.32%
31200	Maintenance & Support Services	500	327	654	500		-	0.00%
31250	Software Purchases	2,500	2,062	4,124	1,500		(1,000)	-40.00%
Subtotal		\$ 77,000	\$ 22,093	\$ 74,186	\$ 85,500	\$	8,500	11.04%
33000	Supplies							
33100	Office Supplies	\$ 3,500	\$ 547	\$ 1,094	\$ 3,500	\$	-	0.00%
33150	Subscriptions/Reference Material	100	-	-	-		(100)	-100.00%
33350	Postage & Delivery	2,500	2,252	4,504	2,245		(255)	-10.20%
Subtotal		\$ 6,100	\$ 2,799	\$ 5,598	\$ 5,745	\$	(355)	-5.82%
41000	Operation & Maintenance							
41100	Building & Grounds	\$ 116,800	\$ 60,126	\$ 120,252	\$ 116,800	\$	-	0.00%
41150	Building & Land Lease	32,500	32,313	32,313	100,000		67,500	207.69%
41200	Pump Station Maintenance	5,000	2,013	4,026	5,000		-	0.00%
41300	Dam Maintenance	140,490	65,175	130,350	98,000		(42,490)	-30.24%
41350	Pipeline/Appurtenances	104,000	197,415	250,000	130,000		26,000	25.00%
41400	Materials, Supplies & Tools	69,000	53,856	107,712	50,000		(19,000)	-27.54%
41450	Chemicals	1,520,600	349,189	1,500,000	1,128,800		(391,800)	-25.77%
41500	Vehicle Maintenance	5,000	7,322	14,644	10,000		5,000	100.00%
41550	Equipment Repair, Replace, Maint.	200,000	101,358	202,716	250,000		50,000	25.00%
41600	Instrumentation & Metering	147,200	103,145	140,000	155,700		8,500	5.77%
41650	Fuel & Lubricants	15,000	12,629	25,258	25,000		10,000	66.67%
41700	General Other Maintenance	20,000	243,971	260,000	90,000		70,000	350.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Urban Water

Expense Detail						2020	2020
Rate Center: Urban Water						vs.	vs.
Object		Adopted Budget	Current Year Activity		Proposed Budget	2021	2021
Code	Line Item	FY 2019-2020	Six Month Actual	Projected Year end	FY 2020-2021	Variance	Variance
			12/31/2019	6/30/2020		\$	%
Subtotal		\$ 2,375,590	\$ 1,228,512	\$ 2,787,271	\$ 2,159,300	\$ (216,290)	-9.10%
81000	Equipment Purchases						
81200	Rental & Leases	\$ 2,500	\$ 3,424	\$ 3,500	\$ -	\$ (2,500)	-100.00%
81250	Equipment (over \$10,000)	10,000	-	-	10,000	-	0.00%
81300	Vehicle Replacement Fund	19,000	9,500	19,000	18,000	(1,000)	-5.26%
Subtotal		\$ 31,500	\$ 12,924	\$ 22,500	\$ 28,000	\$ (3,500)	-11.11%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ 885,060	\$ 438,955	\$ 888,351	\$ 856,542	\$ (28,518)	-3.22%
95300	Engineering Allocation	729,759	393,409	786,745	812,821	83,062	11.38%
95150	Maintenance Allocation	480,235	225,170	454,691	460,727	(19,508)	-4.06%
95200	Laboratory Allocation	208,100	121,060	227,555	227,269	19,169	9.21%
Subtotal		\$ 2,303,154	\$ 1,178,594	\$ 2,357,342	\$ 2,357,359	\$ 54,205	2.35%
Depreciation		\$ 300,000	\$ 150,000	\$ 300,000	\$ 300,000	\$ -	0.00%
Subtotal		\$ 300,000	\$ 150,000	\$ 300,000	\$ 300,000	\$ -	0.00%
Total		\$ 7,801,741	\$ 4,124,252	\$ 8,575,992	\$ 7,802,395	\$ 654	0.01%

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Crozet Water Summary

	FY 2020			FY 2021	Budget % Change
	Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	
Projected Flow (MGD)	0.545			0.545	0.00%

Operations Budget

Projected Revenues

Operations Rate (monthly)

Operations Rate (monthly)	\$	85,734			\$	85,734	0.00%
Revenue	\$	1,028,808	\$	514,404	\$	1,028,808	0.00%
Leases		30,000		14,357		30,000	0.00%
Use of Reserves		52,000		-		26,000	-50.00%
Interest Allocation		1,800		1,285		2,100	16.67%
Total Operations Revenues	\$	1,112,608	\$	530,046	\$	1,086,908	-2.31%

Projected Expenses

Personnel Cost	\$	300,589	\$	148,216	\$	294,831	\$	302,598	0.67%
Professional Services		12,850		-		12,850		15,000	16.73%
Other Services and Charges		137,816		54,837		108,496		142,360	3.30%
Communications		4,950		2,932		5,864		5,600	13.13%
Information Technology		2,600		740		2,250		2,250	-13.46%
Supplies		1,395		502		1,004		1,350	-3.23%
Operations and Maintenance		402,400		134,844		381,506		353,292	-12.20%
Equipment Purchases		2,500		1,250		2,500		3,000	20.00%
Depreciation		30,000		15,000		30,000		40,000	33.33%
Subtotal Before Allocations	\$	895,100	\$	358,321	\$	839,301	\$	865,450	-3.31%
Allocations of Support Departments		217,512		110,662		221,450		221,455	1.81%
Total Operations Expenses	\$	1,112,612	\$	468,983	\$	1,060,751	\$	1,086,905	-2.31%

Operations Cost per 1,000 gallons	\$5.593	\$5.464	-2.31%
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Debt Service Budget

Projected Revenue

Debt Service Rates (monthly)

bt Service Rates (monthly)	\$	109,276			\$	109,276	0.00%		
Debt Service Rate Revenue - ACSA	\$	1,311,312	\$	655,656	\$	1,311,312	0.00%		
Trust Fund Interest		5,500		3,025		6,050	110.91%		
Use of Reserves						198,252			
Reserve Fund Interest		21,500		10,977		15,700	-26.98%		
Total Debt Service Revenue	\$	1,338,312	\$	669,658	\$	1,339,316	\$	1,536,864	14.84%

Principal, Interest & Reserves

Total Principal & Interest - Existing	\$	1,230,815	\$	615,408	\$	1,230,816	\$	1,217,569	-1.08%
Estimated New Principal & Interest		86,000		43,000		86,000		303,600	253.02%
Reserve Additions - Interest		21,500		10,977		21,954		15,700	-26.98%
Total Debt Principal and Interest	\$	1,338,315	\$	669,385	\$	1,338,770	\$	1,536,869	14.84%

Rate Center Summary

Total Revenues	\$	2,450,920	\$	1,199,704	\$	2,451,408	\$	2,623,772	7.05%
Total Expenses		2,450,927		1,138,368		2,399,521		2,623,774	7.05%
Surplus/(Deficit)	\$	(7)	\$	61,336	\$	51,887	\$	(2)	
Rates - (Monthly)									
ACSA	\$	195,010					\$	195,010	0.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Crozet Water

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
10000	Salaries & Benefits						
11000	Salaries	\$ 184,970	\$ 96,264	\$ 192,528	\$ 185,300	\$ 330	0.18%
11010	Overtime & Holiday Pay	25,000	11,753	23,506	25,000	-	0.00%
12010	FICA	16,063	8,008	16,016	16,088	25	0.16%
12020	Health Insurance	43,369	18,557	37,114	46,400	3,031	6.99%
12026	Employee Assistance Program	50	14	28	50	-	0.00%
12030	Retirement	17,794	7,473	14,946	16,677	(1,117)	-6.28%
12040	Life Insurance	2,423	1,152	2,304	2,483	60	2.48%
12050	Fitness Program	600	267	534	600	-	0.00%
12060	Worker's Comp Insurance	4,000	2,401	3,201	4,000	-	0.00%
	Subtotal	\$ 294,269	\$ 145,889	\$ 290,177	\$ 296,598	\$ 2,329	0.79%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 250	\$ 7	\$ 14	\$ 200	\$ (50)	-20.00%
13150	Education & Training	2,900	716	1,432	2,000	(900)	-31.03%
13200	Travel & Lodging	670	8	16	300	(370)	-55.22%
13250	Uniforms	2,000	1,379	2,758	2,600	600	30.00%
13325	Recruiting & Medical Testing	350	119	238	300	(50)	-14.29%
13350	Other	150	98	196	600	450	300.00%
	Subtotal	\$ 6,320	\$ 2,327	\$ 4,654	\$ 6,000	\$ (320)	-5.06%
	Professional Services						
20100	Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	
20200	Financial & Admin. Services	-	-	-	-	-	
20250	Bond Issue Costs	-	-	-	-	-	
20300	Engineering & Technical Services	12,850	-	12,850	15,000	2,150	16.73%
	Subtotal	\$ 12,850	\$ -	\$ 12,850	\$ 15,000	\$ 2,150	
	Other Services and Charges						
21100	General Liability/Property Ins.	\$ 3,000	\$ 1,767	\$ 2,356	\$ 2,500	\$ (500)	-16.67%
21150	Advertising & Communication	-	-	-	-	-	
21250	Watershed Management	25,000	-	-	25,000	-	0.00%
21252	EMS Programs/Supplies	-	-	-	-	-	
21253	Safety Programs/Supplies	3,616	1,352	2,704	3,260	(356)	-9.85%
21300	Authority Dues/Permits/Fees	1,000	769	1,538	1,000	-	0.00%
21350	Laboratory Analysis	38,000	13,592	27,184	30,600	(7,400)	-19.47%
21400	Utilities	67,000	37,357	74,714	80,000	13,000	19.40%
21420	General Other Services	200	-	-	-	(200)	-100.00%
21430	Governance & Strategic Support	-	-	-	-	-	
21450	Bad Debt	-	-	-	-	-	
	Subtotal	\$ 137,816	\$ 54,837	\$ 108,496	\$ 142,360	\$ 4,544	3.30%
22000	Communication						
22100	Radio	\$ 450	\$ 586	\$ 1,172	\$ 900	\$ 450	100.00%
22150	Telephone & Data Service	3,300	1,832	3,664	3,500	200	6.06%
22200	Cell Phones & Pagers	1,200	514	1,028	1,200	-	0.00%
	Subtotal	\$ 4,950	\$ 2,932	\$ 5,864	\$ 5,600	\$ 650	13.13%
31000	Information Technology						
31100	Computer Hardware	\$ 1,250	\$ -	\$ 1,250	\$ 1,250	\$ -	0.00%
31150	SCADA Maint. & Support	1,000	740	1,000	1,000	-	0.00%
31200	Maintenance & Support Services	-	-	-	-	-	
31250	Software Purchases	350	-	-	-	(350)	-100.00%
	Subtotal	\$ 2,600	\$ 740	\$ 2,250	\$ 2,250	\$ (350)	-13.46%
33000	Supplies						
33100	Office Supplies	\$ 25	\$ -	\$ -	\$ -	\$ (25)	-100.00%
33150	Subscriptions/Reference Material	20	-	-	-	(20)	-100.00%
33350	Postage & Delivery	1,350	502	1,004	1,350	-	0.00%
	Subtotal	\$ 1,395	\$ 502	\$ 1,004	\$ 1,350	\$ (45)	-3.23%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ 40,000	\$ 6,242	\$ 10,000	\$ 23,100	\$ (16,900)	-42.25%
41150	Building & Land Lease	-	982	1,964	-	-	
41200	Pump Station Maintenance	-	-	-	-	-	
41300	Dam Maintenance	5,000	3,000	6,000	2,500	(2,500)	-50.00%
41350	Pipeline/Appurtenances	5,000	6,360	12,720	5,000	-	0.00%
41400	Materials, Supplies & Tools	9,000	8,760	17,520	2,500	(6,500)	-72.22%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Crozet Water

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41450	Chemicals	256,900	75,132	250,000	225,500	(31,400)	-12.22%
41500	Vehicle Maintenance	1,000	1,061	2,122	1,500	500	50.00%
41550	Equipment Repair, Replace, Maint.	40,000	1,967	10,000	40,000	-	0.00%
41600	Instrumentation & Metering	8,500	-	8,500	12,700	4,200	49.41%
41650	Fuel & Lubricants	7,000	2,940	5,880	7,000	-	0.00%
41700	General Other Maintenance	30,000	28,400	56,800	33,492	3,492	11.64%
Subtotal		\$ 402,400	\$ 134,844	\$ 381,506	\$ 353,292	\$ (49,108)	-12.20%
81000	Equipment Purchases						
81200	Rental & Leases	\$ -	\$ -	\$ -	\$ -	\$ -	
81250	Equipment (over \$10,000)	-	-	-	-	-	
81300	Vehicle Replacement Fund	2,500	1,250	2,500	3,000	500	20.00%
Subtotal		\$ 2,500	\$ 1,250	\$ 2,500	\$ 3,000	\$ 500	20.00%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ 80,460	\$ 39,905	\$ 80,759	\$ 77,867	\$ (2,593)	-3.22%
95300	Engineering Allocation	62,107	33,482	66,957	69,176	7,069	11.38%
95150	Maintenance Allocation	56,027	26,270	53,047	53,751	(2,276)	-4.06%
95200	Laboratory Allocation	18,918	11,005	20,687	20,661	1,743	9.21%
Subtotal		\$ 217,512	\$ 110,662	\$ 221,450	\$ 221,455	\$ 3,943	1.81%
Depreciation		30,000	15,000	30,000	40,000	10,000	33.33%
Subtotal		\$ 30,000	\$ 15,000	\$ 30,000	\$ 40,000	\$ 10,000	33.33%
Total		\$ 1,112,612	\$ 468,983	\$ 1,060,751	\$ 1,086,905	\$ (25,707)	-2.31%

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Scottsville Water Summary

Projected Flow (MGD)

FY 2020			FY 2021	Budget % Change
Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	
0.050			0.047	-6.00%

Operations Budget

Projected Revenues

Operations Rate (monthly)

Operations Rate (monthly)	\$	43,401			\$	43,401	0.00%		
Revenue	\$	520,812	\$	260,406	\$	520,812	0.00%		
Use of reserves		15,000		-		15,000	-38.53%		
Interest Allocation		800		576		1,152	25.00%		
Total Operations Revenues	\$	536,612	\$	260,982	\$	536,964	\$	531,032	-1.04%

Projected Expenses

Personnel Cost	\$	197,349	\$	97,507	\$	193,980	\$	184,032	-6.75%
Professional Services		20,000		675		20,000		71,000	255.00%
Other Services and Charges		33,318		9,415		18,531		22,780	-31.63%
Communications		3,430		2,634		5,268		4,600	34.11%
Information Technology		800		400		800		650	-18.75%
Supplies		410		142		284		200	-51.22%
Operations and Maintenance		121,540		42,617		116,584		87,662	-27.87%
Equipment Purchases		3,000		1,869		3,738		2,500	-16.67%
Depreciation		20,000		10,000		20,000		20,000	0.00%
Subtotal Before Allocations	\$	399,847	\$	165,259	\$	379,185	\$	393,424	-1.61%
Allocations of Support Departments		136,770		68,467		137,249		137,603	0.61%
Total Operations Expenses	\$	536,617	\$	233,726	\$	516,434	\$	531,027	-1.04%

Operations Cost per 1,000 gallons \$29.404 \$30.955 5.27%

Debt Service Budget

Projected Revenue

Debt Service Rates - Monthly

Total Service Rates - Monthly	\$	10,729			\$	10,729	0.00%		
Debt Service Rate Revenue - ACSA	\$	128,749	\$	64,374	\$	128,748	\$	128,749	0.00%
Trust Fund Interest		1,700		864		1,728		1,200	-29.41%
Reserve Fund Interest		8,400		4,249		8,498		8,300	-1.19%
Total Debt Service Revenue	\$	138,849	\$	69,487	\$	138,974	\$	138,249	-0.43%

Principal, Interest & Reserves

Total Principal & Interest	\$	129,524	\$	64,762	\$	129,524	\$	126,032	-2.70%
Estimated New Principal & Interest		925		463		926		3,917	323.46%
Reserve Additions-Interest		8,400		4,249		8,498		8,300	-1.19%
Total Debt Principal and Interest	\$	138,849	\$	69,474	\$	138,948	\$	138,249	-0.43%

Rate Center Summary

Total Revenues	\$	675,461	\$	330,469	\$	675,938	\$	669,281	-0.91%
Total Expenses		675,466		303,200		655,382		669,276	-0.92%
Surplus/ (Deficit)	\$	(5)	\$	27,269	\$	20,556	\$	5	
Rates - Monthly									
ACSA	\$	54,130					\$	54,130	0.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Scottsville Water

Expense Detail			Current Year Activity			2020 vs. 2021	
Rate Center: Scottsville Water						2020 vs. 2021	
Object Code	Line Item	Adopted Budget FY 2019-2020	Six Month Actual 12/31/2019	Projected Year end 6/30/2020	Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %
10000	Salaries & Benefits						
11000	Salaries	\$ 124,221	\$ 63,323	\$ 126,646	\$ 113,850	\$ (10,371)	-8.35%
11010	Overtime & Holiday Pay	13,000	7,778	15,556	13,000	-	0.00%
12010	FICA	10,497	5,272	10,544	9,704	(793)	-7.55%
12020	Health Insurance	29,249	12,045	24,090	28,600	(649)	-2.22%
12026	Employee Assistance Program	25	10	20	25	-	0.00%
12030	Retirement	11,950	4,991	9,982	10,247	(1,703)	-14.25%
12040	Life Insurance	1,627	771	1,542	1,526	(101)	-6.21%
12050	Fitness Program	300	178	356	300	-	0.00%
12060	Worker's Comp Insurance	2,600	1,551	2,068	2,600	-	0.00%
Subtotal		\$ 193,469	\$ 95,919	\$ 190,804	\$ 179,852	\$ (13,617)	-7.04%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 180	\$ 3	\$ 6	\$ 180	\$ -	0.00%
13150	Education & Training	1,950	483	966	1,950	-	0.00%
13200	Travel & Lodging	400	4	8	200	(200)	-50.00%
13250	Uniforms	1,200	930	1,860	1,400	200	16.67%
13325	Recruiting & Medical Testing	100	80	160	150	50	50.00%
13350	Other	50	88	176	300	250	500.00%
Subtotal		\$ 3,880	\$ 1,588	\$ 3,176	\$ 4,180	\$ 300	7.73%
Professional Services							
20100	Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	
20200	Financial & Admin. Services	-	-	-	-	-	
20250	Bond Issue Costs	-	-	-	-	-	
20300	Engineering & Technical Services	20,000	675	20,000	71,000	51,000	255.00%
Subtotal		\$ 20,000	\$ 675	\$ 20,000	\$ 71,000	\$ 51,000	
Other Services and Charges							
21100	General Liability/Property Ins.	\$ 760	\$ 448	\$ 597	\$ 900	\$ 140	18.42%
21150	Advertising & Communication	-	-	-	-	-	
21250	Watershed Management	-	-	-	-	-	
21252	EMS Programs/Supplies	-	-	-	-	-	
21253	Safety Programs/Supplies	1,858	584	1,168	1,430	(428)	-23.04%
21300	Authority Dues/Permits/Fees	1,000	519	1,038	500	(500)	-50.00%
21350	Laboratory Analysis	18,500	2,609	5,218	4,850	(13,650)	-73.78%
21400	Utilities	11,000	4,556	9,112	15,000	4,000	36.36%
21420	General Other Services	200	699	1,398	100	(100)	-50.00%
21430	Governance & Strategic Support	-	-	-	-	-	
21450	Bad Debt	-	-	-	-	-	
Subtotal		\$ 33,318	\$ 9,415	\$ 18,531	\$ 22,780	\$ (10,538)	-31.63%
22000	Communication						
22100	Radio	\$ 430	\$ 386	\$ 772	\$ 500	\$ 70	16.28%
22150	Telephone & Data Service	2,000	1,853	3,706	3,200	1,200	60.00%
22200	Cell Phones & Pagers	1,000	395	790	900	(100)	-10.00%
Subtotal		\$ 3,430	\$ 2,634	\$ 5,268	\$ 4,600	\$ 1,170	34.11%
31000	Information Technology						
31100	Computer Hardware	\$ 150	\$ -	\$ -	\$ 150	\$ -	0.00%
31150	SCADA Maint. & Support	500	400	800	500	-	0.00%
31200	Maintenance & Support Services	-	-	-	-	-	
31250	Software Purchases	150	-	-	-	(150)	0.00%
Subtotal		\$ 800	\$ 400	\$ 800	\$ 650	\$ (150)	-18.75%
33000	Supplies						
33100	Office Supplies	\$ 50	\$ -	\$ -	\$ -	\$ (50)	-100.00%
33150	Subscriptions/Reference Material	10	-	-	-	(10)	-100.00%
33350	Postage & Delivery	350	142	284	200	(150)	-42.86%
Subtotal		\$ 410	\$ 142	\$ 284	\$ 200	\$ (210)	-51.22%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ 13,000	\$ 3,968	\$ 7,936	\$ 5,700	\$ (7,300)	-56.15%
41150	Building & Land Lease	-	-	-	-	-	
41200	Pump Station Maintenance	-	-	-	-	-	
41300	Dam Maintenance	1,500	-	-	1,500	-	0.00%
41350	Pipeline/Appurtenances	100	160	320	-	(100)	-100.00%
41400	Materials, Supplies & Tools	3,200	5,461	10,922	3,000	(200)	-6.25%
41450	Chemicals	46,440	24,217	48,434	35,550	(10,890)	-23.45%
41500	Vehicle Maintenance	700	709	1,418	800	100	14.29%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Scottsville Water

Expense Detail							2020	2020
Rate Center: Scottsville Water							vs.	vs.
Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %	
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020				
41550	Equipment Repair, Replace, Maint.	23,000	2,975	23,000	20,000	(3,000)	-13.04%	
41600	Instrumentation & Metering	20,200	350	15,000	10,600	(9,600)	-47.52%	
41650	Fuel & Lubricants	1,400	527	1,054	1,000	(400)	-28.57%	
41700	General Other Maintenance	12,000	4,250	8,500	9,512	(2,488)	-20.73%	
Subtotal		\$ 121,540	\$ 42,617	\$ 116,584	\$ 87,662	\$ (33,878)	-27.87%	
81000	Equipment Purchases							
81200	Rental & Leases	\$ 500	\$ 619	\$ 1,238	\$ -	(500)	-100.00%	
81250	Equipment (over \$10,000)	-	-	-	-	-		
81300	Vehicle Replacement Fund	2,500	1,250	2,500	2,500	-	0.00%	
Subtotal		\$ 3,000	\$ 1,869	\$ 3,738	\$ 2,500	\$ (500)	-16.67%	
95000	Allocations from Departments							
95100	Administrative Allocation	\$ 40,230	\$ 19,953	\$ 40,380	\$ 38,934	\$ (1,296)	-3.22%	
95300	Engineering Allocation	31,054	16,741	33,479	34,588	3,534	11.38%	
95150	Maintenance Allocation	56,027	26,270	53,047	53,751	(2,276)	-4.06%	
95200	Laboratory Allocation	9,459	5,503	10,343	10,330	871	9.21%	
Subtotal		\$ 136,770	\$ 68,467	\$ 137,249	\$ 137,603	\$ 833	0.61%	
Depreciation		20,000	10,000	20,000	\$ 20,000	-	0.00%	
Subtotal		\$ 20,000	\$ 10,000	\$ 20,000	\$ 20,000	\$ -	0.00%	
Total		\$ 536,617	\$ 233,726	\$ 516,434	\$ 531,027	\$ (5,590)	-1.04%	

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Wastewater Rate Centers

Rivanna Water and Sewer Authority

Fiscal Year 2020-2021

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Urban Wastewater Summary

FY 2020			FY 2021	Budget % Change
Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	
Projected Flow (MGD)	9.289		9.289	0.00%

Operations Budget

Projected Revenues

Operations Rate

Revenue	\$ 2,369			\$ 2,369	0.00%	
Stone Robinson WWTP	\$ 8,033,620	\$ 4,213,051	\$ 8,276,102	\$ 8,033,620	0.00%	\$ -
Septage Acceptance	22,478	8,744	17,488	22,788	1.38%	
Nutrient Credits	450,000	260,963	496,926	475,000	5.56%	
Rate Stabilization Reserve	90,000	78,763	78,763	45,000	-50.00%	
Miscellaneous Revenue	-	-	-	121,233		
Interest Allocation	-	500	500	-		
	14,400	10,169	20,338	16,100	11.81%	
Total Operations Revenues	\$ 8,610,498	\$ 4,572,190	\$ 8,890,117	\$ 8,713,741	1.20%	

Projected Expenses

Personnel Cost	\$ 1,281,463	\$ 636,717	\$ 1,268,970	\$ 1,299,876	1.44%	
Professional Services	175,000	152,763	305,526	143,400	-18.06%	
Other Services and Charges	2,030,825	1,058,073	2,086,769	2,020,300	-0.52%	
Communications	10,430	6,528	10,096	10,700	2.59%	
Information Technology	62,500	15,233	60,758	69,500	11.20%	
Supplies	2,700	204	408	1,900	-29.63%	
Operations and Maintenance	1,732,150	869,234	1,832,364	1,767,000	2.01%	
Equipment Purchases	70,000	33,653	67,306	125,250	78.93%	
Depreciation & Reserves	470,000	235,000	470,000	470,000	0.00%	
Subtotal before allocations	\$ 5,835,068	\$ 3,007,405	\$ 6,102,197	\$ 5,907,926	1.25%	
Allocations of Support Departments	2,775,430	1,400,543	2,805,042	2,805,815	1.09%	
Total Operations Expenses	\$ 8,610,498	\$ 4,407,948	\$ 8,907,239	\$ 8,713,741	1.20%	

Operations Cost per 1,000 gallons	\$2.540		\$2.570	1.18%
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Debt Service Budget

Projected Revenue

Debt Service Rate

Debt Service Rate	CITY	407,588			407,588	0.00%
	ACSA	278,174			278,174	0.00%
Debt Service Rate Revenue - CITY	\$	4,891,055	\$ 2,445,528	\$ 4,891,056	\$ 4,891,018	0.00%
Debt Service Rate Revenue - ACSA		3,338,088	1,669,044	3,338,088	3,338,072	0.00%
County MOU - Septage		109,440	109,441	109,441	109,440	0.00%
Trust Fund Interest		96,900	52,974	105,948	74,000	-23.63%
Use of Reserves					94,400	
Reserve Fund Interest		266,900	137,041	274,082	295,200	10.60%
Total Debt Service Revenue	\$	8,702,383	\$ 4,414,028	\$ 8,718,615	\$ 8,802,130	1.15%

Principal, Interest & Reserves

Total Principal & Interest	\$ 7,880,079	\$ 3,940,040	\$ 7,880,080	\$ 7,812,130	-0.86%	
Reserve Additions - Interest	266,900	137,041	274,082	295,200	10.60%	
Debt Service Ratio Charge	325,000	162,500	325,000	325,000	0.00%	
Est. New Debt Service - CIP Growth	230,400	115,200	230,400	369,800	60.50%	
Total Debt Principal and Interest	\$ 8,702,379	\$ 4,354,781	\$ 8,709,562	\$ 8,802,130	1.15%	

Rate Center Summary

Total Revenues	\$ 17,312,881	\$ 8,986,218	\$ 17,608,732	\$ 17,515,871	1.17%
Total Expenses	17,312,877	8,762,729	17,616,801	17,515,871	1.17%
Surplus/(Deficit)	\$ 4	\$ 223,489	\$ (8,069)	\$ -	

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Urban Wastewater

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020 vs. 2021 Variance \$	2020 vs. 2021 Variance %
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020			
10000	Salaries & Benefits						
11000	Salaries	\$ 821,784	\$ 418,706	\$ 837,412	\$ 844,100	\$ 22,316	2.72%
11010	Overtime & Holiday Pay	80,000	24,895	49,790	65,000	(15,000)	-18.75%
12010	FICA	68,986	32,739	65,478	69,546	560	0.81%
12020	Health Insurance	180,472	105,437	210,874	193,100	12,628	7.00%
12026	Employee Assistance Program	200	61	122	250	50	25.00%
12030	Retirement	79,056	31,807	63,614	75,969	(3,087)	-3.90%
12040	Life Insurance	10,765	4,995	9,990	11,311	546	5.07%
12050	Fitness Program	700	564	1,128	1,000	300	42.86%
12060	Worker's Comp Insurance	11,200	6,696	8,928	11,500	300	2.68%
	Subtotal	\$ 1,253,163	\$ 625,900	\$ 1,247,336	\$ 1,271,776	\$ 18,613	1.49%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 2,800	\$ 226	\$ 452	\$ 2,000	\$ (800)	-28.57%
13150	Education & Training	10,900	4,362	8,724	10,900	-	0.00%
13200	Travel & Lodging	5,300	433	866	2,500	(2,800)	-52.83%
13250	Uniforms	7,800	5,162	10,324	9,700	1,900	24.36%
13325	Recruiting & Medical Testing	1,000	403	806	1,000	-	0.00%
13350	Other	500	231	462	2,000	1,500	300.00%
	Subtotal	\$ 28,300	\$ 10,817	\$ 21,634	\$ 28,100	\$ (200)	-0.71%
	Professional Services						
20100	Legal Fees	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000	
20200	Financial & Admin. Services	-	-	-	-	-	
20250	Bond Issue Costs	-	-	-	-	-	
20300	Engineering & Technical Services	175,000	152,763	305,526	138,400	(36,600)	-20.91%
	Subtotal	\$ 175,000	\$ 152,763	\$ 305,526	\$ 143,400	\$ (31,600)	
	Other Services and Charges						
21100	General Liability/Property Ins.	\$ 74,800	\$ 44,066	\$ 58,755	\$ 67,400	\$ (7,400)	-9.89%
21150	Advertising & Communication	225	-	-	-	(225)	
21250	Watershed Management	-	-	-	-	-	
21252	EMS Programs/Supplies	-	-	-	1,000	1,000	
21253	Safety Programs/Supplies	38,700	7,483	14,966	25,500	(13,200)	-34.11%
21300	Authority Dues/Permits/Fees	35,200	23,317	46,634	44,900	9,700	27.56%
21350	Laboratory Analysis	6,500	5,383	10,766	9,500	3,000	46.15%
21400	Utilities	938,000	458,327	916,654	940,000	2,000	0.21%
21420	General Other Services	932,400	519,497	1,038,994	932,000	(400)	-0.04%
21430	Governance & Strategic Support	5,000	-	-	-	(5,000)	-100.00%
21450	Bad Debt	-	-	-	-	-	
	Subtotal	\$ 2,030,825	\$ 1,058,073	\$ 2,086,769	\$ 2,020,300	\$ (10,525)	-0.52%
22000	Communication						
22100	Radio	\$ 3,830	\$ 3,480	\$ 4,000	\$ 3,900	\$ 70	1.83%
22150	Telephone & Data Service	1,800	1,171	2,342	2,000	200	11.11%
22200	Cell Phones & Pagers	4,800	1,877	3,754	4,800	-	0.00%
	Subtotal	\$ 10,430	\$ 6,528	\$ 10,096	\$ 10,700	\$ 270	2.59%
31000	Information Technology						
31100	Computer Hardware	\$ 9,000	\$ 4,663	\$ 9,000	\$ 9,000	\$ -	0.00%
31150	SCADA Maint. & Support	50,500	9,941	50,500	57,500	7,000	13.86%
31200	Maintenance & Support Services	-	-	-	-	-	
31250	Software Purchases	3,000	629	1,258	3,000	-	0.00%
	Subtotal	\$ 62,500	\$ 15,233	\$ 60,758	\$ 69,500	\$ 7,000	11.20%
33000	Supplies						
33100	Office Supplies	\$ 2,500	\$ 33	\$ 66	\$ 1,000	\$ (1,500)	-60.00%
33150	Subscriptions/Reference Material	-	-	-	-	-	
33350	Postage & Delivery	200	171	342	900	700	350.00%
	Subtotal	\$ 2,700	\$ 204	\$ 408	\$ 1,900	\$ (800)	-29.63%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ 85,000	\$ 38,033	\$ 76,066	\$ 85,000	\$ -	0.00%
41150	Building & Land Lease	-	-	-	-	-	
41200	Pump Station Maintenance	90,000	75,803	151,606	90,000	-	0.00%
41300	Dam Maintenance	-	-	-	-	-	
41350	Pipeline/Appurtenances	195,000	79,298	158,596	114,360	(80,640)	-41.35%
41400	Materials, Supplies & Tools	35,500	31,928	63,856	41,000	5,500	15.49%
41450	Chemicals	837,250	433,248	866,496	848,000	10,750	1.28%
41500	Vehicle Maintenance	13,500	5,088	10,176	15,000	1,500	11.11%
41550	Equipment Repair, Replace, Maint.	350,000	185,272	370,544	350,000	-	0.00%
41600	Instrumentation & Metering	125,900	8,052	110,000	216,640	90,740	72.07%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Urban Wastewater

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41650	Fuel & Lubricants	38,000	20,160	40,320	35,000	(3,000)	-7.89%
41700	General Other Maintenance	(38,000)	(7,648)	(15,296)	(28,000)	10,000	26.32%
<i>Subtotal</i>		\$ 1,732,150	\$ 869,234	\$ 1,832,364	\$ 1,767,000	\$ 34,850	2.01%
81000	Equipment Purchases						
81200	Rental & Leases	\$ 10,000	\$ 3,653	\$ 7,306	\$ 77,250	\$ 67,250	672.50%
81250	Equipment (over \$10,000)	-	-	-	-	-	-
81300	Vehicle Replacement Fund	60,000	30,000	60,000	48,000	(12,000)	-20.00%
<i>Subtotal</i>		\$ 70,000	\$ 33,653	\$ 67,306	\$ 125,250	\$ 55,250	78.93%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ 965,520	\$ 478,860	\$ 969,110	\$ 934,409	\$ (31,111)	-3.22%
95300	Engineering Allocation	683,179	368,298	736,527	760,939	77,760	11.38%
95150	Maintenance Allocation	904,442	424,071	856,335	867,702	(36,740)	-4.06%
95200	Laboratory Allocation	222,289	129,314	243,070	242,765	20,476	9.21%
<i>Subtotal</i>		\$ 2,775,430	\$ 1,400,543	\$ 2,805,042	\$ 2,805,815	\$ 30,385	1.09%
Depreciation		470,000	235,000	470,000	\$ 470,000	-	0.00%
<i>Subtotal</i>		\$ 470,000	\$ 235,000	\$ 470,000	\$ 470,000	\$ -	0.00%
Total		\$ 8,610,498	\$ 4,407,948	\$ 8,907,239	\$ 8,713,741	\$ 103,243	1.20%

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Glenmore Wastewater Summary

Projected Flow (MGD)

FY 2020			FY 2021	Budget % Change
Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	
0.109			0.114	

Operations Budget

Projected Revenues

Operations Rate (monthly)

Revenue	\$ 30,877			\$ 30,877	0.00%
Rate Stabilization	370,524	\$ 185,262	\$ 370,524	370,524	0.00%
Interest Allocation	-	-	-	24,540	
	700	487	974	700	0.00%
Total Operations Revenues	\$ 371,224	\$ 185,749	\$ 371,498	\$ 395,764	6.61%

Projected Expenses

Personnel Cost	\$ 95,340	\$ 46,998	\$ 93,677	\$ 97,804	2.58%
Professional Services	-	2,194	4,388	24,200	
Other Services and Charges	35,210	15,989	31,860	36,800	4.52%
Communications	3,000	1,771	3,170	3,200	6.67%
Information Technology	3,700	6,590	11,000	4,050	9.46%
Supplies	100	-	-	-	-100.00%
Operations and Maintenance	119,950	79,227	158,454	109,100	-9.05%
Equipment Purchases	2,400	1,200	2,400	3,700	54.17%
Depreciation	5,000	2,500	5,000	10,000	100.00%
Subtotal before allocations	\$ 264,700	\$ 156,469	\$ 309,949	\$ 288,854	9.13%
Allocations of Support Departments	106,526	52,929	106,104	106,907	0.36%
Total Operations Expenses	\$ 371,226	\$ 209,398	\$ 416,053	\$ 395,761	6.61%

Operations Cost per 1,000 gallons

\$9.331

\$9.511

Debt Service Budget

Projected Revenue

Debt Service Rate (monthly)

Debt Service Rate Revenue - ACSA	\$ 315			\$ 315	0.00%
Trust Fund Interest	3,778	\$ 1,890	\$ 3,780	3,778	0.00%
Reserve Fund Interest	-	-	-	-	
	3,100	1,771	3,542	3,000	-3.23%
Total Debt Service Revenue	\$ 6,878	\$ 3,661	\$ 7,322	\$ 6,778	-1.45%

Principal, Interest & Reserves

Total Principal & Interest	\$ 1,578	\$ 789	\$ 1,578	\$ 1,579	0.06%
Estimated New Principal & Interest	\$ 2,200	\$ 1,100	\$ 2,200	\$ 2,199	
Reserve Additions - Interest	3,100	1,771	3,542	3,000	-3.23%
Total Debt Principal and Interest	\$ 6,878	\$ 3,660	\$ 7,320	\$ 6,778	-1.45%

Rate Center Summary

Total Revenues	\$ 378,102	\$ 189,410	\$ 378,820	\$ 402,542	6.46%
Total Expenses	378,104	213,058	423,373	402,539	6.46%
Surplus/(Deficit)	\$ (2)	\$ (23,648)	\$ (44,553)	\$ 3	
Rates (Monthly)					
ACSA	\$ 31,192			\$ 31,192	0.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Glenmore Wastewater

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020 vs. 2021 Variance \$	2020 vs. 2021 Variance %
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020			
10000	Salaries & Benefits						
11000	Salaries	\$ 60,532	\$ 30,842	\$ 61,684	\$ 62,100	\$ 1,568	2.59%
11010	Overtime & Holiday Pay	6,500	1,909	3,818	6,500	-	0.00%
12010	FICA	5,128	2,417	4,834	5,248	120	2.34%
12020	Health Insurance	13,584	7,857	15,714	14,550	966	7.11%
12026	Employee Assistance Program	15	5	10	15	-	0.00%
12030	Retirement	5,823	2,340	4,680	5,589	(234)	-4.02%
12040	Life Insurance	793	367	734	832	39	4.92%
12050	Fitness Program	50	38	76	70	20	40.00%
12060	Worker's Comp Insurance	800	479	639	800	-	0.00%
	Subtotal	\$ 93,225	\$ 46,254	\$ 92,189	\$ 95,704	\$ 2,479	2.66%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 230	\$ 14	\$ 28	\$ 200	\$ (30)	-13.04%
13150	Education & Training	775	228	456	700	(75)	-9.68%
13200	Travel & Lodging	375	3	6	200	(175)	-46.67%
13250	Uniforms	600	395	790	750	150	25.00%
13325	Recruiting & Medical Testing	100	31	62	100	-	0.00%
13350	Other	35	73	146	150	115	328.57%
	Subtotal	\$ 2,115	\$ 744	\$ 1,488	\$ 2,100	\$ (15)	-0.71%
	Professional Services						
20100	Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	
20200	Financial & Admin. Services	-	-	-	-	-	
20250	Bond Issue Costs	-	-	-	-	-	
20300	Engineering & Technical Services	-	2,194	4,388	24,200	24,200	0.00%
	Subtotal	\$ -	\$ 2,194	\$ 4,388	\$ 24,200	\$ 24,200	
	Other Services and Charges						
21100	General Liability/Property Ins.	\$ 300	\$ 177	\$ 236	\$ 200	\$ (100)	-33.33%
21150	Advertising & Communication	-	-	-	-	-	
21250	Watershed Management	-	-	-	-	-	
21252	EMS Programs/Supplies	-	-	-	-	-	
21253	Safety Programs/Supplies	2,000	1,057	2,114	1,100	(900)	-45.00%
21300	Authority Dues/Permits/Fees	3,300	3,146	6,292	3,000	(300)	-9.09%
21350	Laboratory Analysis	1,500	-	-	1,500	-	0.00%
21400	Utilities	28,000	11,382	22,764	31,000	3,000	10.71%
21420	General Other Services	110	227	454	-	(110)	-100.00%
21430	Governance & Strategic Support	-	-	-	-	-	
21450	Bad Debt	-	-	-	-	-	
	Subtotal	\$ 35,210	\$ 15,989	\$ 31,860	\$ 36,800	\$ 1,590	4.52%
22000	Communication						
22100	Radio	\$ 400	\$ 386	\$ 400	\$ 400	\$ -	0.00%
22150	Telephone & Data Service	2,000	1,127	2,254	2,200	200	10.00%
22200	Cell Phones & Pagers	600	258	516	600	-	0.00%
	Subtotal	\$ 3,000	\$ 1,771	\$ 3,170	\$ 3,200	\$ 200	6.67%
31000	Information Technology						
31100	Computer Hardware	\$ 1,000	\$ -	\$ 1,000	\$ 1,000	\$ -	0.00%
31150	SCADA Maint. & Support	2,500	6,590	10,000	3,050	550	22.00%
31200	Maintenance & Support Services	-	-	-	-	-	
31250	Software Purchases	200	-	-	-	(200)	-100.00%
	Subtotal	\$ 3,700	\$ 6,590	\$ 11,000	\$ 4,050	\$ 350	9.46%
33000	Supplies						
33100	Office Supplies	\$ 100	\$ -	\$ -	\$ -	\$ (100)	-100.00%
33150	Subscriptions/Reference Material	-	-	-	-	-	
33350	Postage & Delivery	-	-	-	-	-	
	Subtotal	\$ 100	\$ -	\$ -	\$ -	\$ (100)	-100.00%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ 8,500	\$ 2,939	\$ 5,878	\$ 6,000	\$ (2,500)	-29.41%
41150	Building & Land Lease	-	-	-	-	-	
41200	Pump Station Maintenance	9,000	-	-	9,000	-	0.00%
41300	Dam Maintenance	-	-	-	-	-	
41350	Pipeline/Appurtenances	500	-	-	-	(500)	-100.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Glenmore Wastewater

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41400	Materials, Supplies & Tools	2,500	754	1,508	3,000	500	20.00%
41450	Chemicals	2,000	-	-	2,000	-	0.00%
41500	Vehicle Maintenance	750	99	198	1,000	250	33.33%
41550	Equipment Repair, Replace, Maint.	18,000	38,819	77,638	20,000	2,000	11.11%
41600	Instrumentation & Metering	5,100	234	468	5,100	-	0.00%
41650	Fuel & Lubricants	3,600	1,144	2,288	3,000	(600)	-16.67%
41700	General Other Maintenance	70,000	35,238	70,476	60,000	(10,000)	-14.29%
Subtotal		\$ 119,950	\$ 79,227	\$ 158,454	\$ 109,100	\$ (10,850)	-9.05%
81000	Equipment Purchases						
81200	Rental & Leases	\$ -	\$ -	\$ -	\$ -	\$ -	
81250	Equipment (over \$10,000)	-	-	-	-	-	
81300	Vehicle Replacement Fund	2,400	1,200	2,400	3,700	1,300	54.17%
Subtotal		\$ 2,400	\$ 1,200	\$ 2,400	\$ 3,700	\$ 1,300	54.17%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ 20,115	\$ 9,976	\$ 20,190	\$ 19,467	\$ (648)	-3.22%
95300	Engineering Allocation	23,290	12,556	25,109	25,941	2,651	11.38%
95150	Maintenance Allocation	56,027	26,270	53,047	53,751	(2,276)	-4.06%
95200	Laboratory Allocation	7,094	4,127	7,758	7,748	654	9.22%
Subtotal		\$ 106,526	\$ 52,929	\$ 106,104	\$ 106,907	\$ 381	0.36%
Depreciation		5,000	2,500	5,000	10,000	5,000	100.00%
Subtotal		\$ 5,000	\$ 2,500	\$ 5,000	\$ 10,000	\$ 5,000	100.00%
Total		\$ 371,226	\$ 209,398	\$ 416,053	\$ 395,761	\$ 24,535	6.61%

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Scottsville Wastewater Summary

Projected Flow (MGD)

FY 2020			FY 2021	Budget % Change
Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	
0.059			0.063	

Operations Budget

Projected Revenues

Operations Rate (monthly)	\$ 25,749			\$ 25,749	0.00%
Revenue	\$ 308,988	\$ 154,494	\$ 308,988	\$ 308,988	0.00%
Interest Allocation	600	399	798	600	0.00%
Total Operations Revenues	\$ 309,588	\$ 154,893	\$ 309,786	\$ 309,588	0.00%

Projected Expenses

Personnel Cost	\$ 95,366	\$ 46,998	\$ 93,677	\$ 97,317	2.05%
Professional Services	2,000	-	2,000	2,100	5.00%
Other Services and Charges	28,000	10,249	20,223	23,710	-15.32%
Communications	3,930	1,924	3,848	3,720	-5.34%
Information Technology	1,700	-	-	1,500	-11.76%
Supplies	25	-	-	500	1900.00%
Operations and Maintenance	59,350	27,163	59,220	57,812	-2.59%
Equipment Purchases	2,700	1,200	2,400	3,700	37.04%
Depreciation	18,000	9,000	18,000	20,000	11.11%
Subtotal before allocations	\$ 211,071	\$ 96,534	\$ 199,368	\$ 210,359	-0.34%
Allocations of Support Departments	98,522	49,176	98,526	99,229	0.72%
Total Operations Expenses	\$ 309,593	\$ 145,710	\$ 297,894	\$ 309,588	0.00%

Operations Cost per 1,000 gallons \$14.376 \$13.463 93.65%

Debt Service Budget

Projected Revenue

Debt Service Rate (monthly)	\$ 787			\$ 787	0.00%
Debt Service Rate Revenue - ACSA	\$ 9,442	\$ 4,722	\$ 9,444	\$ 9,442	0.00%
Trust Fund Interest	100	86	172	100	0.00%
Reserve Fund Interest	3,100	1,416	2,832	4,200	35.48%
Total Debt Service Revenue	\$ 12,642	\$ 6,224	\$ 12,448	\$ 13,742	8.70%

Principal, Interest & Reserves

Total Principal & Interest	\$ 7,742	\$ 3,871	\$ 7,742	\$ 7,464	-3.59%
Estimated New Principal & Interest	1,800	900	1,800	2,078	15.44%
Reserve Additions - Interest	3,100	1,416	2,832	4,200	35.48%
Total Debt Principal and Interest	\$ 12,642	\$ 6,187	\$ 12,374	\$ 13,742	8.70%

Rate Center Summary

Total Revenues	\$ 322,230	\$ 161,117	\$ 322,234	\$ 323,330	0.34%
Total Expenses	322,235	151,897	310,268	323,330	0.34%
Surplus/(Deficit)	\$ (5)	\$ 9,220	\$ 11,966	\$ -	
Rates (Monthly)					
ACSA	\$ 26,536			\$ 26,536	0.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Scottsville Wastewater

Expense Detail							2020	2020
Rate Center: Scottsville Wastewater			Current Year Activity				vs.	vs.
Object Code	Line Item	Adopted Budget FY 2019-2020	Six Month Actual 12/31/2019	Projected Year end 6/30/2020	Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %	
10000	Salaries & Benefits							
11000	Salaries	\$ 60,532	\$ 30,842	\$ 61,684	\$ 62,100	\$ 1,568	2.59%	
11010	Overtime & Holiday Pay	6,500	1,909	3,818	6,000	(500)	-7.69%	
12010	FICA	5,128	2,417	4,834	5,210	82	1.60%	
12020	Health Insurance	13,584	7,857	15,714	14,550	966	7.11%	
12026	Employee Assistance Program	16	5	10	16	-	0.00%	
12030	Retirement	5,823	2,340	4,680	5,589	(234)	-4.02%	
12040	Life Insurance	793	367	734	832	39	4.92%	
12050	Fitness Program	50	38	76	70	20	40.00%	
12060	Worker's Comp Insurance	800	479	639	800	-	0.00%	
Subtotal		\$ 93,226	\$ 46,254	\$ 92,189	\$ 95,167	\$ 1,941	2.08%	
13000	Other Personnel Costs							
13100	Employee Dues & Licenses	\$ 230	\$ 14	\$ 28	\$ 200	\$ (30)	-13.04%	
13150	Education & Training	775	228	456	775	-	0.00%	
13200	Travel & Lodging	375	3	6	200	(175)	-46.67%	
13250	Uniforms	600	395	790	750	150	25.00%	
13325	Recruiting & Medical Testing	100	31	62	75	(25)		
13350	Other	60	73	146	150	90	150.00%	
Subtotal		\$ 2,140	\$ 744	\$ 1,488	\$ 2,150	\$ 10	0.47%	
Professional Services								
20100	Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -		
20200	Financial & Admin. Services	-	-	-	-	-		
20250	Bond Issue Costs	-	-	-	-	-		
20300	Engineering & Technical Services	2,000	-	2,000	2,100	100	5.00%	
Subtotal		\$ 2,000	\$ -	\$ 2,000	\$ 2,100	\$ 100		
Other Services and Charges								
21100	General Liability/Property Ins.	\$ 700	\$ 412	\$ 549	\$ 700	\$ -	0.00%	
21150	Advertising & Communication	-	-	-	-	-		
21250	Watershed Management	-	-	-	-	-		
21252	EMS Programs/Supplies	-	-	-	-	-		
21253	Safety Programs/Supplies	2,000	1,004	2,008	1,010	(990)	-49.50%	
21300	Authority Dues/Permits/Fees	3,300	3,146	6,292	3,000	(300)	-9.09%	
21350	Laboratory Analysis	4,000	-	-	2,000	(2,000)	-50.00%	
21400	Utilities	18,000	5,687	11,374	17,000	(1,000)	-5.56%	
21420	General Other Services	-	-	-	-	-		
21430	Governance & Strategic Support	-	-	-	-	-		
21450	Bad Debt	-	-	-	-	-		
Subtotal		\$ 28,000	\$ 10,249	\$ 20,223	\$ 23,710	\$ (4,290)	-15.32%	
22000	Communication							
22100	Radio	\$ 430	\$ 386	\$ 772	\$ 650	\$ 220	51.16%	
22150	Telephone & Data Service	3,000	1,435	2,870	2,800	(200)	-6.67%	
22200	Cell Phones & Pagers	500	103	206	270	(230)	-46.00%	
Subtotal		\$ 3,930	\$ 1,924	\$ 3,848	\$ 3,720	\$ (210)	-5.34%	
31000	Information Technology							
31100	Computer Hardware	\$ 1,000	\$ -	\$ -	\$ 1,000	\$ -	0.00%	
31150	SCADA Maint. & Support	500	-	-	500	-	0.00%	
31200	Maintenance & Support Services	-	-	-	-	-		
31250	Software Purchases	200	-	-	-	(200)	-100.00%	
Subtotal		\$ 1,700	\$ -	\$ -	\$ 1,500	\$ (200)	-11.76%	
33000	Supplies							
33100	Office Supplies	\$ 25	\$ -	\$ -	\$ -	\$ (25)	-100.00%	
33150	Subscriptions/Reference Material	-	-	-	-	-		
33350	Postage & Delivery	-	-	-	500	500		
Subtotal		\$ 25	\$ -	\$ -	\$ 500	\$ 475	1900.00%	
41000	Operation & Maintenance							
41100	Building & Grounds	\$ 4,800	\$ 3,883	\$ 7,766	\$ 8,000	\$ 3,200	66.67%	
41150	Building & Land Lease	-	-	-	-	-		
41200	Pump Station Maintenance	10,500	53	5,000	1,000	(9,500)	-90.48%	
41300	Dam Maintenance	-	-	-	-	-		
41350	Pipeline/Appurtenances	500	873	1,746	-	(500)	-100.00%	
41400	Materials, Supplies & Tools	2,000	659	1,318	1,500	(500)	-25.00%	
41450	Chemicals	4,000	598	1,196	2,000	(2,000)	-50.00%	
41500	Vehicle Maintenance	750	99	198	1,000	250	33.33%	

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Rate Center: Scottsville Wastewater

Expense Detail							2020	2020
Rate Center: Scottsville Wastewater			Current Year Activity				vs.	vs.
Object Code	Line Item	Adopted Budget FY 2019-2020	Six Month Actual 12/31/2019	Projected Year end 6/30/2020	Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %	
41550	Equipment Repair, Replace, Maint.	16,000	9,310	18,620	16,000	-	0.00%	
41600	Instrumentation & Metering	10,000	4,765	9,530	2,100	(7,900)	-79.00%	
41650	Fuel & Lubricants	800	368	736	1,100	300	37.50%	
41700	General Other Maintenance	10,000	6,555	13,110	25,112	15,112	151.12%	
Subtotal		\$ 59,350	\$ 27,163	\$ 59,220	\$ 57,812	\$ (1,538)	-2.59%	
81000	Equipment Purchases							
81200	Rental & Leases	\$ 300	\$ -	\$ -	\$ -	\$ (300)		
81250	Equipment (over \$10,000)	-	-	-	-	-		
81300	Vehicle Replacement Fund	2,400	1,200	2,400	3,700	1,300	54.17%	
Subtotal		\$ 2,700	\$ 1,200	\$ 2,400	\$ 3,700	\$ 1,000	37.04%	
95000	Allocations from Departments							
95100	Administrative Allocation	\$ 20,115	\$ 9,976	\$ 20,190	\$ 19,467	\$ (648)	-3.22%	
95300	Engineering Allocation	23,290	12,556	25,109	25,941	2,651	11.38%	
95150	Maintenance Allocation	48,023	22,517	45,469	46,073	(1,950)	-4.06%	
95200	Laboratory Allocation	7,094	4,127	7,758	7,748	654	9.22%	
Subtotal		\$ 98,522	\$ 49,176	\$ 98,526	\$ 99,229	\$ 707	0.72%	
Depreciation		18,000	9,000	18,000	\$ 20,000	2,000	11.11%	
Subtotal		\$ 18,000	\$ 9,000	\$ 18,000	\$ 20,000	\$ 2,000	11.11%	
Total		\$ 309,593	\$ 145,710	\$ 297,894	\$ 309,588	\$ (5)	0.00%	

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Support Departments

Fiscal Year 2020-2021

Rivanna Water and Sewer Authority

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Administration Summary

FY 2020			FY 2021	Budget % Change
<i>Budgeted FY 2020</i>	Actual for 6 months	Projected 12 months	<i>Proposed Budget</i>	

Operations Budget Projected Revenues & Sources

Payment for Services SWA	\$ 466,000	\$ 233,000	\$ 466,000	\$ 543,000	16.52%
Miscellaneous Revenue	2,000	15,618	15,618	2,000	0.00%
<i>Total Operations Revenues</i>	\$ 468,000	\$ 248,618	\$ 481,618	\$ 545,000	16.45%

Projected Expenses

Personnel Cost	\$ 1,841,351	\$ 954,678	\$ 1,897,754	\$ 1,906,136	3.52%
Professional Services	229,000	97,122	208,254	183,000	-20.09%
Other Services and Charges	106,400	51,270	84,409	80,600	-24.25%
Communications	18,500	9,778	18,436	21,500	16.22%
Information Technology	174,250	74,962	164,876	177,000	1.58%
Supplies	21,500	7,371	14,742	24,250	12.79%
Operations and Maintenance	64,500	44,063	88,126	75,200	16.59%
Equipment Purchases	24,000	7,000	24,000	24,000	0.00%
Depreciation	-	-	-	-	
<i>Total Operations Expenses</i>	\$ 2,479,501	\$ 1,246,244	\$ 2,500,597	\$ 2,491,686	0.49%

Department Summary

Total Revenues		\$ 468,000	\$ 248,618	\$ 481,618	\$ 545,000	16.45%
Total Expenses		2,479,501	1,246,244	2,500,597	2,491,686	0.49%
Net Costs Allocable to Rate Centers		\$ (2,011,501)	\$ (997,626)	\$ (2,018,979)	\$ (1,946,686)	-3.22%
<u>Allocations to the Rate Centers</u>						
Urban Water	44.00%	\$ 885,060	\$ 438,955	\$ 888,351	\$ 856,542	
Crozet Water	4.00%	80,460	39,905	80,759	77,867	
Scottsville Water	2.00%	40,230	19,953	40,380	38,934	
Urban Wastewater	48.00%	965,520	478,860	969,110	934,409	
Glenmore Wastewater	1.00%	20,115	9,976	20,190	19,467	
Scottsville Wastewater	1.00%	20,115	9,976	20,190	19,467	
	100.00%	\$ 2,011,500	\$ 997,625	\$ 2,018,980	\$ 1,946,686	

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Administration

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020 vs. 2021 Variance \$	2020 vs. 2021 Variance %
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020			
10000	Salaries & Benefits						
11000	Salaries	\$ 1,329,850	\$ 679,418	\$ 1,358,836	\$ 1,349,200	\$ 19,350	1.46%
11010	Overtime & Holiday Pay	1,500	1,766	3,532	1,500	-	0.00%
12010	FICA	101,848	44,921	89,842	103,329	1,481	1.45%
12020	Health Insurance	217,000	129,030	258,060	259,300	42,300	19.49%
12026	Employee Assistance Program	200	75	150	100	(100)	-50.00%
12030	Retirement	127,932	55,605	111,210	121,428	(6,504)	-5.08%
12040	Life Insurance	17,421	8,639	17,278	18,079	658	3.78%
12050	Fitness Program	3,000	1,817	3,634	3,000	-	0.00%
12060	Worker's Comp Insurance	4,700	2,814	3,752	7,500	2,800	59.57%
	Subtotal	\$ 1,803,451	\$ 924,085	\$ 1,846,294	\$ 1,863,436	\$ 59,985	3.33%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 2,000	\$ 240	\$ 2,000	\$ 2,000	\$ -	0.00%
13150	Education & Training	19,000	9,549	19,000	19,000	-	0.00%
13200	Travel & Lodging	4,500	6,221	12,442	4,000	(500)	-11.11%
13250	Uniforms	1,500	1,371	1,500	2,000	500	33.33%
13325	Recruiting & Medical Testing	1,000	1,259	2,518	2,400	1,400	140.00%
13350	Other	9,900	11,953	14,000	13,300	3,400	34.34%
	Subtotal	\$ 37,900	\$ 30,593	\$ 51,460	\$ 42,700	\$ 4,800	12.66%
20100	Professional Services						
20200	Legal Fees	\$ 60,000	\$ 27,127	\$ 54,254	\$ 60,000	\$ -	0.00%
20200	Financial & Admin. Services	69,000	26,219	69,000	123,000	54,000	78.26%
20250	Bond Issue Costs	-	-	-	-	-	0.00%
20300	Engineering & Technical Services	100,000	43,776	85,000	-	(100,000)	0.00%
	Subtotal	\$ 229,000	\$ 97,122	\$ 208,254	\$ 183,000	\$ (46,000)	-20.09%
21100	Other Services and Charges						
21100	General Liability/Property Ins.	\$ 11,200	\$ 6,598	\$ 8,797	\$ 12,000	\$ 800	7.14%
21150	Advertising & Communication	15,000	5,991	11,982	13,500	(1,500)	-10.00%
21250	Watershed Management	-	-	-	-	-	-
21252	EMS Programs/Supplies	-	-	-	-	-	-
21253	Safety Programs/Supplies	5,000	4,118	8,000	4,000	(1,000)	-20.00%
21300	Authority Dues/Permits/Fees	37,100	29,248	40,000	39,100	2,000	5.39%
21350	Laboratory Analysis	-	-	-	-	-	-
21400	Utilities	1,100	568	1,136	1,100	-	0.00%
21420	General Other Services	2,000	2,180	4,360	2,400	400	20.00%
21430	Governance & Strategic Support	30,000	2,567	5,134	6,000	(24,000)	-80.00%
21450	Bad Debt	5,000	-	5,000	2,500	(2,500)	-
	Subtotal	\$ 106,400	\$ 51,270	\$ 84,409	\$ 80,600	\$ (25,800)	-24.25%
22000	Communication						
22100	Radio	\$ 1,200	\$ 1,160	\$ 1,200	\$ 1,300	\$ 100	8.33%
22150	Telephone & Data Service	10,000	4,147	8,294	11,000	1,000	10.00%
22200	Cell Phones & Pagers	7,300	4,471	8,942	9,200	1,900	26.03%
	Subtotal	\$ 18,500	\$ 9,778	\$ 18,436	\$ 21,500	\$ 3,000	16.22%
31000	Information Technology						
31100	Computer Hardware	\$ 27,000	\$ 8,813	\$ 17,626	\$ 27,000	\$ -	0.00%
31150	SCADA Maint. & Support	21,500	4,831	21,500	29,000	7,500	-
31200	Maintenance & Support Services	91,750	55,102	91,750	99,000	7,250	7.90%
31250	Software Purchases	34,000	6,216	34,000	22,000	(12,000)	-35.29%
	Subtotal	\$ 174,250	\$ 74,962	\$ 164,876	\$ 177,000	\$ 2,750	1.58%
33000	Supplies						
33100	Office Supplies	\$ 15,000	\$ 5,999	\$ 11,998	\$ 16,000	\$ 1,000	6.67%
33150	Subscriptions/Reference Material	800	396	792	650	(150)	-18.75%
33350	Postage & Delivery	5,700	976	1,952	7,600	1,900	33.33%
	Subtotal	\$ 21,500	\$ 7,371	\$ 14,742	\$ 24,250	\$ 2,750	12.79%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ 53,000	\$ 36,753	\$ 73,506	\$ 53,000	\$ -	0.00%
41150	Building & Land Lease	4,100	2,169	4,338	4,000	(100)	-2.44%
41200	Pump Station Maintenance	-	-	-	-	-	-
41300	Dam Maintenance	-	-	-	-	-	-
41350	Pipeline/Appurtenances	-	-	-	-	-	-
41400	Materials, Supplies & Tools	400	1,038	2,076	10,400	10,000	2500.00%
41450	Chemicals	-	-	-	-	-	-
41500	Vehicle Maintenance	3,000	2,437	4,874	4,000	1,000	33.33%
41550	Equipment Repair, Replace, Maint.	-	-	-	-	-	-
41600	Instrumentation & Metering	-	-	-	-	-	-

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Administration

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41650	Fuel & Lubricants	4,000	1,666	3,332	3,800	(200)	-5.00%
41700	General Other Maintenance	-	-	-	-	-	-
<i>Subtotal</i>		\$ 64,500	\$ 44,063	\$ 88,126	\$ 75,200	\$ 10,700	16.59%
81000	Equipment Purchases						
81200	Rental & Leases	\$ -	\$ -	\$ -	\$ -	\$ -	-
81250	Equipment (over \$10,000)	10,000	-	10,000	10,000	-	0.00%
81300	Vehicle Replacement Fund	14,000	7,000	14,000	14,000	-	0.00%
<i>Subtotal</i>		\$ 24,000	\$ 7,000	\$ 24,000	\$ 24,000	\$ -	0.00%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ -	\$ -	\$ -	\$ -	\$ -	-
95300	Engineering Allocation	-	-	-	-	-	-
95150	Maintenance Allocation	-	-	-	-	-	-
95200	Laboratory Allocation	-	-	-	-	-	-
<i>Subtotal</i>		\$ -	\$ -	\$ -	\$ -	\$ -	-
Depreciation		-	-	-	-	-	-
<i>Subtotal</i>		\$ -	\$ -	\$ -	\$ -	\$ -	-
Total		\$ 2,479,501	\$ 1,246,244	\$ 2,500,597	\$ 2,491,686	\$ 12,185	0.49%

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Maintenance Summary

FY 2020			FY 2021	Budget % Change
Budgeted FY 2020	Actual for 6 months	Projected 12 months	Proposed Budget	

Operations Budget

Projected Revenues

Miscellaneous Revenue	\$ -	\$ 6,756	\$ 6,756	\$ -
Payment for Services SWA	10,000	-	-	-

Total Operations Revenues

\$ 10,000	\$ 6,756	\$ 6,756	\$ -	
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Projected Expenses

Personnel Cost	\$ 1,345,633	\$ 631,796	\$ 1,256,730	\$ 1,233,605	-8.33%
Professional Services	-	-	-	-	
Other Services and Charges	14,500	9,648	16,351	50,700	249.66%
Communications	17,600	11,238	1,228	17,400	-1.14%
Information Technology	6,500	2,296	6,592	8,500	30.77%
Supplies	2,000	123	246	2,000	0.00%
Operations and Maintenance	92,250	56,172	112,344	84,550	-8.35%
Equipment Purchases	132,300	46,051	128,902	139,000	5.06%
Depreciation	-	-	-	-	

Total Operations Expenses

\$ 1,610,783	\$ 757,324	\$ 1,522,393	\$ 1,535,755	-4.66%
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Department Summary

Total Revenues	\$ 10,000	\$ 6,756	\$ 6,756	\$ -
Total Expenses	1,610,783	757,324	1,522,393	1,535,755

Net Costs Allocable to Rate Centers **\$ (1,600,783) \$ (750,568) \$ (1,515,637) \$ (1,535,755)**

Allocations to the Rate Centers

Urban Water	30.00%	\$ 480,235	\$ 225,170	\$ 454,691	\$ 460,727
Crozet Water	3.50%	56,027	26,270	53,047	53,751
Scottsville Water	3.50%	56,027	26,270	53,047	53,751
		-		-	
Urban Wastewater	56.50%	904,442	424,071	856,335	867,702
Glenmore Wastewater	3.50%	56,027	26,270	53,047	53,751
Scottsville Wastewater	3.00%	48,023	22,517	45,469	46,073
	100.00%	\$ 1,600,781	\$ 750,568	\$ 1,515,636	\$ 1,535,755

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Maintenance

Expense Detail						2020	2020
Department: Maintenance		Current Year Activity				vs.	vs.
Object Code	Line Item	Adopted Budget FY 2019-2020	Six Month Actual 12/31/2019	Projected Year end 6/30/2020	Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %
Salaries & Benefits							
10000	Salaries	\$ 908,500	\$ 434,813	\$ 869,626	\$ 805,900	\$ (102,600)	-11.29%
11000	Overtime & Holiday Pay	6,000	5,157	10,314	6,000	-	0.00%
12010	FICA	69,959	32,568	65,136	62,110	(7,849)	-11.22%
12020	Health Insurance	217,000	101,298	202,596	229,300	12,300	5.67%
12026	Employee Assistance Program	250	63	126	250	-	0.00%
12030	Retirement	87,398	32,670	65,340	72,531	(14,867)	-17.01%
12040	Life Insurance	11,901	5,115	10,230	10,799	(1,102)	-9.26%
12050	Fitness Program	260	389	778	400	140	53.85%
12060	Worker's Comp Insurance	17,200	10,293	13,724	15,900	(1,300)	-7.56%
Subtotal		\$ 1,318,468	\$ 622,366	\$ 1,237,870	\$ 1,203,190	\$ (115,278)	-8.74%
Other Personnel Costs							
13000	Employee Dues & Licenses	\$ 500	\$ 186	\$ 372	\$ 250	\$ (250)	-50.00%
13150	Education & Training	11,000	2,756	5,512	14,500	3,500	31.82%
13200	Travel & Lodging	500	-	-	500	-	0.00%
13250	Uniforms	13,915	5,682	11,364	13,915	-	0.00%
13325	Recruiting & Medical Testing	500	720	1,440	500	-	0.00%
13350	Other	750	86	172	750	-	0.00%
Subtotal		\$ 27,165	\$ 9,430	\$ 18,860	\$ 30,415	\$ 3,250	11.96%
Professional Services							
20100	Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	-
20200	Financial & Admin. Services	-	-	-	-	-	-
20250	Bond Issue Costs	-	-	-	-	-	-
20300	Engineering & Technical Services	-	-	-	-	-	-
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	-
Other Services and Charges							
21100	General Liability/Property Ins.	\$ 7,500	\$ 4,418	\$ 5,891	\$ 6,200	\$ (1,300)	-17.33%
21150	Advertising & Communication	-	-	-	-	-	-
21250	Watershed Management	-	-	-	-	-	-
21252	EMS Programs/Supplies	-	-	-	-	-	-
21253	Safety Programs/Supplies	4,500	4,413	8,826	42,000	37,500	833.33%
21300	Authority Dues/Permits/Fees	-	-	-	-	-	-
21350	Laboratory Analysis	-	-	-	-	-	-
21400	Utilities	-	-	-	-	-	-
21420	General Other Services	2,500	817	1,634	2,500	-	0.00%
21430	Governance & Strategic Support	-	-	-	-	-	-
21450	Bad Debt	-	-	-	-	-	-
Subtotal		\$ 14,500	\$ 9,648	\$ 16,351	\$ 50,700	\$ 36,200	249.66%
Communication							
22000	Radio	\$ 7,000	\$ 6,186	\$ 12,372	\$ 7,000	\$ -	0.00%
22100	Telephone & Data Service	1,000	345	690	800	(200)	-20.00%
22200	Cell Phones & Pagers	9,600	4,707	9,414	9,600	-	0.00%
Subtotal		\$ 17,600	\$ 11,238	\$ 22,476	\$ 17,400	\$ (200)	-1.14%
Information Technology							
31000	Computer Hardware	\$ 2,000	\$ -	\$ 2,000	\$ 4,000	\$ 2,000	100.00%
31150	SCADA Maint. & Support	-	-	-	-	-	-
31200	Maintenance & Support Services	2,500	2,296	4,592	2,500	-	0.00%
31250	Software Purchases	2,000	-	-	2,000	-	0.00%
Subtotal		\$ 6,500	\$ 2,296	\$ 6,592	\$ 8,500	\$ 2,000	30.77%
Supplies							
33000	Office Supplies	\$ 2,000	\$ 123	\$ 246	\$ 2,000	\$ -	0.00%
33150	Subscriptions/Reference Material	-	-	-	-	-	-
33350	Postage & Delivery	-	-	-	-	-	-
Subtotal		\$ 2,000	\$ 123	\$ 246	\$ 2,000	\$ -	0.00%
Operation & Maintenance							
41000	Building & Grounds	\$ 11,000	\$ 3,847	\$ 7,694	\$ 9,900	\$ (1,100)	-10.00%
41150	Building & Land Lease	-	-	-	-	-	-
41200	Pump Station Maintenance	-	-	-	-	-	-
41300	Dam Maintenance	-	-	-	-	-	-
41350	Pipeline/Appurtenances	2,500	194	388	2,500	-	0.00%
41400	Materials, Supplies & Tools	26,850	22,437	44,874	20,750	(6,100)	-22.72%
41450	Chemicals	-	-	-	-	-	-
41500	Vehicle Maintenance	14,900	16,353	32,706	13,800	(1,100)	-7.38%
41550	Equipment Repair, Replace, Maint.	15,500	5,359	10,718	21,100	5,600	36.13%
41600	Instrumentation & Metering	1,500	537	1,074	1,500	-	0.00%
41650	Fuel & Lubricants	20,000	7,445	14,890	15,000	(5,000)	-25.00%
41700	General Other Maintenance	-	-	-	-	-	-
Subtotal		\$ 92,250	\$ 56,172	\$ 112,344	\$ 84,550	\$ (7,700)	-8.35%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Maintenance

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020 vs. 2021 Variance \$	2020 vs. 2021 Variance %
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020			
81000	Equipment Purchases						
81200	Rental & Leases	\$ 3,500	\$ 51	\$ 102	\$ 1,000	\$ (2,500)	-71.43%
81250	Equipment (over \$10,000)	36,800	-	36,800	15,000	(21,800)	-59.24%
81300	Vehicle Replacement Fund	92,000	46,000	92,000	123,000	31,000	33.70%
	Subtotal	\$ 132,300	\$ 46,051	\$ 128,902	\$ 139,000	\$ 6,700	5.06%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ -	\$ -	\$ -	\$ -	\$ -	-
95300	Engineering Allocation	-	-	-	-	-	-
95150	Maintenance Allocation	-	-	-	-	-	-
95200	Laboratory Allocation	-	-	-	-	-	-
	Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	-
	Depreciation	-	-	-	-	-	-
	Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	-
	Total	\$ 1,610,783	\$ 757,324	\$ 1,543,641	\$ 1,535,755	\$ (75,028)	-4.66%

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Laboratory Summary

FY 2020			FY 2021	Budget % Change
<i>Budgeted FY 2020</i>	Actual for 6 months	Projected 12 months	<i>Proposed Budget</i>	

Operations Budget

Projected Revenues

N/A

Projected Expenses

Personnel Cost	\$ 394,222	\$ 189,835	\$ 380,229	\$ 404,171	2.52%
Professional Services	-	-	-	-	
Other Services and Charges	9,230	379	5,540	7,600	-17.66%
Communications	1,153	614	-	2,100	82.13%
Information Technology	2,500	-	2,500	2,500	0.00%
Supplies	2,150	219	724	1,300	-39.53%
Operations and Maintenance	62,000	43,239	86,478	97,250	56.85%
Equipment Purchases	1,700	40,850	41,700	1,600	-5.88%
Depreciation	-	-	-	-	
Total Operations Expenses	\$ 472,955	\$ 275,136	\$ 517,171	\$ 516,521	9.21%

Department Summary					
Total Revenues	\$ -	\$ -	\$ -	\$ -	
Total Expenses	472,955	275,136	517,171	516,521	9.21%
Net Costs Allocable to Rate Centers	\$ (472,955)	\$ (275,136)	\$ (517,171)	\$ (516,521)	
<u>Allocations to the Rate Centers</u>					
Urban Water	44.00%	\$ 208,100	\$ 121,060	\$ 227,555	\$ 227,269
Crozet Water	4.00%	18,918	11,005	20,687	20,661
Scottsville Water	2.00%	9,459	5,503	10,343	10,330
		-	-	-	
Urban Wastewater	47.00%	222,289	129,314	243,070	242,765
Glenmore Wastewater	1.50%	7,094	4,127	7,758	7,748
Scottsville Wastewater	1.50%	7,094	4,127	7,758	7,748
	100.00%	\$ 472,954	\$ 275,136	\$ 517,171	\$ 516,521

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Laboratory

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
10000	Salaries & Benefits						
11000	Salaries	\$ 273,465	\$ 138,150	\$ 276,300	\$ 281,000	\$ 7,535	2.76%
11010	Overtime & Holiday Pay	6,000	3,459	6,918	6,000	-	0.00%
12010	FICA	21,379	10,431	20,862	21,956	577	2.70%
12020	Health Insurance	50,429	20,226	40,452	54,000	3,571	7.08%
12026	Employee Assistance Program	50	18	36	50	-	0.00%
12030	Retirement	26,307	11,118	22,236	25,290	(1,017)	-3.87%
12040	Life Insurance	3,582	1,717	3,434	3,765	183	5.11%
12050	Fitness Program	500	260	520	500	-	0.00%
12060	Worker's Comp Insurance	5,400	3,211	4,281	5,600	200	3.70%
	Subtotal	\$ 387,112	\$ 188,590	\$ 375,039	\$ 398,161	\$ 11,049	2.85%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 500	\$ -	\$ 500	\$ 500	\$ -	0.00%
13150	Education & Training	1,680	445	890	1,680	-	0.00%
13200	Travel & Lodging	1,930	-	1,800	1,930	-	0.00%
13250	Uniforms	2,000	621	1,242	1,000	(1,000)	-50.00%
13325	Recruiting & Medical Testing	600	179	358	500	(100)	0.00%
13350	Other	400	-	400	400	-	0.00%
	Subtotal	\$ 7,110	\$ 1,245	\$ 5,190	\$ 6,010	\$ (1,100)	-15.47%
	Professional Services						
20100	Legal Fees	\$ -	\$ -	\$ -	\$ -	\$ -	
20200	Financial & Admin. Services	-	-	-	-	-	
20250	Bond Issue Costs	-	-	-	-	-	
20300	Engineering & Technical Services	-	-	-	-	-	
	Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	
	Other Services and Charges						
21100	General Liability/Property Ins.	\$ 530	\$ 312	\$ 416	\$ 400	\$ (130)	-24.53%
21150	Advertising & Communication	-	-	-	-	-	
21250	Watershed Management	-	-	-	-	-	
21252	EMS Programs/Supplies	-	-	-	-	-	
21253	Safety Programs/Supplies	700	62	124	700	-	0.00%
21300	Authority Dues/Permits/Fees	3,000	5	3,500	4,500	1,500	50.00%
21350	Laboratory Analysis	4,500	-	1,000	1,000	(3,500)	-77.78%
21400	Utilities	-	-	-	-	-	
21420	General Other Services	500	-	500	1,000	500	100.00%
21430	Governance & Strategic Support	-	-	-	-	-	
21450	Bad Debt	-	-	-	-	-	
	Subtotal	\$ 9,230	\$ 379	\$ 5,540	\$ 7,600	\$ (1,630)	-17.66%
22000	Communication						
22100	Radio	\$ -	\$ -	\$ -	\$ -	\$ -	
22150	Telephone & Data Service	-	-	-	-	-	
22200	Cell Phones & Pagers	1,153	614	1,228	2,100	947	82.13%
	Subtotal	\$ 1,153	\$ 614	\$ 1,228	\$ 2,100	\$ 947	
31000	Information Technology						
31100	Computer Hardware	\$ 1,500	\$ -	\$ 1,500	\$ 1,500	\$ -	0.00%
31150	SCADA Maint. & Support	-	-	-	-	-	
31200	Maintenance & Support Services	800	-	800	800	-	0.00%
31250	Software Purchases	200	-	200	200	-	0.00%
	Subtotal	\$ 2,500	\$ -	\$ 2,500	\$ 2,500	\$ -	0.00%
33000	Supplies						
33100	Office Supplies	\$ 1,500	\$ 107	\$ 500	\$ 800	\$ (700)	-46.67%
33150	Subscriptions/Reference Material	300	-	-	-	(300)	-100.00%
33350	Postage & Delivery	350	112	224	500	150	42.86%
	Subtotal	\$ 2,150	\$ 219	\$ 724	\$ 1,300	\$ (850)	-39.53%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ -	\$ -	\$ -	\$ -	\$ -	
41150	Building & Land Lease	-	-	-	-	-	
41200	Pump Station Maintenance	-	-	-	-	-	
41300	Dam Maintenance	-	-	-	-	-	
41350	Pipeline/Appurtenances	-	-	-	-	-	
41400	Materials, Supplies & Tools	30,500	15,123	30,246	33,000	2,500	8.20%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Laboratory

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41450	Chemicals	15,000	14,506	29,012	21,300	6,300	42.00%
41500	Vehicle Maintenance	-	107	214	3,500	3,500	
41550	Equipment Repair, Replace, Maint.	6,000	3,833	7,666	23,400	17,400	290.00%
41600	Instrumentation & Metering	10,000	9,366	18,732	15,500	5,500	55.00%
41650	Fuel & Lubricants	500	304	608	550	50	10.00%
41700	General Other Maintenance	-	-	-	-	-	
Subtotal		\$ 62,000	\$ 43,239	\$ 86,478	\$ 97,250	\$ 35,250	56.85%
81000	Equipment Purchases						
81200	Rental & Leases	\$ -	\$ -	\$ -	\$ -	\$ -	
81250	Equipment (over \$10,000)	-	40,000	40,000	-	-	
81300	Vehicle Replacement Fund	1,700	850	1,700	1,600	(100)	-5.88%
Subtotal		\$ 1,700	\$ 40,850	\$ 41,700	\$ 1,600	\$ (100)	-5.88%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ -	\$ -	\$ -	\$ -	\$ -	
95300	Engineering Allocation	-	-	-	-	-	
95150	Maintenance Allocation	-	-	-	-	-	
95200	Laboratory Allocation	-	-	-	-	-	
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	
Depreciation		-	-	-	\$ -	-	
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	
Total		\$ 472,955	\$ 275,136	\$ 518,399	\$ 516,521	\$ 43,566	9.21%

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Engineering Summary

FY 2020			FY 2021	Budget % Change
<i>Budgeted FY 2020</i>	Actual for 6 months	Projected 12 months	<i>Proposed Budget</i>	

Operations Budget

Projected Revenues

Payment for Services SWA

\$ - \$ 1,868 \$ 3,736 \$ -

Total Operations Revenues

\$ - \$ 1,868 \$ 3,736 \$ -

Projected Expenses

Personnel Cost	\$ 1,347,631	\$ 674,112	\$ 1,340,949	\$ 1,469,357	9.03%
Professional Services	20,000	49,963	124,926	30,000	50.00%
Other Services and Charges	10,350	6,235	10,545	13,800	33.33%
Communications	14,500	7,933	15,866	16,200	11.72%
Information Technology	21,200	32,255	44,510	41,500	95.75%
Supplies	9,800	2,166	8,378	9,800	0.00%
Operations and Maintenance	110,598	56,944	113,888	127,250	15.06%
Equipment Purchases	18,600	9,300	18,600	21,500	15.59%
Depreciation	-	-	-	-	

Total Operations Expenses

\$ 1,552,679 \$ 838,908 \$ 1,677,662 \$ 1,729,407 11.38%

Department Summary						
Total Revenues		\$ -	\$ 1,868	\$ 3,736	\$ -	
Total Expenses		1,552,679	838,908	1,677,662	1,729,407	11.38%
Net Costs Allocable to Rate Centers		\$ (1,552,679)	\$ (837,040)	\$ (1,673,926)	\$ (1,729,407)	
<u>Allocations to the Rate Centers</u>						
Urban Water	47.00%	\$ 729,759	\$ 393,409	\$ 786,745	\$ 812,821	
Crozet Water	4.00%	62,107	33,482	66,957	69,176	
Scottsville Water	2.00%	31,054	16,741	33,479	34,588	
Urban Wastewater	44.00%	683,179	368,298	736,527	760,939	
Glenmore Wastewater	1.50%	23,290	12,556	25,109	25,941	
Scottsville Wastewater	1.50%	23,290	12,556	25,109	25,941	
	100.00%	\$ 1,552,679	\$ 837,042	\$ 1,673,926	\$ 1,729,406	

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Engineering

Expense Detail						2020	2020
Department: Engineering			Current Year Activity			vs.	vs.
Object Code	Line Item	Adopted Budget FY 2019-2020	Six Month Actual 12/31/2019	Projected Year end 6/30/2020	Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %
10000	Salaries & Benefits						
11000	Salaries	\$ 957,874	\$ 487,222	\$ 974,444	\$ 1,035,480	\$ 77,606	8.10%
11010	Overtime & Holiday Pay	6,000	8,320	16,640	10,000	4,000	66.67%
12010	FICA	73,736	36,304	72,608	79,979	6,243	8.47%
12020	Health Insurance	151,286	69,454	138,908	175,300	24,014	15.87%
12026	Employee Assistance Program	150	54	108	180	30	20.00%
12030	Retirement	92,147	39,601	79,202	93,193	1,046	1.14%
12040	Life Insurance	12,548	6,146	12,292	13,875	1,327	10.58%
12050	Fitness Program	2,000	2,120	4,240	2,000	-	0.00%
12060	Worker's Comp Insurance	18,200	10,912	14,549	20,800	2,600	14.29%
	Subtotal	\$ 1,313,941	\$ 660,133	\$ 1,312,991	\$ 1,430,807	\$ 116,866	8.89%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 2,500	\$ 2,465	\$ 4,930	\$ 2,900	\$ 400	16.00%
13150	Education & Training	12,840	4,355	8,710	13,900	1,060	8.26%
13200	Travel & Lodging	13,300	3,729	7,458	15,100	1,800	13.53%
13250	Uniforms	3,500	2,577	5,154	4,450	950	27.14%
13325	Recruiting & Medical Testing	550	370	740	600	50	9.09%
13350	Other	1,000	483	966	1,600	600	60.00%
	Subtotal	\$ 33,690	\$ 13,979	\$ 27,958	\$ 38,550	\$ 4,860	14.43%
	Professional Services						
20100	Legal Fees	\$ 5,000	\$ 4,590	\$ 9,180	\$ 15,000	\$ 10,000	200.00%
20200	Financial & Admin. Services	-	-	-	-	-	-
20250	Bond Issue Costs	-	-	-	-	-	-
20300	Engineering & Technical Services	15,000	45,373	115,746	15,000	-	0.00%
	Subtotal	\$ 20,000	\$ 49,963	\$ 124,926	\$ 30,000	\$ 10,000	50.00%
	Other Services and Charges						
21100	General Liability/Property Ins.	\$ 4,900	\$ 2,887	\$ 3,849	\$ 3,300	\$ (1,600)	-32.65%
21150	Advertising & Communication	200	-	-	200	-	0.00%
21250	Watershed Management	-	-	-	-	-	-
21252	EMS Programs/Supplies	-	-	-	-	-	-
21253	Safety Programs/Supplies	3,000	2,141	4,282	3,000	-	0.00%
21300	Authority Dues/Permits/Fees	1,500	1,000	2,000	1,500	-	0.00%
21350	Laboratory Analysis	250	-	-	250	-	0.00%
21400	Utilities	500	207	414	550	50	10.00%
21420	General Other Services	-	-	-	-	-	-
21430	Governance & Strategic Support	-	-	-	5,000	5,000	-
21450	Bad Debt	-	-	-	-	-	-
	Subtotal	\$ 10,350	\$ 6,235	\$ 10,545	\$ 13,800	\$ 3,450	33.33%
22000	Communication						
22100	Radio	\$ 4,500	\$ 4,253	\$ 8,506	\$ 4,800	\$ 300	6.67%
22150	Telephone & Data Service	1,500	700	1,400	1,500	-	0.00%
22200	Cell Phones & Pagers	8,500	2,980	5,960	9,900	1,400	16.47%
	Subtotal	\$ 14,500	\$ 7,933	\$ 15,866	\$ 16,200	\$ 1,700	11.72%
31000	Information Technology						
31100	Computer Hardware	\$ 9,000	\$ 11,988	\$ 13,976	\$ 11,000	\$ 2,000	22.22%
31150	SCADA Maint. & Support	-	-	-	-	-	-
31200	Maintenance & Support Services	9,200	19,970	29,940	26,000	16,800	182.61%
31250	Software Purchases	3,000	297	594	4,500	1,500	50.00%
	Subtotal	\$ 21,200	\$ 32,255	\$ 44,510	\$ 41,500	\$ 20,300	95.75%
33000	Supplies						
33100	Office Supplies	\$ 5,000	\$ 1,943	\$ 3,886	\$ 5,000	\$ -	0.00%
33150	Subscriptions/Reference Material	4,200	77	4,200	4,300	100	2.38%
33350	Postage & Delivery	600	146	292	500	(100)	-16.67%
	Subtotal	\$ 9,800	\$ 2,166	\$ 8,378	\$ 9,800	\$ -	0.00%
41000	Operation & Maintenance						
41100	Building & Grounds	\$ 29,500	\$ 10,231	\$ 20,462	\$ 29,700	\$ 200	0.68%
41150	Building & Land Lease	6,600	726	1,452	26,400	19,800	300.00%
41200	Pump Station Maintenance	-	-	-	-	-	-
41300	Dam Maintenance	-	-	-	-	-	-
41350	Pipeline/Appurtenances	20,698	4,774	9,548	16,350	(4,348)	-21.01%
41400	Materials, Supplies & Tools	27,800	23,792	47,584	25,300	(2,500)	-8.99%
41450	Chemicals	-	-	-	-	-	-
41500	Vehicle Maintenance	20,000	12,964	25,928	24,000	4,000	20.00%
41550	Equipment Repair, Replace, Maint.	500	727	1,454	500	-	0.00%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Department: Engineering

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41600	Instrumentation & Metering	-	-	-	-	-	
41650	Fuel & Lubricants	5,500	3,730	7,460	5,000	(500)	-9.09%
41700	General Other Maintenance	-	-	-	-	-	
Subtotal		\$ 110,598	\$ 56,944	\$ 113,888	\$ 127,250	\$ 16,652	15.06%
81000	Equipment Purchases						
81200	Rental & Leases	\$ -	\$ -	\$ -	\$ -	\$ -	
81250	Equipment (over \$10,000)	-	-	-	-	-	
81300	Vehicle Replacement Fund	18,600	9,300	18,600	21,500	2,900	15.59%
Subtotal		\$ 18,600	\$ 9,300	\$ 18,600	\$ 21,500	\$ 2,900	15.59%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ -	\$ -	\$ -	\$ -	\$ -	
95300	Engineering Allocation	-	-	-	-	-	
95150	Maintenance Allocation	-	-	-	-	-	
95200	Laboratory Allocation	-	-	-	-	-	
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	
Depreciation		-	-	-	-	-	
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	
Total		\$ 1,552,679	\$ 838,908	\$ 1,677,662	\$ 1,729,407	\$ 176,728	11.38%

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APPENDICES

Rivanna Water and Sewer Authority

Fiscal Year 2020-2021

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Flow Projections

			(1,000 GALLONS)			(MILLION GALLONS PER DAY)		
			<u>FY 2020</u>	<u>FY 2021</u>	<u>% Change</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>% Change</u>
Water								
	Urban		3,397,700	3,397,700	0.00%	9.309	9.309	0.00%
	Crozet		199,053	198,830	-0.11%	0.545	0.545	0.00%
	Scottsville		18,151	17,245	-4.99%	0.050	0.047	-6.00%
Total			<u>3,614,904</u>	<u>3,613,775</u>	<u>-0.03%</u>	<u>9.904</u>	<u>9.901</u>	<u>-0.03%</u>
Wastewater								
	Urban		3,390,400	3,390,400	0.00%	9.289	9.289	0.00%
	Glenmore		39,892	41,629	4.35%	0.109	0.114	4.59%
	Scottsville		21,677	23,126	6.68%	0.059	0.063	6.78%
Total			<u>3,451,969</u>	<u>3,455,155</u>	<u>0.09%</u>	<u>9.457</u>	<u>9.466</u>	<u>0.10%</u>

Allocation (Urban Area Only)	<u>FY 2020</u>	<u>FY 2021</u>	<u>Allocation % Change</u>
<u>Water</u>			
City	51%	51%	0.00%
ACSA	49%	49%	0.00%
<u>Wastewater</u>			
City	50%	49%	-2.00%
ACSA	50%	51%	2.00%

FY 2021 allocations are based on FY 2019 retail flows reported by the City and ACSA.

			(1,000 GALLONS)			(MILLION GALLONS PER DAY)		
			<u>FY 2020</u>	<u>FY 2021</u>	<u>% Change</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>% Change</u>
Allocation (Urban Area Only)								
<u>Water</u>								
	City		1,732,827	1,732,827	0.00%	4.747	4.747	0.00%
	ACSA		1,664,873	1,664,873	0.00%	4.561	4.561	0.00%
			<u>3,397,700</u>	<u>3,397,700</u>				
<u>Wastewater</u>								
	City		1,695,200	1,661,296	-2.00%	4.644	4.551	-2.00%
	ACSA		1,695,200	1,729,104	2.00%	4.644	4.737	2.00%
			<u>3,390,400</u>	<u>3,390,400</u>				

URBAN WATER DEBT SERVICE COSTS

Summary of Debt Service Budget to be included in Monthly Charges

City Allocation of Debt Service Costs		Estimated Debt Service Budget FY 2021	City %	City Amount	Annual Total
ALLOCATION BASED ON FLOWS					
<i>Regional Water System Projects:</i>					
9.2% of 2019 Refunding Bond	\$	129,956	51.00%	\$ 66,278	
14.2% of 2015B Bond - New Projects		239,964	51.00%	122,382	188,660
<i>Revenues that offset Debt Service</i>					
Trust Fund Interest		(49,000)	51.00%	(24,990)	
Buck Mountain Surcharge		-	FIXED	-	
Use of Reserves		(662,000)	FIXED	(271,800)	
Lease Revenues		(1,600)	51.00%	(816)	(297,606)
RATES BASED ON FIXED AGREEMENTS					
<i>2003 & 2012 Urban Water Agreement</i>					
<i>Water Supply Expansion (15%/85%)</i>					
100% of 2012B Revenue Bond		1,338,656	15.00%	200,798	
9.0% of 2015B Bond - Refunding		142,140	15.00%	21,321	
<i>Water Pipeline (20%/80%)</i>					
10.4% of 2018 Bond		234,532	20.00%	46,906	
<i>Non-Water Supply - Other Projects (48%/52%)</i>					
47.4% of 2015B Bond - Refunding		748,602	48.00%	359,329	
77.8% of 2015B Bond - New Projects		1,314,732	48.00%	631,071	
37.7% of 2018 Bond		850,997	48.00%	408,479	
<i>South Rivanna Expansion of 1999</i>					
10.3% of 2015B Bond - Refunding		162,671	0.00%	-	1,667,904
<i>Southern Loop Water Line, West Branch</i>					
0.8% of 2019 Refunding Bond		10,775	24.51%	2,641	2,641
<i>South Rivanna Connector Main</i>					
3.0% of 2019 Refunding Bond		42,420	52.00%	22,058	22,058
DEBT SERVICE PROJECTED FROM 5-YEAR CIP					
CIP Growth Rate from 2016-2020 CIP		1,275,800	FIXED	591,350	591,350
Debt Service Coverage Ratio / Policy Charge		400,000	37.00%	148,000	148,000
Total Debt Service For Rate Computation		\$ 6,178,645		\$ 2,323,007	\$ 2,323,007

ACSA Allocation of Debt Service Costs		Estimated Debt Service Budget FY 2021	ACSA %	ACSA Amount	Annual Total
ALLOCATION BASED ON FLOWS					
<i>Regional Water System Projects:</i>					
9.2% of 2019 Refunding Bond	\$	129,956	49.00%	\$ 63,678	
14.2% of 2015B Bond - New Projects		239,964	49.00%	117,582	181,260
<i>Revenues that offset Debt Service</i>					
Trust Fund Interest		(49,000)	49.00%	(24,010)	
Buck Mountain Surcharge		-	FIXED	-	
Use of Reserves		(662,000)	FIXED	(390,200)	
Lease Revenues		(1,600)	49.00%	(784)	(414,994)
RATES BASED ON FIXED AGREEMENTS					
<i>2003 & 2012 Urban Water Agreement</i>					
<i>Water Supply Expansion (15%/85%)</i>					
100% of 2012B Revenue Bond		1,338,656	85.00%	1,137,858	
9.0% of 2015B Bond - Refunding		142,140	85.00%	120,819	
<i>Water Pipeline (20%/80%)</i>					
10.4% of 2018 Bond		234,532	80.00%	187,626	
<i>Non-Water Supply - Other Projects (48%/52%)</i>					
47.4% of 2015B Bond - Refunding		748,602	52.00%	389,273	
77.8% of 2015B Bond - New Projects		1,314,732	52.00%	683,661	
37.7% of 2018 Bond		850,997	52.00%	442,518	
<i>South Rivanna Expansion of 1999</i>					
10.3% of 2015B Bond - Refunding		162,671	100.00%	162,671	3,124,426
<i>Southern Loop Water Line, West Branch</i>					
0.8% of 2019 Refunding Bond		10,775	75.49%	8,134	8,134
<i>South Rivanna Connector Main</i>					
3.0% of 2019 Refunding Bond		42,420	48.00%	20,362	20,362
DEBT SERVICE PROJECTED FROM 5-YEAR CIP					
CIP Growth Rate from 2016-2020 CIP		1,275,800	FIXED	684,450	684,450
Debt Service Coverage Ratio / Policy Charge		400,000	63.00%	252,000	252,000
Total Debt Service For Rate Computation		\$ 6,178,645		\$ 3,855,638	\$ 3,855,638

SUMMARY OF DEBT SERVICE REVENUES:			
CITY SHARE OF TOTAL DEBT SERVICE	\$	2,323,007	38%
ACSA SHARE OF TOTAL DEBT SERVICE		3,855,638	62%
	\$	6,178,645	100%

URBAN WASTEWATER DEBT SERVICE COSTS
Summary of Debt Service Budget to be Included in Charges

City Allocation of Debt Service Costs		Estimated Debt Service Budget FY 2021	City %	City Amount	
ALLOCATION BASED ON FLOWS					
<i>System Projects Rate</i>					
	22.9% of 2015B Bond Refunding	\$ 361,666	49%	\$ 177,216	
	100% 2005A Bond VRA/VRLF	159,339	49%	78,076	
	88.5% of 2009A Bond VRA/VRLF	1,419,716	49%	695,661	
	37.9% of 2011 A,B Bond VRA/VRLF	192,130	49%	94,144	
	24.5% of 2019 Refunding Bond	345,546	49%	169,318	
	100% of 2016 Bond	626,383	49%	306,928	
	2.4% of 2018 Bond	54,401	49%	26,656	1,547,999
<i>Revenues/Reserves that offset Debt Service</i>					
	County MOU - Septage	(109,440)	49%	(53,626)	
	Use of Reserves	(94,400)	Fixed	-	
	Trust Fund Interest	(74,000)	49%	(36,260)	(89,886)
ALLOCATION BASED ON FIXED AGREEMENTS					
<u>2014 Wastewater Agreement</u>					
<i>Meadowcreek</i>	97.9% of 2010A and 10.9% of 2019 Bonds	1,096,278	Segments	899,609	
<i>Wet Weather MCWWTP</i>	11.5% of 2009A and 62.1% of 2011 A/B Bonds	499,293	Segments	317,447	
<i>Moore's Creek Pump Stn.</i>	100% of 2011 D/E Bond	296,945	Segments	181,964	
<i>Rivanna Pump Stn. & F.M.</i>	5.8% of 2019 and 100% of 2014A Bonds	1,963,640	Segments	1,229,655	
<i>Albemarle Berkley Pump Stn.</i>	3.4% of 2019 Refunding Bond	47,428	0%	-	
<i>Crozet Interceptor</i>	2.3% of 2019 and 13.8% of 2018	343,802	0%	-	
<i>Schenks Branch Agreement</i>	16.1% of 2019, 2.1% of 2010A, and 100% of 2015A Bonds	316,260	100%	316,260	2,944,935
<u>Four Party Rate</u>					
<i>Regional System Projects</i>	3.9% of 2019 Refunding Bond	54,216	N/A	17,593	
<i>Crozet Interceptor</i>	0.7% of 2019 Refunding Bond	10,803	N/A	3,506	
<i>Facilities Purchase</i>	1.4% of 2019 Refunding Bond	19,786	N/A	6,421	27,520
<i>Moore's Creek Relief IS, Pt 1</i>	0.3% of 2019 Refunding Bond	4,499	30%	1,350	1,350
DEBT SERVICE PROJECTED FROM 5-YEAR CIP					
	CIP Growth Charge from 2016-2020 CIP	369,800	Fixed	257,600	257,600
	Debt Service Coverage Ratio / Policy Charge	325,000	62%	201,500	201,500
Total		\$ 8,229,091		\$ 4,891,018	\$ 4,891,018

ACSA Allocation of Debt Service Costs		Estimated Debt Service Budget FY 2021	ACSA %	ACSA Amount	
ALLOCATION BASED ON FLOWS					
<i>System Projects Rate</i>					
	22.9% of 2015B Bond Refunding	\$ 361,666	51%	\$ 184,450	
	100% 2005A Bond VRA/VRLF	159,339	51%	81,263	
	88.5% of 2009A Bond VRA/VRLF	1,419,716	51%	724,055	
	37.9% of 2011 A,B Bond VRA/VRLF	192,130	51%	97,986	
	24.5% of 2019 Refunding Bond	345,546	51%	176,228	
	100% of 2016 Bond	626,383	51%	319,455	
	2.4% of 2018 Bond	54,401	51%	27,745	1,611,182
<i>Revenues/Reserves that offset Debt Service</i>					
	County MOU - Septage	(109,440)	51%	(55,814)	
	Use of Reserves	(94,400)	51%	(94,400)	
	Trust Fund Interest	(74,000)	51%	(37,740)	(187,954)
ALLOCATION BASED ON FIXED AGREEMENTS					
<u>2014 Wastewater Agreement</u>					
<i>Meadowcreek</i>	97.9% of 2010A and 10.9% of 2019 Bonds	1,096,278	Segments	196,669	
<i>Wet Weather MCWWTP</i>	11.5% of 2009A and 62.1% of 2011 A/B Bonds	499,293	Segments	181,845	
<i>Moore's Creek Pump Stn.</i>	100% of 2011 D/E Bond	296,945	Segments	114,981	
<i>Rivanna Pump Stn. & F.M.</i>	5.8% of 2019 and 100% of 2014A Bonds	1,963,640	Segments	733,985	
<i>Albemarle Berkley Pump Stn.</i>	3.4% of 2019 Refunding Bond	47,428	100%	47,428	
<i>Crozet Interceptor</i>	2.3% of 2019 and 13.8% of 2018	343,802	100%	343,802	
<i>Schenks Branch Agreement</i>	16.1% of 2019, 2.1% of 2010A, and 100% of 2015A Bonds	316,260	0%	-	1,618,710
<u>Four Party Rate</u>					
<i>Regional System Projects</i>	3.9% of 2019 Refunding Bond	54,216	N/A	36,623	
<i>Crozet Interceptor</i>	0.7% of 2019 Refunding Bond	10,803	N/A	7,297	
<i>Facilities Purchase</i>	1.4% of 2019 Refunding Bond	19,786	N/A	13,365	57,285
<i>Moore's Creek Relief IS, Pt 1</i>	0.3% of 2019 Refunding Bond	4,499	70%	3,149	3,149
DEBT SERVICE PROJECTED FROM 5-YEAR CIP					
	CIP Growth Charge from 2016-2020 CIP	369,800	Fixed	112,200	112,200
	Debt Service Coverage Ratio / Policy Charge	325,000	38%	123,500	123,500
Total		\$ 8,229,091		\$ 3,338,072	\$ 3,338,072

SUMMARY OF DEBT SERVICE REVENUES:			
CITY SHARE OF TOTAL DEBT SERVICE	\$	4,891,018	59%
ACSA SHARE OF TOTAL DEBT SERVICE	\$	3,338,072	41%
	\$	8,229,090	100%

OTHER RATE CENTERS DEBT SERVICE RATES

Summary of Debt Service Payments Due

	Existing Estimated Debt Service Budget FY 2021	FY 2020	Estimated New Debt Service	Total Annual Debt Service	ACSA Monthly Rate
WATER					
<u>Crozet Water</u>					
<i>System Upgrades</i>					
13.9% of 2019 Refunding Bond	\$ 194,693	\$ 2,830			
17.0% of 2012A Bond (new money)	-	205,894			
7.4% of 2015B Bond Refunding	116,870	116,763			
5.9% of 2015B Bond New Projects	99,703	99,911			
35.7% of 2018 Bond	806,303	805,417			
Estimated DS - CIP Growth in Rate	-	86,000	\$ 303,600		
<i>Revenues that offset Debt Service</i>					
Use of Reserves	(198,252)				
Trust Fund Interest	(11,600)	(5,500)	-		
	\$ 1,007,717	\$ 1,311,315	\$ 303,600	\$ 1,311,317	\$ 109,276
<u>Scottsville Water</u>					
<i>System Upgrades</i>					
3.4% of 2019 Refunding Bond	\$ 47,902	\$ 492			
4.2% of 2012A Bond (new money)	-	50,868			
2.7% of 2015B Bond Refunding	42,642	42,603			
2.1% of 2015B Bond New Projects	35,488	35,561			
Estimated DS - CIP Growth in Rate		925	\$ 3,917		
<i>Revenues that offset Debt Service</i>					
Trust Fund Interest	(1,200)	(1,700)	-		
	\$ 124,832	\$ 128,749	\$ 3,917	\$ 128,749	\$ 10,729
WASTEWATER					
<u>Glenmore Wastewater</u>					
<i>System Upgrades</i>					
0.1% of 2015B Bond Refunding	\$ 1,579	\$ 1,578			
Estimated DS - CIP Growth in Rate	-	2,200	\$ 2,199		
<i>Revenues that offset Debt Service</i>					
Trust Fund Interest	-	-	-		
	\$ 1,579	\$ 3,778	\$ 2,199	\$ 3,778	\$ 315
<u>Scottsville Wastewater</u>					
<i>Facilities Purchase</i>					
0.3% of 2012A Refunding Bond	\$ -	\$ 953			
<i>System Upgrades</i>					
0.3% of 2019 Refunding Bond	4,305	3,633			
0.2% of 2015B Bond Refunding	3,159	3,156			
Estimated DS - CIP Growth in Rate		1,800	\$ 2,078		
<i>Revenues that offset Debt Service</i>					
Trust Fund Interest	(100)	(100)	-		
	\$ 7,364	\$ 9,442	\$ 2,078	\$ 9,442	\$ 787
TOTAL	\$ 1,141,492	\$ 1,453,284	\$ 311,794	\$ 1,453,286	\$ 121,107

DEBT SUMMARY

	Total Revenue Bond Debt	Total FY 2021 Debt Service	Total FY 2020 Debt Service
<u>CURRENT EXISTING DEBT</u>			
<u>DEBT BY BOND ISSUE</u>			
2005 A Bond VRA/VRLF	\$ 934,647	\$ 159,339	\$ 159,339
2009A Bond	14,619,868	1,604,199	1,604,199
2010A Bond	9,051,281	962,522	962,522
2011A Bond	4,524,226	443,608	443,608
2011B Bond	645,899	63,332	63,332
2011D,E Bond	3,144,686	296,944	296,944
2012A Bond (refunding & new money)	1,970,000	706,969	1,498,556
2012B Bond	22,065,000	1,338,656	1,338,456
2014A Bond	24,700,501	1,882,336	1,882,336
2015A Bond	997,835	70,593	70,593
2015B Bond (refunding & new money)	38,980,000	3,269,216	3,271,281
2016 Bond	8,782,000	626,383	627,265
2018 Bond	36,295,000	2,257,288	2,254,806
2019 Bond	17,610,000	698,836	-
	\$ 184,320,943	\$ 14,380,221	\$ 14,473,237

Ratio of Debt / Debt Service 7.8%

PRINCIPAL AND INTEREST PAYMENTS BY CENTER - Annual

Urban Water	\$ 5,215,445	\$ 5,223,498
Crozet Water	1,217,569	1,230,815
Scottsville Water	126,032	129,524
Urban Wastewater	7,807,431	7,880,079
Glenmore Wastewater	1,579	1,578
Scottsville Wastewater	7,464	7,742
	\$ 14,375,521	\$ 14,473,234

Stone Robinson School WWTP Estimated Charges

	<i>Total</i>	<i>Monthly</i>
Expenses		
<i>Fixed Costs</i>		
Wages	\$ 6,800	
Benefits	2,380	
Mileage	1,700	
Subtotal	\$ 10,880	
Overhead at 35%	3,808	
Total Fixed Charge	\$ 14,688	
<i>Variable Costs</i>		
Repairs, Maintenance, Other	\$ 6,000	
Overhead at 35%	2,100	
Total Variable Charge	\$ 8,100	
Total Annual Charge Estimate	\$ 22,788	\$ 1,899

Red Hill Community Water System Estimated Costs

	<i>Total</i>	<i>Monthly</i>
Expenses		
<i>Fixed Costs</i>		
Wages	\$ 22,360	
Benefits	7,826	
Mileage	6,400	
Subtotal	\$ 36,586	
Overhead at 35%	12,805	
Total Fixed Costs	\$ 49,391	
<i>Variable Costs</i>		
Repairs, Maintenance, Other	\$ 25,000	
Overhead at 35%	8,750	
Total Variable Costs	\$ 33,750	
Total Annual Estimated Costs	\$ 83,141	\$ 6,928

All Rate Centers

Detailed Summary of Revenues

	<i>FY 2020</i>	<i>FY 2021</i>	<i>\$ Change</i>	<i>% Change</i>
<u>OPERATIONS</u>				
Operations Rate Revenues	\$ 17,381,293	\$ 17,381,293	\$ -	0.00%
Other Operations Revenues				
Interest Allocation	\$ 31,500	\$ 35,100	\$ 3,600	11.43%
Stone Robinson WWTP	22,478	22,788	310	1.38%
Septage/Sludge Acceptance	450,000	475,000	25,000	5.56%
Leases	100,000	105,000	5,000	5.00%
Administration	468,000	545,000	77,000	16.45%
Nutrient Credits	90,000	45,000	(45,000)	-50.00%
Use of Reserves	667,000	775,247	108,247	16.23%
Miscellaneous	10,000	-	(10,000)	-100.00%
	<u>\$ 1,838,978</u>	<u>\$ 2,003,135</u>	<u>\$ 164,157</u>	<u>8.93%</u>
Total Operations Revenues	<u>\$ 19,220,271</u>	<u>\$ 19,384,428</u>	<u>\$ 164,157</u>	<u>0.85%</u>
<u>DEBT SERVICE</u>				
Debt Service Rate Revenues				
City	\$ 7,214,015	\$ 7,214,025	\$ 10	0.00%
ACSA	8,647,007	8,646,991	(16)	0.00%
	<u>\$ 15,861,022</u>	<u>\$ 15,861,016</u>	<u>\$ (6)</u>	<u>0.00%</u>
Other Debt Service Revenues				
Interest	848,200	801,900	(46,300)	-5.46%
County MOU - Septage	109,440	109,440	-	0.00%
Buck Mountain Surcharge	125,900	-	(125,900)	-100.00%
Use of Reserves	-	954,652	954,652	
Leases	1,600	1,600	-	0.00%
	<u>\$ 1,085,140</u>	<u>\$ 1,867,592</u>	<u>\$ 782,452</u>	<u>72.11%</u>
Total Debt Service Revenues	<u>\$ 16,946,162</u>	<u>\$ 17,728,608</u>	<u>\$ 782,446</u>	<u>4.62%</u>
Total Revenues	<u>\$ 36,166,433</u>	<u>\$ 37,113,036</u>	<u>\$ 946,603</u>	<u>2.62%</u>

<i>Reserves used as revenues offset</i>	<u>\$ 667,000</u>	<u>\$ 1,729,899</u>	<u>\$ 1,062,899</u>	<u>59%</u>
<i>Actual Revenues</i>	<u>35,499,433</u>	<u>35,383,137</u>	<u>(116,296)</u>	

**Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail**
Authority as a Whole

Authority as a Whole		Current Year Activity				vs.	vs.
Object Code	Line Item	Adopted Budget FY 2019-2020	Six Month Actual 12/31/2019	Projected Year end 6/30/2020	Proposed Budget FY 2020-2021	2021 Variance \$	2021 Variance %
10000	Salaries & Benefits						
11000	Salaries	\$ 5,876,908	\$ 2,983,064	\$ 5,966,128	\$ 5,908,780	\$ 31,872	0.54%
11010	Overtime Pay	285,500	138,776	277,552	304,000	18,500	6.48%
12010	FICA	471,423	225,270	450,540	475,278	3,855	0.82%
12020	Health Insurance	1,182,867	588,369	1,176,738	1,303,300	120,433	10.18%
12026	Employee Assistance Program	1,256	393	786	1,286	30	2.39%
12030	Retirement	565,358	234,599	469,198	531,791	(33,567)	-5.94%
12040	Life Insurance	76,986	36,463	72,926	79,177	2,191	2.85%
12050	Fitness Program	11,160	7,353	14,706	11,640	480	4.30%
12060	Worker's Comp Insurance	89,500	53,674	71,565	94,100	4,600	5.14%
Subtotal		\$ 8,560,958	\$ 4,267,961	\$ 8,500,139	\$ 8,709,352	\$ 148,394	1.73%
13000	Other Personnel Costs						
13100	Employee Dues & Licenses	\$ 11,190	\$ 3,233	\$ 8,486	\$ 9,930	\$ (1,260)	-11.26%
13150	Education & Training	83,520	28,662	57,226	81,105	(2,415)	-2.89%
13200	Travel & Lodging	35,250	10,495	22,790	29,930	(5,320)	-15.09%
13250	Uniforms	48,515	26,912	52,582	53,565	5,050	10.41%
13325	Recruiting & Medical Testing	6,300	3,915	7,830	7,625	1,325	21.03%
13350	Other	14,345	13,546	17,586	21,750	7,405	51.62%
Subtotal		\$ 199,120	\$ 86,763	\$ 166,500	\$ 203,905	\$ 4,785	2.40%
Professional Services							
20100	Legal Fees	\$ 85,000	\$ 110,276	\$ 220,552	\$ 100,000	\$ 15,000	17.65%
20200	Financial & Admin. Services	69,000	26,219	69,000	123,000	54,000	78.26%
20250	Bond Issue Costs	-	-	-	-	-	0.00%
20300	Engineering & Technical Services	512,050	342,010	739,968	379,700	(132,350)	-25.85%
Subtotal		\$ 666,050	\$ 478,505	\$ 1,029,520	\$ 602,700	\$ (63,350)	-9.51%
Other Services and Charges							
21100	General Liability/Property Ins.	\$ 144,090	\$ 84,886	\$ 113,181	\$ 128,600	\$ (15,490)	-10.75%
21150	Advertising & Communication	15,425	5,991	11,982	16,700	1,275	8.27%
21250	Watershed Management	112,000	42,092	84,184	80,000	(32,000)	-28.57%
21252	EMS Programs/Supplies	500	-	-	2,000	1,500	300.00%
21253	Safety Programs/Supplies	104,687	41,955	83,674	114,130	9,443	9.02%
21300	Authority Dues/Permits/Fees	91,400	65,827	116,648	103,500	12,100	13.24%
21350	Laboratory Analysis	131,000	48,485	97,970	105,700	(25,300)	-19.31%
21400	Utilities	1,323,600	759,252	1,518,504	1,564,650	241,050	18.21%
21420	General Other Services	1,017,910	550,883	1,102,266	1,008,000	(9,910)	-0.97%
21430	Governance & Strategic Support	35,000	2,567	5,134	11,000	(24,000)	-68.57%
21450	Bad Debt	5,000	-	5,000	2,500	(2,500)	-50.00%
Subtotal		\$ 2,980,612	\$ 1,601,938	\$ 3,138,543	\$ 3,136,780	\$ 156,168	5.24%
Communication							
22000	Radio	\$ 22,940	\$ 21,076	\$ 33,894	\$ 24,450	\$ 1,510	6.58%
22150	Telephone & Data Service	74,600	44,347	88,694	88,000	13,400	17.96%
22200	Cell Phones & Pagers	45,053	19,761	39,522	48,570	3,517	7.81%
Subtotal		\$ 142,593	\$ 85,184	\$ 162,110	\$ 161,020	\$ 18,427	12.92%
Information Technology							
31000	Computer Hardware	\$ 63,900	\$ 26,642	\$ 48,708	\$ 67,900	\$ 4,000	6.26%
31150	SCADA Maint. & Support	138,500	41,028	150,852	163,050	24,550	17.73%
31200	Maintenance & Support Services	104,750	77,695	127,736	128,800	24,050	22.96%
31250	Software Purchases	45,600	9,204	40,176	33,200	(12,400)	-27.19%
Subtotal		\$ 352,750	\$ 154,569	\$ 367,472	\$ 392,950	\$ 40,200	11.40%
Supplies							
33000	Office Supplies	\$ 29,700	\$ 8,752	\$ 17,790	\$ 28,300	\$ (1,400)	-4.71%
33150	Subscriptions/Reference Material	5,430	473	4,992	4,950	(480)	-8.84%
33350	Postage & Delivery	11,050	4,301	8,602	13,795	2,745	24.84%
Subtotal		\$ 46,180	\$ 13,526	\$ 31,384	\$ 47,045	\$ 865	1.87%
Operation & Maintenance							
41000	Building & Grounds	\$ 361,600	\$ 166,022	\$ 329,560	\$ 337,200	\$ (24,400)	-6.75%
41150	Building & Land Lease	43,200	36,190	40,067	130,400	87,200	201.85%
41200	Pump Station Maintenance	114,500	77,869	160,632	105,000	(9,500)	-8.30%
41300	Dam Maintenance	146,990	68,175	136,350	102,000	(44,990)	-30.61%
41350	Pipeline/Appurtenances	328,298	289,074	433,318	268,210	(60,088)	-18.30%
41400	Materials, Supplies & Tools	206,750	163,808	327,616	190,450	(16,300)	-7.88%
41450	Chemicals	2,682,190	896,890	2,695,138	2,263,150	(419,040)	-15.62%
41500	Vehicle Maintenance	59,600	46,239	92,478	74,600	15,000	25.17%
41550	Equipment Repair, Replace, Maint.	669,000	349,620	722,356	741,000	72,000	10.76%

Rivanna Water and Sewer Authority
Fiscal Year 2020-2021 Proposed Budget
Expense Detail

Authority as a Whole

Object Code	Line Item	Adopted Budget FY 2019-2020	Current Year Activity		Proposed Budget FY 2020-2021	2020	2020
			Six Month Actual 12/31/2019	Projected Year end 6/30/2020		vs. 2021 Variance \$	vs. 2021 Variance %
41600	Instrumentation	328,400	126,449	303,304	419,840	91,440	27.84%
41650	Fuel & Lubricants	95,800	50,913	101,826	96,450	650	0.68%
41700	General Other Maintenance	104,000	310,766	393,590	190,116	86,116	82.80%
Subtotal		\$ 5,140,328	\$ 2,582,015	\$ 5,736,235	\$ 4,918,416	\$ (221,912)	-4.32%
81000	Equipment Purchases						
81200	Rental & Leases	\$ 16,800	\$ 7,747	\$ 12,146	\$ 78,250	\$ 61,450	365.77%
81250	Equipment (over \$10,000)	56,800	40,000	86,800	35,000	(21,800)	-38.38%
81300	Vehicle Replacement Fund	215,100	107,550	215,100	239,000	23,900	11.11%
Subtotal		\$ 288,700	\$ 155,297	\$ 314,046	\$ 352,250	\$ 63,550	22.01%
95000	Allocations from Departments						
95100	Administrative Allocation	\$ -	\$ -	\$ -	\$ -	\$ -	
95300	Engineering Allocation	-	-	-	-	-	
95150	Maintenance Allocation	-	-	-	-	-	
95200	Laboratory Allocation	-	-	-	-	-	
Subtotal		\$ -	\$ -	\$ -	\$ -	\$ -	
Depreciation		843,000	421,500	843,000	\$ 860,000	17,000	2.02%
Subtotal		\$ 843,000	\$ 421,500	\$ 843,000	\$ 860,000	\$ 17,000	2.02%
Total		\$ 19,220,291	\$ 9,847,258	\$ 20,288,949	\$ 19,384,418	\$ 164,127	0.85%

Audit Check	
Less revenue allocation in Admin.	(545,000)
Less revenue allocation in Maint.	-
Less revenue allocation in Eng.	-
Detail Check on Expenses	\$ 18,839,418
Total Summary Sheet Rate Center Only	\$ 18,839,417

Note 1 - Mid-year moved one Mechanic position to engineering and reclassified

RWSA Staffing by Department

	Approved Positions FY 2020	Changes	Positions FY 2021
OPERATIONS			
<u>Engineering & Maintenance</u>			
Director of Engineering & Maintenance	1		1
Engineering Department			
Engineering Manager	1		1
Senior Civil, Civil Engineers	4	<i>Note 1</i>	5
Water Resources Manager (moved from Water)	1		1
Engineering Technician/Inspector/GIS	4		4
GIS Coordinator (moved to Admin)	0		0
Administrative Office Technician	1		1
(Director FTE included) Subtotal	12	0	13
Maintenance Department			
Maintenance Manager	1		1
Maintenance Supervisor	1		1
Mechanics	10	<i>Note 1</i>	9
Industrial Controls/Instrumentation Specialist	1		1
Vehicle Equipment Mechanic	1		1
Mechanic Helper	1		1
Maintenance Workers	2		2
Subtotal	17		16
<u>Operations</u>			
Director of Operations	1		1
Laboratory			
Laboratory Manager	1		1
Chemist	2		2
Lab Technician	1		1
Subtotal	4	0	4
Wastewater Department			
Wastewater Manager	1		1
Wastewater Assistant Manager	1		1
Treatment Supervisor	1		1
Plant Operators (14 total)			
Operators - Relief Shift Differential all plants	2		2
Operators - Urban	9		9
Operator - Glenmore	1		1
Operator - Scottsville	1		1
Subtotal	16		16
Water Department			
Water Manager	1		1
Water Assistant Manager	1		1
Water Quality Specialist	1		1
Water Treatment Plant Supervisor	2		2

RWSA Staffing by Department

	Approved Positions FY 2020	Changes	Positions FY 2021
OPERATIONS			
<u>Plant Operators</u>			
Operators - Relief Shift Differential all plants	3		3
Operators - Urban	14.4	0	14.4
Operators - Crozet	2.6		2.6
Operators - Scottsville	1.4		1.4
Subtotal	26.4	-	26.4
Subtotal	76.4	0	76.4

Joint Administrative Staff

			FTE Split		
			RWSA	SWA	
Executive Director	1		0.85	0.15	1.00
Communications Manager/Executive Coordinator	1		0.60	0.40	1.00
Director of Finance & Administration	1		0.80	0.20	1.00
Office/HR Manager	1		0.80	0.20	1.00
Senior Accountant	1		0.80	0.20	1.00
Accounting Associate	0	0	0.00	0.00	0.00
Payroll & Benefits Coordinator	1		0.75	0.25	1.00
Accounts Payable/Purchasing Technician	1		0.75	0.25	1.00
Accounts Receivable Technician	1		0.30	0.70	1.00
Reception/Secretary III	1		0.75	0.25	1.00
Administrative Office Technician	1		0.70	0.30	1.00
Environmental & Safety Manager	1		0.70	0.30	1.00
<u>IT/SCADA</u>					
Information Systems Administrator	1		0.60	0.40	1.00
Information Systems Asst. Administrator	1		0.60	0.40	1.00
GIS Coordinator (moved from Engineering)	1		1.00	0.00	1.00
Software Analyst	1		0.80	0.20	1.00
IT Specialist - SCADA	1		1.00	0.00	1.00
IT Technician Security / SCADA	0	0	1.00	0.00	1.00
SCADA Technician	1		1.00	0.00	1.00
Administration and allocation with RSWA	17	0	13.80	4.20	18.00
Total all positions	93.40	0.00			93.40
FTE Position Allocated to RSWA	-4.20				-4.20
Total Adjusted FTEs	89.20				89.20

Rivanna Water and Sewer Authority
FY 2021 Proposed Budget

Data for ACSA

	<u>FY 2020</u>	<u>FY 2021</u>	<u>Change</u>
Total RWSA Expenses			
Water	\$ 17,675,000	\$ 18,326,000	\$ 651,000
Wastewater	18,013,000	18,242,000	229,000
Add Administration revenue allocation	468,000	545,000	77,000
Add Maintenance revenue allocation	10,000	-	(10,000)
Add Engineering revenue allocation	-	-	-
			-
Total	<u>\$ 36,166,000</u>	<u>\$ 37,113,000</u>	<u>\$ 947,000</u>

RWSA Rate Charges Allocated to ACSA, by Service Area

Water

Urban	\$ 7,343,723	\$ 7,343,723	\$ -
Crozet	2,340,120	2,340,120	-
Scottsville	649,561	649,561	-
Total	<u>\$ 10,333,404</u>	<u>\$ 10,333,404</u>	<u>\$ -</u>

Wastewater

Urban	\$ 7,354,898	\$ 7,435,218	\$ 80,320
Scottsville	318,430	318,430	-
Stone Robinson School	22,478	22,788	310
Glenmore	374,302	374,302	-
Total	<u>\$ 8,070,108</u>	<u>\$ 8,150,738</u>	<u>\$ 80,630</u>

Total for ACSA

<u>\$ 18,403,512</u>	<u>\$ 18,484,142</u>	<u>\$ 80,630</u>
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Proposed Operating Budget FY 2020 - 21



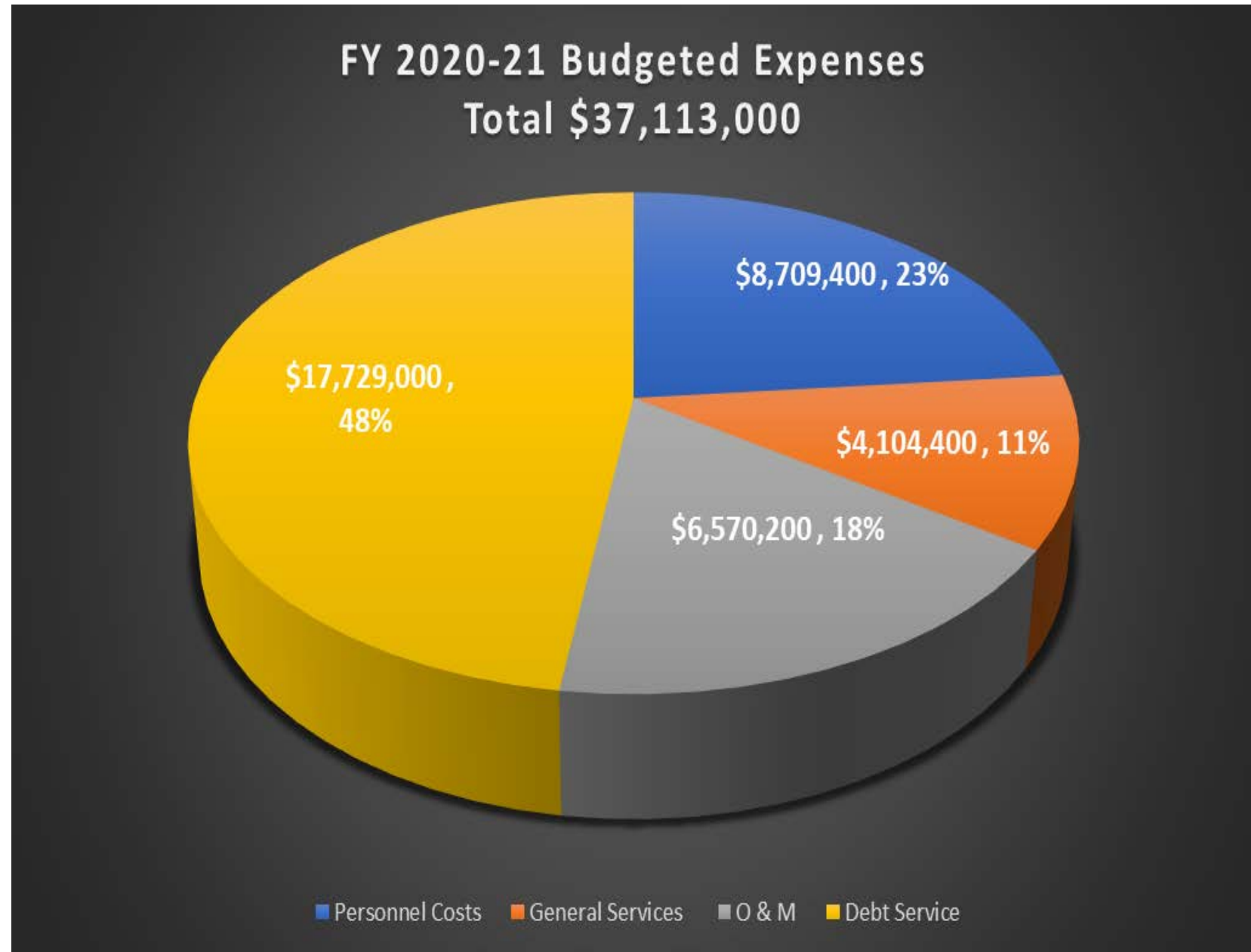
PRESENTED TO: RWSA BOARD OF DIRECTORS

JUNE 23, 2020



FY 2020 – 21 Operating Budget

\$37.1 M



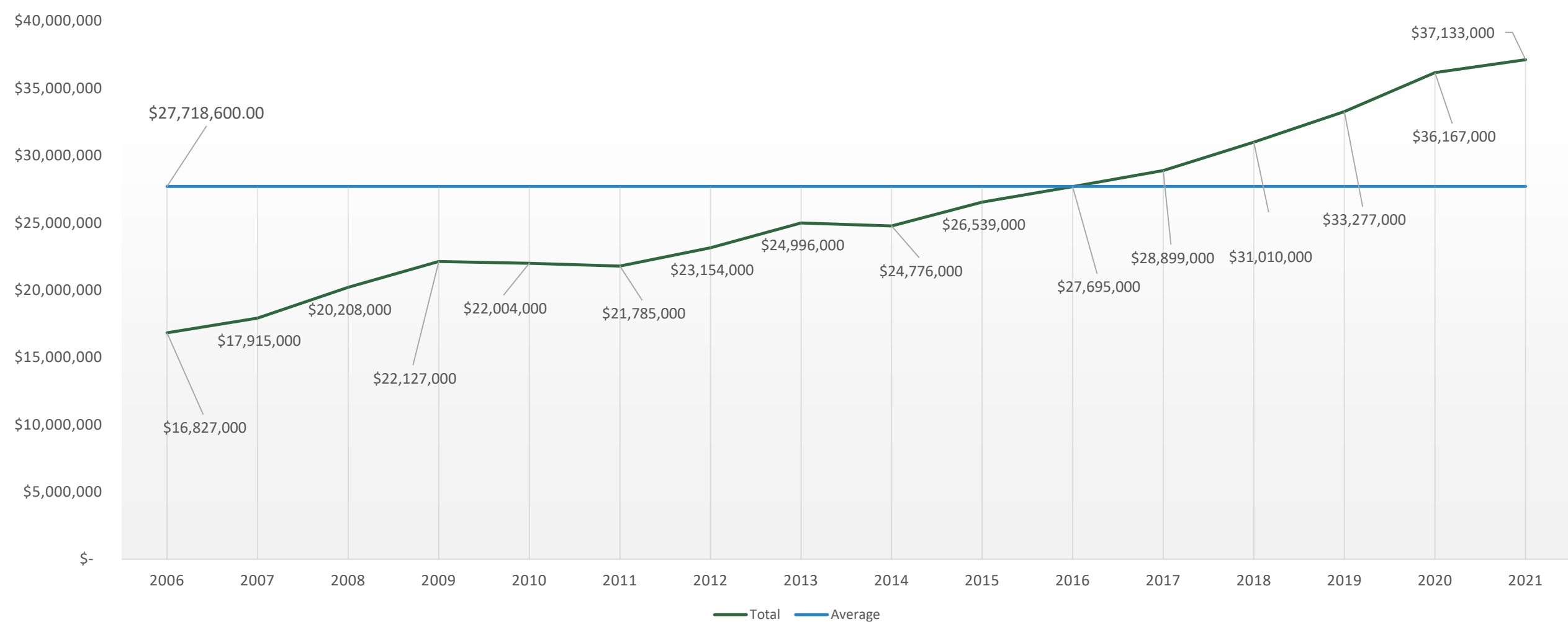
FY 2020 – 21 Budget Summary

➤ Total budget	\$37.1 m	\$0.94 m = 2.6% above FY 20*
1. Operating	\$19.4 m	\$0.163 m = 0.8%
2. Debt Service	\$17.7 m	\$0.783 m = 4.4%
➤ City Charges	\$14.8 m	
➤ ACSA Charges	\$18.5 m	
➤ Other Charges/Revenues	\$2.1 m	
➤ RWSA Reserves*	\$1.7 m	

Major Projects in FY 2021

- Water Treatment Plant Renovations
 - Crozet, South Rivanna, and Observatory
- South Rivanna to Ragged Mtn Reservoir Pipeline Easements
- Urban Finished Water Master Plan
- Wastewater Flows Study, 5 – Year Update
- Crozet WW Flow Equalization Tank Construction
- Buck Mtn Property Master Plan
- Crozet and Urban Va Water Protection Permit Applications





Operating Budget – 15 Year History

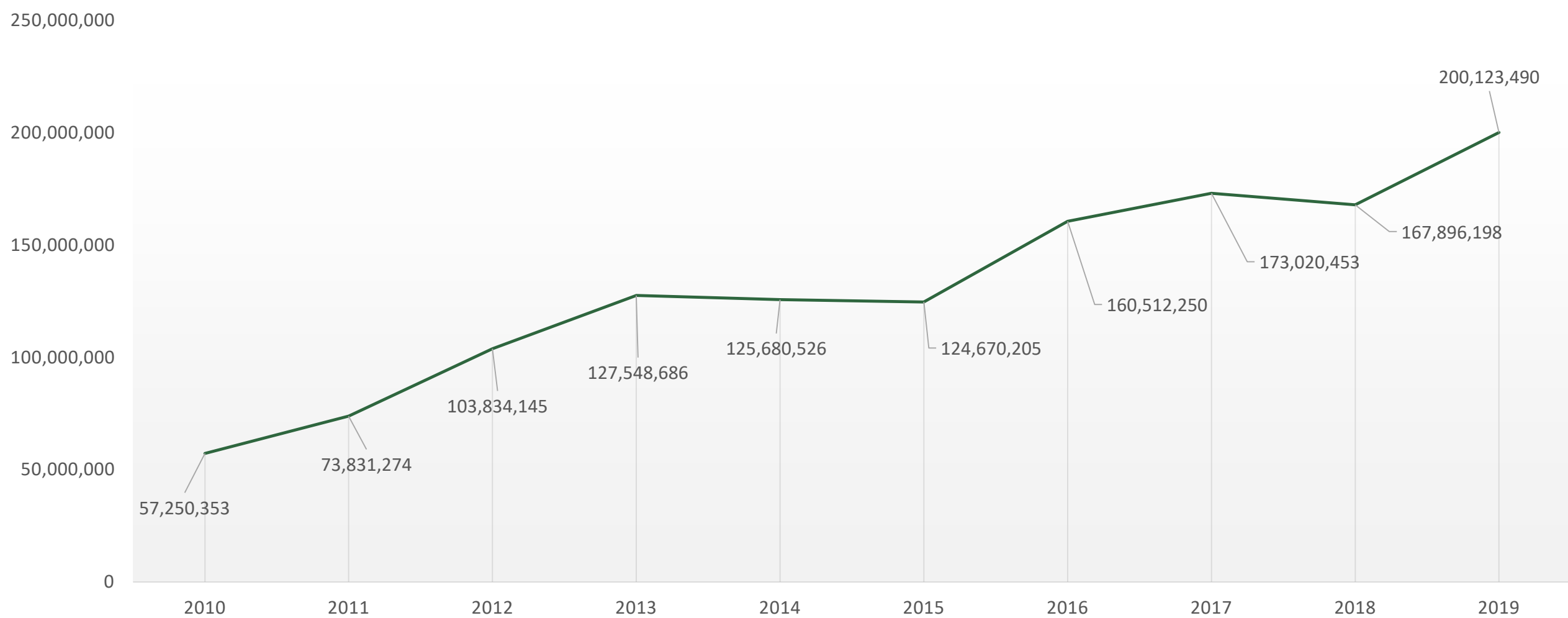
Capital Assets: Facilities and Equipment

\$257,000,000

5 Water Supply Reservoirs:	3.3 billion gallons
6 Water Treatment Plants	
◦ 3 Urban Area:	21.7 > 24 MGD by 2023
◦ 3 Non-Urban Area	1.25 MGD
4 Wastewater Treatment Plants	
◦ 1 Urban Area:	15 MGD
◦ 3 Non-Urban Area:	0.588 MGD
7 Wastewater Pump Stations	
11 Water Pump Stations	
◦ 7 Raw Water	
◦ 4 Finished Water	
Water Distribution Pipe:	67 miles
Wastewater Collection Pipe:	42 miles
Stormwater Impoundment:	Lickinghole Creek Basin
Employees:	93.4

Use of Reserve Funds in FY 21

•Urban Water, GAC Replacement	\$500 K	• <u>Debt Service</u>	
•Urban Water	\$94 K	• Urban Water	\$660 K
•Crozet Water, GAC Replacement	\$26 K	• Crozet Water	\$200 K
•Scottsville Water GAC Replacement	\$9 k	• Urban Wastewater	<u>\$95 K</u>
•Urban Wastewater	\$121 K		\$955 K
•Glenmore Wastewater	<u>\$25 K</u>	Total Use of Reserves	\$1,730,000
	\$775 K		



Total Outstanding Debt

Charges and Financial Summary

•RWSA Charge Increases (%):	FY	21	22	23	24	25
• City		0	12.7	7.0	6.4	6.4
pre-covid		5.7	7.1	7.2	6.5	6.5
• ACSA		0	17.3	8.4	7.7	7.3
pre-covid		8.8	9.1	8.7	8.1	7.6

- Charges include Operating and Debt Services costs

- Use of RWSA Reserves
 - \$775 k for Operating Expenses in FY 21
 - \$954 k for Debt Service in FY 21
 - \$10.6 M over 5 year FY 21 – 25 CIP
- Anticipate issuing Revenue Bond in FY 2022 to fund CIP, and 2-3 years thereafter.

FY 2020 – 21 Budget Summary

➤ Total budget	\$37.1 m, \$0.94 m = 2.6% increase*
1. Operating	\$19.4 m
2. Debt Service	\$17.7 m
➤ City Charges	\$14.7 m
➤ ACSA Charges	\$18.4 m
➤ Other Charges/Revenues	\$2.1 m
➤ RWSA Reserves*	\$1.7 m

Questions?

ACTION REQUESTED:

CONDUCT A PUBLIC HEARING ON THE PRELIMINARY RATE SCHEDULE,
FOLLOWED BY APPROVAL OF THE FY 2020 – 21 OPERATING BUDGET AND
PRELIMINARY RATE SCHEDULE, AS WELL AS THE FY 21 – 25 CIP.

Proposed Rates and Charges For FY 2021

RESOLUTION

PRELIMINARY RATE SCHEDULE

WHEREAS, the Rivanna Water and Sewer Authority Board of Directors has reviewed the proposed budget and associated rate changes for Fiscal Year 2020-2021; and

WHEREAS, the Rivanna Water and Sewer Authority conducted a public hearing on June 23, 2020 after advertising the actual date fixed for the public hearing;

NOW, THEREFORE, BE IT RESOLVED that the Rivanna Water and Sewer Authority hereby approves the preliminary rate schedule for FY 2020-2021, which was unchanged from FY 2019-2020, effective on July 1, 2020.

Water Rates & Charges				Wastewater Rates & Charges			
Urban Area				Urban Area			
City & ACSA	Operating	\$2.095	Per 1,000 gallons	City & ACSA	Operating	\$2.369	Per 1,000 gallons
City	Debt Service	\$193,580	Per month	City	Debt Service	\$407,588	Per month
ACSA	Debt Service	\$321,303	Per month	ACSA	Debt Service	\$278,174	Per month
Crozet Water				Glenmore Wastewater			
ACSA	Operating & Debt Service	\$195,010	Per month	ACSA	Operating & Debt Service	\$31,192	Per Month
Scottsville Water				Scottsville Wastewater			
ACSA	Operating & Debt Service	\$54,130	Per month	ACSA	Operating & Debt Service	\$26,536	Per month



MEMORANDUM

**TO: RIVANNA WATER AND SEWER AUTHORITY
BOARDS OF DIRECTORS**

**FROM: JENNIFER WHITAKER, DIRECTOR OF ENGINEERING &
MAINTENANCE**

REVIEWED BY: BILL MAWYER, EXECUTIVE DIRECTOR

SUBJECT: URBAN WATER SAFE YIELD AND DEMAND STUDY

DATE: JUNE 23, 2020

The City of Charlottesville, Albemarle County Service Authority, and RWSA entered into the Ragged Mountain Dam Project Agreement in January 2012. Within the agreement are provisions to monitor the bathymetric capacity of the Urban water reservoirs, as well as a requirement to conduct demand analyses, demand forecasting and safe yield evaluations each decade.

To assess water supply, bathymetric surveys of the South Rivanna Reservoir and the Ragged Mountain Reservoir were completed in 2018 by Draper Aden Engineers. Hazen and Sawyer Engineering has finalized the demand study and calculated safe yield using a hydrological model following numerous meetings with multiple County and City departments, ACSA, and UVa. In accordance with the project agreement, these analyses were completed by calendar year 2020.

The results of the Urban Water Safe Yield and Demand Study are summarized as follows:

- The projected 2070 Operational Safe Yield / Supply is 12.8 MGD.
- Water demands over the next 50 years are projected to be less than AECOM estimated in 2011.
- Reduced water demands can be attributed to reductions in per capita water demand and conservation efforts by our community.
- The projected 2070 Water Demand is 14.3 MGD.
- The projected Water Operational Safe Yield / Supply equals Demand in about 2060.

More detailed information, including options to extend water supply an additional 60 years until 2120, along with the operational and environmental benefits will be included in a presentation to the Board of Directors today.



Urban Water Supply & Demand Report | 2020-2070

PRESENTED TO THE RWSA BOARD OF DIRECTORS BY:

BILL MAWYER, EXECUTIVE DIRECTOR

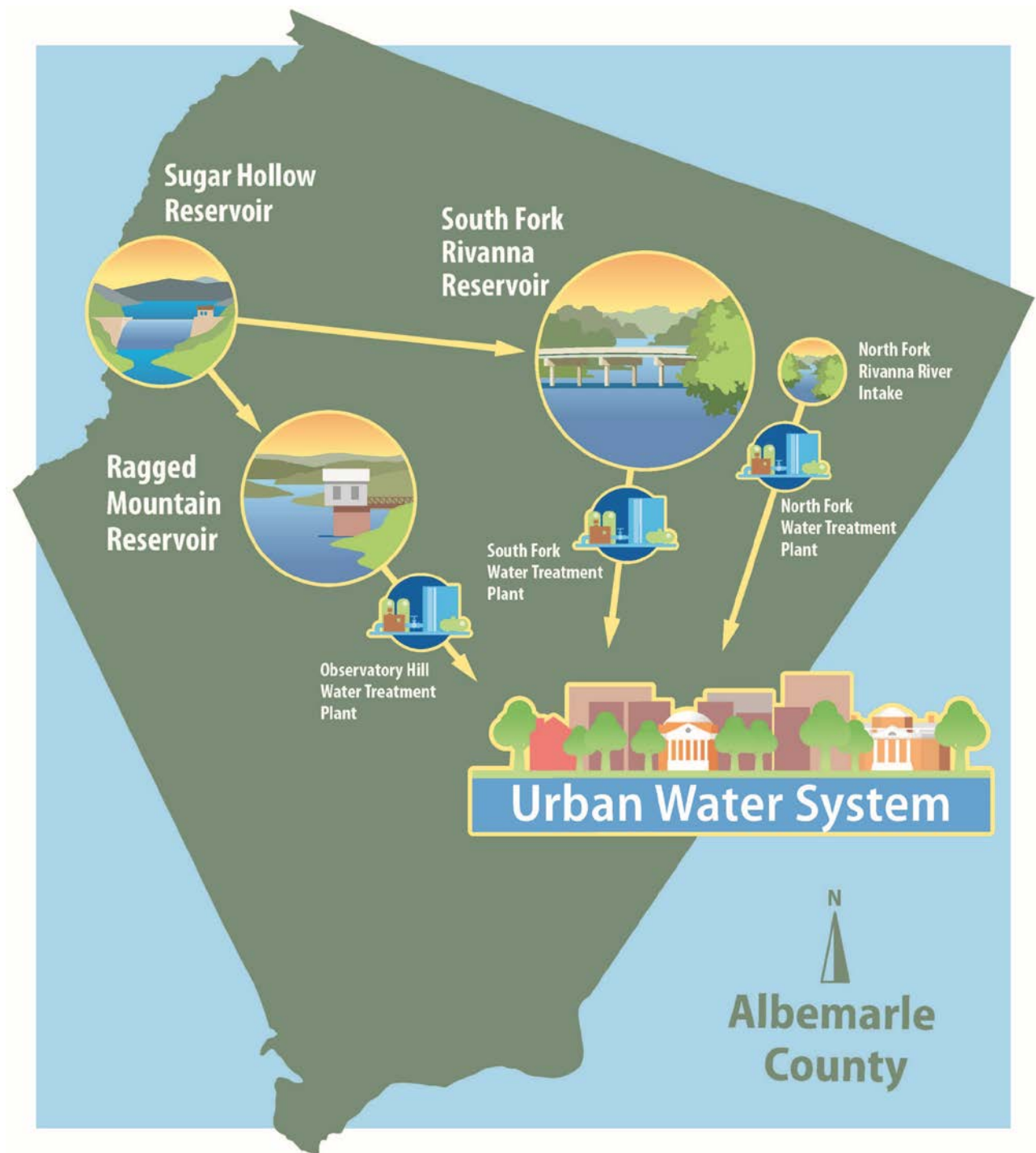
JUNE 23, 2020

Agenda | Urban Water Supply & Demand

- Water System Maps
- Water Supply History and Permits
- Water Supply Analysis
 - Reservoirs
 - Operational Yield
- Water Demand Analysis
 - Population Forecast
 - Unit Demand
 - UVA Demand
 - Community Comparison
 - Long Range Forecast
- Supply vs. Demand Analysis
- Summary & Options to Increase Supply
- Questions

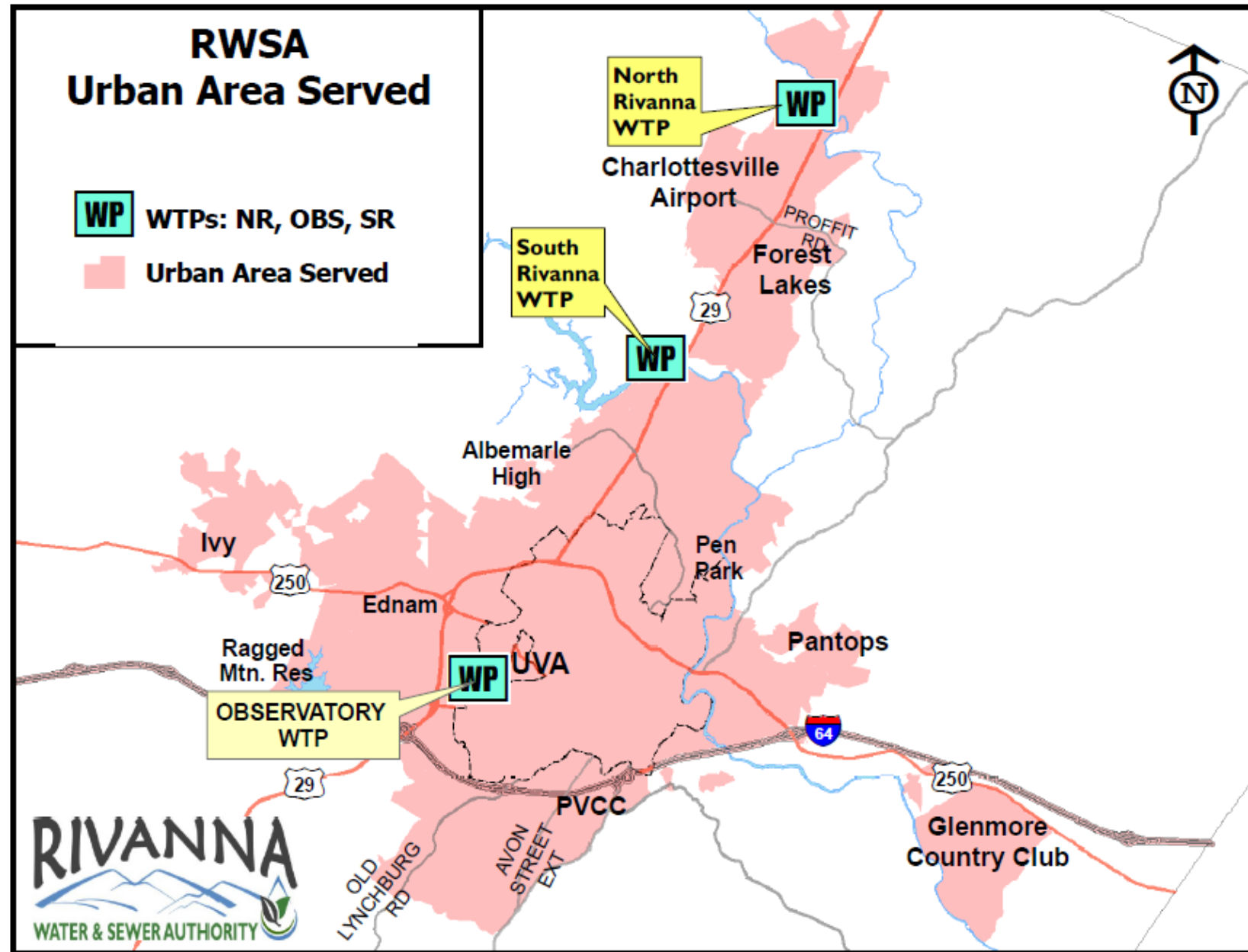
Urban Water Supply System

Sugar Hollow Reservoir	339 MG
Rivanna Reservoir	883 MG
Ragged Mtn Reservoir	1.44 BG
	<hr/> 2.6 BG



Urban Water Treatment System

S. Rivanna WTP	12 MGD
Observatory WTP	7 MGD
N. Rivanna WTP	2 MGD
	<hr/> 21 MGD

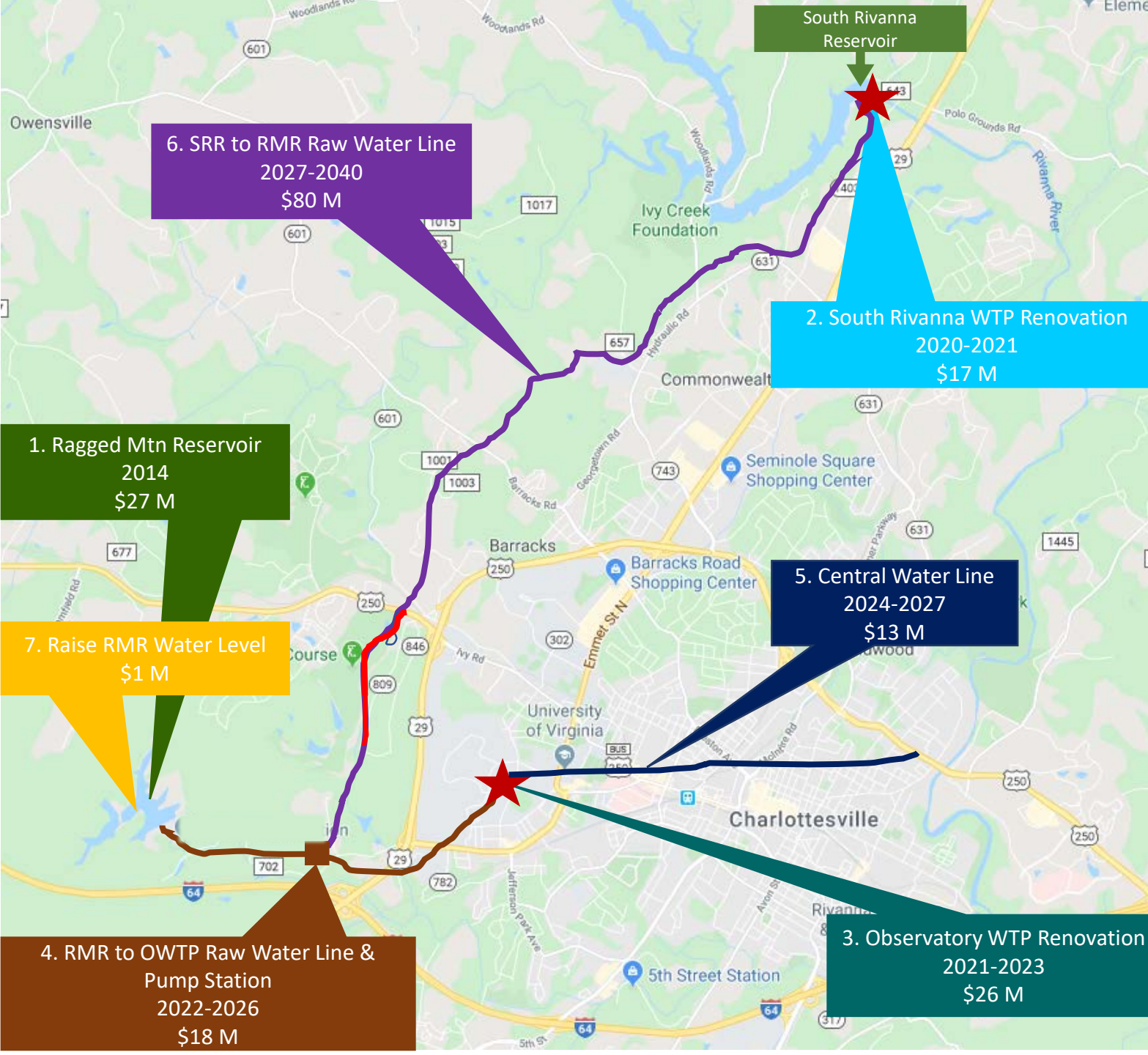


Urban Water Supply | History

- The Virginia Administrative Code, Chapter 780, requires local water supply planning designed to “ensure adequate and safe drinking water is available” and to “promote conservation”.
- In 2001 – 2002, drought in central Virginia sparked a ten-year long water supply planning process. The community evaluated many alternatives, including taking water from the James River, but decided to “drink local” and stay within our watershed. A Community Water Supply Plan was ultimately completed and approved in 2012, which required the RWSA to construct:
 - A larger replacement dam for the Ragged Mountain Reservoir (completed in 2014)
 - A raw water line from S. Rivanna Reservoir to fill the larger RMR (currently planned for 2027 – 2040)
 - Renovation of the S. Rivanna and Observatory WTPs (under construction, completion in 2023)
 - Replacement piping and pumping between the RMR and the Ob WTP (currently planned for 2023 – 2027)

Urban Water Supply | Environmental Permits

- In 2012, the “Ragged Mountain Dam Project Agreement” was completed between the City, ACSA, and RWSA. The Agreement established cost allocations between the City and the ACSA for these water supply projects.
 - Dam at RMR City 15%, ACSA 85%
 - Water Line from SRR – RMR City 20%, ACSA 80%
 - Raise RMR Water Level 12 feet City 15%, ACSA 85%: when Demand = 85% of Water Supply
- Required RWSA to complete a bathymetric survey of the Urban reservoirs, and an Urban Water Safe Yield and Demand Study every 10 years, beginning in 2020.
- Two environmental permits were issued in 2008, authorizing construction of a new and taller dam for the RMR, as well as a pipeline from the SRR to fill the larger RMR.
 1. U.S. Army Corps of Engineers (10-year permit)
 - Expired June 2018; extended to June 2023
 2. Virginia Department of Environmental Quality (15-year permit)
 - Expires February 2023
- An application for new permits (Joint Permit Application) must be submitted by May 2022



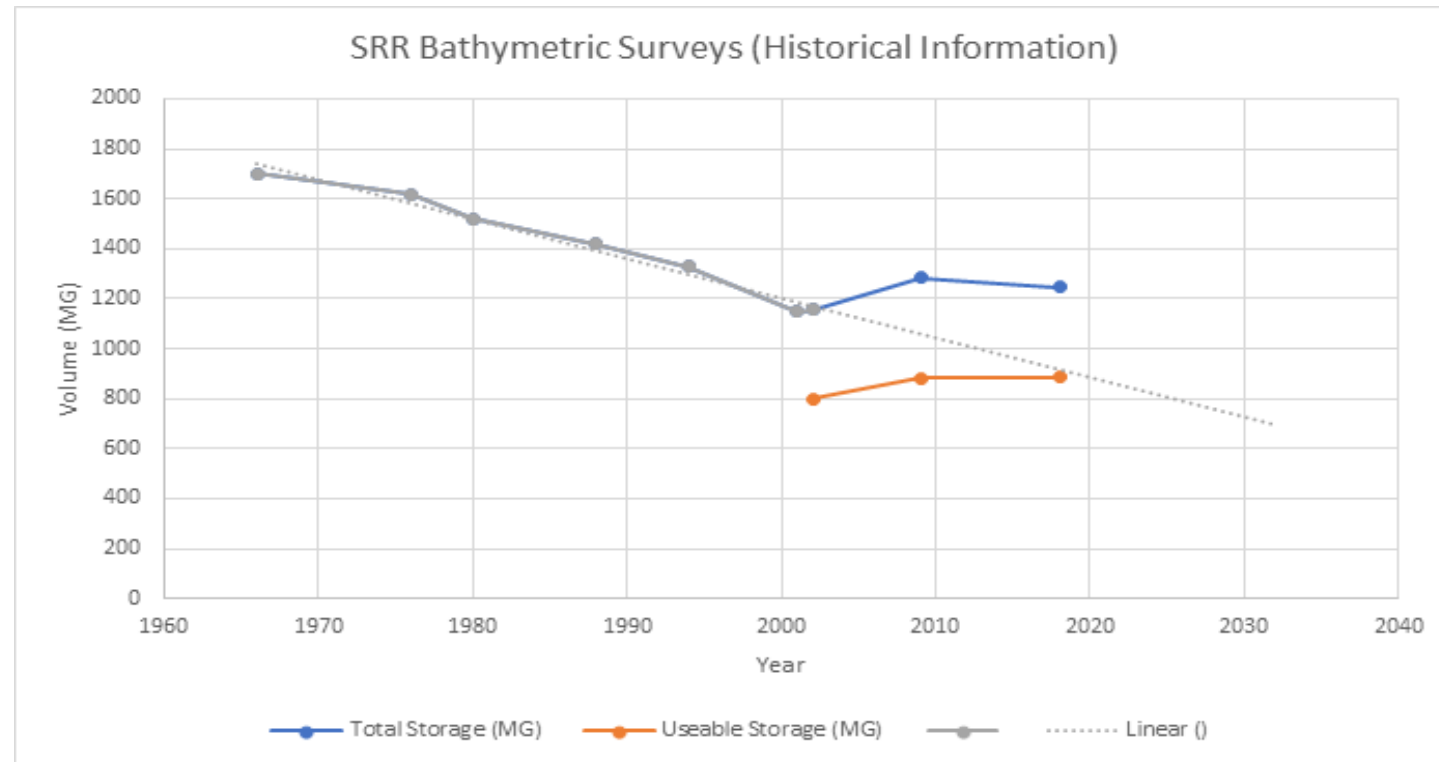
Community Water Supply Projects

1. RMR Dam Completed in 2014	\$27 M
2. SR WTP Renovation 2020-2021	\$17 M
3. OB WTP Renovation 2021-2023	\$26 M
4. RMR to OB WTP Raw Water Line & Pump Station 2022-2026	\$18 M
5. Central Water Line 2024-2027	\$13 M
6. SRR to RMR Raw Water Line 2027-2040	\$80 M
7. Raise RMR Water Level	\$1 M
\$182 M	

Urban Water Supply Analysis | Reservoirs

- Completed bathymetric surveys of Ragged Mtn. and S. Rivanna Reservoirs in 2018,
Sugar Hollow Reservoir in 2015.

Reservoirs	Prior Useable	2018 (MG)	Changes (MG)
RMR	1,513 (2014)	1,441	-72
SRR	883 (2009)	885	+2
SHR	350 (1995)	339 (2015)	-11
		2.6 BG	



Urban Water Supply Analysis | Operational Yield

➤ Consultant evaluated:

- Local rainfall quantities and patterns since 1920
- Flow into reservoirs, based on recent hydraulic modeling
- Local weather data during the “drought of record” in 2001-2002 (18 months)
- Available water supply over the next 50 years, based on these findings

➤ Calculated “Safe Yield” for the Urban Reservoir System:

18.6 MGD

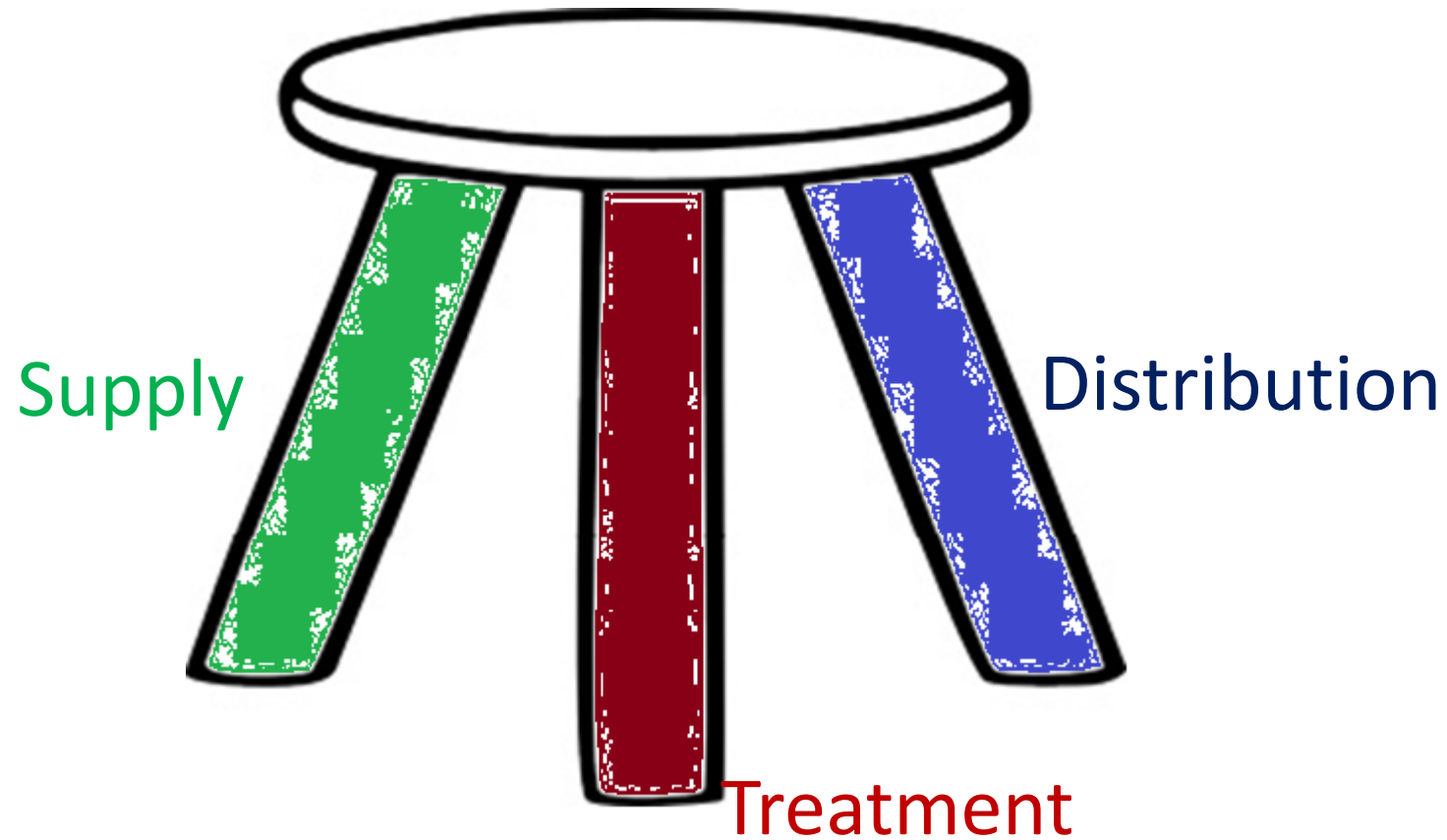
- Safe Yield = “The maximum water withdrawal rate during the worst drought of record in VA since 1930.” (12 VAC5-590-830: Va Dept of Health)

➤ Calculated “Operational Yield” for the Urban Water System:

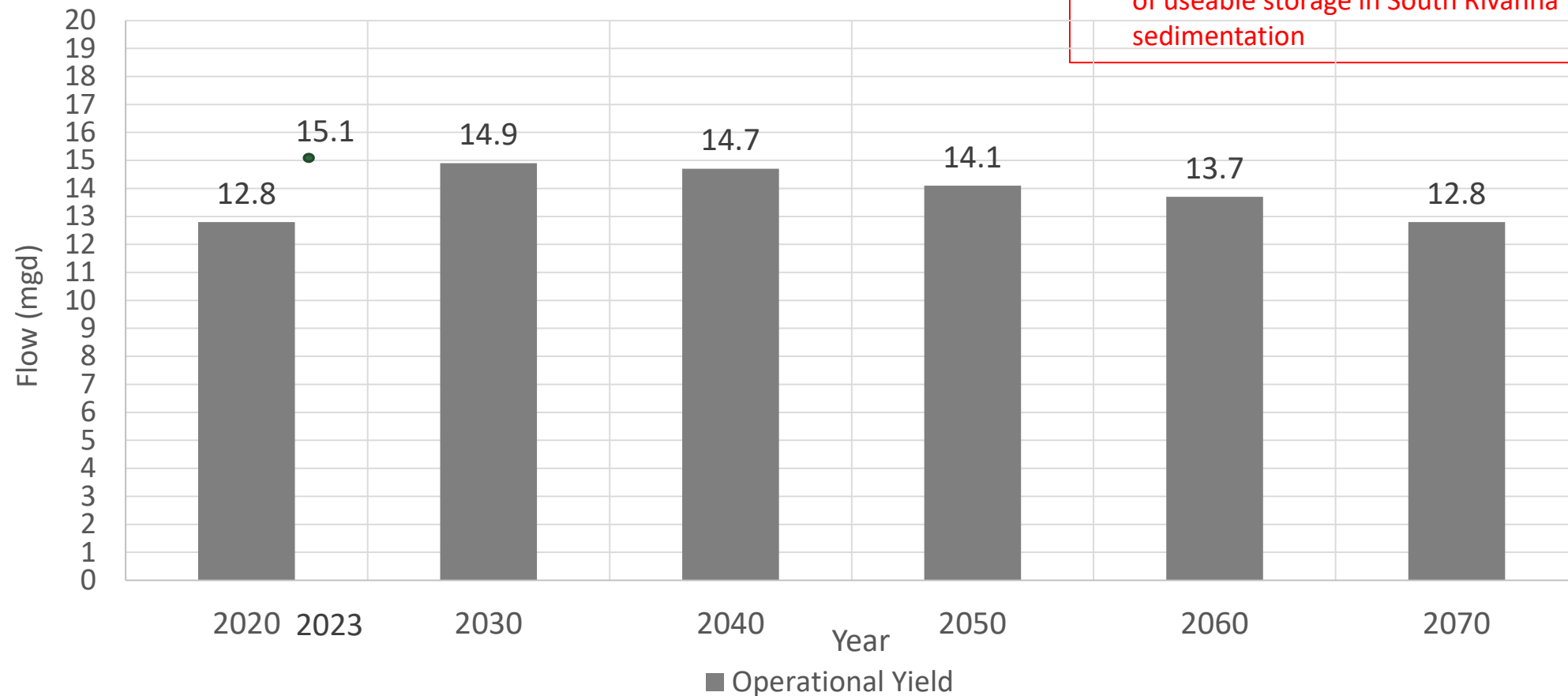
12.8 MGD

- The maximum water withdrawal, treatment, and conveyance rate available from our current water supply, treatment and piping facilities during a drought similar to the drought of 2001-2002.

Operational Yield = Available Water Supply



Available Water Supply



- Increase in available water supply after upgrades to WTPs in 2023
- Decline in available supply after 2023 resulting from loss of useable storage in South Rivanna Reservoir due to sedimentation

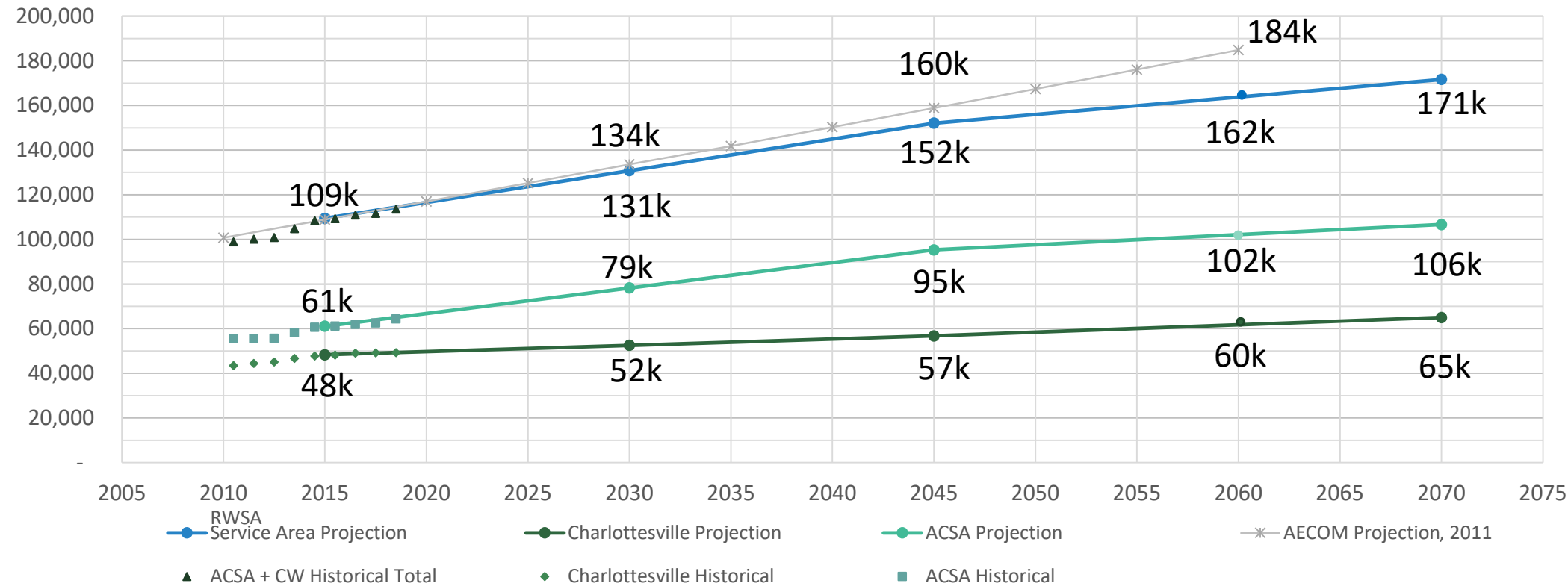
Urban Water Demand Analysis | Population Forecast

Population Forecast Data was obtained from:

- Weldon Cooper Center
- Thomas Jefferson Planning District Commission (2045 Long Range Transportation Plan)
- Albemarle Office of Community Development
- City Neighborhood Development Services Department
- UVA Facilities and Architect Offices

Urban Water Demand Analysis | Population Forecast

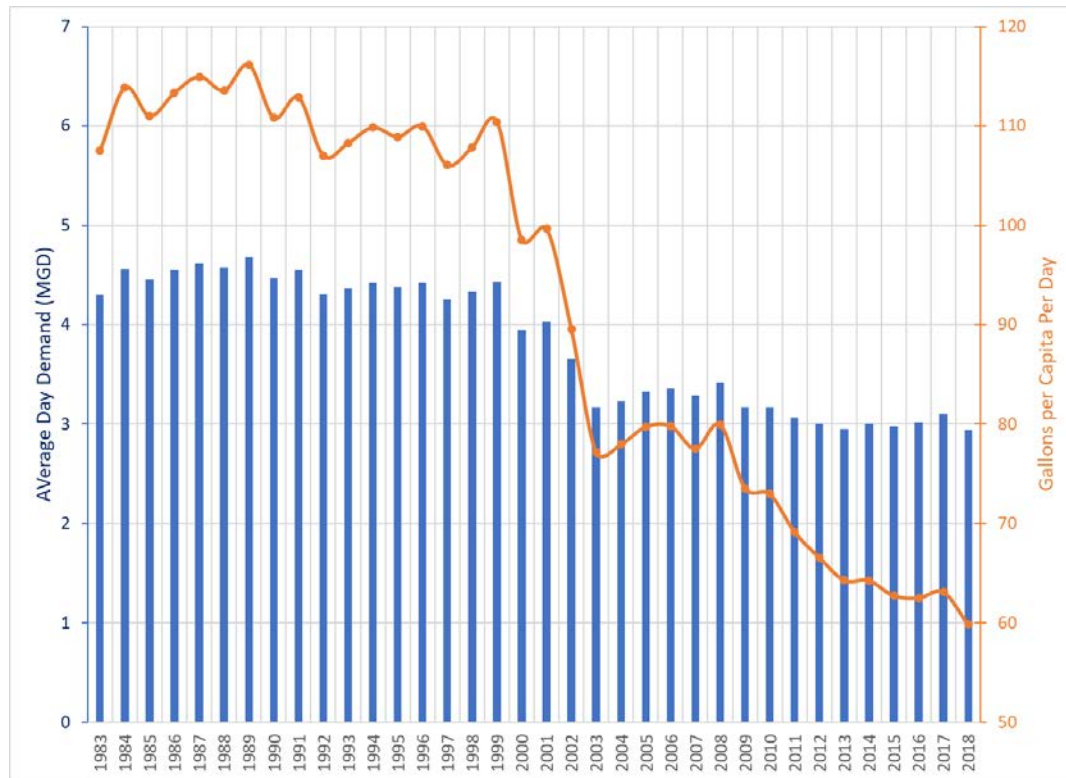
City, ACSA and RWSA Service Area Populations



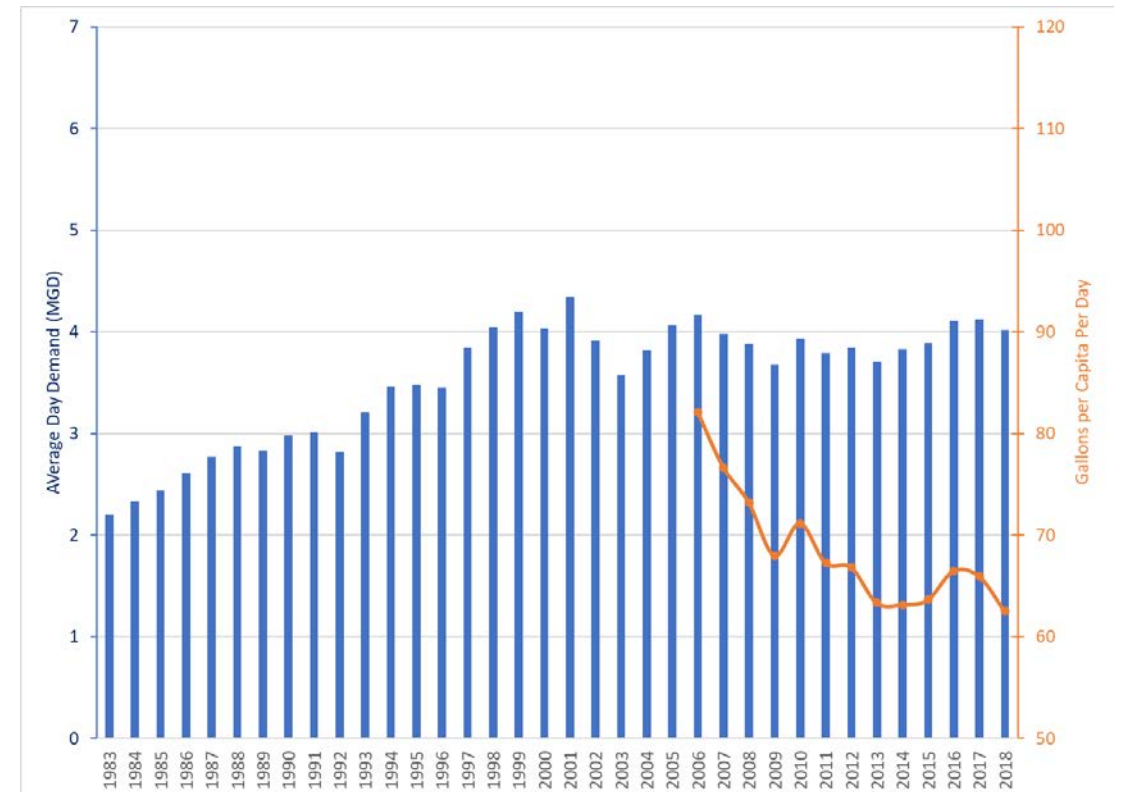
Urban Water Demand Analysis | Unit Demand

- Significant decrease in the gallons consumed per capita per day

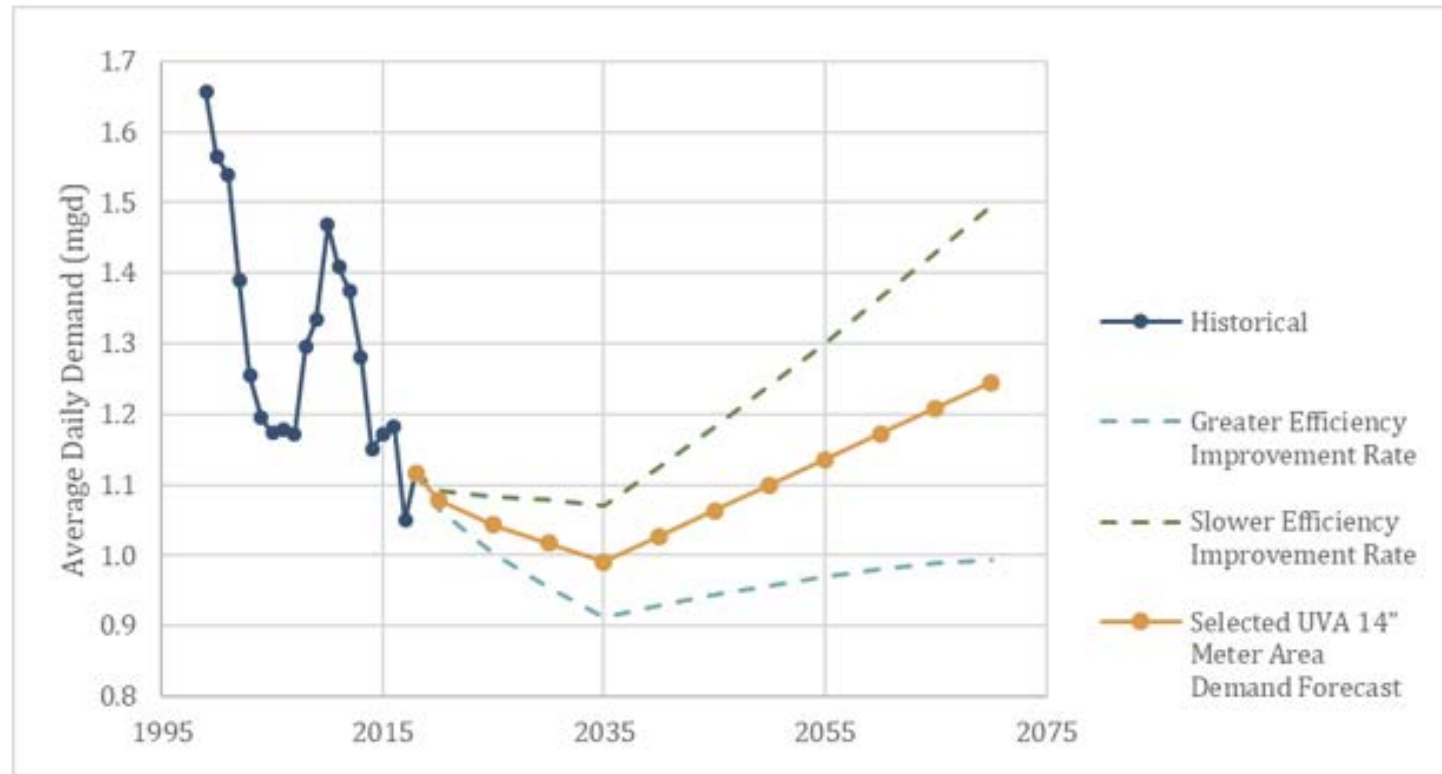
City avg day & per capita trend



ACSA avg day & per capita trend



Urban Water Demand Analysis | UVA Demand



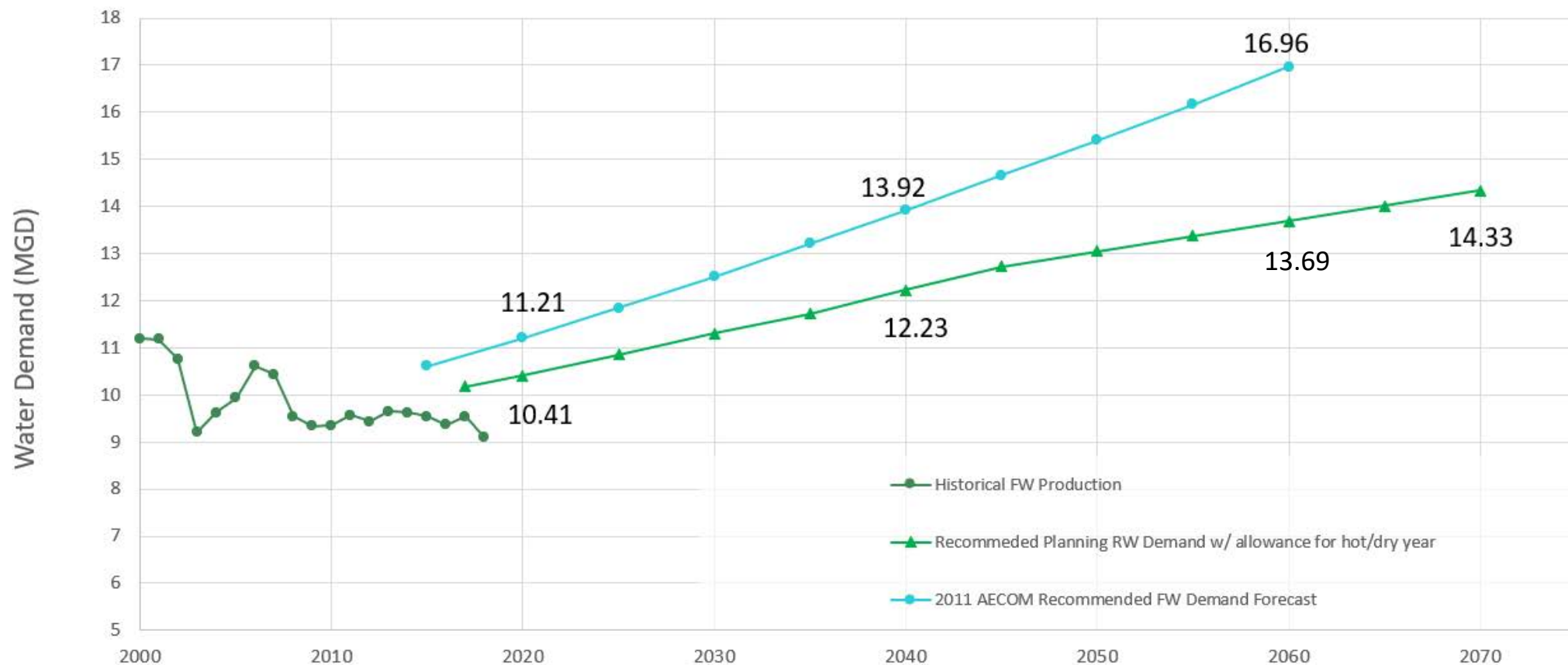
Urban Water Demand Analysis | Community Comparison

City/Utility	Gallons per capita per day
Santa Cruz, CA	71
RWSA	73
Loudon Water, VA	80
OWASA (Chapel Hill, Carrboro, UNC)	84
Raleigh, NC	88
Durham, NC	105
Baltimore, MD	109
New York City	117
Charlotte, NC	120
Austin, TX	126

Note: Data from 2015 or 2017 based on raw or finished water

Urban Water Demand Analysis | Long-Range Forecast

2011 and 2020 Demand Projections



Available Water Supply vs Demand | 2020 - 2070



Urban Water System 2070 | Summary

- RWSA Service Population = 171,000
- Available Water Supply = 12.8 MGD
- Water Demand = 14.3 MGD
- Additional Available Water Supply will be required by 2060
- Demand will = 85% of Available Water Supply by 2045

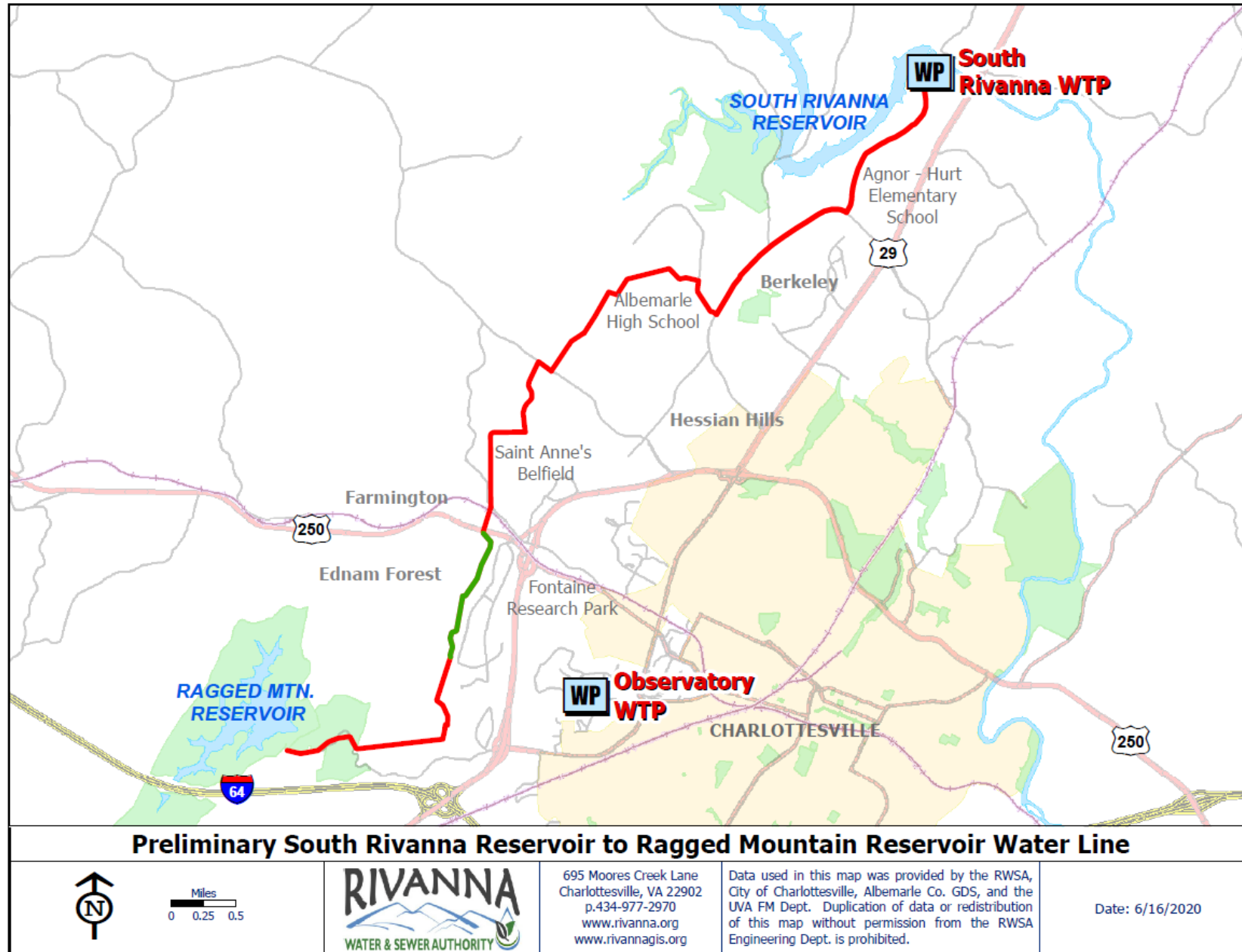
Options to Increase Available Water Supply

1. Build SRR – RMR pipeline and raise RMR Pool by 2035
 - Adds redundancy, resiliency, operational and environmental benefits
 - Can be completed within the term of new permits (2038)
 2. Build pipeline by 2045 (at 85% of supply). Raise RMR pool by 2060 (at 85% of supply)
 - Large increase in water supply with pipeline allows more time for raising RMR pool
 3. Raise RMR pool by 2045 (when demand = 85% of supply). Build pipeline by 2050 (at 85% of supply)
 - Large increase in water supply only possible with addition of pipeline due to increased operational flexibility. Pipeline would be needed not long after raising RMR pool.
- All options extend adequate available water supply 60 years from 2060 to 2120

SRR-RMR Pipeline Project

Design and Construct:

- 36 inch raw water line, 9 miles long, 25 MGD capacity (1 mile has been completed)
- Intake structure in the SRR
- Two raw water pump stations
- Pretreatment facility
- \$80 M (2020 \$)
- Approx. 8 years for project completion
- Close SHR water line



Benefits of the SRR - RMR Pipeline

1. Increase drinking water supply

- RMR was expanded from 0.5 to 1.4 BG. Will increase to 2.1 BG when water level is raised 12 ft.
- SRR – RMR pipe and pumping will increase RMR fill rate from 3.5 to 25 MGD

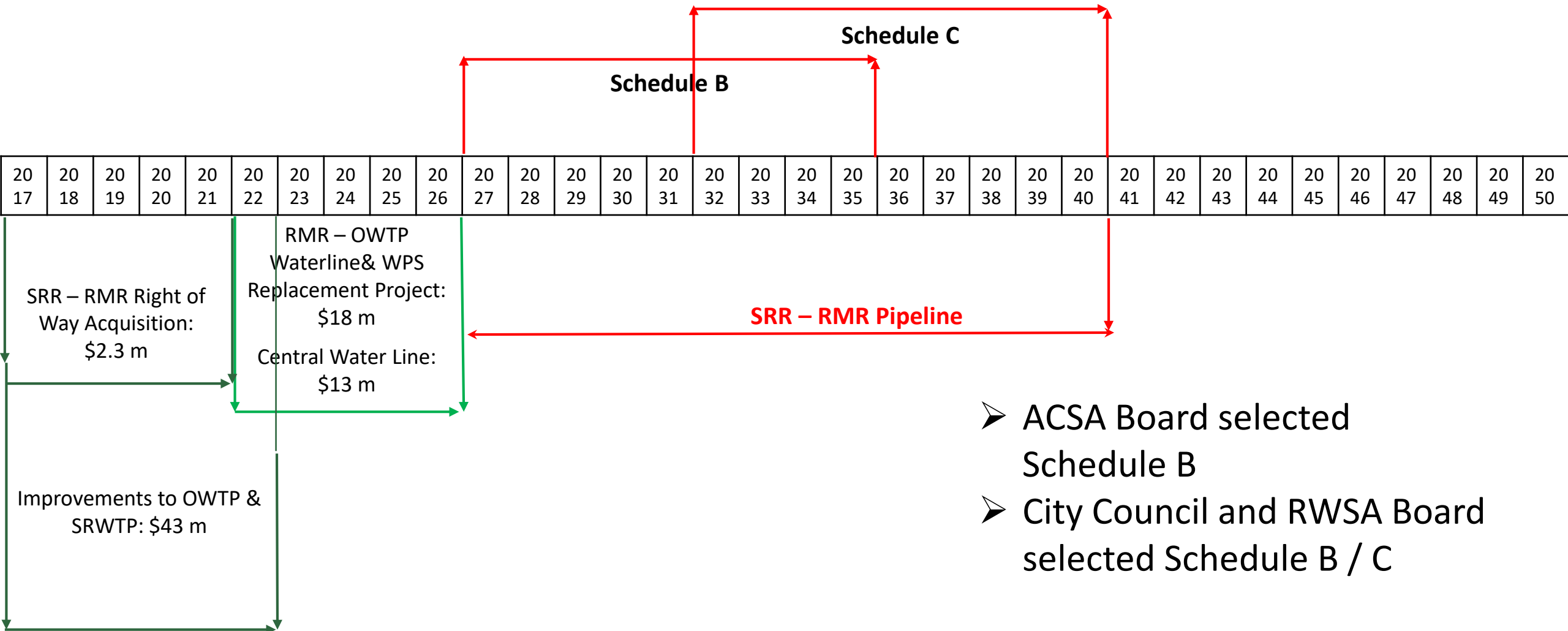
2. Improve redundancy and resiliency in our drinking water system

- SRR-RMR pipe connects 2 largest reservoirs (SR & RM) with our 2 largest water treatment plants (SR & OB) to create significant water supply and treatment flexibility, as well as plant operation and maintenance optimizations.
- Will be able to pump 16 MGD from RMR to SR WTP for treatment.

3. Better balance of community and environmental needs

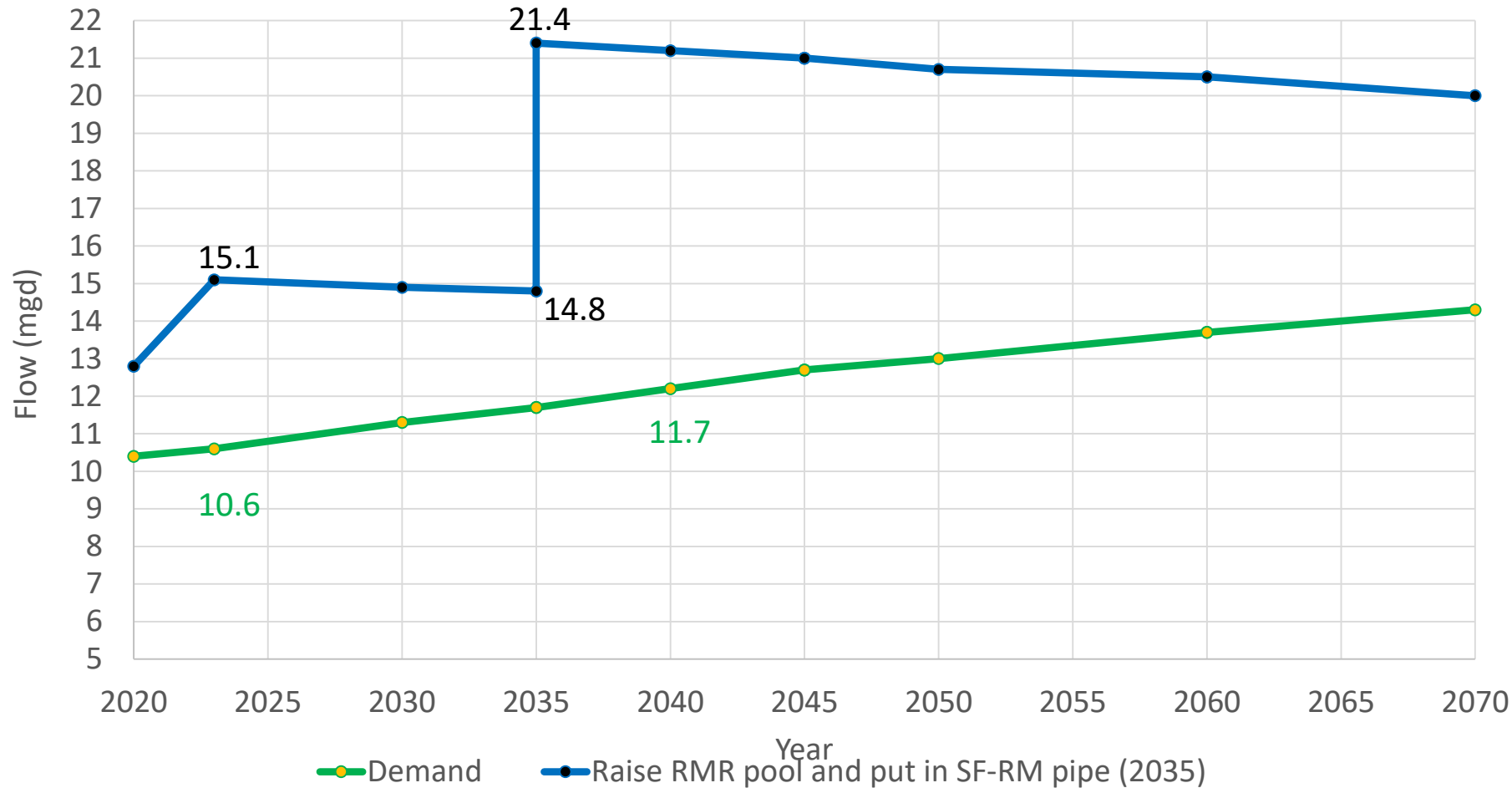
- With the new, larger water line, more water will be available for people, fish, and other wildlife by rapidly filling the RMR during times of high rainfall. Water will no longer be piped from Sugar Hollow Reservoir to RMR, thereby increasing flow in the Moormans and Rivanna Rivers.
- Promotes economic and recreational opportunities in and along the rivers.

SRR – RMR Pipeline : Project Schedule



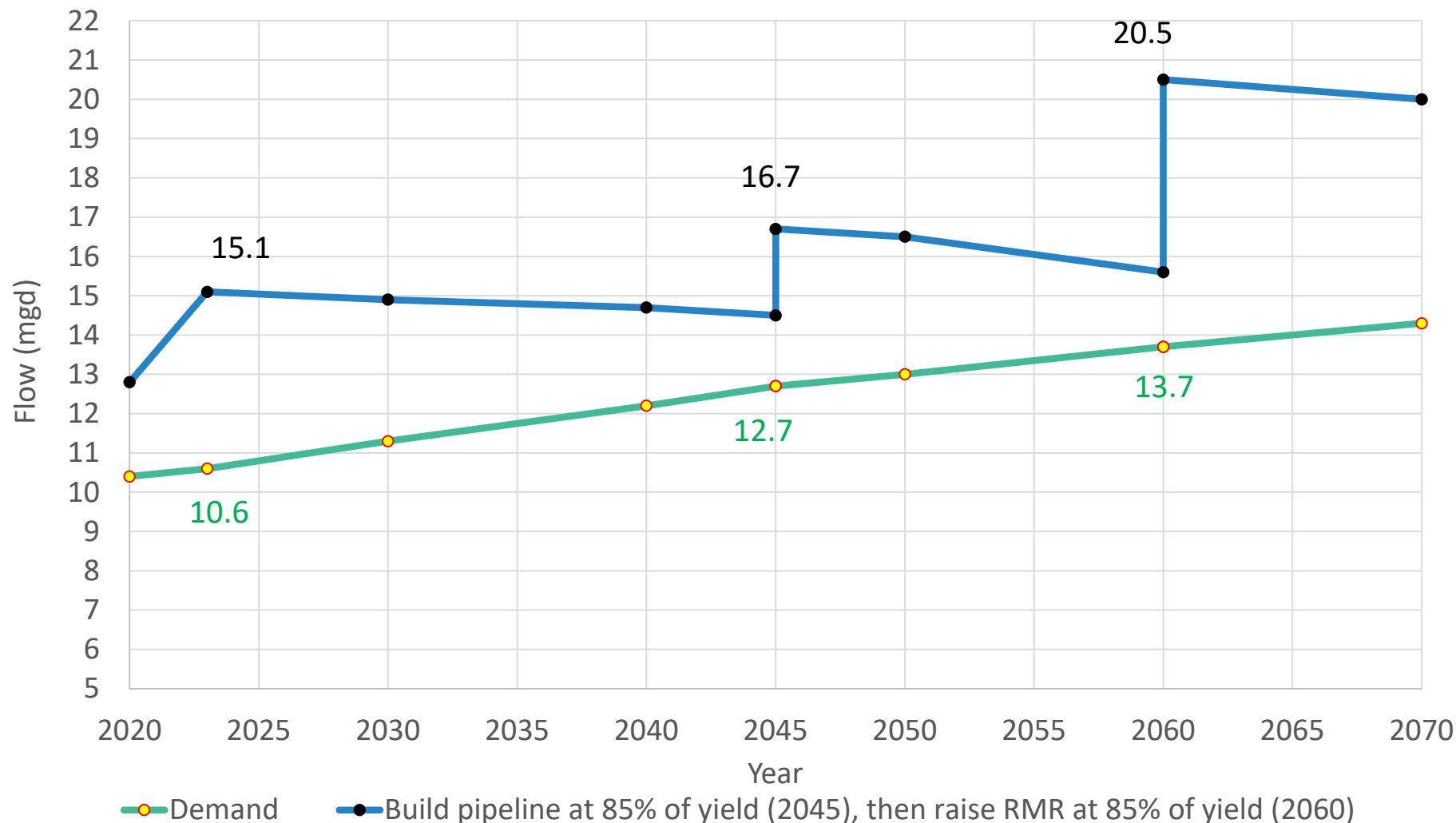
- ACSA Board selected Schedule B
- City Council and RWSA Board selected Schedule B / C

Option One| Build Pipeline and Raise RMR Pool by 2035



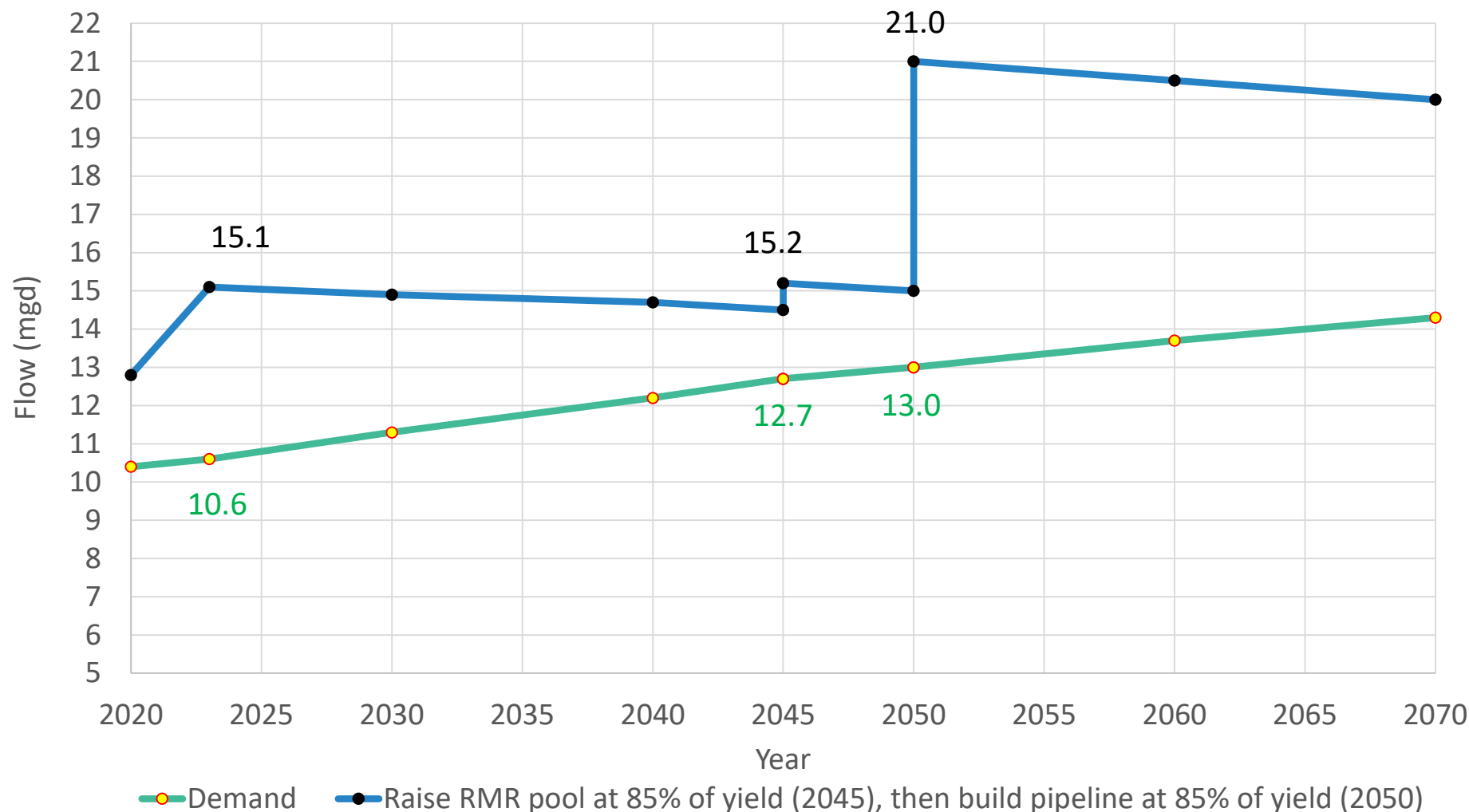
- Build pipeline 2027-2035
- Raise RMR Pool by 2035, adding 700 MG
- Available Water Supply will be adequate until 2120
- Can be completed within the term of new permits (2038)
- Adds redundancy, resiliency, operational and environmental benefits

Option Two| Build Pipeline by 2045, Raise RMR Pool in 2060



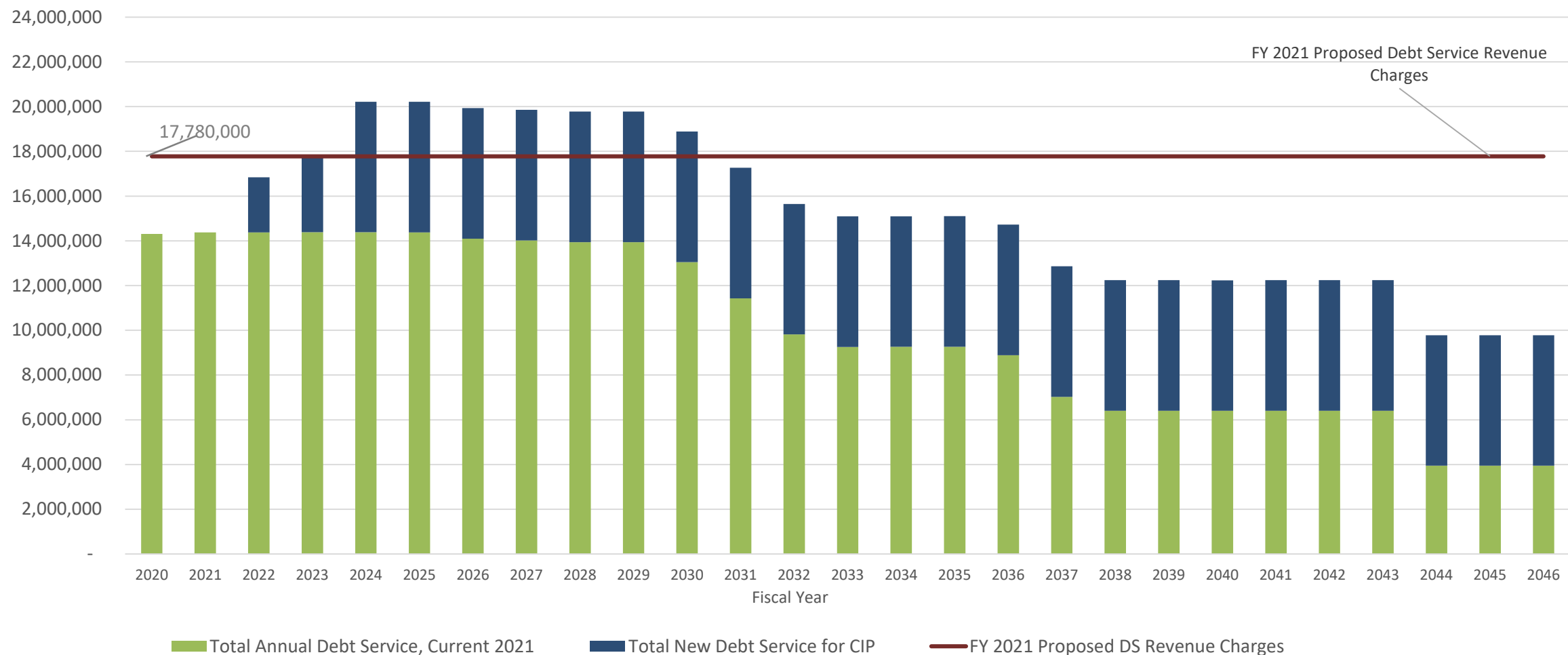
- Build pipeline by 2045, when demand = 85% of supply
- Raise RMR Pool by 2060, adding 700 MG, when demand = 85% of supply
- Available Water Supply will be adequate until 2120

Option Three | Raise RMR Pool in 2045, Build Pipeline by 2050



- Raise RMR Pool in 2045, adding over 700 MG, when demand = 85% of supply
- Build pipeline by 2050, when demand = 85% of supply
- Available Water Supply will be adequate until 2120

Debt Service in \$



Current Debt Profile

Debt Service Profile FY 2021 – 2046

Guidance from Our Strategic Plan

Infrastructure and Master Planning is one of our six goals

“To plan, deliver, and maintain dependable infrastructure in a financially responsible manner.”

The SRR to RMR Water Line Project is consistent with this goal, as it will;

- Be a major addition to our water supply infrastructure
- Enhance the dependability of our water supply infrastructure
- Be completed in a financially responsible manner

Questions?

THE NEXT WATER SUPPLY & DEMAND REPORT IS DUE IN 2030.