



BOARD OF DIRECTORS' MEETING

September 19, 2024
9:00 A.M.

AGENDA

This meeting is being held pursuant to and in compliance with Va. Code Section 2.2-3708(3). The ACSA Board of Directors is responsible for receiving public comment. The opportunities for the public to access and participate in the electronic meeting are as follows: Join the meeting virtually through Zoom by visiting our website at www.serviceauthority.org; call in and leave a message prior to the meeting at (434) 977-4511, or email the Board prior to the meeting at board@serviceauthority.org.

9:00 a.m.	1. Call to Order and Establish a Quorum –Statement of the Board Chair
9:05 a.m.	2. Recognitions – Montie Madison, 25 Years of Service; Scott Krebelder, 30 Years of Service
9:15 a.m.	3. Approve Minutes of August 15, 2024
9:25 a.m.	4. Matters from the Public
9:30 a.m.	5. Response to Public Comment
9:35 a.m.	6. Consent Agenda
	a. Monthly Financial Reports
	b. Monthly Capital Improvement Program (CIP) Report
	c. Monthly Maintenance Update
	d. Rivanna Water and Sewer Authority (RWSA) Monthly Update
	e. ACSA Board Policy Issues Agenda 2024
9:50 am.	7. ACSA Unmanned Aircraft Systems (UAS) Program
10:15 a.m.	8. Customer Telephony Report and Update
10:35 a.m.	9. Strategic Plan Update
10:55 a.m.	10. Items Not on the Agenda
	11. Adjourn



ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF CHAIR TO OPEN SEPTEMBER 19, 2024 MEETING

This meeting today is being held pursuant to and in compliance with Va. Code Section 2.2-3708.3.

The opportunities for the public to access and participate in the electronic meeting are posted on the ACSA's website. Participation will include the opportunity to comment on those matters for which comments from the public will be received.

R E S O L U T I O N

***WHEREAS Montie Madison began his career on July 19, 1999,
and has served the Albemarle County Service Authority for***

25 YEARS; and

***WHEREAS his efforts and service to the Albemarle County
Service Authority, in the Maintenance department, have
contributed to the reliability of the public water and sewer systems
in Albemarle County; and***

***WHEREAS his ability and willingness to collaborate with other
departments while being a leader in his own, has been integral in
the success of numerous projects, as well as the continuity of
business and operations of the ACSA; and***

***WHEREAS the Albemarle County Service Authority, its
customers, and employees have greatly benefited from his
historical knowledge, invaluable skills, and positive attitude; and***

***WHEREAS the Board of Directors of this Authority believes that
such recognition should be publicly made;***

***NOW, THEREFORE, BE IT RESOLVED that the Board of
Directors of the Albemarle County Service Authority expresses its
sincere gratitude to
Montie Madison
for his service to the customers of the
Albemarle County Service Authority.***

***I hereby certify the foregoing to be a true and exact copy of a resolution
adopted by the Board of Directors of the Albemarle County Service Authority
in a regularly scheduled meeting held September 19, 2024, by a vote of __ to __.***

Quin Lunsford, Secretary-Treasurer

R E S O L U T I O N

WHEREAS *Matthew S. Krebelder began his career on September 1, 1994, and has served the Albemarle County Service Authority for*

30 Y E A R S; and

WHEREAS *his knowledge, skills, and service to the Albemarle County Service Authority, in the Engineering department, have contributed to the protection of the public water and sewer systems in Albemarle County, specifically through ensuring precise and timely location and marking of ACSA infrastructure; and*

WHEREAS *the Albemarle County Service Authority and its customers have greatly benefited from his dedication, reliable service, and undeniable work ethic; and*

WHEREAS *the Board of Directors of this Authority believes that such recognition should be publicly made;*

NOW, THEREFORE, BE IT RESOLVED *that the Board of Directors of the Albemarle County Service Authority expresses its sincere gratitude to*
Matthew S. Krebelder
for his service to the customers of the
Albemarle County Service Authority.

* * * * *

I hereby certify the foregoing to be a true and exact copy of a resolution adopted by the Board of Directors of the Albemarle County Service Authority in a regularly scheduled meeting held September 19, 2024, by a vote of __ to __.

Quin Lunsford, Secretary-Treasurer

Albemarle County Service Authority Board of Directors

The Board of Directors of the Albemarle County Service Authority (ACSA) met in a regular session on August 15, 2024, at 9:00 a.m. at the Administration and Operations Center at 168 Spotnap Road in Charlottesville, Virginia.

Members Present: Mr. Richard Armstrong, Chair; Ms. Lizbeth Palmer; Mr. John Parcells; Mr. Clarence Roberts; Ms. Kimberly Swanson; Mr. Charles Tolbert, Vice-Chair.

Members Absent: None.

Staff Present: Kenny Barrow, Mike Derdeyn, Terri Knight, Quin Lunsford, Jeremy Lynn, Alex Morrison, Emily Roach, Sabrina Seay, Danielle Trent.

Staff Absent: April Walker.

Public Present: Bill Mawyer, RWSA Executive Director; Jennifer Whitaker, RWSA Director of Engineering.

1. Call to Order and Establish a Quorum – Statement of Board Chair

The Chair called the meeting to order. He then read the opening Board Chair statement (Attached as Page _____), and a quorum was established.

2. Election of Officer – Board Organizational Meeting

Quin Lunsford, Executive Director, stated that each January there is an election for the position of Secretary-Treasurer for the Albemarle County Service Authority Board of Directors. He stated that Gary O'Connell, former Executive Director, served in that capacity prior to his retirement and that position is now vacant. He stated that the Board is being asked today to consider nominations for election to that position. He noted that there is a recommended process, which is outlined on page 5. Mr. Armstrong confirmed that this position has traditionally been held by the ACSA Executive Director. Mr. Lunsford stated that was correct. Mr. Armstrong asked if there were any nominations from the Board for the position of Secretary-Treasurer. Mr. Tolbert nominated Quin Lunsford, seconded by

August 15, 2024

Page 1

Albemarle County Service Authority Board of Directors

1 Ms. Palmer. As there were no other nominations, Mr. Armstrong closed the
2 nominations.

3 ***Mr. Tolbert moved to elect Quin Lunsford as Secretary-***
4 ***Treasurer; seconded by Ms. Palmer. All members voted aye.***

5
6 3. Recognitions – Terri Knight, 35 Years of Service; Alex Morrison,
7 Leaders Lab

8 Mr. Lunsford stated that Terri Knight began her career with the
9 ACSA on August 1, 1989. He stated that since then, Ms. Knight has been an
10 integral member of the ACSA team and the community she serves, assisting
11 thousands of customers in her role as Customer Service Representative,
12 Senior Customer Service Representative and currently as Customer Service
13 Supervisor. He mentioned that Ms. Knight works closely with all the
14 departments at the ACSA and is often tasked with challenging situations. He
15 stated that she is a fantastic representative of the ACSA and thanked her for
16 her 35 years of service.

17 Mr. Armstrong stated that there is a resolution, which he would read.

18 ***Mr. Parcells moved to approve the resolution; seconded by Mr.***
19 ***Tolbert. All members voted aye.***

20 Mr. Lunsford stated that recently, Alex Morrison, Director of
21 Operations, completed a program called Leaders Lab. He stated that it is
22 facilitated through the Charlottesville Chamber of Commerce and is for
23 current and emerging leaders in the community. He mentioned that the goal
24 is to build leadership skills, practice community problem-solving, and learn
25 first-hand those that are working together on local issues. He noted that
26 Jennifer Whitaker, Director of Engineering for RWSA and who is at the
27 meeting today, completed the program as well. He stated that they met
28 monthly for 9 months to work on different issues and policies, and Mr.
29 Morrison represented the ACSA very well. He stated that Mr. Morrison
30 furthered his network of peers within local government and the business

Albemarle County Service Authority Board of Directors

1 community. He congratulated Mr. Morrison and thanked him for his
2 participation.

3 4. Approve Minutes of June 20, 2024

4 Mr. Parcels stated that he had one comment on page 35, line 9. He
5 stated that the word “water” should be added at the end of the sentence.

6 Ms. Palmer stated that she did not have any corrections, but she did
7 have a couple of questions. She stated that on page 3 of the minutes, there
8 is a discussion about the special rate district. She asked if the additional
9 charge that the people in the special rate district pay is only for the ACSA
10 portion of the sewer connection. Mr. Lunsford replied yes.

11 Ms. Palmer stated that her second question was about the ACSA’s
12 CIP projects. She stated that sometimes the CIP reports point out that a
13 particular project is being done, in part, because the County has
14 development plans in that area. She stated that she wonders how much the
15 County’s plans affect the ACSA’s timing on CIP projects.

16 Mr. Lynn stated that he would not say the timing of the projects is
17 always consistent with the County’s plans. He mentioned that a lot of the
18 ACSA’s projects have been water main replacement projects. He noted that
19 the largest projects currently in the ACSA’s CIP that are growth-related are
20 the Broadway Water Main Replacement Project and the Airport Trunk Sewer
21 Upgrade Project. He noted that the latter has not moved as fast as the
22 development community would like, so there may be some frustration from
23 the development community surrounding the ACSA prioritizing that project
24 and pushing it forward. He noted that the RWSA staff has been in
25 communication with the County and the ACSA about the AC44 plan, which
26 looks at where development is anticipated to occur in the next 20-30 years
27 and what infrastructure improvements would be necessary. He mentioned
28 that more of the larger infrastructure needs are on the RWSA side.

29 Mr. Parcels asked if it was possible for the staff to improve the
30 Board’s understanding of the timing for expansion and demand. He asked if
31 it could be put on the agenda at some point as a topic for discussion. He

August 15, 2024

Page 3

Albemarle County Service Authority Board of Directors

1 asked what it means if the ACSA's timing for expansion does not meet the
2 demand of the developers. Mr. Lynn replied that, in plain terms, sometimes
3 it means that the developer has to fund the infrastructure improvements as
4 part of their development, which follows the growth pays for growth
5 philosophy. He stated that it could also mean that the ACSA has to expedite
6 some of its projects, which is what they are starting to see with the Airport
7 Trunk Sewer Project.

8 Ms. Palmer stated that she wanted to make it clear that she was not
9 personally advocating for the ACSA to expedite projects based on
10 development pressure. She stated that she is more interested in how the
11 ACSA responds to development needs while weighing the needs of
12 individual residents. Mr. Lynn stated that those are the types of questions
13 the Board will have to consider as they look at future CIP projects.

14 Ms. Swanson asked if the developer ends up making infrastructure
15 upgrades as part of their development, would they be done according to
16 ACSA standards. Mr. Lynn replied yes.

17 Ms. Swanson stated that it is her understanding that while the AC44
18 plan is going on, the County was doing a separate rezoning. She asked if
19 the rezoning in the Airport Road area had taken place. Mr. Lynn replied that
20 all the rezoning in the Hollymead Town Center area has occurred. He
21 mentioned that there may have been some activity at the North Fork
22 Research Park. Ms. Swanson asked if the zoning code review is a separate
23 process at the County level. Mr. Lynn replied yes.

24 Ms. Palmer stated that when she was on the Albemarle County
25 Board of Supervisors, which was two years ago, they were very behind on
26 those zoning rewrites. She stated that they had been talking about updating
27 those for decades, and there was a lot of pressure to get that going.

28 ***Ms. Palmer moved to approve the minutes of June 20, 2024, as***
29 ***amended, seconded by Mr. Parcells. All members voted aye.***

30
31 5. **Matters from the Public**

Albemarle County Service Authority Board of Directors

1 There were no matters from the public.

2

3 6. Response to Public Comment

4 There was no response to public comment.

5

6 7. Consent Agenda

7 **A. Monthly Financial Reports –**

8 **b. Monthly Capital Improvement Program (CIP) Report –** Mr. Parcels
9 asked if the RWSA and ACSA staff are in communication about the Avon
10 Operations Center project. He stated that RWSA's construction start
11 date for the GAC expansion is August 2025, but the ACSA's completion
12 date for the Avon Street property just says 2025. He asked if all the items
13 from Crozet would be moved out in time for RWSA to begin construction
14 and stated that he assumed the two entities have been discussing it. Bill
15 Mawyer, RWSA Executive Director, replied yes. Mr. Lynn stated that
16 RWSA will not leave the ACSA high and dry.

17 **c. Monthly Maintenance Update –**

18 **d. Rivanna Water and Sewer Authority (RWSA) Monthly Update –**

19 **e. ACSA Board Policy Future Issues Agenda 2024 –**

20 **f. Classification and Compensation Study –**

21 **Ms. Palmer moved to approve the consent agenda, seconded by**
22 **Mr. Tolbert. All members voted aye.**

23

24 8. Rivanna Pump Station Status Report/ Update

25 Mr. Lunsford stated that Bill Mawyer and Jennifer Whitaker, both
26 from the Rivanna Water & Sewer Authority (RWSA), have prepared a useful
27 and comprehensive review of the Rivanna Pump Station including the
28 damage that occurred January 9th, 2024, as well as the emergency repairs
29 that were made and the comprehensive causation analysis findings.

30 Bill Mawyer, RWSA Executive Director, stated that he appreciated
31 the opportunity to discuss what happened on January 9th, 2024. He stated

Albemarle County Service Authority Board of Directors

1 that he would also talk about the wastewater treatment process and the
2 function the pump station serves, as well as the pump control issue that was
3 determined to be the cause of the larger problem. He noted that he wanted
4 to first make a comment about Ms. Palmer's earlier question about CIP
5 projects and development. He stated that in addition to coordinating with Mr.
6 Lynn and the County weekly, the RWSA performs a focused water supply
7 and demand study every 10 years. He stated that the reservoir levels are
8 measured and the RWSA staff works with various community partners to
9 project growth in the service area. He added that the two factors are then
10 compared to determine if there is enough water for the projected growth. He
11 noted that this is how the RWSA does most of its master planning and CIP
12 planning. He stated that they are aware of development and somewhat
13 responding to it, but UVA is known to have projects that happen quickly and
14 that is difficult to keep up with.

15 Mr. Mawyer stated that the Rivanna Pump Station is one of the two
16 major pump stations at the Moores Creek Wastewater Treatment Plant
17 (WWTP). He stated that the first slide shows an aerial view of the treatment
18 plant. He stated that the purpose of the pump station is to pump wastewater
19 up to the headworks (marked by the upper left star in the slide), which is
20 about a 110ft increase in elevation. He noted that the area to the left near
21 the interstate is what is called the "wet side." He stated that the wastewater
22 is pumped from the Rivanna and Moores Creek pump stations up to the
23 headworks, after which it flows through the wastewater treatment process
24 and then back to the right area on the slide, which is called the "dry side."
25 He mentioned that on the dry side, the water gets treated, disinfected with
26 ultraviolet light and released into Moores Creek. He added that the solids go
27 into the large circular basins shown on the right-hand side of the slide, which
28 are called digestors. He stated that anaerobic bacteria consume a lot of the
29 solids. He stated that the rectangular building is where the remaining solids
30 go where they are put in a dryer and spun, and then hauled to Waverly, VA
31 every day. He noted that they make about 500 trips to Waverly per year.

August 15, 2024

Page 6

Albemarle County Service Authority Board of Directors

1 Ms. Swanson asked if the globe-like structure is still being used. Mr.
2 Mawyer replied yes. He stated that it captures methane gas, which is a by-
3 product of the treatment process. He stated that it has also been used to
4 heat water that goes into the digestors to help the bacteria further digest the
5 waste products. He mentioned that RWSA has been working with the City of
6 Charlottesville on a renewable gas concept. He stated that the Western
7 Virginia Water Authority uses the methane from their wastewater process,
8 which goes into a natural gas system.

9 Mr. Mawyer moved to the next slide, which showed a picture of both
10 pump stations. He stated that the Moores Creek Pump Station is at the top
11 right corner, that sits at the entrance of the plant, and the Rivanna Pump
12 Station is the newest pump station which is at the bottom left of the slide. He
13 mentioned that the Rivanna Pump Station was built in 2017 for about \$32
14 million and has the capacity to pump 53 million gallons per day (gpd).

15 Mr. Mawyer stated that these two pump stations serve the entire
16 County of Albemarle, City of Charlottesville, and Crozet, as illustrated on the
17 next slide. He stated that the Rivanna Pump Station takes all the wastewater
18 north of the railroad track that runs through the City, which is the northern
19 part of the City and the 29 North sector of the ACSA's service area. He noted
20 that the Moores Creek Pump Station serves the area in blue on the map. He
21 noted that all the wastewater from Crozet is transferred to the Moores Creek
22 Pump Station as well. He added that there are four wastewater pump
23 stations between Crozet and Moores Creek to convey the wastewater to the
24 plant. He stated that Rivanna is the larger of the two pump stations, serving
25 about 60% of the Urban wastewater system. He stated that the plant receives
26 about 10 mgd on average, with about 6 mgd that go through the Rivanna
27 Pump Station.

28 Mr. Mawyer stated that the next slide showed a bird's-eye view of the
29 Rivanna Pump Station. He stated that the red arrow on the right side
30 indicates the direction that wastewater comes into the pump station. He
31 stated that the rectangular area in the center is the wet well. He noted that

Albemarle County Service Authority Board of Directors

1 in this slide, there is visible water in the wet well which should not be there.
2 He stated that the water comes into the wet well, and there are three pumps
3 in each of the two dry pumping areas. He mentioned that the pipes extend
4 through the wall into the bottom of the wet well. He stated that they pull the
5 water out of the wet well and it is pumped up to the headworks. He noted
6 that the red arrow to the left shows the direction the water goes out of the
7 pump station. He noted that the two pump rooms should always remain dry.
8 He stated that the wet well is shaped somewhat like a swimming pool in that
9 the left half is about 8ft deep, but the right side is about 18 ft deep. He
10 mentioned that the deeper side is where the pipes from the pumps extend
11 into the wet well and transfer the water out and up to the headworks. He
12 stated that one can also see a tractor to the left of the building in the photo
13 (taken January 10th, 2024), digging to reach the permanent pipe that leaves
14 the pump station and takes the water to the headworks. He noted that they
15 had to build a loop around the pump station, bypassing the permanent
16 structure, and connect a temporary pipe to the permanent pipe.

17 Mr. Mawyer moved to the next slide, showing the two dry pump
18 rooms and the wet well. He stated that the wet well has aluminum covers
19 that sit on top of it to keep odors from permeating into the neighborhood. He
20 stated that there are five or six gates seen in the middle photo, which can be
21 lowered to open or close the three channels. He noted that the white dots on
22 top of the gates are about 13 feet above the covers. He stated that the top
23 right photo shows the depth of the pump room. He stated that it is 54 ft from
24 ground level to the base of the pumps in the pump room. He stated that the
25 bottom right photo shows the three pumps that would be in either of the two
26 pump rooms.

27 Mr. Mawyer stated that the next slide showed an architectural
28 illustration of a section through the building. He stated that the wet well
29 shown to the left is where the water comes into the pump station, and the
30 aluminum cover sits on top of the wet well, with a pump room on either side.
31 He mentioned that on the day the issue occurred, the water rose to 312 ft,

Albemarle County Service Authority Board of Directors

1 which was significantly above the covers of the wet well. Ms. Palmer asked
2 for the elevation of the covers. Mr. Mawyer replied that the top of the covers
3 is at 295 ft, which put the water 17 ft above the covers. He noted that there
4 is a stairwell on the wet side, which is not supposed to be submerged. He
5 stated that there is a door at the end of the stairs that gives access to the top
6 of the covers. He stated that the water got through the door, into the wet well,
7 through a duct penetration, and then into the pump room. He added that the
8 next slide shows the day after the storm, where water had risen almost to
9 the top of the stem on the gates in the wet well, which is 13 ft above the
10 covers.

11 Mr. Mawyer stated that the next slide outlines a summary of the
12 events on January 9, 2024. He stated that there was significant rainfall that
13 day, with about 3.5 inches between 6am and 7:30pm. He mentioned that the
14 pumps began working to accommodate the additional flows, noting that the
15 pumps are designed so that they do not all run at the same time. He stated
16 that they run on a pace basis so as more water comes in, the system calls
17 on more pumps to start pumping. He noted that this step in the process is
18 where the problem occurred because the controls did not signal the pumps
19 to operate as they were intended to.

20 Mr. Mawyer stated that there was a pump alarm around 3:45 pm that
21 day, and the operator went to the facility and reset the pumps. He noted that
22 there was no water visible above the covers of the wet well at that time. He
23 mentioned, however, that there was another alarm at 6pm that evening and
24 upon arrival, the operator found water 16 ft above the covers and the pump
25 room was significantly submerged.

26 Mr. Roberts asked if the water was 16 ft above the covers because
27 the water could not get out of the building. Mr. Mawyer replied yes. He stated
28 that coincidentally, the water in the Rivanna River was rising because of the
29 storm, and the overflow started going into the sewer manholes, adding more
30 water into the pump station. He noted that the pumps operated for several
31 hours underwater, which they are not designed to do. He added that once

Albemarle County Service Authority Board of Directors

1 the pumps quit, they had to get the temporary bypass pump going to get the
2 water out of there. He stated that aside from a 26-hour period, all the water
3 that came in still went through the normal treatment process. He stated that
4 they did have to discharge into Moores Creek for 26 hours to get the water
5 level low enough to reach the covers to get the pump to the deep end of the
6 wet well, to pump the rest of the water out.

7 Mr. Mawyer stated that the photos on the next slide show piping
8 going into the wet well, in an initial effort to get the water level down. He
9 stated that they built a force main connection at the pump station in the top
10 left photo. He mentioned that it was cold and snowing at times, and the
11 RWSA staff worked 24/7 to make that happen. He stated that the first thing
12 RWSA did was install a 10 mgd bypass pump system, with the help of
13 contractors and ACSA staff.

14 Mr. Mawyer stated that after that, phase 2 consisted of construction
15 of the full 55 mgd bypass pump. He stated that the relative volume of flow
16 being received at the pump station was 40-50 million gallons, thus the 55
17 mgd bypass pump was necessary to keep up with the capacity coming into
18 the wastewater system. He stated that between January 9-14th, they
19 installed the large, black piping seen in the photos, down in the wet well. He
20 stated that there were seven bypass pumps installed, as well as a major
21 piping system that went around the entire building and tied into the Rivanna
22 force main. He noted that structural beams were installed in the wet well to
23 accommodate the piping load.

24 Ms. Palmer stated that this pump station, as she recalls Mr. Mawyer
25 saying, receives an average of 6 mgd. She stated that he also said, after this
26 rain event, that there was still 40-50 mgd coming into the pump station. She
27 stated that she was curious as to why there was still so much flow coming
28 into the pump station, after the rain event. Mr. Mawyer stated that it was not
29 constant but rather, periodically. He stated, for example, the flow would
30 increase if it rained more, and the river was still flowing over the bank from
31 time to time.

Albemarle County Service Authority Board of Directors

1 Mr. Mawyer stated that the ACSA and the City have an active sewer
2 rehabilitation program, but there is still Infiltration & Inflow (I&I) in the system.
3 He stated that average flow is 10mgd, but there will be a peak of 40-50mgd
4 occasionally when it rains. He mentioned that this is why the treatment
5 plant's capacity is 55mgd. Ms. Palmer stated that her memory is that the
6 55mgd treatment plant was designed for growth. She stated, however, that
7 with the flows they are seeing now, there would be no capacity for growth
8 unless they eliminate the I&I. Mr. Mawyer stated that the more I&I that can
9 be eliminated, the more capacity there is for growth.

10 Ms. Whitaker stated, for clarification, that they did not see the 40-
11 50mgd for an entire day, but rather during a peak hour. She stated that to
12 keep all the sewer flow in the pipe, they had to be able to accommodate that
13 peak hour which is typically several hours past the most intense part of a
14 rainstorm.

15 Mr. Parcels asked how the Moores Creek Pump Station compares
16 to the Rivanna Pump Station in terms of how it is set up, and if there have
17 ever been any issues with it. Mr. Mawyer replied that they have not had any
18 issues with that pump station. Ms. Whitaker noted that the Moores Creek
19 maximum capacity is 32 mgd and the Rivanna Pump Station maximum is 53
20 mgd, with a combined maximum peak capacity of 85 mgd.

21 Mr. Mawyer stated that the next two slides show photos of the RWSA
22 staff and contractors working around the clock to install the piping necessary
23 to setup the bypass pumping. He noted that the next two slides after that
24 show photos of the 55 mgd bypass pumps, with the second one giving a
25 bird's-eye view. He noted that the seven pipes coming out of the wet well
26 connect to two major pipes that pump the water around the building and into
27 the permanent piping in the ground, and then to the headworks.

28 Mr. Tolbert asked if the issue was that the flow coming into the pump
29 station during this event exceeded the capacity, or the pumps did not operate
30 correctly and therefore could not keep up with the flow. Mr. Mawyer replied
31 that it was the pumps not operating correctly. He stated that the controller

Albemarle County Service Authority Board of Directors

1 calls for additional pumping when the flow increases, but it did not do that in
2 this case. Mr. Tolbert asked if the flows have ever reached 40mgd since the
3 pump station was built. Mr. Mawyer replied that he believes they have but
4 the pumps have responded appropriately in the past to that type of capacity
5 He noted that, unfortunately, they did not work this time.

6 Mr. Mawyer moved to the next slide which outlined Phase 3, as
7 referred to by RWSA. He stated that after the pump station was dried out, a
8 team went in to investigate the damage and clean it up so contractors and
9 staff could further investigate and begin repairs. He mentioned that one of
10 RWSA's engineering firms, that was not involved with the design of the pump
11 station, performed an independent review and published a 400-page report
12 of their findings. He noted that the firm concluded that the controls
13 malfunctioned, failing to call on the pumps to work as they were designed to,
14 and that is what caused the pump station to flood.

15 Mr. Tolbert stated that the duct penetration for the AC that allowed
16 the water in on the dry side could have been higher up. He stated that he
17 assumes it will be higher now. Mr. Mawyer replied yes, it will be much higher
18 up if not removed completely. Ms. Whitaker added that there are three
19 penetrations that go through, partly because the ventilation is required with
20 wastewater. She stated, however, that they are going to create independent
21 systems for each side of the station, so there is no interconnection. Mr.
22 Mawyer noted that this was one part of the design that was not very good.

23 Mr. Mawyer stated that RWSA submitted the final root cause analysis
24 to the property insurance firm and has received a positive response from
25 them. He mentioned that RWSA submitted a claim for \$22 million. He noted
26 that the insurance company has confirmed that they will pay for the
27 temporary pumping setup and any repairs that must be done, but they will
28 not cover costs for any improvements.

29 Mr. Mawyer stated that one of the issues that was identified was the
30 gate that controls the main pipe that comes into the pump station. He stated
31 that when the operators realized too much water was coming in around 6pm

Albemarle County Service Authority Board of Directors

1 on January 9th, they attempted to close that gate, but it would not fully close.
2 He mentioned that if they had of been able to get the gate closed, the water
3 would have come out of the manholes upstream. He noted that they would
4 have been able to clean out the pump station quicker, but it would have had
5 more of an environmental impact. He noted that it is on the RWSA's work
6 plan to replace the gate and ensure it works properly moving forward.

7 Ms. Palmer asked if there was a maintenance plan that could have
8 helped with the gate. She stated that it was her understanding that the gate
9 had corrosion and cracks. Mr. Mawyer stated that the gate was not on an
10 active maintenance plan, but it is now. He stated that there was an issue with
11 the gate a few years ago where it was locked half-shut.

12 Ms. Palmer asked where the screen is that takes all the trash from
13 the sewage when it comes into the plant. Mr. Mawyer replied that there is a
14 screen at the headworks which filters out rags, plastics, and other items that
15 come into the plant. He stated that it is a rotating screen that dumps it all into
16 a dumpster, which is then hauled away. Ms. Palmer asked if there is a way
17 to filter out those things before it gets into the pump station. Ms. Whitaker
18 stated that the issue with the gate is grit. She stated that the debris Ms.
19 Palmer is talking about is ugly, but it is not the issue. She stated that rather
20 it is fine grit that gets compacted into the tract and over time, it becomes like
21 cement. She noted that this gate was maintained routinely, but it was not run
22 full depth. She mentioned that with big gates like this, people become
23 worried about it breaking closed. She stated that the decision was to lower it
24 halfway and lock it out. She stated that all the electronics were maintained
25 monthly, and all the stems were greased, but there was a lot of grit packed
26 into the tract. She added that going forward, all the large gates will have
27 bypass operation and will be ran at their full depth.

28 Ms. Swanson asked if the Department of Environmental Quality
29 (DEQ) would give some leeway om their permit if they must close the gate
30 in an emergency and it causes upstream overflows. Mr. Mawyer replied that
31 he was not sure and would have to study the permit. He stated that DEQ

Albemarle County Service Authority Board of Directors

1 stipulates that if RWSA spills into a stream, they are at fault. He noted that
2 he believes there is a provision in the permit, however, that allowed them to
3 empty the pump station into Moores Creek without violating the permit. Ms.
4 Swanson asked if RWSA was responsible for notifying downstream intake
5 facilities and monitoring. Mr. Mawyer replied yes. He stated that he believes
6 DEQ put out some notifications as well, but they required RWSA to do some
7 testing in Moores Creek for several days.

8 Mr. Tolbert asked if RWSA is developing a policy to decide if it is
9 better to affect the environment and protect the pump station or protect the
10 environment and affect the pump station. Mr. Mawyer replied that they want
11 to protect the environment as much as possible, because not doing so would
12 violate their permit. He stated that dumping into the stream would be a last
13 resort, however they would try to avoid \$20 million worth of damage to the
14 pump station. He added that the City of Richmond has dumped 2.9 billion
15 gallons of wastewater into the James River since January. He stated that
16 this does not make what RWSA had to do any better, but he wanted to note
17 that there is wastewater coming into many of the streams in the United
18 States.

19 Mr. Roberts asked how the flood waters got from the river into the
20 system. Mr. Mawyer skipped ahead a few slides to show the Board a photo
21 of a manhole that was overflowing, as well as the Rivanna River that was
22 overflowing onto a trail in Riverview Park. He stated that the water from the
23 river made its way into the manholes. He mentioned that manholes get old
24 and crack with age, so when groundwater raises it can seep into the
25 manhole. He stated that even though they have a solid system, it can still
26 happen.

27 Ms. Palmer stated that a lot of the interceptors going into the RWSA
28 line have been replaced, but she asked how old the actual line is. Mr.
29 Mawyer asked if she was referring to the line that goes into the pump station.
30 Ms. Palmer replied yes. Ms. Whitaker replied that it was installed in the early
31 1980s.

Albemarle County Service Authority Board of Directors

1 Mr. Mawyer moved to the slide outlining phase 4, which entailed
2 restoration of the pump station. He stated that all the pumps and motors
3 were removed and sent back to the factory for review. He stated that they
4 should be able to rebuild the pumps, but the motors will have to be replaced.

5 Mr. Parcels stated that the pumps can accommodate some of the
6 grit and materials that come in with the wastewater, but asked what that
7 means in terms of the maintenance of the pumps. He asked how often the
8 rotors have to be checked to ensure it has the right clearances to maintain
9 its pumping capacity. Ms. Whitaker replied that the pump station has three
10 channels but only two need to operate at any given time, thus they can valve
11 off to clean the bar racks. She stated that they also have comminutors that
12 can grind up almost anything, but they have seen 12 ft 2x4s come into the
13 pump station. Mr. Mawyer stated that there are grinders under the covers
14 that hopefully destroy anything in the wastewater before it reaches the
15 pumps. Ms. Whitaker added that they also take the channels down and clean
16 them. Mr. Parcels asked if there was any issue with the efficiency of the
17 pumps. Ms. Whitaker replied no and stated that they did look at that.

18 Ms. Palmer asked how a 2x4 would get into the sewer, as it is clearly
19 not being flushed down a toilet. Ms. Whitaker replied that occasionally,
20 contractors work in the manholes and do not remove their debris. She stated
21 that when they were building the Meadowcreek Interceptor, they had a
22 contractor that was notorious for losing things in the manhole. She stated
23 that RWSA made them paint all their tools and equipment with pink paint and
24 sure enough, the pump station was full of pink debris. She noted also that
25 the pipe coming to the pump station is 60 inches in diameter.

26 Ms. Swanson asked if UVA has a way of managing what enters their
27 sewer system first. Ms. Whitaker replied that hospitals are notoriously known
28 for having items such as rags or bedsheets in their sewer systems, but
29 RWSA has not had a big issue with that. She mentioned that they used to
30 occasionally have issues with the old Martha Jefferson Hospital location, but
31 currently they do not have issues with either hospital. She noted that she

Albemarle County Service Authority Board of Directors

1 does not know if UVA chooses to monitor what is leaving their sewer piping,
2 but she suspects it goes in just like everywhere else.

3 Ms. Whitaker stated that she would be giving a lot of technical
4 information during her portion of the presentation, but she would answer any
5 questions the Board might have. She stated that as Mr. Mawyer indicated,
6 investigations began in February 2024, as soon as they were able to get into
7 the pump station and clean up. She stated that it took several months of
8 investigation to figure out what happened, but they were able to publish their
9 findings in June 2024.

10 Ms. Whitaker moved to the next slide, outlining the root cause
11 analysis. She stated that findings showed four main contributing factors,
12 each of which she would discuss, with the first one being the most
13 complicated as it has some subparts. She stated that the first factor was the
14 complex pump control system malfunction. She noted that the key here is
15 that the pump station is controlled by two overlapping and redundant
16 systems. She mentioned that they are designed, and intended to be
17 overlapping, as there is a primary system and a backup system. She stated
18 that the picture on the top left is an ultrasonic transducer, which is the first
19 and primary control system for the pump station. She noted that 99.9% of
20 the time, this is how the pump station is controlled and run. She stated that
21 on the top right is a picture of a bar with wires hanging down, which is called
22 a float tree. She mentioned that it is a set of wires and floats that
23 independently control a pump. She added that if the primary control system
24 fails, the pumps can still run with minimal intervention on this backup system.

25 Ms. Whitaker stated that the second factor was that water levels in
26 the wet well and collection system rose quickly once storage capacity was
27 full. She stated that this gets into how big the sewer system is, how quickly
28 did it fill, and what happens when it fills. She stated that the third factor or
29 causation, was that wastewater entered the second pump room through an
30 HVAC duct that connected the wet well and stairs to the pump rooms, and
31 the fourth contributing factor was that the wastewater inundated the pump

Albemarle County Service Authority Board of Directors

1 rooms and submerged the pumps. She noted that there are some pump
2 station designs where the pumps can be submerged, but this pump station
3 is not one of them.

4 Ms. Whitaker moved to the next slide to discuss the primary pump
5 control system. She stated that there is a logic controller, which is the brain
6 of the pump station, and it gets its signal through the ultrasonic transducer.
7 She noted the diagram to the left that shows the transducer, which is
8 mounted to the wall and sends a signal down and back up which measures
9 the water level. She stated that it then goes to the brain of the pump station,
10 which has an entire control system strategy to determine how many pumps
11 to turn on based on the water level. She noted that it gets all the information
12 from the transducer.

13 Mr. Parcels asked if there were multiple transducers. Ms. Whitaker
14 replied that there are two transducers that control the pump station. She
15 noted that there are several others upstream that control the gates and
16 grinders, but there are two in the pump station. She noted that the green and
17 red lines on the graph to the right represent the primary and secondary
18 transducers. Mr. Parcels asked if the logic looks at the primary first and, if it
19 decides that signal is not reliable, then looks at the secondary transducer
20 signal. Ms. Whitaker replied yes. She stated that if, for example, a wire gets
21 cut or there is a lightning strike and the primary transducer is out of service,
22 the logic will then look at the secondary transducer.

23 Ms. Whitaker stated that unfortunately, the same error was true for
24 both transducers. She stated that transducers have a unique quality in that
25 they need to be above the water. She mentioned that if water enters the
26 blanking range, about 12-24 inches below the transducer, the transducer
27 signal will be invalid, and it will not operate properly. She noted that the
28 transducer will not indicate that it is not working but will rather give incorrect
29 readings and the pumps are controlled off those readings.

30 Mr. Parcels asked if the transducers have a failure state. Ms.
31 Whitaker replied no, and that they will only enter a failure state if they get

Albemarle County Service Authority Board of Directors

1 submerged or wet. She stated that the blanking range is a really important
2 factor that they have gone back and looked at for the entire authority, due to
3 this event. She stated that in that blanking range, the transducers give
4 erroneous information. She noted that on the graph on the right, when the
5 water hit 15 feet, it was in the blanking range and the transducers were giving
6 various water level readings. She stated that the red line on the graph is what
7 they believe the water was doing.

8 Ms. Palmer asked if the blanking range issue was because of the
9 particular brand of transducer. Ms. Whitaker replied no. She stated that the
10 blanking range is true for every transducer and is something to be cautious
11 of. She stated that the most important takeaway from the transducer
12 malfunction is that it was giving erroneous readings of low water levels,
13 which told the brain of the pump station that there did not need to be
14 additional pumps on.

15 Ms. Whitaker stated that the second piece of the pump control
16 system malfunction, shown on the next slide, is that some of the pumps did
17 not automatically transfer. She noted that when the water level reached 15
18 feet, the pumps were supposed to transfer from the primary control system
19 to the float system. She noted that instead, three of the pumps tripped out.
20 She stated that there is a complex circuitry, and it turns out that the circuitry
21 holds energy and must fully de-energize for the second system to turn on
22 and control the pumps.

23 Ms. Whitaker stated that the graph shows the pump station flow at
24 just shy of 40 mgd, until the trigger event of the water level reaching 15 feet.
25 She noted that the pumps then dropped out and the flow was registering at
26 below 20 mgd. She stated that pump 3 was running while pumps 1,2, and 5
27 shut off. She mentioned that the operator received an alarm that the pumps
28 had shut off and they went into the pump station and restarted the pumps,
29 but only pumps 2 and 5 restarted.

30 Ms. Whitaker added that as the pumps stage up from 1 to 5, the
31 speed decreases. She noted that because of this, when all five pumps are

Albemarle County Service Authority Board of Directors

1 on, the maximum they are allowed to run is at 75% speed. Mr. Parcels stated
2 that it sounds like an electrical issue. Ms. Whitaker replied that it is a setting
3 buried deep within the program that they did not find until weeks later. She
4 stated that some of the pumps that stayed running also slowed down so
5 there were pumps that tripped out, pumps that did not start, and pumps that
6 slowed down.

7 Ms. Whitaker moved to the next slide to discuss the last item related
8 to controls. She stated that on the left is a diagram of the pipe which
9 represents the collection system, and the blue line represents the water
10 level. She stated that once the pipe is full, the line goes almost straight up,
11 which represents the water level in the wet well. She mentioned that one of
12 the questions they asked was could the operator have seen this coming and
13 reacted within that one-hour time span. She stated that the water was under
14 the covers, the transducer was telling them everything was ok, and the
15 pumps were working correctly. Mr. Parcels asked if all six pumps were
16 running when the water was at the 100% level. Ms. Whitaker replied no. She
17 stated that they were running at 100%, but not all of them were running
18 because the flows had not picked up to that level yet. She mentioned that
19 the problem was the pumps shut off and they could not recover. She noted
20 that this event happened within a 15-minute window, and the reaction time
21 would have been very short.

22 Ms. Whitaker stated that the far-left picture on the next slide is a map
23 of the RWSA collection system, as well as Riverview Park and Darden Towe
24 Park to the right. She stated that initially she thought the Rivanna River
25 caused the issue, as it did rise about five feet out of its banks. She stated
26 that they performed some river modeling and believe that the manhole lids
27 blew off first and, later in the evening as the river overflowed, the flows
28 connected into the pump station.

29 Ms. Whitaker stated that the graphic on the next slide is one that Mr.
30 Mawyer showed earlier in the presentation. She noted that there is a wet
31 side and a dry side, and the HVAC duct connects the two at an elevation of

Albemarle County Service Authority Board of Directors

1 301.5 feet. She noted that the high-water elevation was 312.7 feet. She
2 stated that picture one in the bottom-right corner of the next slide shows the
3 wet well and the access door, which was blown completely out of the
4 concrete. She stated that the picture in the bottom-left corner of the next
5 slide shows the HVAC duct in relation the pumps. She stated that there was
6 35 feet of water in the pump room, and the pumps were not meant to be
7 submerged. She noted that luckily, most of the electrical equipment is above-
8 grade and was not damaged. She noted that the top picture is a door in
9 between the dry and wet side of the pump station, which was bent by the
10 hydraulic force.

11 Ms. Whitaker stated that if anyone were to ask what happened at the
12 pump station, the summary on the next slide would be a good synopsis of
13 the sequence of events.

14 Mr. Parcels stated that he is surprised that the transducer would be
15 positioned that close, given the blanking range. Ms. Whitaker stated that
16 when going through the odor control process, there were putting covers over
17 the entire plant. She stated that odor scrubbing is not only expensive, but it
18 also causes corrosion. She stated that anywhere there is water, an air space,
19 and a cover, there will be massive corrosion in that airspace, so the goal is
20 to minimize that air space. She noted that the pump station did not originally
21 have covers, but they were added during the odor control project. She noted
22 that when the transducers were put in, they clearly were not high enough
23 and some modifications should have been made.

24 Mr. Parcels asked why the backup float switches failed. Ms.
25 Whitaker replied that the circuitry that causes the transition failed, not so
26 much the floats themselves. She stated that pieces of the floats did go
27 everywhere, and they are looking to replace the float system. Mr. Parcels
28 stated that another type would be solid state probe so that the contact with
29 the liquid would trigger it. Ms. Whitaker stated that RWSA is looking into
30 switching to that type. Mr. Tolbert asked if it could be mounted at a different
31 level. Ms. Whitaker replied that they can but, in each case, it needs to be

Albemarle County Service Authority Board of Directors

1 above the covers. She noted that they are several design teams working on
2 how to change the entire control system.

3 Ms. Palmer asked if there was any structural damage to the actual
4 building. Ms. Whitaker replied that when all the bypass pumping was
5 installed, they were concerned about the structural stability of the building.
6 She noted that the foundation was very solid, as it was built into solid rock
7 that had to be blasted out, but they were worried about the stress on the
8 walls. She noted that this is the reason for all the beams in the pictures. She
9 added that a structural engineer came in to evaluate the walls, and they then
10 had a contractor perform a structural modification to the building on the fly.
11 She stated that the second concern was for the pumps themselves, as they
12 were running submerged in water which caused banging, clattering, and
13 shaking the ground when they turned on and off. She stated that they
14 performed a structural inspection and there were some cracks in the
15 concrete pillars that support the check valves.

16 Mr. Parcels asked, with respect to the logic control, if there was any
17 type of lesson learned that can be applied to the Moores Creek Pump
18 Station. Ms. Whitaker replied that there are lessons learned that can be
19 applied to everything they do going forward, such as how to startup a pump
20 station, how they program a pump station, and many other things for existing
21 stations and going forward. Mr. Mawyer added that they are looking at
22 issuing an RFP for a commissioning firm, which would look at everything
23 from the design to construction, as well as perform testing to ensure
24 everything works the way it is supposed to.

25 Ms. Whitaker moved to the next slide, which outlined the next steps.
26 She stated that this project was big enough that each phase had its own
27 team. She noted that phase 4 was the recovery and design phase, and there
28 is a group working on that. She mentioned that they have already hired a
29 contractor and will begin construction in the next 4-6 weeks. She stated that
30 currently, RWSA is paying \$350,000 a month for bypass pumping equipment

Albemarle County Service Authority Board of Directors

1 rental so the goal is to get that bypass system offline by March 2025, and be
2 completely done by May 2025.

3 Ms. Palmer asked when they expect the insurance company to notify
4 them as to whether they will pay. Mr. Mawyer replied that they expect to
5 receive some reimbursement in the next month or two, but it will be for
6 expenses they have already incurred as well as repair work as it is
7 performed. Ms. Whitaker referred to the cost estimate on the next slide and
8 stated that they are beginning to work with the insurance company to identify
9 what costs are related to bypass work, like kind and quality repairs which will
10 restore the pump station to its condition before January 8th, and
11 improvements. She added that it is likely that they will receive the emergency
12 funds fully refunded, as well as the like kind and quality costs.

13 Ms. Palmer asked if this is a situation where the insurance rates will
14 go up. Mr. Mawyer replied that the insurance company has not indicated as
15 much, but they could. Mr. Parcels asked if anything turned up in terms of
16 culpability on the part of the engineering firm that designed the pump station
17 in the first place. Ms. Whitaker replied that there are a few different pieces,
18 the first being the HVAC duct. She stated from a design perspective,
19 however, they never expected the water to be that high. She stated that in
20 terms of the controls, there was a third-party contractor that did the
21 programming and the 75% slow down speed for the pumps appeared about
22 3-4 months in the programming, after the pump station opened. She stated
23 that she knows there is a desire to find one company to blame, but there are
24 so many contributing factors that it is difficult to do so.

25 Mr. Parcels asked if this presentation is something that could be
26 shared as a lesson learned at the water association meeting or something
27 similar. Ms. Whitaker replied that there will probably be a substantial number
28 of papers on this event. She stated that on one hand, it was a bad day for
29 RWSA but, on the other hand, everyone rose to the occasion very quickly.
30 Ms. Palmer stated that she was astounded at how quickly they were able to
31 mobilize a construction team to respond. Ms. Whitaker replied that RWSA

Albemarle County Service Authority Board of Directors

1 has tried to hire a certain level of professionals throughout the authority and
2 that night, everyone understood the mission and helped to resolve the issue.
3 Mr. Mawyer added that Faulconer Construction was their primary contractor,
4 as well as a construction company out of Chesapeake, who is doing most of
5 the rework currently. Ms. Whitaker added that rental equipment came from
6 everywhere east of the Mississippi, as far out as Michigan and Texas.

7
8 9. **Request for Approval – Annual Year-End Appropriations**

9 Mr. Lunsford stated that this is a request the staff makes annually to
10 re-appropriate funds that were budgeted in the prior fiscal year, to the current
11 fiscal year. He stated that several requests are listed on the memo, totaling
12 \$287,106.

13 ***Mr. Parcels moved to approve the reappropriation of \$287,106***
14 ***from fiscal year 2024 to fiscal year 2025, seconded by Mr. Tolbert. The***
15 ***Chair asked for a roll-call vote: Mr. Parcels, aye; Ms. Palmer, aye; Mr.***
16 ***Tolbert, aye; Mr. Armstrong, aye; Mr. Roberts, aye; Ms. Swanson, aye.***

17
18 10. **Drought Monitoring/ Declaration of Drought Watch**

19 Mr. Lynn stated that the staff planned to present this presentation
20 (Attached as Pages _____) in July, and thankfully the situation has
21 drastically improved since then. He stated that he will talk about where things
22 are, where they were, and potential next steps.

23 Mr. Lynn stated that in late June 2024, the RWSA Board of Directors
24 declared a drought watch for our community and issued a press release,
25 which triggered some steps for the ACSA and City of Charlottesville to take.

26 Mr. Lynn stated that, as a reminder, there are three stages of a
27 drought or water emergency, with the first being a drought watch. He noted
28 that in a drought watch, the community is asked to voluntarily conserve
29 water. He stated that the second step is a drought warning where mandatory
30 restrictions are imposed on the community, and the third step is a drought
31 emergency. He stated that during a drought emergency, increased

Albemarle County Service Authority Board of Directors

1 restrictions are put in place, as well as emergency water rates to further
2 encourage conservation.

3 Mr. Armstrong asked at what point during the drought stages, does
4 the system flushing cease, or if it does at all. Mr. Lynn replied that it is
5 something that they would look at on a case-by-case basis, to determine
6 how important it is to continue flushing. He noted that the ACSA is continuing
7 to flush at most of its locations during the drought watch. He added that the
8 staff had begun discussing what actions to take when they reached the
9 drought warning stage, but they did not get to that point.

10 Mr. Lynn stated that next, he wanted to discuss the steps the ACSA
11 staff took once we moved into the drought watch stage. He stated that they
12 added some advisory messaging on both the telephone greeting and
13 customer bills. He mentioned that they updated the website with the drought
14 watch declaration, as well as some conservation tips on social media and
15 through local media ads. He stated that as always, conservation kits are
16 available in the ACSA Operations Center lobby, and the ACSA also
17 reenergized its Carwash Certification Program. He noted that there are 14
18 car washes in the community, with a huge influx in the last few years. He
19 added that the Environmental staff has made site visits to all 14, educating
20 them on the program. He stated that only two are ready for inspections, and
21 they are waiting to hear back from the other 12.

22 Ms. Palmer asked if the carwashes are the laser type that recycle the
23 water, or the old-fashioned kind. Mr. Lynn replied that there is a combination
24 of self-service car washes and the pull-in, conveyer belt type. He stated that
25 he assumes, as a matter of business, that they would do whatever they can
26 in their design and construction to recycle water, but the newer ones have
27 not been tested yet. Mr. Parcels asked if there was any idea as to how much
28 water would be saved through recycling. Mr. Lynn replied that the ACSA
29 Rules and Regulations has limits on how much new, potable water can be
30 used for each type of carwash. Mr. Parcels asked if the car washes are

Albemarle County Service Authority Board of Directors

1 classified as commercial or industrial, meaning that they have a fixed rate
2 instead of a tiered rate. Mr. Lunsford replied yes.

3 Mr. Lynn stated that as the ACSA, County, City, and RWSA staff
4 began discussions about moving to a drought warning, they identified some
5 of the factors that would influence that decision. He stated that there is a
6 Virginia Drought Monitoring Task Force that issues routine advisories and
7 suggestions across the state. He mentioned that there is also data from the
8 National Oceanic and Atmospheric Administration (NOAA), the National
9 Weather Service, and the Virginia State Climatology Office, which they
10 would look at as well. He noted that RWSA can run a hydraulic model called
11 Oasis, that looks at historical rainfall and can predict future reservoir levels.

12 Mr. Parcels stated that the Ragged Mountain Reservoir is still low,
13 and its only source is Sugar Hollow. Mr. Lynn stated that he would speak to
14 that in an upcoming slide. He stated that reservoir levels and streamflow data
15 is another factor they would look at in determining whether to move to a
16 different drought stage.

17 Mr. Lynn stated that the graphic on slide six is an example of what
18 the Virginia Drought Monitoring Task Force issues. He noted that they have
19 put the Albemarle community in a drought warning advisory. He noted,
20 however, that the four parties feel with the recent rainfall, groundwater, and
21 reservoir levels and flows, the community is not prepared to move into a
22 drought warning stage at this point.

23 Mr. Lynn stated that the ACSA staff receives a daily email from
24 RWSA about the reservoir levels, which they have been watching very
25 closely. He stated that July 17, 2024, was probably the low point with the
26 Urban reservoirs below 95% capacity and below full at 4 out of 5 reservoirs.
27 He noted, however, that currently Ragged Mountain is the only reservoir that
28 is below full, which is a much better situation.

29 Mr. Lynn stated that the USGS has four stream gauges in the
30 community- one on the Moormans River upstream of the South Rivanna
31 Reservoir, one on the Mechums River, as well as the North and South

Albemarle County Service Authority Board of Directors

1 Rivanna. He noted that here was a huge bump in flows in the Moormans
2 River due to the tropical storm last week, which is starting to decrease as
3 time passes since that rainfall.

4 Mr. Lynn stated that anytime drought conditions are discussed, it
5 seems appropriate to highlight some of RWSA's major CIP projects in the
6 pipeline. He stated that the two most important projects are probably the
7 Ragged Mountain to Observatory pipeline and the Ragged Mountain to
8 South Rivanna pipeline. He mentioned that currently, there is only a single
9 feed from Sugar Hollow to refill the Ragged Mountain Reservoir. He noted,
10 however, that following the completion of those two projects, water can be
11 moved from the overflowing South Rivanna to Ragged Mountain. He stated
12 that this also restores flow in the Moormans River.

13 Mr. Lynn stated that if they must move to a drought warning
14 declaration, the decision would be made as a group and RWSA would make
15 that declaration and immediately notify the ACSA. He stated that the ACSA
16 would then have a Board meeting and adopt a resolution, requesting that the
17 Albemarle County Board of Supervisors declare a drought warning or
18 emergency. He stated that once that happens, it allows the ACSA staff to
19 implement and enforce Section 16 of the Rules and Regulations.

20 Mr. Parcels asked if the ACSA was able to discern any difference in
21 water use, before the big rainfall event. He stated, in other words, could the
22 staff tell if customers were conserving. Mr. Lynn replied that he does not
23 think they noticed any change. He stated that there was a period of cooler
24 weather where daily production numbers were down. He stated that the
25 worry is the late August/early September time frame when it is still warm,
26 and the UVA students are entering the community. He noted that, looking
27 ahead, we are still in front of the peak for daily demand on the system.

28 Mr. Lunsford added that now that the system is almost entirely on
29 AMI, the staff is receiving irrigation reports daily. He stated that they have
30 seen a trend in those irrigation systems becoming smarter or customers are
31 more responsible in their use. He mentioned that they have seen irrigation

Albemarle County Service Authority Board of Directors

1 decrease considerably during rain events, indicating that those systems are
2 not running after it rains. He added that some of those systems are smart
3 enough to look at future weather, so there has been some benefit from that
4 technology. Mr. Lynn added that the ACSA also requires rain sensors on
5 irrigation systems, which would lock out a system and not allow it to run when
6 it is raining.

7
8 **11. ACSA Freedom of Information Act Update**

9 Mr. Armstrong stated that typically, the ACSA's FOIA Officer is the
10 Executive Director. Mr. Roberts asked if the ACSA receives a lot of requests,
11 and if there is someone else assisting with those requests. Mr. Lunsford
12 replied that they do not receive a lot, but the officer role is more so to be
13 responsible for ensuring the requests are handled appropriately.

14 Ms. Swanson asked if the FOIA requests are more because people
15 do not know where to find the information on the website. Mr. Lunsford
16 replied that most of the requests are for information that is not posted
17 publicly, by practice. Mr. Parcels asked if it was ok to tell the Board what
18 type of requests the ACSA receives. Mr. Lunsford replied that they most
19 frequently receive requests related to properties that have had their water
20 service disconnected for real estate purposes. He mentioned that they have
21 had requests related to their investments and surrounding PFAS as well. He
22 noted that the intent does not matter in terms of why the information is being
23 requested, and Mike Derdeyn is regularly involved in ensuring appropriate
24 information is provided when necessary.

25 Ms. Swanson asked if there are requests for properties that are
26 occupied. Mr. Lunsford replied that the ACSA does not provide any
27 personally identifiable information, but they do provide information related to
28 a specific property if it is receiving water service.

29 ***Mr. Parcels moved to approve the ACSA FOIA Rights and***
30 ***Responsibilities Policy, as amended, seconded by Mr. Roberts. The***

12. Items Not on the Agenda

Mr. Parcels asked if there was any development with the Green County request. Mr. Lunsford replied nothing formally. He stated that he has met with the RWSA Board of Directors Chair and Bill Mawyer regarding the feelings that have been communicated to him thus far. He stated that he suspects he will hear more about that in the next 4-6 months. Ms. Palmer added that she heard they have hired a permanent director now, so they will be able to get moving on a lot of stuff.

13. Adjourn

There being no further business, Ms. Palmer moved that the meeting be adjourned, seconded by Mr. Parcells. All members voted aye.

Quin Lunsford, Secretary-Treasurer

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

AGENDA TITLE: Monthly Financial Reports	AGENDA DATE: September 19, 2024
STAFF CONTACT/PREPARER: Quin Lunsford, Executive Director	ACTION: Informational
	ATTACHMENTS: Yes

BACKGROUND: Water and sewer financial reports and check registers for the month of August are attached for your review.

DISCUSSION:

- Water consumption for the month of July increased 9.8% compared to June. Water consumption for the month of July 2024 compared to July 2023 increased 15.9%.
- RWSA's invoice of \$2,622,835 for the month of July was paid on August 6, 2024.
- Unearned water and sewer connection charges totaled \$2,877,132 at month end.
- System connection charges are ahead of budgeted expectations with \$455,400 recognized in August.
- Water and Wastewater revenues for FY 2025 are above budgeted expectations by 16.0%. Please see the water/wastewater trend analysis included illustrating that when adjustment for expected variations in seasonal consumption are considered, revenues are 5.4% higher than budgeted expectations.
- Investment statements for August were not available at the time the Board Packet was prepared. Changes in investment value and interest earned will be recorded upon receipt.

BUDGET IMPACT: Informational only.

RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY****ATTACHMENTS:**

1. Statement of Net Position
2. Year-to-Date Budget to Actual Comparison/Commentary
3. Capacity/System Development Reserves
4. Connection Charges/ERC Analysis
5. Monthly Water and Sewer Charges from the RWSA
6. Monthly Water Consumption
7. Water and Sewer Report; Customer Class Report
8. Major Customer Analysis
9. Water/Wastewater Revenue Trend Analysis
10. Aged Receivables Analysis
11. Check Register

ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF NET POSITION

August 31, 2024

ASSETS

Cash and cash equivalents	\$ 10,019,862
Accounts receivable	6,168,144
Investments	52,634,474
Capital assets: (net of accumulated depreciation)	185,197,839
Inventory	786,945
Prepays	-
Cash and cash equivalents, restricted	753,845
	<hr/>
Total assets	255,561,109
	<hr/>

DEFERRED OUTFLOWS OF RESOURCES

Combined deferred outflows of resources	1,179,119
	<hr/>

LIABILITIES

Accounts payable	3,163,888
Accrued liabilities	454,671
Compensated absences	836,470
Net pension liability	3,030,688
Other post-employment benefits	1,256,008
Unearned connection fees	2,877,132
Long-term debt	4,077,648
	<hr/>
Total liabilities	15,696,505
	<hr/>

DEFERRED INFLOWS OF RESOURCES

Combined deferred inflows of resources	807,684
	<hr/>

NET POSITION

240,236,039

ALBEMARLE COUNTY SERVICE AUTHORITY
For the One Month Ending August 31, 2024

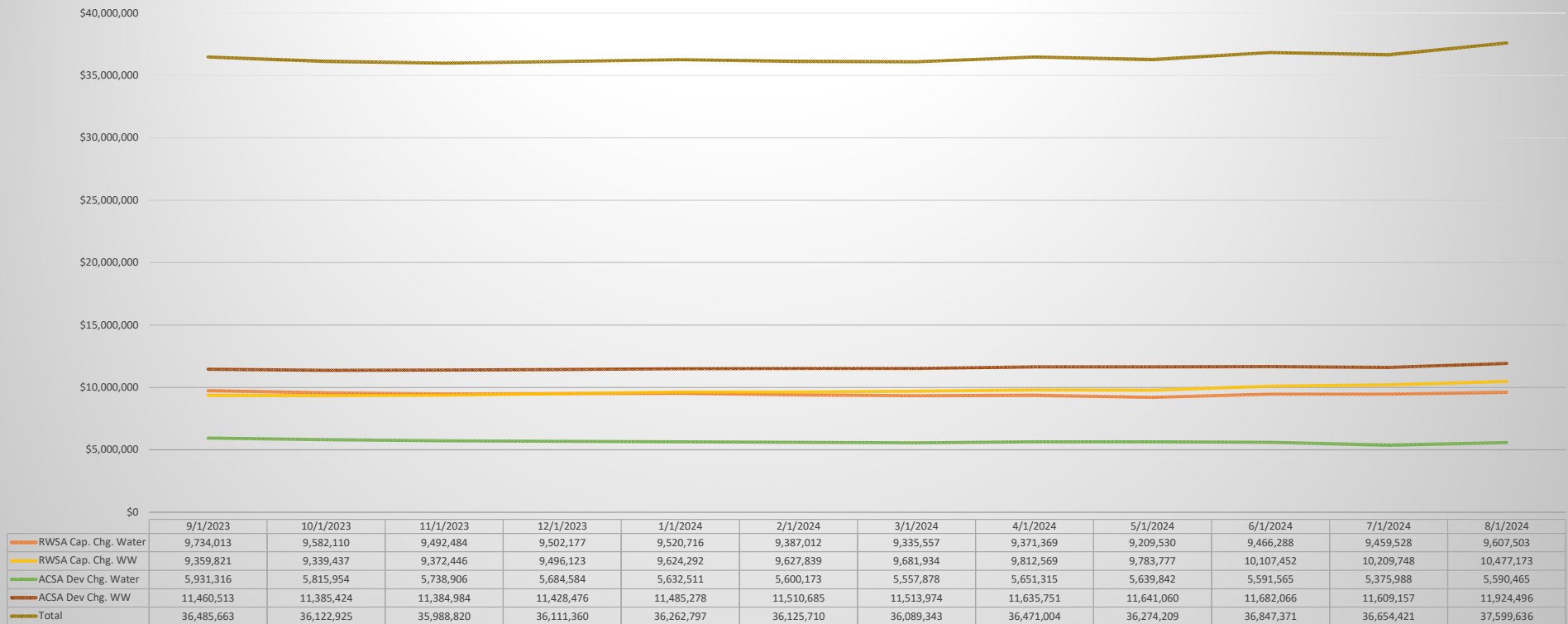
38

	Budget FY 2025	Budget Year-to-Date 2025	August Actual Year-to-Date	Actual vs. Budget	Variance Percentage
Revenues					
Water Sales	22,650,000.	3,775,000.	4,585,100.	810,100.	21.46%
Sewer Service	17,850,000.	2,975,000.	3,247,633.	272,633.	9.16%
Total operating revenues	40,500,000.	6,750,000.	7,832,733.	1,082,733.	16.04% A
Operating Expenses					
Purchase of bulk water	(18,148,000.)	(3,024,667.)	(3,296,063.)	(271,396.)	8.97% B
Purchase of sewer treatment	(13,782,000.)	(2,297,000.)	(1,976,006.)	320,994.	(13.97%) B
Administration	(1,585,600.)	(264,267.)	(207,851.)	56,416.	(21.35%) C
Finance	(3,283,100.)	(547,183.)	(489,915.)	57,268.	(10.47%) C
Information Technology	(2,143,000.)	(357,167.)	(460,302.)	(103,135.)	28.88% C
Engineering	(2,631,400.)	(438,567.)	(406,682.)	31,885.	(7.27%) C
Maintenance	(5,092,000.)	(848,667.)	(677,714.)	170,953.	(20.14%) C
Total operating expenses	(46,665,100.)	(7,777,517.)	(7,514,533.)	262,984.	(3.38%)
Operating gain(loss)	(6,165,100.)	(1,027,517.)	318,200.	1,345,717.	(130.97%)
Nonoperating Revenues					
System connection charges	8,000,000.	1,333,333.	1,710,183.	376,850.	28.26% D
Investment/Interest Income	2,000,000.	333,333.	522,215.	188,882.	56.66% E
Rental income	16,000.	2,667.	2,511.	(156.)	(5.84%)
Miscellaneous revenues	761,000.	126,833.	148,978.	22,145.	17.46% F
Total nonoperating revenues (expenses)	10,777,000.	1,796,167.	2,383,887.	587,720.	32.72%
Nonoperating Expenses					
Miscellaneous expenses	(890,300.)	(148,383.)	(3,282.)	145,101.	(97.79%) G
Bond interest charges	(183,859.)	(30,643.)	-	30,643.	(100.00%) H
Depreciation	0.	0.	(760,412.)	(760,412.)	0.00% I
Total nonoperating revenues (expenses)	(1,074,159.)	(179,027.)	(763,694.)	(584,668.)	326.58%
Capital contributions	0.	0.	639,589.	639,589.	
Change in Net Position	3,537,741.	589,624.	2,577,982.	1,988,359.	337.23%

**Albemarle County Service Authority
Actual-to-Budget Year to Date Commentary**

- A.** Water and sewer revenues were more than budgeted amounts by 16.0%. Consumption through August (gallons) appears reasonable considering the ACSA's normal seasonal consumption pattern and abnormally dry/hot weather. Additional information related to seasonal revenue expectations can be found later in the Board packet.
- B.** Expenses related to purchases of bulk water and sewer treatment from the RWSA are less than budgeted amounts by 0.9%. Monthly billings prepared by the RWSA allocate total water/wastewater flows to the ACSA/City based on the consumption of each for the quarter immediately preceding.
- C.** Departmental operating budgets through the current month remain below budgeted expectations for the fiscal year with the exception of Information Technology. Variations early in the fiscal year are expected as timing of expenses can more greatly impact variances. Departmental expenses will continue to be monitored throughout the fiscal year and are expected to align with the budget.
- D.** System connection charges are higher than the budgeted amount. Connection charges are often difficult to project and can fluctuate from year to year. These charges are dependent upon new customers connecting to the system.
- E.** Investment income, which includes both interest income and adjustments to fair market value are recorded in these accounts. Investment earnings are ahead of budgeted expectations through the current month.
- F.** Miscellaneous revenues consist of multiple lines and include inspection fees, plan review, reconnections/initial bill fees, invoiced water usage, and gains associated with sales of capital assets retired from service.
- G.** The budgeted amount includes expected outlays for capital equipment and other miscellaneous items. Equipment is capitalized when placed in service.
- H.** Bond interest charges are recorded as incurred.
- I.** Depreciation is not a budgeted line-item accounting for the variance. Depreciation expense is considered during the annual budgeting process as this expense is utilized to calculate the required contribution to the 3r reserve.

Capacity/System Development Reserves



Note: Additions to Capacity/System Development Reserves are from monthly connection charges, reductions to the reserves are from monthly growth related expenses/capital costs.

Albemarle County Service Authority
Connection Fee Analysis
July 2024

Area	July 2024 Monthly Connection Fees	July 2023 Monthly Connection Fees	\$ Change	% Change
Crozet	\$ 238,180	\$ 283,830	\$ (45,650)	-16%
Urban	1,016,603	298,850	717,753	240%
Scottsville	-	-	-	-
Total Connection fees	\$ 1,254,783	\$ 582,680	\$ 672,103	115%
Through July				
Area	YTD FY 2025 Connection Fees	YTD FY 2024 Connection Fees	\$ Change	% Change
Crozet	\$ 238,180	\$ 283,830	\$ (45,650)	-16%
Urban	1,016,603	298,850	717,753	240%
Scottsville	-	-	-	-
Total Connection fees	\$ 1,254,783	\$ 582,680	\$ 672,103	115%

Area	July 2024 ERC's	July 2023 ERC's	Change	% Change
Crozet	17	20	(3)	-15%
Urban	70	21	49	233%
Scottsville	-	-	-	-
Total ERC's	87	41	46	112%
Through July				
Area	YTD FY 2025 ERC's	YTD FY 2024 ERC's	Change	% Change
Crozet	17	20	(3)	-15%
Urban	70	21	49	233%
Scottsville	-	-	-	-
Total ERC's - YTD	87	41	46	112%

Note: This analysis shows, both in dollars and ERC's, connections by month and YTD for the period under review. As noted above, connection fees are comparable to the prior year. See the "Three Year Connection Fee Comparison" for further discussion related to this change.

**Albemarle County Service Authority
Three Year Connection Fee Comparison
July 2024**

Area	July 2024 ERC's	July 2023 ERC's	July 2022 ERC's
Crozet	17	20	8
Urban	70	21	54
Scottsville	-	-	-
Total ERC's	87	41	62

Through July			
Area	YTD FY 2025 ERC's	YTD FY 2024 ERC's	YTD FY 2023 ERC's
Crozet	17	20	8
Urban	70	21	54
Scottsville	-	-	-
Total ERC's - YTD	87	41	62

Note: The information above present ERCs by month and YTD for the current and past two fiscal years. As noted in the YTD portion of the analysis, current YTD ERCs appear reasonable considering continued development within the ACSA's service area.

**Albemarle County Service Authority
Water and Sewer Charges from the RWSA
Fiscal Year 2025**

	FY 2025	FY 2024	Increase	
	RWSA Charges	RWSA Charges	(Decrease)	
July	\$ 2,622,835	\$ 2,352,971	\$ 269,864	11.47%
August	2,648,222	2,352,440	\$ 295,782	12.57%
September		2,286,484		-100.00%
October		2,277,041		-100.00%
November		2,204,989		-100.00%
December		2,249,566		-100.00%
January		2,356,246		-100.00%
February		2,269,378		-100.00%
March		2,342,273		-100.00%
April		2,265,591		-100.00%
May		2,313,334		-100.00%
June		2,283,431		-100.00%
	<hr/>	<hr/>		
	\$ 5,271,057	\$ 27,553,743		
<hr/>				
YTD	\$ 5,271,057	\$ 4,705,411	\$ 565,646	12.02%

Note: The charges noted above from the RWSA include operating and debt service charges.

**Albemarle County Service Authority
Consumption Analysis
Fiscal Year 2025**

	FY 2025 Consumption	FY 2024 Consumption		Monthly Precipitation (In.)	
				FY 2025	FY 2024
July	178,898,841	154,300,020	15.94%	2.97	5.44
August		170,746,002	-100.00%		2.51
September		176,070,325	-100.00%		2.98
October		165,947,566	-100.00%		0.59
November		154,337,781	-100.00%		3.67
December		145,323,150	-100.00%		4.80
January		137,727,440	-100.00%		6.58
February		135,574,438	-100.00%		2.31
March		137,885,342	-100.00%		3.70
April		136,213,084	-100.00%		1.85
May		153,343,279	-100.00%		5.00
June		162,940,773	-100.00%		1.21
	178,898,841	1,830,409,200		2.97	40.64
YTD	178,898,841	154,300,020	15.94%	2.97	5.44

Note: Consumption through July 2024 is 15.9% more than the same period in fiscal year 2024. Monthly precipitation figures have been included for comparison purposes. Trends in rainfall can sometimes correlate with trends in consumption however, depending on the intensity, days between rain events, or other factors, this may not always be the case.

Note: Precipitation data obtained from National Oceanic and Atmospheric Administration (NOAA):
<https://www.ncdc.noaa.gov/cdo-web/search>.



Water and Sewer Report

(Volumes in Gallons)

July 2024

Metered by Area:	Water	Sewer
Crozet	21,630,142	19,029,094
Scottsville	1,370,359	933,940
Urban	155,865,925	120,480,962
Red Hill	32,415	0
Total	178,898,841	140,443,996

Wastewater Flows by Sewer Plant:	
Total Urban and Crozet	139,510,056
less Glenmore WRRF	(5,352,199)
Moores Creek AWRRF	134,157,857
Scottsville WRRF	933,940
Total	135,091,797

Number of Installed Meters:	
Urban	41
Crozet	12
Scottsville	0
Total	53

Hydrant Meter Consumption (billed by invoice):	
Urban	2,170,500
Crozet	2,500
Scottsville	0
Total	2,173,000

Estimated Water Loss (gallons):	
Glenmore-3188 Darby Road	Urban 10
Total	10

Billed Consumption for Selected Customers

	<u>Water</u>	<u>Sewer</u>		<u>Water</u>	<u>Sewer</u>
Virginia Land Holding	283,656	283,656	Boar's Head Inn	447,662	418,916
Southwood Mobile Homes	1,827,900	2,030,000	Farmington, Inc.	948,789	392,536
Turtle Creek Apts.	1,283,268	1,276,510	Westgate Apts.	1,325,856	1,324,456
Barracks West Apartments	1,276,962	1,276,962	PR Charger C'ville Holdings	1,779,093	1,779,093
Monroe Health and Rehab	674,822	674,822	Four Seasons Apts	1,575,787	1,575,787
Sunrise Senior "Colonnades"	1,140,007	918,707	Ch'ville/Alb Airport	238,556	238,591
ACRJ	1,089,870	893,870	State Farm	2,095,810	1,876,405
Westminster Canterbury	1,728,310	1,558,310	Hyatt @ Stonefield	492,950	492,950
SEMF Charleston	1,346,787	1,346,787	Doubletree	764,441	764,441
Martha Jefferson Hospital	2,920,205	1,507,365	Arden Place Apts.	503,198	503,198
Crozet Mobile Home Village	342,737	342,737	Hilton Garden Inn	248,944	247,654
The Home Depot	227,898	227,898	The Blake @ Charlottesville	178,356	178,356
County of Albemarle	2,945,487	944,228	The Lodge @ Old Trail	279,055	279,055
University of Virginia	3,023,417	3,018,816	Gov't-Defense Complex	1,115,017	1,051,624
Wegmans	356,112	356,112	Harris Teeter Stores	214,550	214,550



July 2024

WATER

Class Type	Number of Connections by Area			<u>Total</u>
	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	
Single-Family Residential	16,299	4,010	195	20,504
Multi-Family Residential	584	56	3	643
Commercial (Offices)	201	12	5	218
Commercial (Other)	938	77	54	1,069
Industrial	37	11	4	52
Institutional	173	32	12	217
Total Water Connections	18,232	4,198	273	22,703
Plus Multiple Units	13,845	854	89	14,788
Total Water Units	32,077	5,052	362	37,491

SEWER

Class Type	Number of Connections by Area			<u>Total</u>
	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	
Single-Family Residential	13,987	3,735	157	17,879
Multi-Family Residential	553	54	4	611
Commercial (Offices)	186	12	5	203
Commercial (Other)	730	52	46	828
Industrial	15	5	1	21
Institutional	136	25	10	171
Total Sewer Connections	15,607	3,883	223	19,713
Plus Multiple Units	13,420	850	56	14,326
Total Sewer Units	29,027	4,733	279	34,039

POPULATION SERVED

Population served is the total Single-Family and Multi-Family units using an occupancy of 2.5 residents per unit:

	<u>Urban</u>	<u>Crozet</u>	<u>Scottsville</u>	<u>Total</u>
Total Water Customers	75,360	12,160	710	88,230
Total Sewer Customers	68,518	11,463	533	80,513

**Albemarle County Service Authority
Major Customer Analysis
July 2024 and June 2024**

	July 2024		June 2024		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	2,945,487	944,228	1,647,291	1,179,489	78.81%	-19.95%
University of Virginia	3,023,417	3,018,816	2,245,496	2,218,942	34.64%	36.05%
Martha Jefferson Hospital	2,920,205	1,507,365	2,333,722	1,369,846	25.13%	10.04%
Southwood Mobile Homes	1,827,900	2,030,000	1,603,310	1,890,000	14.01%	7.41%
Westmisnster Canterbury	1,728,310	1,558,310	1,567,090	1,492,090	10.29%	4.44%
Westgate Apts.	1,325,856	1,324,456	1,248,114	1,246,114	6.23%	6.29%
ACRJ	1,089,870	893,870	1,114,340	969,340	-2.20%	-7.79%
SEMF Charleston	1,346,787	1,346,787	1,402,359	1,402,359	-3.96%	-3.96%
PR Charger C'ville Holdings	1,779,093	1,779,093	1,952,620	1,952,620	-8.89%	-8.89%
Four Seasons Apts.	1,575,787	1,575,787	1,737,799	1,737,799	-9.32%	-9.32%
Turtle Creek Apts.	1,283,268	1,276,510	1,487,087	1,479,346	-13.71%	-13.71%
Barracks West Apartments	1,276,962	1,276,962	1,522,102	1,522,102	-16.11%	-16.11%
State Farm	2,095,810	1,876,405	2,542,030	2,378,125	-17.55%	-21.10%

Note: Only major customers of the ACSA have been analyzed above. For purposes of this analysis, major customers are those who, on average, consume over one million gallons per month. Variations can occur for a variety of reasons including but not limited to: conscious conservation efforts, expansion, weather, vacancies, etc.

*** -- Consumption/usage in gallons.**

**Albemarle County Service Authority
Major Customer Analysis
July 2024 and July 2023**

	July 2024		July 2023		Increase(Decrease) Water Consumption	Increase(Decrease) Sewer Usage
	Water*	Sewer*	Water*	Sewer*		
County of Albemarle	2,945,487	944,228	1,444,323	612,602	103.94%	54.13%
State Farm	2,095,810	1,876,405	1,302,200	1,183,007	60.94%	58.61%
University of Virginia	3,023,417	3,018,816	2,115,343	2,109,522	42.93%	43.10%
Martha Jefferson Hospital	2,920,205	1,507,365	2,341,938	1,200,838	24.69%	25.53%
ACRJ	1,089,870	893,870	882,100	750,100	23.55%	19.17%
Westminster Canterbury	1,728,310	1,558,310	1,472,340	1,392,340	17.39%	11.92%
Westgate Apts.	1,325,856	1,324,456	1,150,741	1,148,541	15.22%	15.32%
Four Seasons Apts.	1,575,787	1,575,787	1,470,206	1,470,206	7.18%	7.18%
Southwood Mobile Homes	1,827,900	2,030,000	1,716,770	2,310,000	6.47%	-12.12%
Turtle Creek Apts.	1,283,268	1,276,510	1,219,554	1,218,744	5.22%	4.74%
Barracks West Apartments	1,276,962	1,276,962	1,343,601	1,343,601	-4.96%	-4.96%
PR Charger C'ville Holdings	1,779,093	1,779,093	1,968,136	1,968,136	-9.61%	-9.61%
SEMF Charleston	1,346,787	1,346,787	1,632,747	1,632,747	-17.51%	-17.51%

Note: Only major customers of the ACSA have been analyzed above. For purposes of this analysis, major customers are those who, on average, consume over one million gallons per month. Variations can occur for a variety of reasons including but not limited to: conscious conservation efforts, expansion, weather, vacancies, etc.

*** -- Consumption/usage in gallons.**

Albemarle County Service Authority
Major Customer Analysis
Year-to-date Comparison: Current Year/Prior Year -- July

	YTD FY 2025		YTD FY 2024		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	2,945,487	944,228	1,444,323	612,602	103.94%	54.13%
State Farm	2,095,810	1,876,405	1,302,200	1,183,007	60.94%	58.61%
University of Virginia	3,023,417	3,018,816	2,115,343	2,109,522	42.93%	43.10%
Martha Jefferson Hospital	2,920,205	1,507,365	2,341,938	1,200,838	24.69%	25.53%
ACRJ	1,089,870	893,870	882,100	750,100	23.55%	19.17%
Westmisnster Canterbury	1,728,310	1,558,310	1,472,340	1,392,340	17.39%	11.92%
Westgate Apts.	1,325,856	1,324,456	1,150,741	1,148,541	15.22%	15.32%
Four Seasons Apts.	1,575,787	1,575,787	1,470,206	1,470,206	7.18%	7.18%
Southwood Mobile Homes	1,827,900	2,030,000	1,716,770	2,310,000	6.47%	-12.12%
Turtle Creek Apts.	1,283,268	1,276,510	1,219,554	1,218,744	5.22%	4.74%
Barracks West Apartments	1,276,962	1,276,962	1,343,601	1,343,601	-4.96%	-4.96%
PR Charger C'ville Holdings	1,779,093	1,779,093	1,968,136	1,968,136	-9.61%	-9.61%
SEMF Charleston	1,346,787	1,346,787	1,632,747	1,632,747	-17.51%	-17.51%

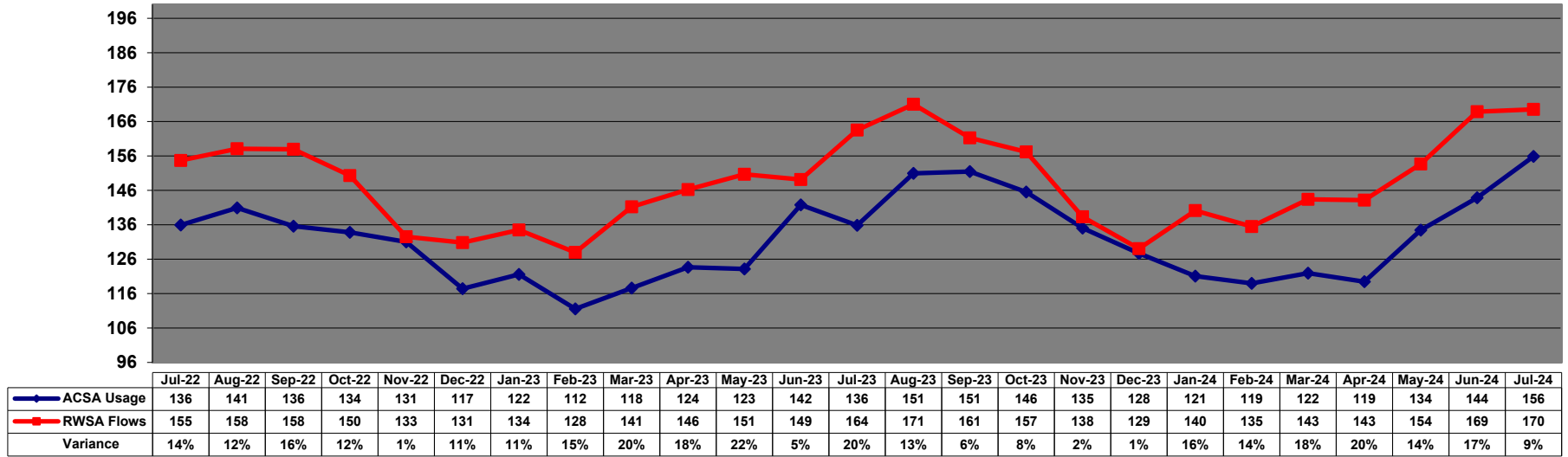
Note: Only major customers of the ACSA have been analyzed above. For purposes of this analysis, major customers are those who, on average, consume over one million gallons per month. Variations can occur for a variety of reasons including but not limited to: conscious conservation efforts, expansion, weather, vacancies, etc.

*** -- Consumption/usage in gallons.**

FY 2023, 2024, and 2025 Urban Water Comparison RWSA Flows & ACSA Customer Usage

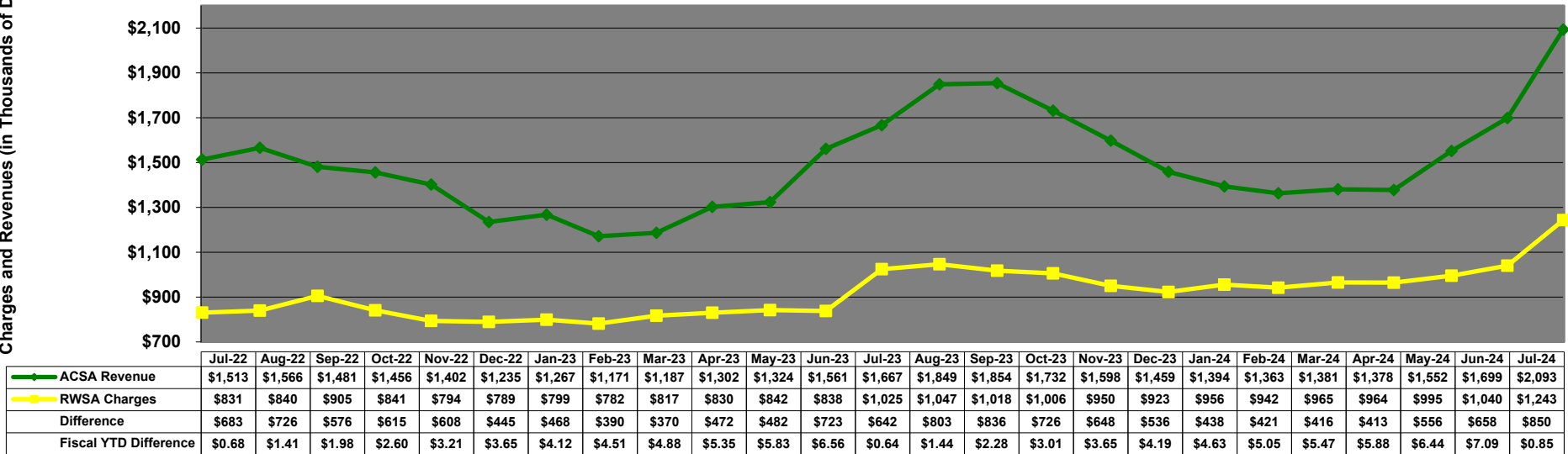
50

Flows & Usage (in Millions of Gallons)



Charges and Revenues (in Thousands of Dollars)

FY 2023, 2024, and 2025 Urban Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

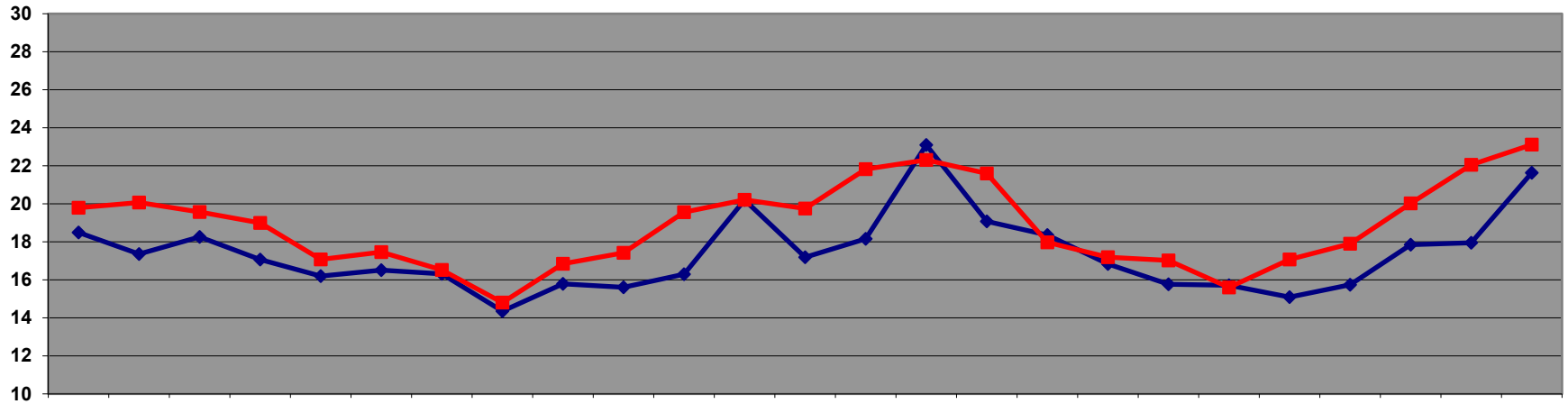


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

FY 2023, 2024, and 2025 Crozet Water Comparison RWSA Flows & ACSA Customer Usage

51

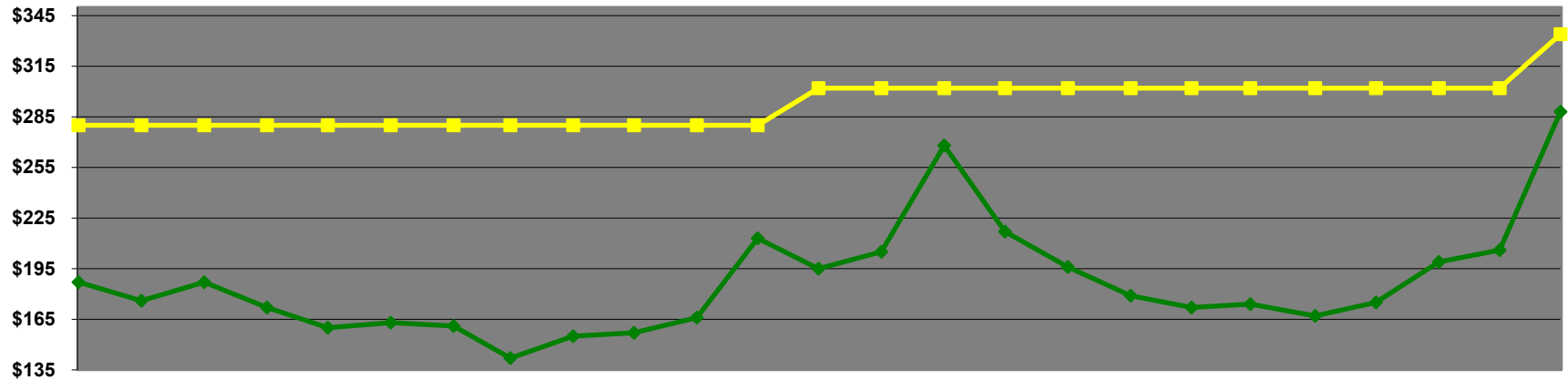
Flows & Usage (in Millions of Gallons)



	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
ACSA Usage	18	17	18	17	16	17	16	14	16	16	16	20	17	18	23	19	18	17	16	16	15	16	18	20	22
RWSA Flows	20	20	20	19	17	17	17	15	17	17	20	20	20	22	22	22	18	17	17	16	17	18	20	22	23
Variance	7%	16%	7%	11%	5%	6%	1%	3%	7%	12%	20%	0%	15%	20%	-3%	13%	-2%	2%	8%	-1%	13%	14%	12%	23%	7%

FY 2023, 2024, and 2025 Crozet Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

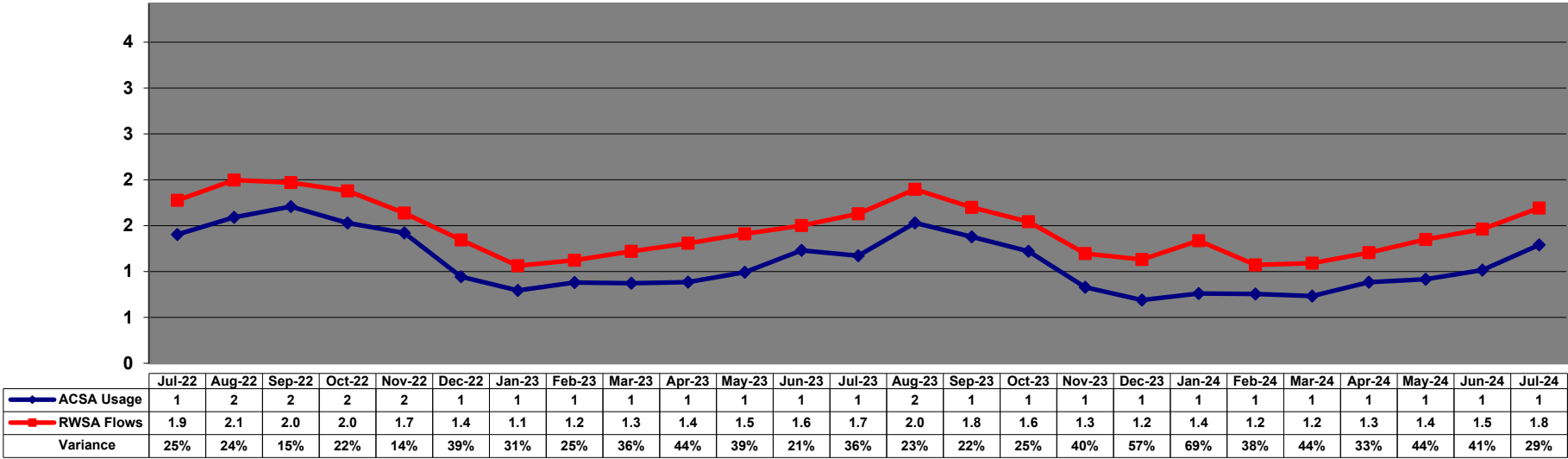
Charges and Revenues (in Thousands of Dollars)



	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
ACSA Revenue	\$187	\$176	\$187	\$172	\$160	\$163	\$161	\$142	\$155	\$157	\$166	\$213	\$195	\$205	\$268	\$217	\$196	\$179	\$172	\$174	\$167	\$175	\$199	\$206	\$288
RWSA Charges	\$280	\$280	\$280	\$280	\$280	\$280	\$280	\$280	\$280	\$280	\$280	\$280	\$302	\$302	\$302	\$302	\$302	\$302	\$302	\$302	\$302	\$302	\$302	\$302	\$334
Difference	(\$93)	(\$104)	(\$93)	(\$108)	(\$120)	(\$117)	(\$119)	(\$138)	(\$125)	(\$123)	(\$114)	(\$67)	(\$107)	(\$97)	(\$34)	(\$85)	(\$106)	(\$123)	(\$130)	(\$128)	(\$135)	(\$127)	(\$103)	(\$96)	(\$46)
Fiscal YTD Difference	(\$0.09)	(\$0.20)	(\$0.29)	(\$0.40)	(\$0.52)	(\$0.64)	(\$0.75)	(\$0.89)	(\$1.02)	(\$1.14)	(\$1.25)	(\$1.32)	(\$0.11)	(\$0.20)	(\$0.24)	(\$0.32)	(\$0.43)	(\$0.55)	(\$0.68)	(\$0.81)	(\$0.95)	(\$1.07)	(\$1.18)	(\$1.27)	(\$0.05)

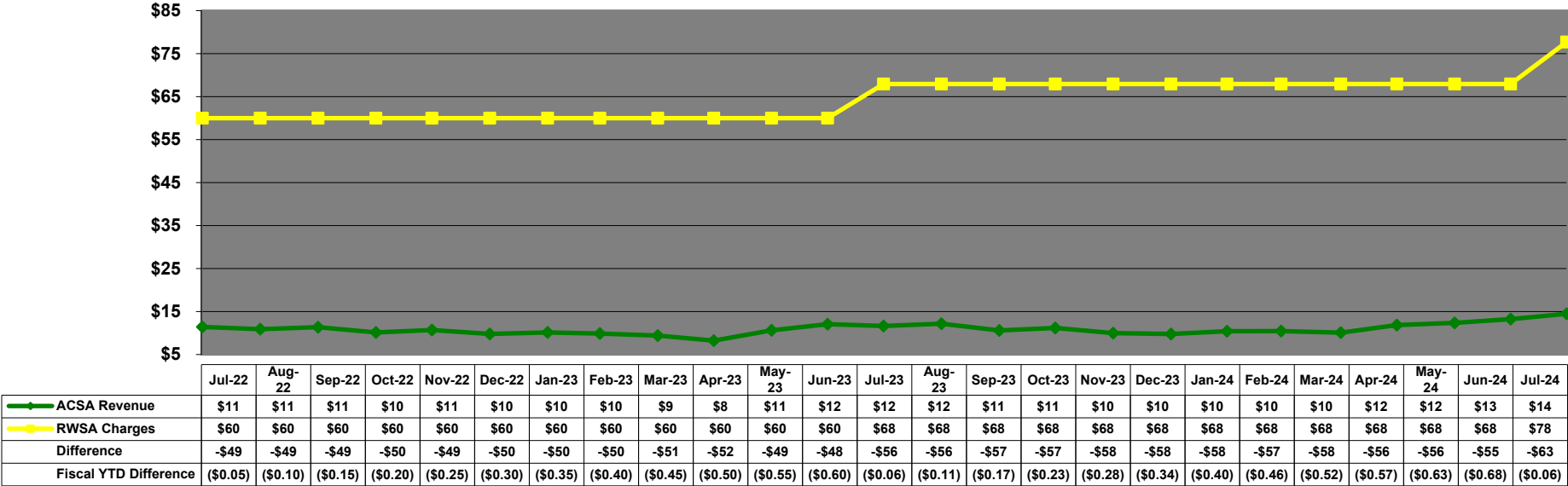
FY 2023, 2024, and 2025 Scottsville Water Comparison
RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



FY 2023, 2024, and 2025 Scottsville Water Comparison
RWSA Billed Water Charges & ACSA Billed Water Revenues

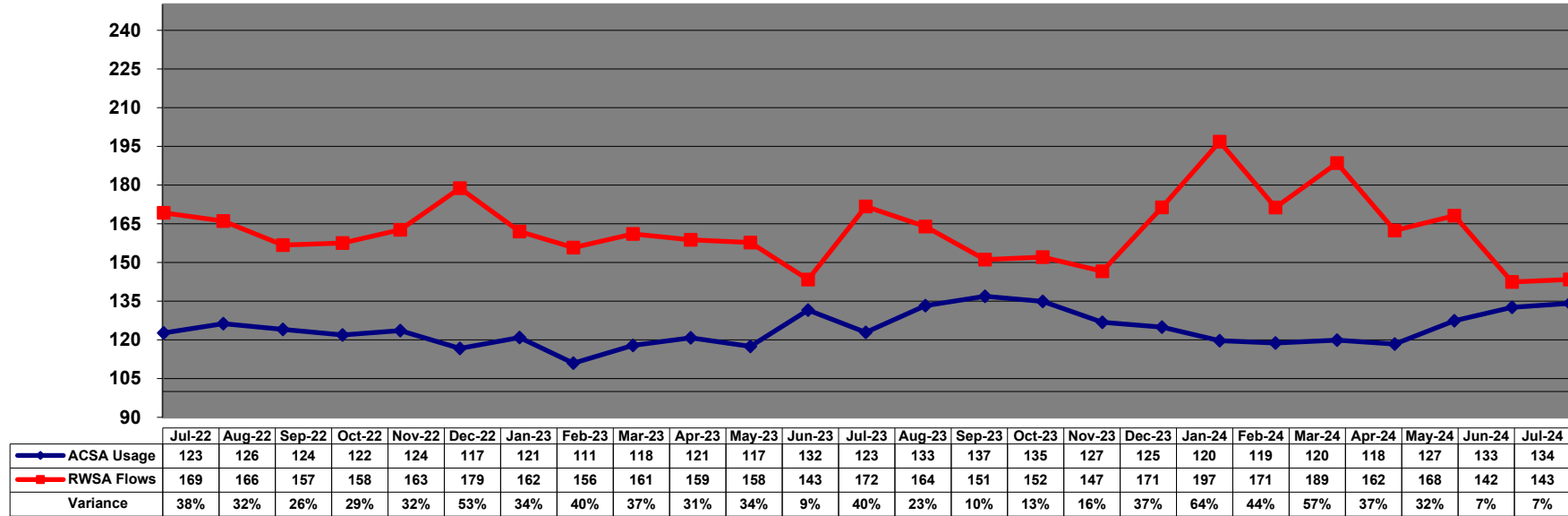
Charges and Revenues (in Thousands of Dollars)



**FY 2023, 2024, and 2025 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Customer Usage & RWSA Flows**

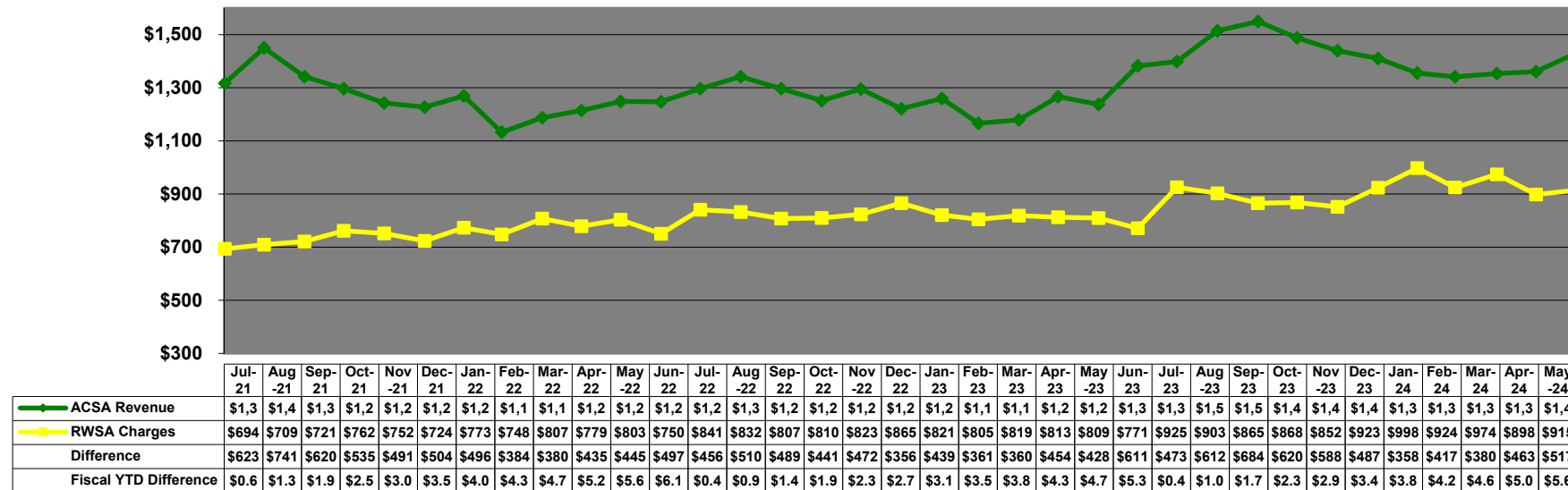
53

Usage & Flows (in Millions of Gallons)



**FY 2023, 2024, and 2025 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Billed Sewer Usage & RWSA Billed Sewer Charges**

Charges & Revenues (in Thousands of Dollars)

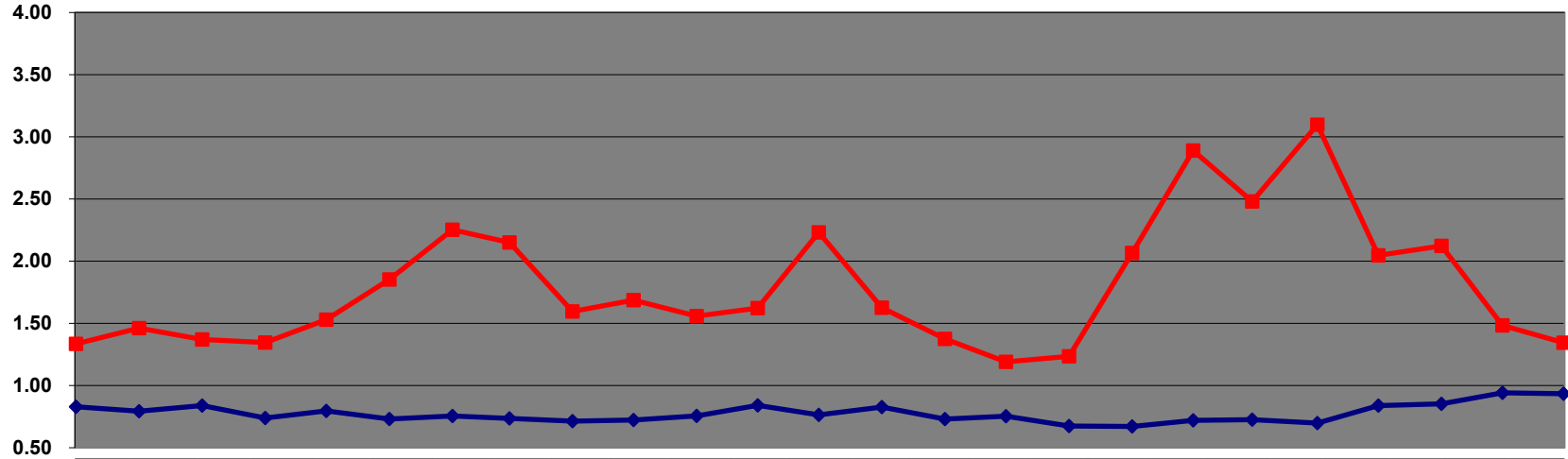


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

FY 2023, 2024, and 2025 Scottsville Sewer Comparison ACSA Customer Usage & RWSA Flows

54

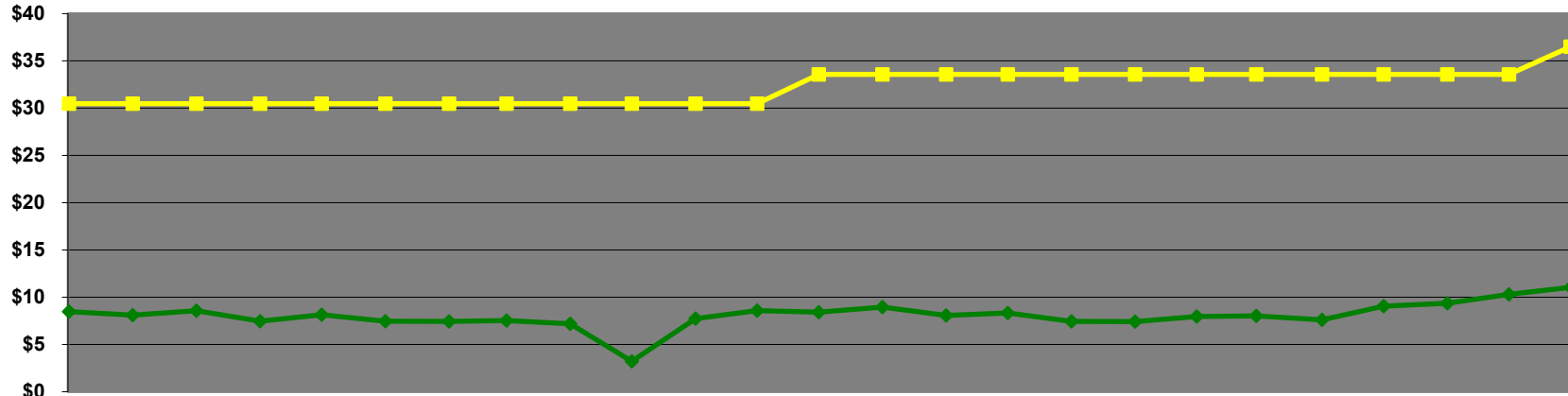
Usage & Flows (in Millions of Gallons)



	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
ACSA Usage	0.83	0.79	0.84	0.74	0.80	0.73	0.75	0.74	0.71	0.72	0.76	0.84	0.76	0.83	0.73	0.75	0.67	0.67	0.72	0.73	0.70	0.84	0.85	0.94	0.93
RWSA Flows	1.34	1.46	1.37	1.35	1.53	1.85	2.25	2.15	1.60	1.69	1.56	1.62	2.23	1.63	1.38	1.19	1.24	2.07	2.89	2.48	3.10	2.05	2.12	1.48	1.34
Variance	61%	84%	63%	82%	92%	154%	198%	192%	124%	133%	106%	93%	192%	97%	88%	58%	83%	208%	301%	242%	344%	144%	149%	58%	44%

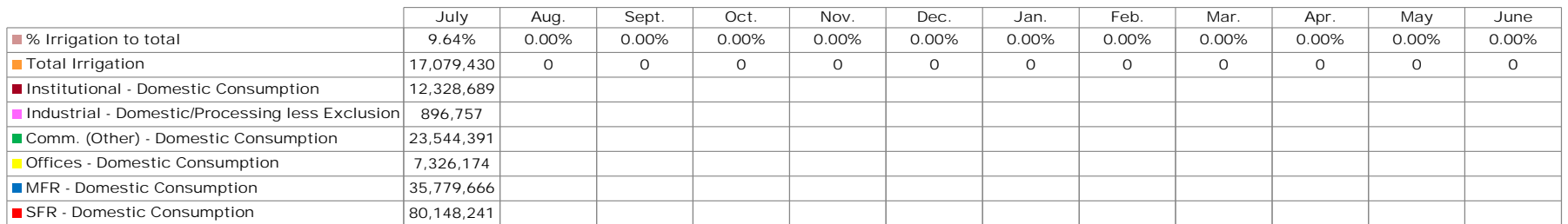
FY 2023, 2024, and 2025 Scottsville Sewer Comparison ACSA Billed Sewer Usage & RWSA Billed Sewer Charges

Charges & Revenues (in Thousands of Dollars)

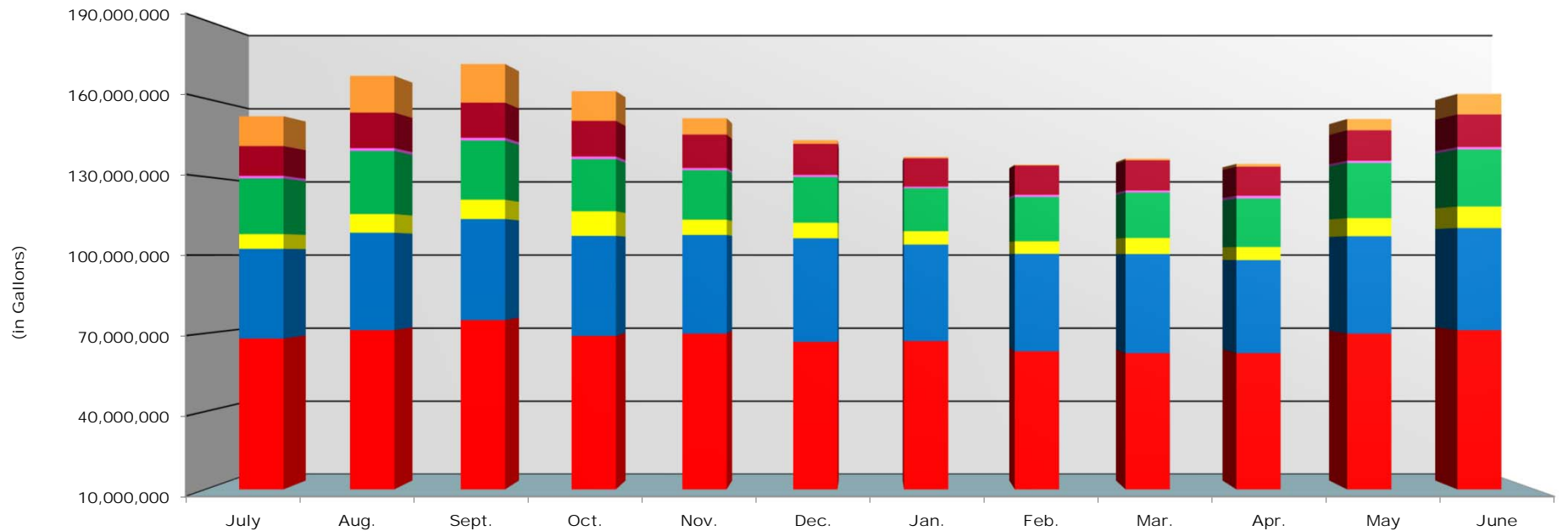


	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24
ACSA Revenue	\$8.48	\$8.11	\$8.57	\$7.47	\$8.15	\$7.46	\$7.44	\$7.53	\$7.19	\$3.22	\$7.74	\$8.58	\$8.42	\$8.95	\$8.07	\$8.33	\$7.44	\$7.42	\$7.96	\$8.02	\$7.61	\$9.05	\$9.36	\$10.30	\$11.05
RWSA Charges	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$30	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$34	\$36
Difference	-\$22	-\$22	-\$22	-\$23	-\$22	-\$23	-\$23	-\$23	-\$23	-\$27	-\$23	-\$22	-\$25	-\$25	-\$25	-\$25	-\$26	-\$26	-\$26	-\$26	-\$26	-\$25	-\$24	-\$23	-\$25
Fiscal YTD Difference	-\$0.02	-\$0.04	-\$0.07	-\$0.09	-\$0.11	-\$0.13	-\$0.16	-\$0.18	-\$0.20	-\$0.23	-\$0.25	-\$0.28	-\$0.03	-\$0.05	-\$0.08	-\$0.10	-\$0.13	-\$0.15	-\$0.18	-\$0.20	-\$0.23	-\$0.25	-\$0.28	-\$0.30	-\$0.03

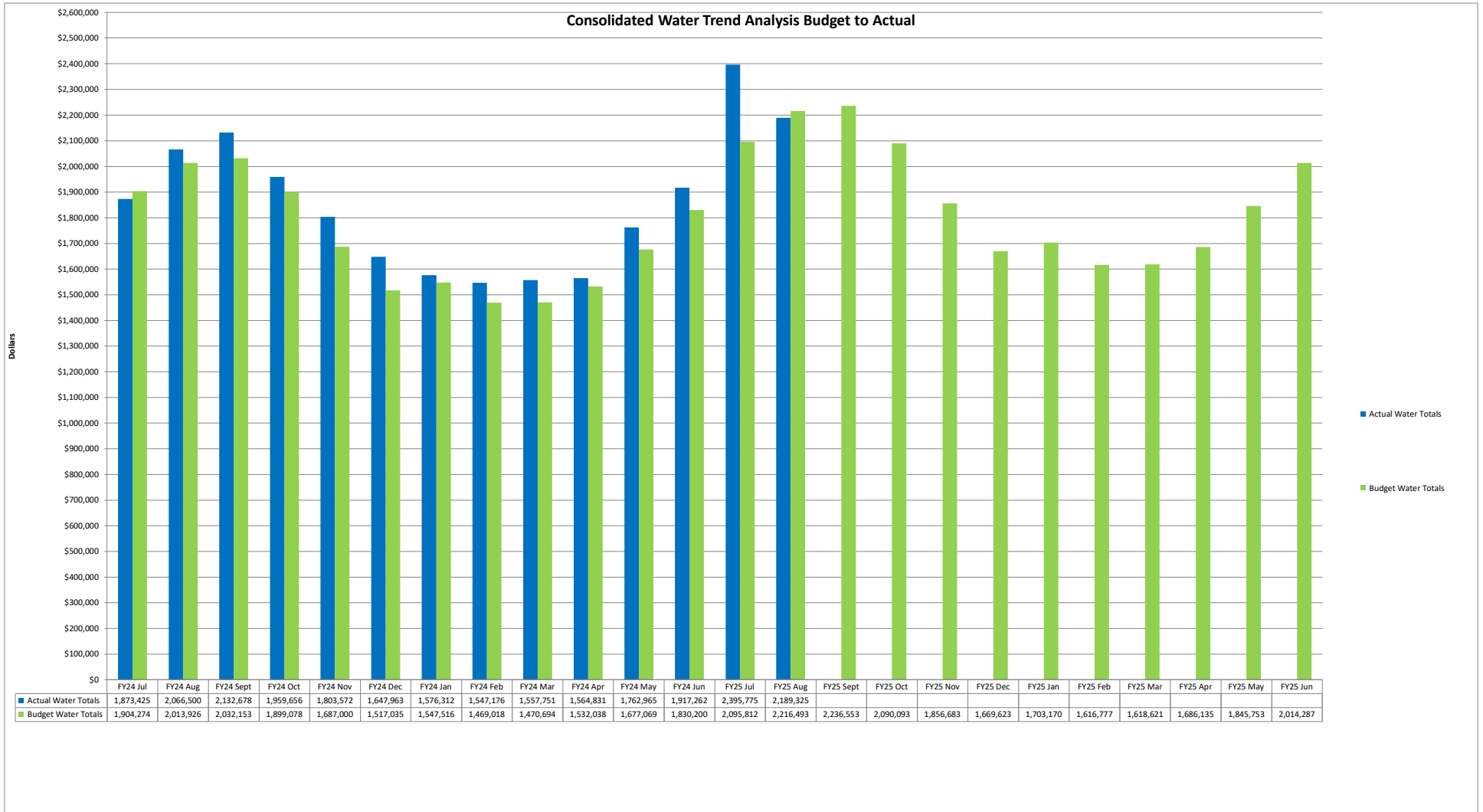
Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

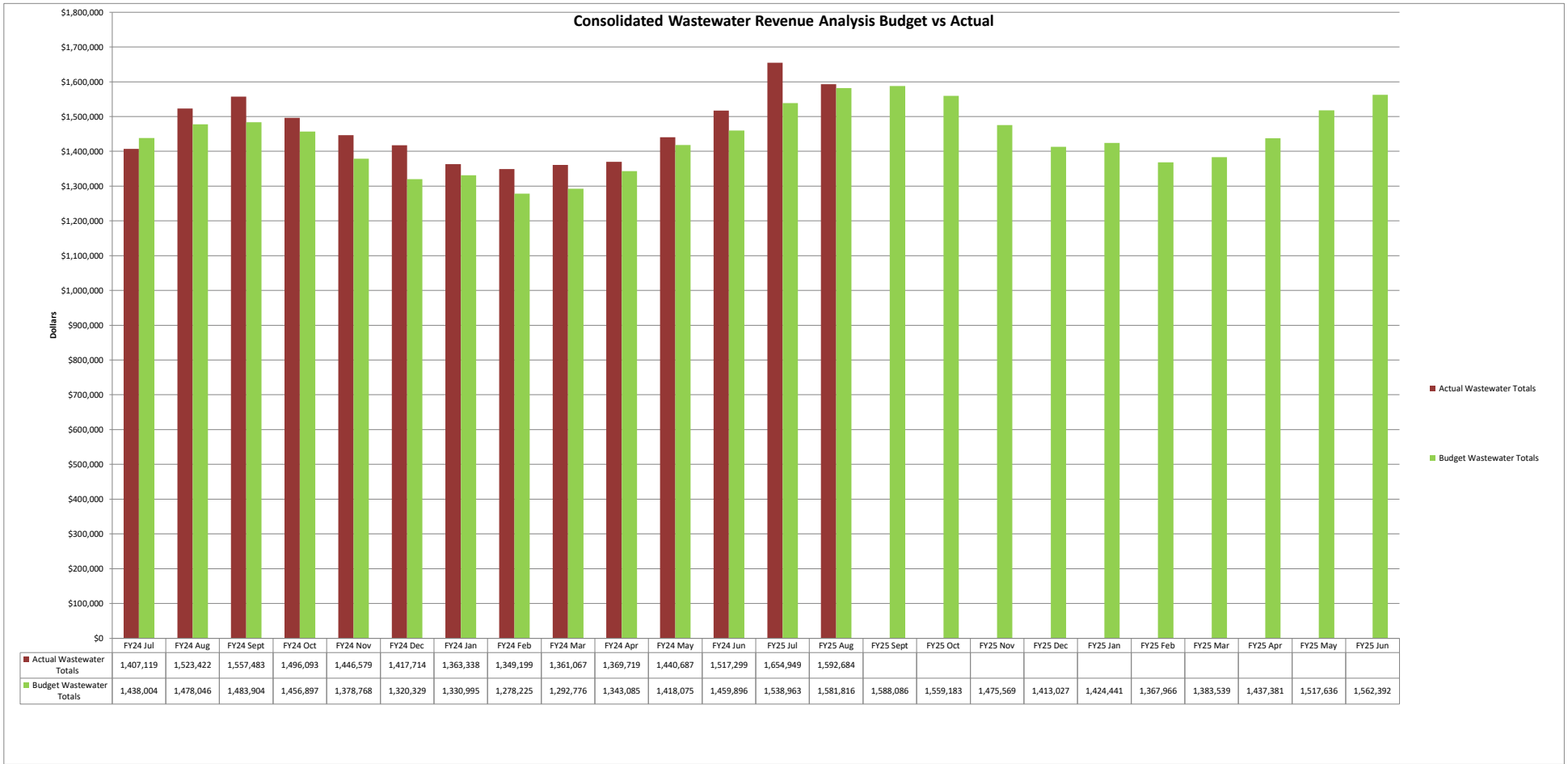


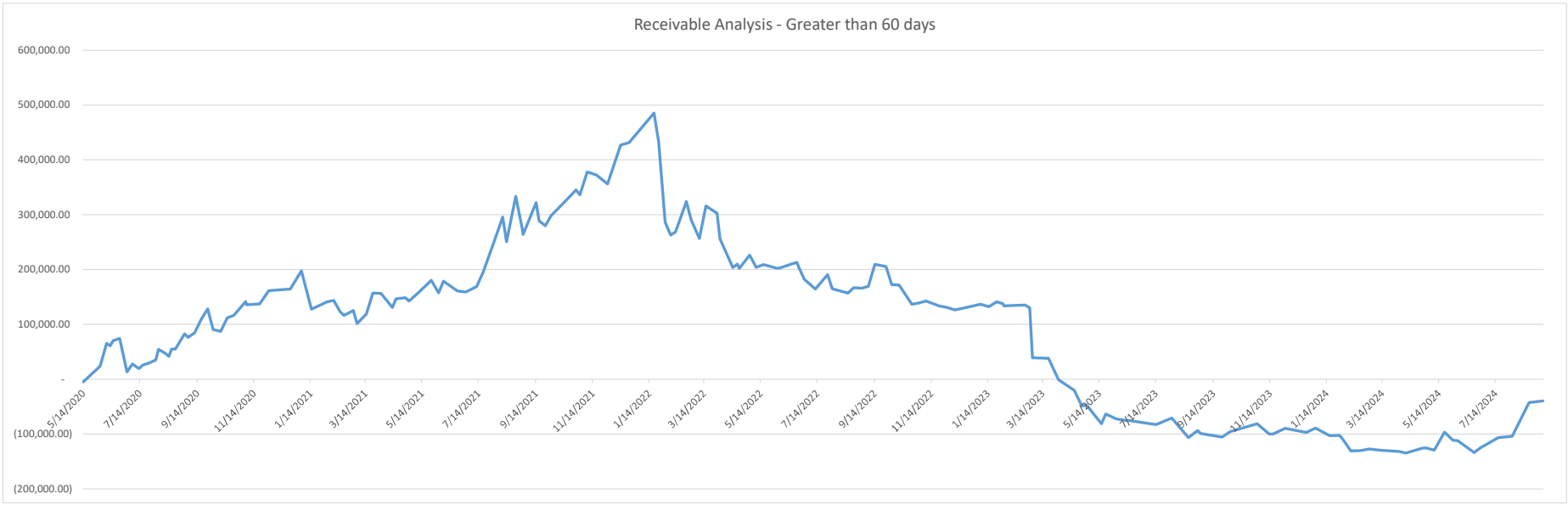
Monthly Water Consumption Fiscal Year 2024



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	7.48%	8.35%	8.57%	7.01%	4.10%	1.02%	0.36%	0.25%	0.47%	0.80%	2.85%	4.88%
Total Irrigation	11,456,536	14,098,787	14,847,145	11,424,153	6,256,436	1,469,709	498,886	334,491	638,165	1,075,842	4,335,899	7,891,307
Institutional - Domestic Consumption	11,422,399	13,645,824	13,463,936	13,656,468	12,824,386	11,907,305	10,858,597	11,228,113	11,589,322	11,148,142	11,655,610	12,507,954
Industrial - Domestic/Processing less Exclusion	966,653	1,077,656	1,057,633	1,026,110	861,358	803,364	609,853	850,907	820,801	1,073,059	877,108	942,031
Comm. (Other) - Domestic Consumption	21,360,672	24,192,909	22,706,395	19,990,643	18,980,282	17,518,883	16,504,729	16,999,535	17,370,595	18,578,119	21,141,516	21,882,439
Offices - Domestic Consumption	5,673,746	7,197,381	7,399,598	9,429,273	5,856,409	5,992,764	5,129,796	4,792,091	6,193,567	5,037,281	6,951,469	8,226,787
MFR - Domestic Consumption	34,431,191	37,357,730	38,794,918	38,384,145	37,854,340	39,754,868	37,028,178	37,421,461	37,990,377	35,663,074	37,363,418	39,186,516
SFR - Domestic Consumption	67,945,359	71,189,646	75,030,729	68,975,926	69,843,962	66,666,670	66,994,095	63,050,754	62,387,420	62,393,044	69,866,621	71,194,441







Albemarle County Service Authority

August 2024 Payments

CHECK NUMBER	CHECK DATE	VENDOR NAME	AMOUNT	DESCRIPTION OVER \$5,000
Wire	08/06/2024	Rivanna Water & Sewer Authority	2,622,835.05	Water & Sewer Treatment
69929	08/01/2024	Valley Contracting LLC	936,002.58	Crozet Phase 4 Watermain
ACH	08/15/2024	Payroll	188,735.33	Payroll
ACH	08/30/2024	Payroll	183,443.50	Payroll
69965	08/15/2024	Commonwealth Excavating	83,481.25	Biscuit Run Sewer
503677708	08/15/2024	IRS - Federal Tax Deposit	69,852.16	Payroll
505765366	08/30/2024	IRS - Federal Tax Deposit	66,522.72	Payroll
69861	08/01/2024	Dewberry Engineers Incorporated	61,062.00	Townwood Water Main
69890	08/01/2024	M C Dean Incorporated	50,886.54	SCADA Phase 3 Final
Wire	08/20/2024	The Bank of New York Mellon	47,929.90	Debt Service
503677704	08/30/2024	Virginia Retirement System	41,646.53	Payroll
505765362	08/30/2024	Virginia Retirement System	41,646.22	Payroll
69840	08/01/2024	Anderson Construction Incorporated	41,372.12	Madison Park Pump Station
505765365	08/30/2024	County of Albemarle	40,647.72	Payroll
503677707	08/30/2024	County of Albemarle	38,382.44	Payroll
69933	08/01/2024	Whitman, Requardt & Assoc LLP	36,461.42	Broadway Street WMRP
69909	08/01/2024	Ramboll Americas Engineering	31,707.00	Briarwood Water Main
69905	08/01/2024	Paymentus Corporation	31,018.43	Transaction Fees
69968	08/15/2024	County of Albemarle	30,106.11	Reimbursement ECC 800 MHz
69870	08/01/2024	Elemental Ecotech Incorporated	24,000.00	Broadway Street - Easement
69957	08/15/2024	Bank of America	23,781.52	Supplies & Memberships
69899	08/01/2024	Michael Baker International Inc	21,233.75	Belair - Liberty Hills Sewer
69930	08/01/2024	Virginia Department of Health	16,987.50	Waterworks Operation Fee
69887	08/01/2024	L/B Water Service Incorporated	15,524.85	Inventory
69907	08/01/2024	Provantage LLC	12,475.00	DOF & Cust Service Computers
503677709	08/15/2024	Virginia Dept of Taxation	12,240.12	Payroll
505765367	08/30/2024	Virginia Dept of Taxation	11,612.18	Payroll
69872	08/01/2024	EWT Holdings III Corporation	10,595.58	Bioxide
70012	08/15/2024	RLM Parks Edge Owner LLC	10,445.19	Whitewood Village - Refund
70028	08/15/2024	Cellco Partnership	10,380.57	Cellular Service
69985	08/15/2024	Lenny Campbell Service Company Incorporated	9,998.75	FuelMaster Upgrade to FMLive
69995	08/15/2024	Networks 2000	9,659.45	Extended Warranty on Servers
69971	08/15/2024	Dominion Energy Virginia	7,704.92	Energy
69991	08/15/2024	Mansfield Oil Company of Gainesville Inc	7,323.78	Fuel
69925	08/01/2024	The El Group Incorporated	7,000.00	Forklift Training (3 Sessions)
69986	08/15/2024	Letterpress Communications LLC	6,868.51	Communications Consultant
505765364	08/30/2024	VALIC	5,502.50	Payroll
69970	08/15/2024	Ditch Witch of Roanoke Incorporated	5,350.48	Pipe Locator
503677706	08/15/2024	VALIC	5,232.50	Payroll
70007	08/15/2024	The Pitney Bowes Bank Incorporated	4,900.00	
69984	08/15/2024	L/B Water Service Incorporated	4,671.92	
69895	08/01/2024	US Electrical Services Incorporated	4,547.86	
69916	08/01/2024	RSG Landscaping LLC	4,400.57	
503677703	08/15/2024	Nationwide	4,298.00	
505765361	08/30/2024	Nationwide	4,298.00	
69865	08/01/2024	Dominion Energy Virginia	4,054.77	
505765359	08/30/2024	ICMA Membership Renewals	3,903.52	
503677701	08/15/2024	ICMA Membership Renewals	3,902.32	
69869	08/01/2024	Ed's Floor Care Services LLC	3,703.33	
69988	08/15/2024	Lowe's	3,683.65	
69893	08/01/2024	Mansfield Oil Company of Gainesville Inc	3,437.44	
69878	08/01/2024	AGILIS LLC	3,424.00	
69976	08/15/2024	AGILIS LLC	3,212.00	
69966	08/15/2024	Concrete Pipe & Precast LLC	3,120.00	

69906	08/01/2024	PFM Asset Management LLC	2,996.10
69954	08/15/2024	Atlantic Emergency	2,904.11
69975	08/15/2024	Flora Pettit PC	2,812.50
69963	08/15/2024	Thomas Shifflett	2,750.00
69837	08/01/2024	Allison Partners	2,695.00
69949	08/15/2024	Access Wireless Data Solutions LLC	2,617.35
70026	08/15/2024	Validos LLC	2,465.00
69972	08/15/2024	Ferguson US Holdings Inc	2,208.59
69959	08/15/2024	Capital Lighting & Supply LLC	2,062.59
69844	08/01/2024	Aquatic Informatics, Inc.	1,958.00
70031	08/15/2024	VA Utility Protection Service Inc	1,953.85
69875	08/01/2024	Ferguson US Holdings Inc	1,928.05
69910	08/01/2024	Rappahannock Electric Cooperative	1,899.41
70034	08/30/2024	Guardian	1,871.18
69866	08/01/2024	Duncan Parnell	1,825.00
69948	08/15/2024	AgileBits Incorporated	1,821.80
69856	08/01/2024	Comcast	1,742.90
503677711	08/15/2024	ACSA Flexible Spending	1,573.15
505765369	08/30/2024	ACSA Flexible Spending	1,573.15
69990	08/15/2024	Mailing Services of Virginia	1,551.48
70020	08/15/2024	Traffic Safety Supplies LLC	1,500.00
69879	08/01/2024	Fortiline Incorporated	1,480.72
70037	08/30/2024	Minnesota Life Insurance Co	1,456.39
503677710	08/15/2024	Flexible Benefit	1,442.50
505765368	08/30/2024	Flexible Benefit	1,442.50
69946	08/05/2024	Ferguson US Holdings Inc	1,250.00
69862	08/01/2024	Ditch Witch of Roanoke Incorporated	1,201.83
70010	08/15/2024	Rivanna Solid Waste Authority	1,170.00
70013	08/15/2024	S L Williamson Company Inc	1,061.47
69897	08/01/2024	McCarthy Tire Service	1,032.98
70011	08/15/2024	Rivanna Water & Sewer Authority	1,011.87
69891	08/01/2024	Mailing Services of Virginia	990.00
69989	08/15/2024	Luck Stone Corporation	976.64
505765358	08/30/2024	VACORP	955.24
69852	08/01/2024	BRC Enterprises Incorporated	865.10
69836	08/01/2024	Advance Stores Company Inc	863.15
69992	08/15/2024	US Electrical Services Incorporated	809.35
69902	08/01/2024	Moore's Electrical & Mechanical	795.00
503677705	08/30/2024	AFLAC	778.32
505765363	08/30/2024	AFLAC	778.32
69993	08/15/2024	MSB Coach	769.00
69958	08/15/2024	Blue Ridge Trailer Sales &	762.50
69888	08/01/2024	Amy Leider	749.42
69983	08/15/2024	LB Technology Incorporated	700.00
69997	08/15/2024	ODP Business Solutions LLC	642.56
70024	08/15/2024	HD Supply Facilities Maint LTD	641.83
70032	08/15/2024	Lendmark Financial Services	635.69
70036	08/30/2024	Lendmark Financial Services	635.69
69892	08/01/2024	Malloy Chevrolet Charlottesville LLC	618.40
69903	08/01/2024	ODP Business Solutions LLC	613.54
69883	08/01/2024	James River Equipment	588.66
503677702	08/30/2024	ACAC	583.00
70005	08/15/2024	Rivanna Trail Foundation	581.50
69977	08/15/2024	Hach Company	566.00
69950	08/15/2024	Advance Stores Company Inc	559.20
69952	08/15/2024	Automotive Parts Incorporated	553.91
69859	08/01/2024	Crown Communication LLC	546.36

69919	08/01/2024	S L Williamson Company Inc	530.58
69842	08/01/2024	Applied Industrial Technologies Incorporate	520.36
70017	08/15/2024	Macro Retailing LLC	506.95
69911	08/01/2024	Red Bud Supply Incorporated	485.20
505765360	08/30/2024	ACAC	473.00
69928	08/01/2024	HD Supply Facilities Maint LTD	466.70
69855	08/01/2024	Comcast	430.44
69978	08/15/2024	Hathaway Solutions LLC	401.97
69843	08/01/2024	Aqua Air Laboratories Inc	400.00
69885	08/01/2024	MidOcean JF Acquisition Corporation	391.00
70008	08/15/2024	Red Wing Business Advantage Account	388.59
69931	08/01/2024	Protocol SSD Corporation	375.86
69845	08/01/2024	Sandra Ballif	372.30
69923	08/01/2024	Macro Retailing LLC	364.98
69886	08/01/2024	Wisconsin Quick Lube Inc	342.24
70022	08/15/2024	U. S. Bank	331.66
69889	08/01/2024	Luck Stone Corporation	329.88
69894	08/01/2024	Martin Marietta Materials Incorporated	304.40
69940	08/02/2024	Linda Bumgardner	300.00
69896	08/01/2024	Amy Mayo	292.68
70025	08/15/2024	UVA-WorkMed	280.00
69857	08/01/2024	County of Albemarle	277.36
505765357	08/21/2024	Energy Earth LLC	275.00
69908	08/01/2024	Josiah Ragland	266.52
69914	08/01/2024	Ricoh USA Incorporated	259.89
70021	08/15/2024	Diane Tyburski	258.59
69913	08/01/2024	Rexel USA Incorporated	257.35
69935	08/01/2024	Williams Company - Southeast	231.11
69961	08/15/2024	Carter Machinery Company Incorporated	226.80
69922	08/01/2024	CM Turf	224.00
69858	08/01/2024	Amy Cox	219.01
69982	08/15/2024	Karin Kirn	217.61
70018	08/15/2024	TSRC Incorporated	216.24
69962	08/15/2024	Indpndnt Bttry Retailers of America	212.19
70009	08/15/2024	Republic Services #410	200.84
69999	08/15/2024	Diane Krehmeyer	200.00
70000	08/15/2024	Erin Tracy	200.00
70003	08/15/2024	Mary Llewellyn	200.00
70006	08/15/2024	Stephen Schmitz	200.00
69941	08/02/2024	MUKESH VAKIL	197.96
69912	08/01/2024	Red Wing Brands of	188.59
69969	08/15/2024	Harris Systems USA Incorporated	180.00
69947	08/06/2024	Hillary Oyolla	166.00
70027	08/15/2024	VAMAC Incorporated	140.06
69934	08/01/2024	William A Wells	140.00
69967	08/15/2024	Core & Main LP	137.71
69979	08/15/2024	Hawkins-Graves Incorporated	136.04
70035	08/30/2024	Herbert Beskin Trustee	135.00
69839	08/01/2024	American Pest Incorporated	123.78
70014	08/15/2024	Juanita Saunders	121.85
69924	08/01/2024	Allison Teweles	116.51
69901	08/01/2024	Susan Moffett	114.12
69874	08/01/2024	FedEx	113.33
69945	08/02/2024	Virginia Dept of Transportation	110.00
69849	08/01/2024	MWP Supply Incorporated	107.48
69981	08/15/2024	Wisconsin Quick Lube Inc	104.91
69936	08/01/2024	John Wilson	101.36

69937	08/02/2024	Joseph Schleifer	100.00
69939	08/02/2024	Kenneth Buynak	100.00
69943	08/02/2024	William Johnson	100.00
69944	08/02/2024	Virginia Dept of Transportation	100.00
70030	08/15/2024	Virginia Dept of Transportation	100.00
69877	08/01/2024	Flexible Benefit Administrators Inc	98.00
69987	08/15/2024	Linde Gas & Equipment Incorporated	95.00
69851	08/01/2024	Culpeper Auto Parts Incorporated	91.18
69951	08/15/2024	BPB Holding Corporation	89.35
69900	08/01/2024	Matthew Miller	85.68
69996	08/15/2024	Noland Company	83.58
70033	08/30/2024	Anytime Fitness-Pantops	80.00
70038	08/30/2024	Snap Fitness	79.92
503677712	08/01/2024	Energy Earth LLC	75.00
69960	08/15/2024	MWP Supply Incorporated	70.46
69863	08/01/2024	Document Destruction of	69.95
69860	08/01/2024	Crozet Hardware Co., Inc.	69.56
70016	08/15/2024	Specialty Fasteners of	67.78
69994	08/15/2024	Collin Murray	61.63
69864	08/01/2024	Department of Labor and Industry	60.00
69953	08/15/2024	API Service Center	58.42
69980	08/15/2024	Willie Lee Hines	57.17
69884	08/01/2024	Dawn Jenkins	56.89
505765370	08/29/2024	Energy Earth LLC	50.00
69917	08/01/2024	Ryan Homes	48.26
69974	08/15/2024	Flexible Benefit Administrators Inc	42.35
69927	08/01/2024	University Tire & Auto	40.00
70023	08/15/2024	University Tire & Auto	40.00
69956	08/15/2024	Linda Austin	39.82
69850	08/01/2024	Central Virginia	38.20
69932	08/01/2024	Ellen Wham	35.08
69880	08/01/2024	Diana Franco	34.09
69973	08/15/2024	Fisher Auto Parts Incorporated	31.93
69841	08/01/2024	Appalachian Power	31.80
69938	08/02/2024	Judy Mullen	30.00
69942	08/02/2024	Tom Briedis-Ruiz	30.00
69998	08/15/2024	Brian Maeng	30.00
70001	08/15/2024	Jane Miller	30.00
70002	08/15/2024	Martha Devening	30.00
70004	08/15/2024	Richard Maroney	30.00
69873	08/01/2024	Linda Farina	29.41
69876	08/01/2024	Fisher Auto Parts Incorporated	28.77
69854	08/01/2024	City of Charlottesville	27.23
69846	08/01/2024	Nancy Brinkac	24.34
70015	08/15/2024	Karl Schwolow	23.70
69838	08/01/2024	BPB Holding Corporation	21.75
69920	08/01/2024	Ali Seerwan	20.83
69847	08/01/2024	Capital Lighting & Supply LLC	20.59
69918	08/01/2024	Roger Rydin	20.47
69881	08/01/2024	Katharine F Griffin	17.72
69848	08/01/2024	Emma Carden	17.33
69871	08/01/2024	Mary Ellis	17.21
69926	08/01/2024	Traffic Safety Supplies LLC	14.00
69898	08/01/2024	Kelly McCormick	11.39
70029	08/15/2024	Marcus & Angela Viles	11.35
69964	08/15/2024	City of Charlottesville	11.10
69853	08/01/2024	Carrie Cifers	10.67

69955	08/15/2024	Augusta Cooperative Farm Bureau	8.97
69921	08/01/2024	Mrs. Frank B Sloop	7.48
69868	08/01/2024	Randal Ecker	7.16
69915	08/01/2024	Carol Rollins	6.71
70019	08/15/2024	Thryv Incorporated	6.50
69867	08/01/2024	Brian Dupre	3.61
69882	08/01/2024	Tim Griffith	3.02
			5,030,729.81

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: FY 2025 Capital Improvement Program (CIP) Report STAFF CONTACT(S)/PREPARER: Jeremy M. Lynn, P.E., Director of Engineering	AGENDA DATE: September 19, 2024 CONSENT AGENDA: ACTION: ■ INFORMATION: ■ ATTACHMENTS: YES
---	---

BACKGROUND: Monthly CIP Memo including a status report on active CIP Projects and a list of Active Private Development Projects.

DISCUSSION:

- Questions about the status of active CIP Projects.
- Questions about the status of active Private Development Projects.

BUDGET IMPACT: None.

RECOMMENDATIONS: None.

BOARD ACTION REQUESTED: Approval of the Consent Agenda.

ATTACHMENTS:

- Monthly CIP Report
- List of Active Private Development Projects

Albemarle County Service Authority (ACSA)
Capital Improvement Program Report
September 2024

Water System CIP Projects

1. Crozet Phase 4 Water Main Replacement (Account Code 1756):

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Construction
Percent Complete:	50%
Contractor:	Valley Contracting, LLC (Valley)
Construction Start:	January 2024
Completion:	September 2025
Total Budget:	\$7,322,350
Spent to Date:	\$3,513,455.90

Project Description: This project continues our systematic program to replace the aging and undersized asbestos-cement and PVC water mains in the Crozet Water System. Roads impacted by water replacement work include Crozet Avenue (Route 240), Rockfish Gap Turnpike (Route 250), Hillsboro Lane, Brownsville Road, and the neighborhood streets in Park View. This is the fourth of five phases that have been defined to carry out these improvements. Project Length = 19,400 LF.

9/10/2024: Valley has installed the new water main along Crozet Avenue north to Lickinghole Creek. Their second crew has installed all the replacement water mains in the Park View subdivision and is in the process of switching over water services to the new main.



2. Scottsville Phase 4 Water Main Replacement (Account Code 1758):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2027
Total Budget:	\$7,554,900
Spent to Date:	\$519,330.78

Project Description: This project continues our systematic program to replace undersized and deteriorating asbestos-cement and cast-iron water mains throughout our water distribution system. Roads impacted by water replacement work include James River Road, Warren Street, Hardware Street, Moores Hill, and the downtown streets of Page, Bird, and West Main. This project requires extensive coordination with the Rivanna Water and Sewer Authority (RWSA) as it includes the replacement of their asbestos-cement water main along James River Road. Project Length = 13,700 LF.

9/10/2024: ACSA and WRA staff attended the Scottsville Town Council Meeting on August 19, 2024, as easement acquisition efforts continue. To date, two easements have been obtained.

3. Ragged Mountain Phase 1 Water Main Replacement (Account Code 1760):

Consultants:	Dewberry Engineers, Inc. (Dewberry) and Kimley-Horn and Associates (KHA)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	Undetermined
Completion:	Undetermined
Total Budget:	\$2,436,400
Spent to Date:	\$190,017.14

Project Description: This project will replace the oldest active water main remaining in our system serving residents along Fontaine Avenue Extended and Reservoir Road. This cast iron pipe is over 90 years old and is severely tuberculated, which significantly reduces the flow capacity in this section. Project Length = 1,800 LF.

9/10/2024: RWSA's Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Main and Raw Water Pump Station Project was advertised on August 20, 2024, with bids due October 1, 2024. Comments on the bid documents were provided to RWSA on August 26, 2024, for incorporation into an addendum. Three easements will be required for this project.

4. Northfields Water Main Replacement (Account Code 1764):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2026
Completion:	2027
Total Budget:	\$7,530,000 Water and \$820,000 Sewer
Spent to Date:	\$454,672.62

Project Description: This project continues our systematic program to replace the aging and undersized asbestos-cement water mains in our system. The existing water mains are approximately 55 years old and have reached the end of their useful life. As a former well system that was connected to public water, most of the mains are also undersized. During design of the Northfields Water Main Replacement Project, ACSA staff identified several sections of sanitary sewer that could be installed along the roadway in coordination with the water main replacement work. These efforts will provide sanitary sewer service to nearly 20 existing neighborhood properties currently served by private septic fields. Project Length = 22,000 LF.

9/10/2024: Submission of the draft easement plats has been delayed, but Ramboll is pushing to get back on track. Comments on the 90% Design Documents have been addressed by Ramboll and they are going through their internal QA/QC/Constructability reviews ahead of submitting the 100% Design Documents.

5. Huntington Village Water Connection (Account Code 1770):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	0%
Contractor:	Rocktown Excavating (Rocktown)
Construction Start:	2024
Completion:	2025
Total Budget:	\$60,700
Spent to Date:	\$2,012

Project Description: The existing water main that serves as the only feed into Huntington Village off Old Ivy Road is at risk of failure due to an existing rock retaining wall that was constructed overtop of the water main. This project provides a second water connection into Huntington Village which is comprised of approximately 135 residential customers.

9/10/2024: The Work Order has been issued to Rocktown and they are working on pricing the Maintenance of Traffic (MOT) plan required by VDOT.

6. **Briarwood Water Main Replacement (Account Code 1766):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2026
Total Budget:	\$2,730,000
Spent to Date:	\$215,564.69

Project Description: This project continues our systematic program to replace PVC water mains that have been in service since the early 1980's and have recently experienced several breaks causing water service disruptions. Project Length = 5,700 LF.

9/10/2024: Easement acquisition efforts are underway and two of the four required easements have been obtained. ACSA staff have been in discussions with the other two properties owners, one of which has provided a verbal agreement to granting the necessary easement. A meeting is scheduled for the evening of October 10, 2024, at the North Fork Research Park for public outreach and to share information on the project with the neighborhood.

7. **Barracks West Water Main Replacement (Account Code 1769):**

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	95%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2025
Total Budget:	\$3,402,500
Spent to Date:	\$219,131.50

Project Description: This project will replace the undersized and aging cast iron and galvanized water mains that were installed in the late 1960's. These water mains are original to the Old Salem Apartments development, now called Barracks West. This project follows our Strategic Plan goal to replace aging and undersized water mains throughout our system and will provide for an opportunity to improve fire protection to these multi-family apartments. Project Length = 4,300 LF.

9/10/2024: The potential sale of the property did not occur as anticipated, so ACSA staff have reengaged with the current owner to obtain the necessary easements.

8. **Townwood Water Main Replacement (Account Code 1773):**

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	90%

Contractor:	Undetermined
Construction Start:	2026
Completion:	2026
Total Budget:	\$2,800,000
Spent to Date:	\$160,017

Project Description: This project continues our systematic program to replace PVC water mains that have been in service since the early 1980's and have recently experienced several breaks causing water service disruptions. Project Length = 3,000 LF.

8/7/2024: The 90% Design Documents have been received and are under review by ACSA staff.

9. Broadway Street Water Main Replacement (Account Code 1768):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$1,667,800
Spent to Date:	\$139,183.97

Project Description: This project will replace the ductile iron water main that was installed in the early 1970's and has been found to be in deteriorating condition based on recent excavations. With the redevelopment of the Woolen Mills Factory and Albemarle County's increased attention on economic revitalization of this corridor, replacement of this water main is crucial in transforming this area. Project Length = 1,500 LF.

9/10/2024: This project has been advertised for construction and the Pre-Bid Meeting is scheduled for September 12, 2024. The bid opening is scheduled for September 26, 2024.

10. Raintree and Fieldbrook Water Main Replacement (Account Code 1771):

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2027
Completion:	2028
Total Budget:	\$6,432,300
Spent to Date:	\$162,235.80

Project Description: This project continues our systematic program to replace the PVC water mains in the Raintree and Fieldbrook subdivisions that have been in service since the early 1980's. In addition to replacing these PVC mains, this

project will also eliminate pipe saddles at the water service connections that have been failing due to corrosion. Project Length = 12,000 LF.

9/10/2024: Field survey efforts of the additional sections (Snowden Drive, Surry Hill Court and a portion of Old Brook Road) added to the project have been completed and Baker is working on updating the design documents.

11. Exclusion Meters Replacement (Account Code 1759):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	59%
Contractor:	ACSA and Irrigation Contractors
Construction Start:	September 2019
Completion:	2025
Total Budget:	\$527,500
Spent to Date:	\$312,299.81

Project Description: In the mid 1990's with the development of Glenmore, many new customers installed irrigation systems for their properties and wanted to have their sewer bills reduced by the amount of water that was diverted to irrigate their properties. Private meters were installed behind their ACSA meter to record this volume and it was "excluded" from the calculation of their sewer charges and these became known as exclusion meters. On January 1, 2006, the ACSA Rules and Regulations were modified to no longer allow private exclusion meters and required all future irrigation meters be tapped separately off our water mains. This project is a multi-year replacement program by our in-house CIP Crew to install dedicated, ACSA owned irrigation meters that will eliminate all remaining exclusion meters in our system.

9/10/2024: ACSA staff continues to work closely with several irrigation contractors to upgrade private exclusion meters to be compatible with our AMI system with the ACSA covering these costs. ACSA Maintenance has recently completed several switchovers as well. There are currently 203 private irrigation exclusion meters remaining in our system.

Sewer System CIP Projects

12. Madison Park Pump Station Upgrade (Account Code 1735):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	65%
Contractor:	Anderson Construction, Inc. (ACI)
Construction Start:	October 2022
Completion:	November 2024
Total Budget:	\$1,940,000

Project Description: This wastewater pump station was constructed in the early 1980's by private development and the original equipment is nearing the end of its

useful life. Additionally, the building is undersized creating difficulty in performing routine maintenance and making it impossible to install the control panels necessary to include this pump station in our new SCADA System.

9/10/2024: ACI's electrical subcontractor is working at the site installing the various cabinets and electrical components before power service from Dominion Energy can be reestablished.



13. Airport Trunk Sewer Upgrade (Account Code 1828):

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2026
Completion:	2028
Total Budget:	\$6,683,800
Spent to Date:	\$354,881.57

Project Description: With the continued growth in the Hollymead Town Center area, the existing sewer collector serving the airport and the area west of Route 29 has insufficient capacity to handle full build-out. The existing sewer was originally sized to serve the light industrial zoning designated for that area at the time of construction. The increased density specified in the County Comprehensive Plan for the same drainage basin will exceed the capacity of the existing sewer. A study of the drainage basin was completed in 2016 with the recommendation the sewer main be increased in size by replacing it in place. Project Length = 6,900 LF.

9/10/2024: ACSA staff have recently updated easement valuations based on 2024 County Assessments and will resume easement acquisition efforts later this month. To date, 9 of 24 easements having been obtained.

14. Buckingham Circle Sewer (Account Code 1802):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	0%
Contractor:	Undetermined
Construction Start:	2028
Completion:	2029
Total Budget:	\$2,175,000
Spent to Date:	\$0

Project Description: Over the past few years, numerous residents of the Buckingham Circle Subdivision have contacted the ACSA expressing interest in connecting to public sanitary sewer service. To gauge community interest for such a project, ACSA staff mailed out a survey to the residents seeking feedback on their interest. Based on initial feedback received, more than 70% of the property owners have expressed interest in connecting to public sewer if it was made available.

9/10/2024: Dewberry has requested drainfield records from the Blue Ridge Health District and has been in communication with the County Building Official regarding the required pipe slopes of the private sanitary sewer laterals. Dewberry anticipates submitting their evaluation of the gravity design changes before the end of October 2024.

15. Bellair – Liberty Hills Sewer (Account Code 1829):

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2026
Total Budget:	\$6,893,715
Spent to Date:	\$281,122.56

Project Description: Over the past several years, there has been an uptick in residents of the Bellair Subdivision seeking to connect to public sanitary sewer service since most residents are currently served by private septic fields. To gauge community interest for such a project, ACSA staff mailed out a survey to the residents seeking feedback on their interest. Based on initial feedback received, many of the property owners are interested in connecting to public sewer if it was made available.

6/11/2024: Revised 50% Design Documents have been received and are under review by ACSA staff.

16. Biscuit Run Sewer Replacement (Account Code 1830):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	100%
Contractor:	Commonwealth Excavating, Inc. (CEI)
Construction Start:	April 2024
Completion:	October 2024
Total Budget:	\$479,600
Spent to Date:	\$173,438.98

Project Description: During a routine inspection, the ACSA's Maintenance Department discovered an existing gravity main and manhole along an intermittent stream that drains into Biscuit Run had been exposed due to runoff. This project will replace the sewer segment that crosses the stream with ductile iron pipe and will reinforce the stream bank where the sewer manhole is exposed.

9/10/2024: CEI has completed the stream restoration work and will need to submit a Notice of Termination with the County for project closeout. This project will be removed from the CIP Monthly Report.



17. FY 2025 Miscellaneous Sewer Rehabilitation (Account Code 1909):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	Underway
Contractor:	Prism Contractors & Engineers, Inc. (Prism)
Construction Start:	June 2024
Completion:	June 2025
Total Budget:	\$500,000
Spent to Date:	\$0

Project Description: This project continues our annual “find and fix” program of sanitary sewer rehabilitation to reduce I&I in our system.

9/10/2024: Prism is scheduled to perform the pre-CIPP inspections before the end of September for Work Order No. 1.

Non-Utility and Facility CIP Projects**18. Energy Audit (Account Code 1625):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	40%
Contractor:	ACSA Facilities Group
Construction Start:	July 2023
Completion:	March 2025
Total Budget:	\$390,000
Spent to Date:	\$283,271.01

Project Description: This project consists of a comprehensive energy audit of the Operations Center and all pump stations. The Energy Audit evaluated current energy consumption and the factors that drove it, as well as analysis of our utility rate structures to identify potential cost savings. Surveys were conducted of all systems, including operation and maintenance procedures to determine where energy conservation could be improved. Recommendations from the Energy Audit included: LED Lighting Retrofit, Occupancy Based HVAC Controls, replacement of Domestic Water Heater, improved efficiencies of water and wastewater pumps, pursuit of Electric Fleet Vehicles (EV) and exploration of Solar Photovoltaic renewable energy.

9/10/2024: The Facilities Group is working on the pad for the transformer at the corner of the parking lot.



19. Avon Operations Center (Account Code 1622):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2024
Completion:	2025
Total Budget:	\$18,000,000
Spent to Date:	\$770,733.18

Project Description: As part of the Operations Center Expansion Study our consultant reviewed all properties owned by the ACSA that could be utilized as we continue to grow. The Avon Street property has long been held as a future location to build additional facilities in a central location, as needed. The current Maintenance Yard at our Operations Center is becoming overcrowded with equipment and materials, causing us to locate some equipment and larger materials in the former ACSA Maintenance Yard at the Crozet Water Treatment Plant, which we lease from RWSA. The future expansion of granular activated carbon (GAC) at the Crozet Water Treatment Plant site will result in the loss of much of the ACSA's storage space at that site. This project will begin to develop the Avon Street property into a much larger vehicle and materials storage facility, including a training area for our equipment operators.

9/10/2024: Bid opening for the Avon Operations Center was conducted on August 21, 2024, with four bids received. Below is a summary of the bid results. Dewberry has completed their bid evaluation and recommended the ACSA award the contract to Daniel & Company, Inc. for their bid amount of \$15,149,000. The Notice of Intent to Award was posted on the ACSA website

on August 29, 2024. The Notice of Award will be issued on September 16, 2024.

Contractor	Base Bid Amount
W. M. Jordan Co.	\$16,676,000
Daniel & Company, Inc.	\$15,149,000
Jamerson-Lewis Construction, Inc.	\$16,020,068
The Trent Corporation	\$16,084,000

20. ACSA – Fire Suppression System Replacement (Account Code 1631):

Contractor:	Fire-X Corporation (Fire-X)
Project Status:	Construction
Percent Complete:	98%
Construction Start:	March 2024
Completion:	September 2024
Total Budget:	\$750,000
Spent to Date:	\$878,537.65

Project Description: This project replaces the existing fire suppression system in both the Administration and Maintenance buildings here at our Operations Center. During a recent inspection, it was noted that the piping is beyond its useful life and a complete replacement was recommended. The ACSA anticipates utilizing a Design/Build Contract to perform this work.

9/10/2024: Fire-X is scheduled to complete the remaining work the week of September 9, 2024.

Albemarle County Service Authority (ACSA)
Active Private Development Projects
September 2024

1. 664 West Rio Road (Rio): Water main extension to serve an 88-unit apartment building, as well as a self-storage facility. This site is located east of the intersection of West Rio Road and Berkmar Drive, across from the Daily Progress.
2. Belvedere Phase 3 Block 10 (Rio): Water and sewer main extensions to serve 74 single family homes at the end of Farrow Drive in the back of Belvedere.
3. Berkmar Self-Storage/Hotel (Rio): Water main extension and sewer laterals to serve 92-room hotel and commercial self-storage, located along Berkmar Drive across from Berkmar Overlook and next to Better Living.
4. Brookhill Blocks 16 & 17 (Rivanna): Water and sewer main extensions to serve 135 single family homes in the Brookhill subdivision, located north of Polo Grounds Road and west of the Montgomery Ridge Subdivision.
5. Brookhill Block 18 (Rivanna): Water and sewer main extensions to serve 194 single family homes in the Brookhill subdivision, located along the eastern side of Halsey Avenue and north of the Montgomery Ridge Subdivision.
6. C'Ville Rio Road Apartments (Rio): Water and sewer main extensions to serve 250 apartment units. The site is located along Rio Road West, north of Charlottesville Health and Rehab.
7. Discount Tire (Rio): Water main extension for new hydrant and large meter service for a new commercial building. The site is located at the former Wendy's on the ON ramp to Route 29 South from Rio Road West.
8. Dunlora Park Phase 2 (Rio): Water and sewer main extensions to serve 9 single family attached homes in Dunlora Park, located at the intersection of Rio Road East and Dunlora Drive.
9. Dunlora Village Phase 1 (Rio): Water and sewer main extensions to serve 64 single family homes. This site is located off the southern ends of Fowler Street and Miranda Crossing behind Belvedere.
10. Mountain View Elementary Building Addition (Scottsville): Water main extension to facilitate school expansion.

11. North Pointe - Section 2 (Rivanna): Water and sewer main extensions to serve 162 single family homes. The project is located at the northern end of Cliffstone Boulevard.
12. Rivanna Village Phase 2 (Scottsville): Water and sewer main extensions to serve 178 residential units. This project is located east of the Glenmore Ground Storage Tank and Rivanna Village Phase 1.
13. Southwood Village – Blocks 11 & 12 (Scottsville): Water main extension and sewer laterals to serve 194 multi-family units. This project is located at the intersection of Old Lynchburg Road and Hickory Street.
14. Southwood Redevelopment Village 3 (Scottsville): Water and sewer main extensions to serve 127 single family units and 10 condominium units. This project is located along the eastern side of Horizon Road, south of Hickory Street.
15. UVA Fontaine Research Park – Manning Institute of Biotechnology (Samuel Miller): Water main relocation to serve the approx. 350,000 square foot Manning Institute of Biotechnology. The site is in the existing parking lot, northeast of 450 Ray C Hunt Drive.
16. Woolen Mills Light Industrial (Scottsville): Water and sewer main extensions to serve multiple industrial buildings, totaling 117,000 square feet. The site is located at the corner of Moores Creek Lane and Franklin Street.

ALBEMARLE COUNTY SERVICE AUTHORITY

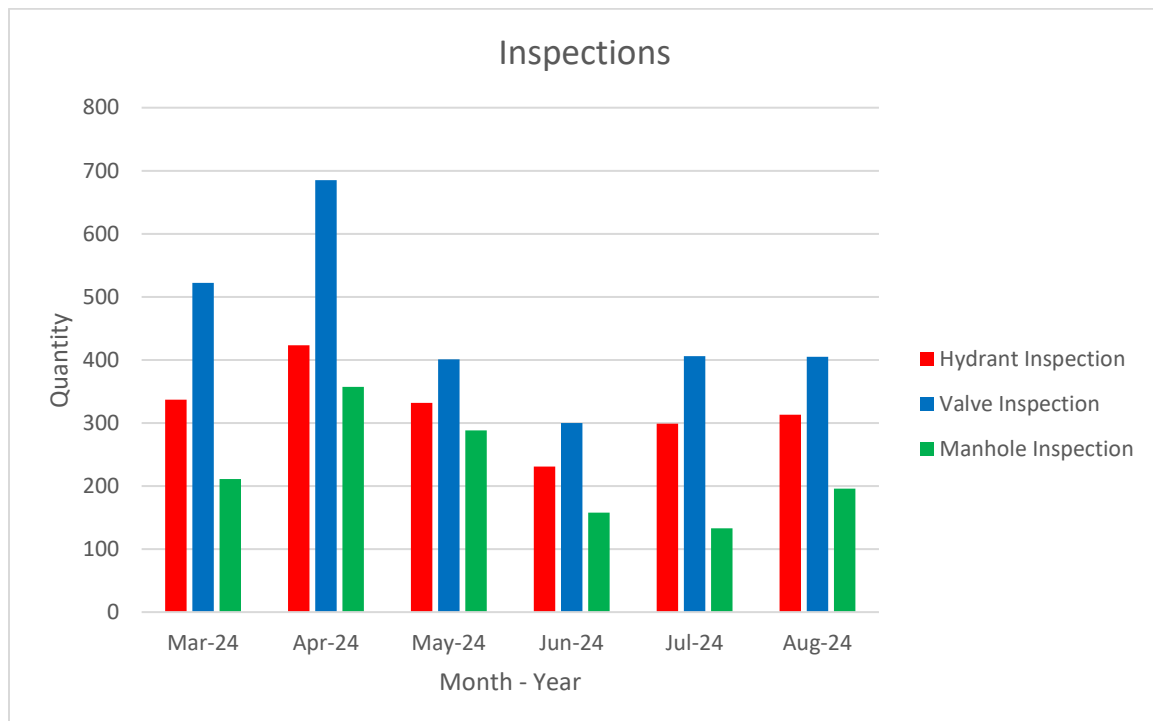
AGENDA ITEM EXECUTIVE SUMMARY

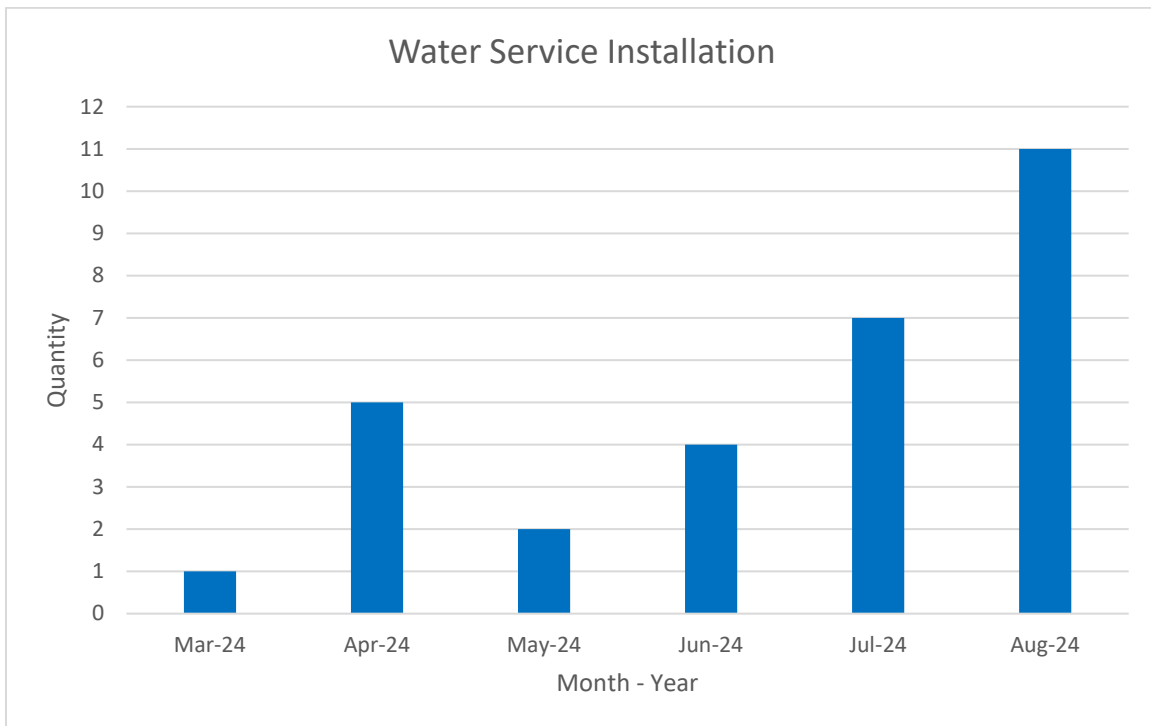
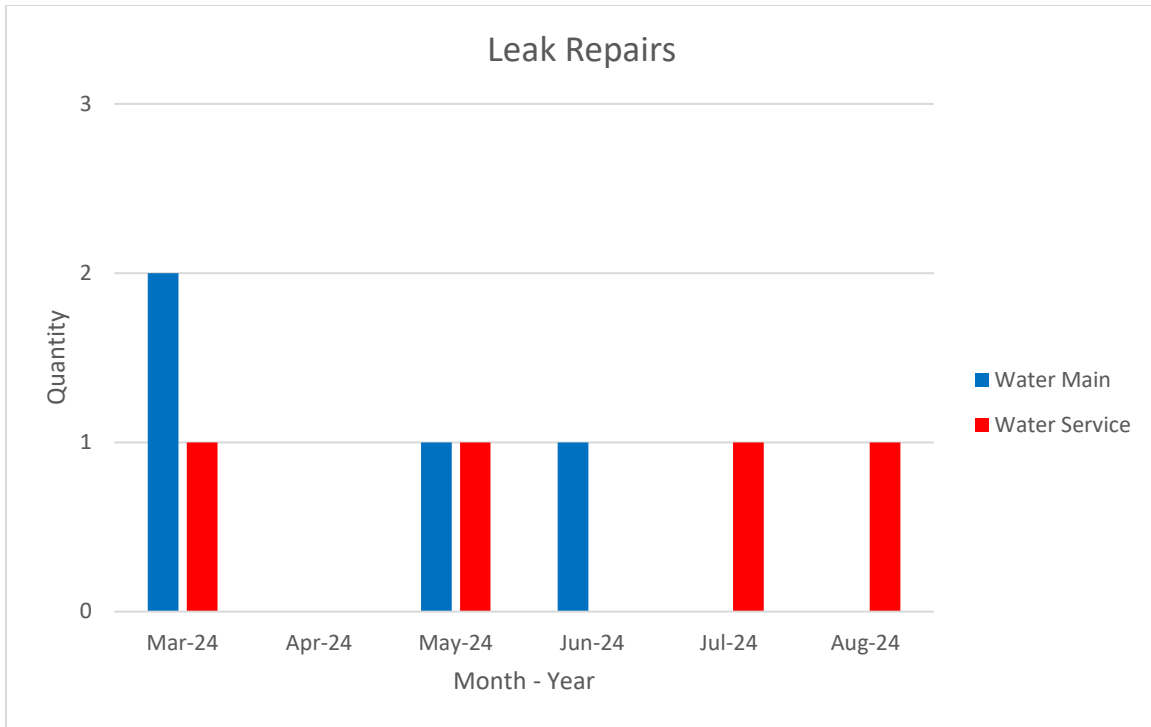
AGENDA TITLE: FY 2025 Monthly Maintenance Update Report STAFF CONTACT(S)/PREPARER: Alexander J. Morrison, P.E., Director of Operations	AGENDA DATE: September 19, 2024 CONSENT AGENDA: ACTION: ■ INFORMATION: ■ ATTACHMENTS: YES
---	---

BACKGROUND:

Current total years of service in the Maintenance Department: 326.7 years
 Current average years of service in the Maintenance Department: 10.2 years
 Current number of employees in the Maintenance Department: 32

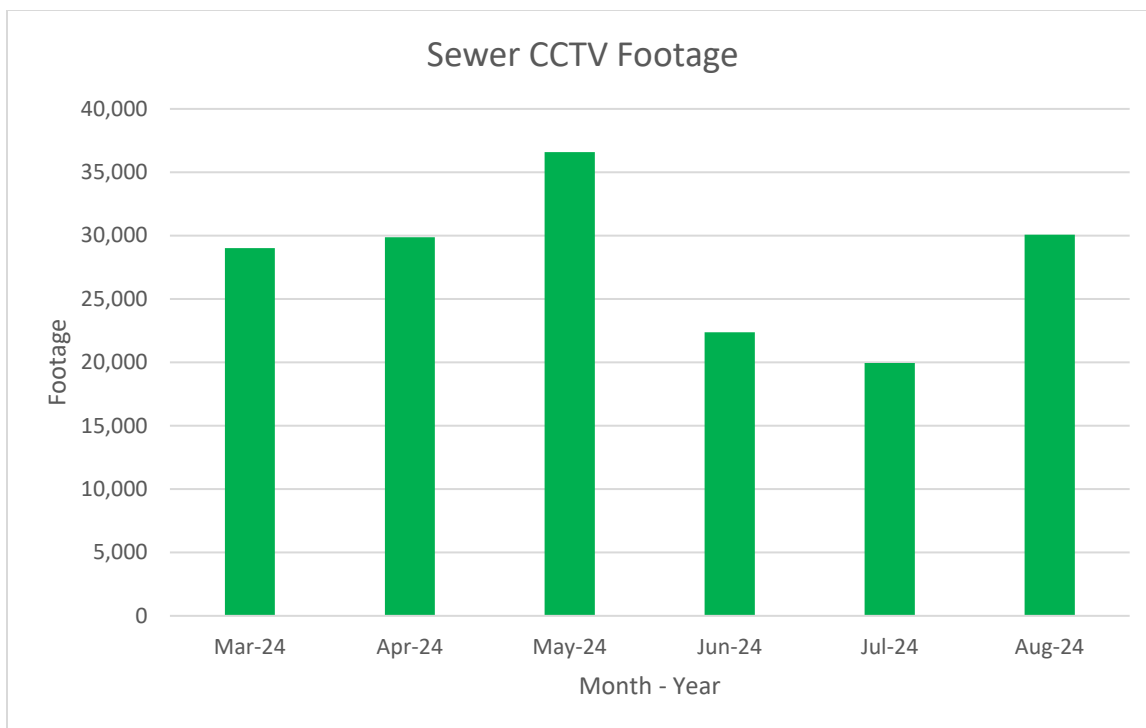
Below are 4 graphs depicting various routine monthly Maintenance Department activities for the previous 6-month period, based on completed Cityworks work orders and inspections.



ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY



DISCUSSION:

- Routine Monthly Maintenance Activities
 - Inspections: Monthly inspections have remained steady in June, July, and August. Inspection numbers during these summer months are consistent with staff availability due to vacations and training activities as well as favorable weather.
 - Leak Repairs: The ACSA had one (1) water service line in Scottsville that was repaired due to a pinhole leak. This area is currently part of the Scottsville Phase 4 Water Main Replacement Project which is nearing design completion.
 - Water Service Installation: New water service installations increased in August as a result of the irrigation season and drier than normal conditions.
 - Sewer CCTV Footage: The monthly footage of sanitary sewer undergoing CCTV inspection increased in August. The footage increase from previous months is attributed to staff availability based on less training and vacation impacts.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

- Miscellaneous Maintenance Activities
 - WetWell Wizard Demonstration at Old Forge: We recently completed a one-month demonstration of the Wet Well Wizard at our Old Forge wastewater pump station. The purpose of this demonstration was to assess whether this technology could help address FOG (fats, oils, and grease) buildup in some of our pump stations, potentially reducing the need for frequent wet well cleaning and decreasing the demand for bioxide at our largest wastewater station. Attachment 1 shows the surface setup of the WetWell Wizard demonstration unit at the Old Forge Wastewater Pump Station. While we are still in the process of reviewing the full results, the initial indications are that the Wet Well Wizard had a positive impact on the wastewater collection system.

The Wet Well Wizard uses a patent-pending aeration tube that agitates and mixes wet well water, preventing the formation of H₂S gas and breaking down FOG. This constant aeration promotes the growth of aerobic microbes that digest organic waste, reducing odors and preventing FOG masses from accumulating. Attachment 2 captures the Wet Well Wizard in the wet well while active, demonstrating how the oxygenated water from the system is pumped downstream, helping to alleviate odor issues in the collection lines. We will continue to evaluate the results of the demonstration to determine whether this technology should be deployed at additional pump stations.

- AED Deployment: As part of our maintenance budget, we have successfully placed an order for AEDs to be deployed in our field vehicles, prioritizing areas where manual labor occurs or job sites are located, which are at higher risk for cardiac events. Additionally, these vehicles operate daily within the community, enabling quick response in the event of a cardiac emergency. Since time is critical during such events, having AEDs readily available could save lives.

We were able to secure substantial savings with our purchase, allowing us to acquire additional units for field vehicles across other departments. This approach not only extends the life-saving potential of AEDs to more of our field personnel but also demonstrates our fiscal responsibility. The AEDs will be equipped with both adult and child pads to ensure preparedness for any situation. Furthermore, through a small grant from our insurance provider, VRSA, under their Risk Reduction Grant Program, we

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

were able to offset some of the costs. We also recently completed AED training to ensure our staff is equipped to use the devices effectively.

- Ditch Witch Vacuum Excavator: As part of the FY24 budget, we have acquired a Ditch Witch trailer-mounted Vacuum (VAC) Excavator, which was recently delivered and deployed with our field personnel. This equipment enhances efficiency in tasks such as small excavations, potholing, appurtenance cleaning, and dewatering. By reducing the need for manual hand digging, it improves safety for both employees and utilities and allows work to continue during extreme heat by minimizing physical strain.

Attachment 3 shows the VAC Excavator being used to clean the ACSA Vehicle Wash Area collection basin, and Attachment 4 shows it removing debris from a valve box. This was a cost-effective purchase that supports our maintenance personnel in their daily activities.

- Walk Behind DR Brush Mower and Chipper Attachment: As part of our FY25 budget, we recently purchased a DR Brush Mower, essentially a walk-behind bush hog. Due to substantial savings from a sale, we were also able to acquire a chipper attachment for the mower. While we have tractor-mounted bush hogs and trailer-mounted chippers, this new equipment offers greater versatility by allowing us to access utility easements that are difficult or unsafe for larger equipment to reach. This has enabled us to more efficiently and effectively maintain easements that have been problematic in the past.

Additionally, the DR Brush Mower can be transported on a single small trailer, eliminating the need for a large trailer and a second vehicle for the chipper. This simplifies transport and enhances overall efficiency. Attachment 5 shows the equipment loaded on a single trailer.

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

BUDGET IMPACT: None.

RECOMMENDATIONS: None.

BOARD ACTION REQUESTED: Approval of the Consent Agenda.

ATTACHMENTS:

1. Picture: WetWell Wizard Surface Setup at Old Forge
2. Picture: WetWell Wizard Setup in the Wet Well at Old Forge
3. Picture: VAC Excavator Being Used to Clean Vehicle Wash Area Collection Basin
4. Picture: VAC Excavator Being Used to Clean a Valve Box
5. Picture: DR Walk Behind Brush Mower and Chipper Attachment

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

Attachment 1: WetWell Wizard Surface Setup at Old Forge

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

Attachment 2: WetWell Wizard Setup in the Wet Well at Old Forge

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

Attachment 3: VAC Excavator Being Used to Clean Vehicle Wash Area Collection Basin

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

Attachment 4: VAC Excavator Being Used to Clean a Valve Box

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

Attachment 5: DR Walk Behind Brush Mower and Chipper Attachment

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Rivanna Water & Sewer Authority (RWSA) Monthly Update STAFF CONTACT(S)/PREPARER: Quin Lunsford, Executive Director	AGENDA DATE: September 19, 2024 CONSENT AGENDA: Informational ATTACHMENTS: No
---	--

BACKGROUND: This report continues the monthly updates on the Rivanna Water & Sewer Authority (RWSA) projects and Board meetings. Below are some updates on RWSA major projects and issues, including updates from the July 23rd RWSA Board Meeting and other communications:

- **RWSA 2024 Bond Issue** – The RWSA closed on the 2024 Bond Issue on August 7. The bonds were issued through the Virginia Resources Authority on July 23, 2024, receiving a low bid True-Interest cost of 3.92% of the total proceeds received which was \$93.6 million. These funds will support our community water supply and other CIP Projects.
- **Corrosion Control Adjustment in the Urban Water System:** RWSA has been assisting the ACSA with an investigation of sediment issues in the hot water systems of a number of homes in the urban drinking water system, especially in the Glenmore and Farmington neighborhoods. RWSA staff provided a presentation to the Board on the issue in March 2024. After extensive laboratory analysis, RWSA plans to make a small adjustment in the level of corrosion control product used for water treatment to eliminate the sediment. The corrosion control product prevents metals from pipes and plumbing fixtures from leaching into the drinking water. Pending final approval from the Virginia Department of Health, this adjustment will begin in September. Water quality monitoring will be conducted in the urban system for any unintended impacts of this change.
- **Regional Water Supply Planning:** The RWSA provided a presentation on amendments to Water Supply Planning regulations (HB 542, approved in 2020) that:
 - Directs the State Water Control Board to encourage the development of cross-jurisdictional water supply projects and to adopt regulations designating regional planning areas based primarily on river basin and to assess risk to water supply.
 - Proposed regulation mandates that each locality in a particular regional planning area shall participate in cross-jurisdictional, coordinated water resource planning, and all localities in each area shall together develop and submit a single regional plan.
 - Directs the VDEQ to facilitate the creation of regional water plans by ensuring sufficient coordination among localities, providing planning and other assistance, and ensuring that each regional plan identifies risks and proposes cost-effective strategies to address those risks.
 - Next steps for regulatory approval include an Executive review and advertisement in the State Register for public comments.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

- VA and Federal regulations are being implemented to ensure all citizens have safe drinking water; VA will require regional water supply plans within 5 years; The ACSA's proposed regional area includes Albemarle, Charlottesville, Greene, Louisa, Fluvanna, and Buckingham.

- **Summary:**

RWSA Major Project Schedule	Construction Start Date	Construction Completion Date
-MC 5kV Electrical System Upgrades	May 2022	December 2024
-Rivanna Pump Station Restoration	July 2024	May 2025
-Red Hill Water Treatment Plant Upgrades	September 2024	March 2026
-RMR to OBWTP Raw Water Line and Pump Station	January 2025	June 2029
-MC Building Upfits and Gravity Thickener Improvements	February 2025	December 2026
-MC Structural and Concrete Rehabilitation	February 2025	May 2027
-Crozet Pump Stations Rehabilitation	April 2025	January 2027
-South Fork Rivanna River Crossing	April 2025	January 2027
-MC Administration Building Renovation and Addition	June 2025	December 2027
-Central Water Line	May 2025	March 2029
-Crozet WTP GAC Expansion – Phase I	August 2025	March 2027
-RMR Pool Raise	September 2025	September 2026
-SFRR to RMR Pipeline, Intake, and Facilities	February 2026	December 2030
-Beaver Creek Dam, Pump Station, and Piping	May 2026	January 2030
-Upper Schenks Branch Interceptor, Phase II	TBD	TBD
-MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades	June 2025	September 2026

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

- **MCAWRRF 5kV Electrical System Upgrades**

Design Engineer:	Hazen and Sawyer (Hazen)
Construction Contractor:	Pyramid Electrical Contractors
Construction Start:	May 2022
Percent Complete:	65%
Completion Date:	December 2024
Budget:	\$5,635,000

Current Status:

The fourth (of 5) motor control center replacements is underway. Contractor is pulling new 5kV cable to designated areas of the facility, wiring the new switchgear facility, and beginning the final testing process.

History:

Through review of the Moores Creek Facilities Master Plan, several areas of the MCAWRRF, including the Blower Building, Sludge Pumping Building, Grit Removal Building, Moores Creek Pumping Station, and the Administration Building are currently connected to the original 5kV switchgear, transformers, and motor control centers (MCCs) which have a useful life expectancy of 20-30 years. The equipment has exceeded the expected useful life and replacement of the original 1980s-vintage 5kV cables, switchgear, transformers, and MCCs will be completed.

- **Rivanna Pump Station Restoration**

Design Engineer:	Hazen/SEH
Construction Contractor:	MEB
Project Start:	July 2024
Project Status:	Design & Material Acquisition
Completion:	May 2025
Budget:	\$22,000,000

Current Status:

Instrumentation and controls workshops were completed to review and make modifications to the station programming. A site visit will be conducted in August with the Contractor and electrical subcontractor to review demolition, cleaning and re-installation of conduit and wire inundated by water during the event. Rebuilt pumps will be installed and bypass pumping system removed by March 2025 with full restoration complete in May 2025.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

History:

The Rivanna Pump Station, which is located at the Moores Creek Advanced Water Resource Recovery Facility, was damaged on January 9th due to high rain and flooding of equipment at the facility. This facility pumps between 5 and 50 million gallons of wastewater daily and is the largest pump station in the wastewater system. Restoration is needed to restore the facility to normal operations and remove the bypassing system that was installed in February 2024.

- **Red Hill Water Treatment Plant Upgrades**

Design Engineer:	Short Elliot Hendrickson (SEH)
Construction Contractor:	Anderson Construction (Lynchburg)
Construction Start:	September 2024
Percent Complete:	0%
Completion:	March 2026
Budget:	\$2,050,000

Current Status:

A preconstruction conference and notice-to-proceed will be completed in August. This project received partial grant funding from Albemarle County.

History:

The Red Hill Water Treatment Plant was constructed in a joint effort of the ACSA and RWSA in 2009 and consists of a well, pneumatic tank and pump house that provides treated water to the Red Hill Elementary School and adjoining neighborhood. The current building is beyond its physical capacity and this project serves to expand the building and improve the configuration of the process and laboratory needs of the WTP.

- **Ragged Mountain Reservoir to Observatory Water Treatment Plant Raw Water Line and Raw Water Pump Station**

Design Engineer:	Kimley-Horn
Project Start:	August 2018
Project Status:	Bidding
Construction Start:	January 2025
Completion:	June 2029
Current Project Estimate:	\$45,850,000

Current Status:

Advertised for bidding on August 24th. Staff continue to work with UVA on the final easement.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

History:

Raw water is currently transferred from the Ragged Mountain Reservoir (RMR) to the Observatory Water Treatment Plant by way of two 18-inch cast iron raw water lines, which have been in service for more than 110 and 70 years, respectively. The proposed water line will be able to reliably transfer water to the expanded Observatory Plant, which, upon completion, will have the capacity to treat 10 mgd. The new single water line will be constructed of 36-inch ductile iron and will be approximately 14,000 feet in length.

The RMR to Observatory WTP raw water pump station will replace the existing Stadium Road and Royal Pump Stations, which have exceeded their design lives. The pump station will pump up to 10 mgd of raw water to the Observatory WTP. Integration of the new pump station with the planned South Rivanna Reservoir (SRR) to RMR Pipeline is being planned in the interest of improved operational and cost efficiencies and emergency redundancy. An integrated pump station would also include the capacity to transfer up to 16 mgd of raw water from RMR back to the SRR WTP.

- **MCAWRRF Building Upfits and Gravity Thickener Improvements**

Design Engineer:	Short Elliott Hendrickson (SEH)
Project Start:	March 2023
Project Status:	60% design
Construction Start:	February 2025
Completion:	December 2026
Current Project Estimate:	\$7,500,000

Current Status:

90% design documents will be completed in September.

History:

This project addresses the renovation needs of the current maintenance and operations building space requirements, improvements to the existing gravity thickener system, and installation of actuators on the secondary clarifier influent gate valves.

- **MCAWRRF Structural and Concrete Rehabilitation**

Design Engineer:	Hazen and Sawyer (Hazen)
Project Start:	April 2023
Project Status:	90% design
Construction Start:	February 2025
Completion:	May 2027
Current Project Estimate:	\$11,300,000

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

100% design documents are being completed.

History:

This project comprises rehabilitation, repair and installation of multiple structural components throughout the MCAWRRF facility, to include concrete repairs in both the equalization basin and holding ponds, and rehabilitation to other components of the system.

- **Crozet Pump Stations Rehabilitation**

Design Engineer:	Wiley Wilson
Project Start:	July 2023
Project Status:	90% Design Construction
Start:	April 2025
Completion:	September 2027
Budget:	\$10,950,000

Current Status:

100% design documents are being completed. The construction completion date was updated to reflect recent anticipated lead time information for electrical components to be installed.

History:

The Crozet pump stations were originally constructed in the 1980's with many of the original components still being utilized. This project includes replacement of pumps, valves, roof replacements, siding replacements, installation of new wells, new electrical motor control centers, generators, and power transfer switches.

- **South Fork Rivanna River Crossing**

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2020
Project Status:	Bidding
Construction Start:	April 2025
Completion:	January 2027
Budget:	\$7,300,000

Current Status:

Construction bids are due on September 12, 2024 with an anticipated contract award at the September Board Meeting.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

History:

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.

- **Moore's Creek Administration Building Renovation and Addition**

Design Engineer:	SEH
Project Start:	October 2022
Project Status:	60% Design
Construction Start:	June 2025
Completion:	December 2027
Budget:	\$25,000,000

Current Status:

90% design is underway. Selections have been made by the furnishings & finishes committee for color palettes on interior elements. Revised exterior and interior renderings submissions are anticipated by the end of September.

History:

Through the MCAWRRF Master Plan, a need to house additional staff, increase office and meeting space; plan for replacement of the engineering trailers; bring the IT server workrooms to modern standards; and provide classroom space for education outreach. The expansion of the building will take place in the lower parking lot adjacent to the existing building.

- **Central Water Line Project**

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	90% Design
Construction Start:	May 2025
Completion:	March 2029
Budget:	\$47,000,000

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

The acquisition process for two private easements continues. RWSA is negotiating the third easement with UVA along Hereford Drive. Railroad permits were submitted in February 2024. The Norfolk Southern Agreement has been executed and the CSX Agreement is being reviewed. Additional design work associated with a partial reroute of the water line in the East High Street area was necessary as there was not enough subsurface space to install this large 24" water pipe in the intended E. High Street location. Redesign efforts are in process and public outreach efforts to the impacted neighborhoods (Woolen Mills, Martha Jefferson, Belmont-Carlton, and Little High) have been made. An additional private easement will be required with the redesign as well as new easements on two City parcels.

History:

The hydraulic connectivity in the Urban System is less than desired, creating operational challenges and reduced system flexibility and redundancy. Recent efforts and modeling for the Urban Finished Water Infrastructure Master Plan have determined that a central water line corridor through the city is the best option to hydraulically connect the Observatory Water Treatment Plant to the Urban service area, including the ACSA water service area.

This proposed new Central Water Line builds on the ACSA investments in additional water supply at Ragged Mountain and at the newly expanded Observatory Water Treatment Plant. This new line will allow a connection from the water plant to the urban water service areas of the ACSA.

- **Crozet GAC Expansion – Phase I**

Design Engineer:	SEH
Project Start:	July 2023
Project Status:	30% Design
Construction Start:	August 2025
Completion:	March 2027
Budget:	\$6,550,000

Current Status:

The Preliminary Engineering Report has been approved by VDH. A 30% design was submitted and reviewed in July. A 60% design is anticipated in September. \$6.24 million in grant funds from VDH have been awarded for this project.

History:

In order to enhance the RWSA's resiliency and commitment to long term finished water quality, the Authority has committed to expanding the GAC capacity at the Crozet WTP to match the

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

current plant capacity. This project includes expansion of the existing GAC building, additional GAC vessels, pumps, piping, and electrical components.

- **South Rivanna Water Treatment Plant – PAC Upgrades**

Design Engineer:	SEH
Project Start:	November 2023
Project Status:	95% design
Construction Start:	August 2025
Completion:	December 2026
Current Project Estimate:	\$1,100,000

Current Status:

Staff has reviewed 95% design documents, and the project is progressing to 100% and advertisement for bids later this fall. We applied for a Congressionally Directed Spending grant from Senators Kaine and Warner for this project in the amount of \$880,000 and have received approval of the grant by the Senate committee. Final grant approval will occur upon approval of the federal budget by Congress and the President.

- **Ragged Mountain Reservoir Pool Raise**

Design Engineer:	Schnabel
Project Start:	April 2024
Project Status:	20% design
Construction Start:	September 2025
Completion:	September 2026
Current Project Estimate:	\$5,000,000

Current Status:

Geotechnical investigation of the dam has been completed.

- **South Rivanna Reservoir to Ragged Mountain Reservoir Pipeline, Intake and Facilities**

Design Engineer:	Kimley Horn/SEH/Schnabel
Project Start:	July 2023
Design Status:	40%
Construction Start:	February 2026
Completion:	December 2030
Current Project Estimate:	\$79,000,000

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

Current Status:

The Design Engineer continues to work on both the new reservoir intake and the pipe between SFRR and RMR. Installation of a nutrient analyzer at SFRR has been completed and was successfully started up. This is the last step of the water quality study, and a final report is anticipated by September.

History:

The approved 50-year Community Water Supply Plan includes the 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 and water line design 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 is also being completed as part of this project that will lead to final design and construction of the raw water line, reservoir intake and pump station.

- **Beaver Creek Dam, Pump Station, and Piping Improvements**

Design Engineer:	Schnabel Engineering (Dam)
Design Engineer:	Hazen and Sawyer (Pump Station)
Project Start:	February 2018
Project Status:	45% Design
Construction Start:	May 2026
Completion:	January 2030
Budget:	\$47,100,000

Current Status:

Design work is underway by Hazen for the new raw water pump station, intake, raw water main, and hypolimnetic oxygenation system, and by Schnabel Engineering for final design of the dam spillway upgrades, temporary detour, and spillway bridge. Geological, survey, and other field investigative work for the dam design are underway. Documents are being developed for acquisition or lease of property for the Pump Station from the County.

History:

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, and the

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

dam be replaced. This CIP project includes investigation, preliminary design, public outreach, permitting, easement acquisition, final design, and construction of the anticipated modifications. Work for this project includes a new relocated raw water pump station and intake.

- **Upper Schenks Branch Interceptor, Phase II**

Design Engineer:	CHA Consulting
Project Start:	July 2021
Project Status:	Design
Construction Start:	TBD
Completion:	TBD
Budget:	\$4,725,000

Current Status:

The design team has provided additional information to assist the County with easement acquisition considerations.

History:

The Schenks Branch Interceptor is located in the easter part of the City of Charlottesville and was constructed in the mid-1950s. The existing interceptor is undersized to serve present and future wet weather flows and is to be upgraded to from a 21-inch to 30-inch pipe.

- **MC Pump Station Slide Gates, Valves, Bypass, and Septage Receiving Upgrades**

Design Engineer:	Hazen and Sawyer (Hazen)
Project Start:	June 2023
Project Status:	50% Design
Construction Start:	June 2025
Completion:	September 2026
Budget:	\$3,600,000

Current Status:

The 50% design workshop was completed in July. As approved at the Board meeting last month, additional improvements to the current septage receiving equipment and billing software, and an additional flood resiliency evaluation were approved in a new work authorization and those design efforts are moving forward.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

History:

Inspections of the large aluminum slide gates at the influent side of the Moores Creek Pump Station have been conducted and the need for repair/addition of new gates for RWSA staff to have the flexibility to stop or divert flow to perform maintenance activities is needed. This project will also enclose the leachate discharge pit to reduce odors and address maintenance concerns.

- **MCAWRRF Biogas Upgrades**

Design Engineer:	SEH
Project Start:	October 2021
Project Status:	Preliminary Engineering/Study (99%)
Completion:	December 2024
Budget:	\$2,145,000

Current Status:

This project now includes the Methane Sphere Rehabilitation, in addition to possible Cogeneration upgrades. RWSA and City staff continue to discuss all available options to reuse biogas.

- **Flood Protection Resiliency Study**

Design Engineer:	TBD
Project Start:	August 2024
Project Status:	Preliminary Engineering/Study
Completion:	July 2025
Budget:	\$278,500

Current Status:

This project will identify individualized flood mitigation measures of six facilities to increase their resiliency from a 1% flooding event to a 0.2% flooding event. Facilities include: Mechums River Raw Water PS, Glenmore WW PS, Moores Creek AWRRF, Scottsville WWRRF, Crozet FET, and Crozet WW PS #2. This project received \$198,930 in grant funding from FEMA and VDEM.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

Other Significant Projects

- **Urgent and Emergency Repairs**

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

<u>Project No.</u>	<u>Project Description</u>	<u>Approx. Cost</u>
2023-01	Finished Water System ARV Repairs	\$150,000
2024-03	MCAWRRF Secondary Clarifier #4 Equipment Failure	\$150,000

- RWSA Finished Water ARV Repairs: RWSA Engineering staff recently met with Maintenance staff to identify a list of Air Release Valves (ARVs) that need to be repaired, replaced, or abandoned. Several of these locations will require assistance from RWSA On-Call Maintenance Contractors, due to the complexity of the sites (proximity to roadways, depth, etc.). The initial round will include seven (7) sites, all along the South Rivanna Waterline. Three replacements have been completed at this time. The Contractor is working with VDOT on permits to continue the work.
- MCAWRRF Secondary Clarifier #4 Equipment Failure: On Sunday Evening, March 3rd, RWSA Wastewater Department staff identified that Secondary Clarifier #4 at MCAWRRF appeared to have a significant mechanical malfunction. Upon further review by staff, the rotating arm of the clarifier mechanism caught the stationary arm, wrapping it around the center of the clarifier. Staff mobilized MEB General Contractors under its On-Call Maintenance Construction Services Contract with Faulconer, and the clarifier was back up and operational with just one stationary arm on Friday, March 8th. Staff are waiting on the necessary parts to complete repairs to the clarifier arms, but in the meantime, the clarifier is operational should it be needed for wet weather events.

The remaining repairs will be completed by the RWSA Maintenance Department.

- **Security Enhancements**

Design Engineer:	Hazen & Sawyer
Construction Contractor:	Security 101 (Richmond, VA)
Construction Start:	March 2020
Percent Complete:	90% (WA9), 95% (WA10)
Based Construction Contract + Change Orders to Date = Current Value:	\$718,428 (WA1) + \$834,742 (WA2-10)
Completion:	June 2024 (WA9), August 2024 (WA10)
Budget:	\$2,810,000

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**Current Status:

WA9 will include installation of card access on all exterior doors at the South Rivanna WTP. WA10 will include installation of card access on the exterior doors of the finished water pump station and “795” tank buildings in Scottsville. Device installation is complete here as well, with programming and startup ongoing. Design of MCAWRRF entrance modifications with Hazen & Sawyer continues, with discussions with Dominion Energy also ongoing, as relocation of existing electrical infrastructure will be required. This relocation process will need to be finalized prior to the project proceeding to the bidding phase. Relocation of existing electrical infrastructure will require coordination with the adjacent landowner, as the infrastructure must be completely relocated from the entrance area. As these discussions are ongoing, staff have submitted appropriate permitting documents to Albemarle County.

ACSA Board Future Policy Issues Agendas 2024-2025

Regular 3rd Thursday Monthly Meetings	Oct. '24	Nov. '24	Dec. '24	Jan. '25	Feb. '25	Mar. '25	April '25	May '25	June '25	Pending Issues
	October 17th	November 21st	December 19th	January 16th	February 20th	March 20th	April 17th	May 15th	June 19th	ACSA Customer Communications
	Recognitions	Recognitions Jennifer Bryant 25 years Roland Bega 25 years	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	CIS - Customer Information Systems - Billing, Website, Phone
	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Monthly Financial, CIP, Maintenance Reports and RWSA Monthly Update	Climate Change and Sustainability
	Imagine a Day Without Water - <i>(Annual Item)</i>	Operational Presentation - ACSA Safety Programs and Initiatives	Operational Presentation	Operational Presentation	Operational Presentation - Administration	Operational Presentation - Engineering	Operational Presentation - Maintenance	Operational Presentation - IT	Operational Presentation - Finance	Customer Experience (CX)
	Lead / Copper Inventory & Regulations Report and Update	Annual Financial Report <i>(Annual Item)</i>	Annual Investments Report <i>(Annual Item)</i>	Board Organizational Meeting - Election of Officers <i>(Annual Item)</i>	Personnel Management Plan Amendments - Travel Policy	Proposed CIP Presentation <i>(Annual Item)</i>	Proposed FY '26 Capital Improvements Proposed CIP Presentation <i>(Annual Item)</i>	Proposed FY '26 Budget and Rates Workshop <i>(Annual Item)</i>	FY '26 Budget and Rates Public Hearing <i>(Annual Item)</i>	Data Management and Management Dashboards
	Avon Operations Center - Update	Water and Sewer Construction Specifications Update and Approval	FY '26 Budget Guidelines and Schedule <i>(Annual Item)</i>	Annual Water Conservation Report <i>(Annual Item)</i>		Fix a Leak Week Water Conservation Event <i>(Annual Item)</i>	Proposed FY '26 Capital Improvements Program (CIP) Public Hearing <i>(Annual Item)</i>	Annual Water Quality Reports <i>(Annual Item)</i>	FY '26 Budget, Rates and CIP Approval <i>(Annual Item)</i>	Emergency Preparedness
			Financial Plan and Rate Study Scope of Work Discussion	2024 Annual Report - Accomplishments and Challenges <i>(Annual Item)</i>		Strategic Plan Update <i>(Semi-Annual Item)</i>	Proposed FY '26 Budgets and Rates Overview <i>(Annual Item)</i>		Amendments to Rules and Regulations, and Personnel Management - Budget Implementation <i>(Annual Item)</i>	Federal/State Water Quality Regulations PFAS; Emerging Contaminants
			Board Meeting Schedule 2025 <i>(Annual Item)</i>				Resolution Scheduling Budget and Rates Public Hearing for June 19, 2025 <i>(Annual Item)</i>		Water & Wastewater Professionals Appreciation Day Recognition <i>(Annual Item)</i>	New Development
			Holiday Schedule 2025 <i>(Annual Item)</i>				National Drinking Water Week <i>(Annual Item)</i>			Operational Presentation - Sewer Rehabilitation Relining
										Pay Plan Market Rate Study for FY '25 - Compensation (Fall)
										Purchasing Policy Manual
										RWSA CIP Central Water Line - Reservoirs Pipeline North Rivanna System Wastewater Projects
										Strategic Plan Update - Biannual
										Water Audit
										Water Supply Plan Project Status Reports
						Executive Session - Executive Director Annual Performance Review				
										9/19/2024

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: ACSA's Unmanned Aircraft System (UAS) Program STAFF CONTACT(S)/PREPARER: April Walker, Director of Information Technology Elise Kiewra, GIS Technician	AGENDA DATE: September 19, 2024 ACTION: <input type="checkbox"/> INFORMATIONAL: <input checked="" type="checkbox"/> ATTACHMENTS: YES
---	---

BACKGROUND:

The ACSA's Unmanned Aircraft System (UAS) program began in 2019 with the acquisition of the organization's first drone. Initially, this technology was brought in to enhance the collection of imagery from new developments and to support the updating of existing GIS assets, crucial for mapping and infrastructure management.

As the UAS program grew, so did its scope. In recent years, the program has expanded its applications to include water storage tank inspections. The use of drones for these inspections has provided significant advantages, such as reducing the need for physical entry into potentially hazardous environments, improving safety for personnel, and delivering high-quality imagery that supports more efficient infrastructure assessment and maintenance. The UAS program is now an integral part of ACSA's efforts to use cutting-edge technology for operational efficiency and data accuracy.

BOARD ACTION REQUESTED: Informational.

ATTACHMENTS:

-ACSA's Unmanned Aircraft Systems (UAS) Program Presentation

ACSA's Unmanned Aircraft Systems (UAS) Program

9/19/2024

DJI Phantom 4 RTK



Range : 4.3 miles

Battery Fly Time: 30 minutes

Video: 4K

Photos: 20MP



Range : 12.5 miles

Battery Fly Time: 46 minutes

Video: 4K

Photos: 48MP

Regulations

116

- Must be licensed through the FAA Part 107 Certification
- Take a training course and took the exam
- License gets renewed every 2 years
- Drones must be licensed and broadcasting the RemoteID
- Generally 400' maximum altitude
- No flight over people

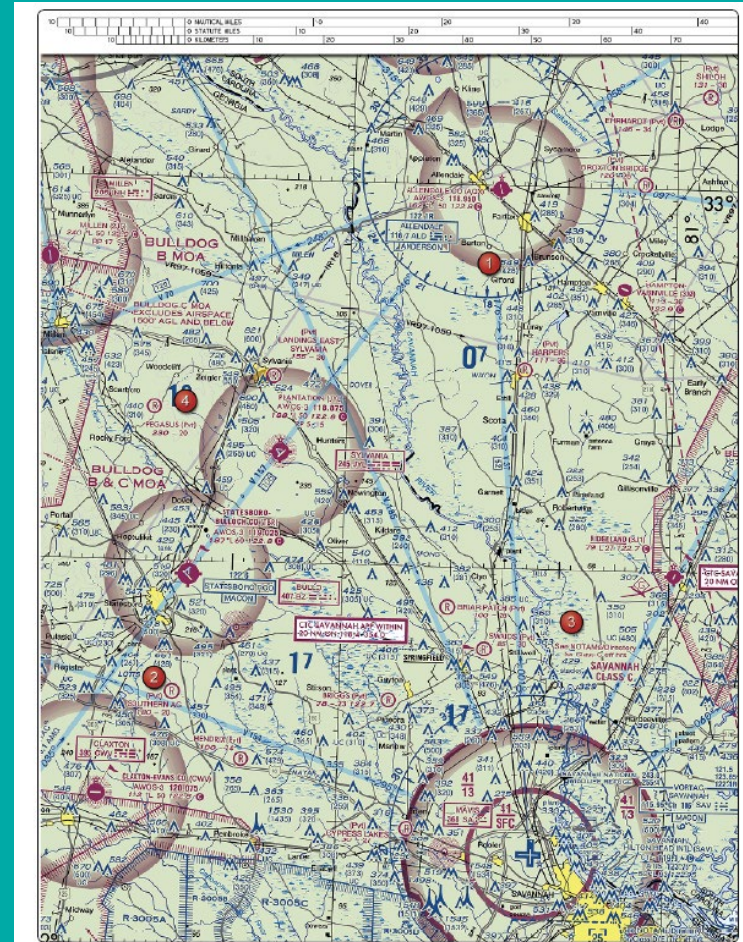


Figure 23. Sectional Chart Excerpt.

NOTE: Chart is not to scale and should not be used for navigation. Use associated scale.

Safety

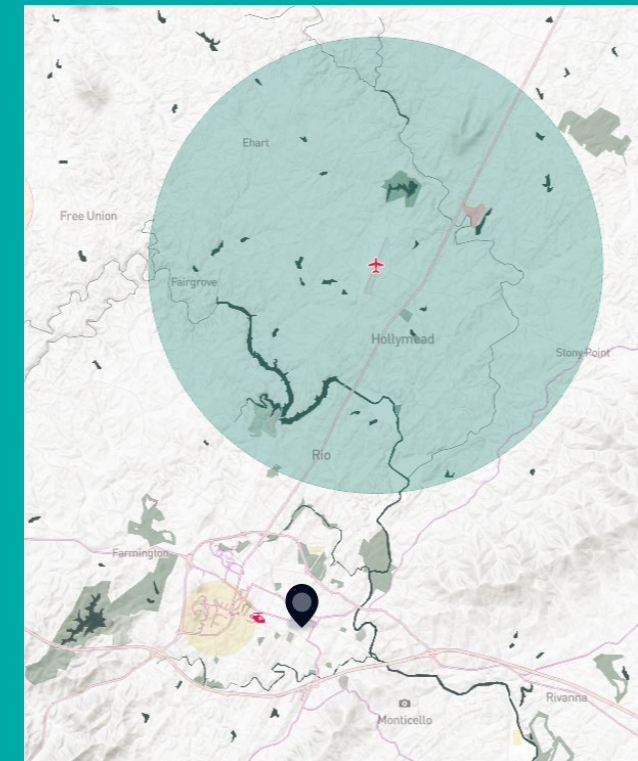
- Collision avoidance
- Propeller guards
- Return to home functionality
- Check Notice to Airmen, weather, wind, precipitation
- Charlottesville Airport / Low Altitude Authorization and Notification Capability approval with varying altitude requirements

Location: Charlottesville, VA [map »](#)

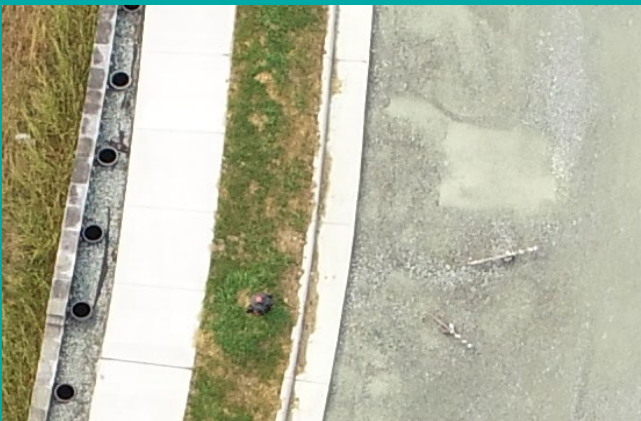
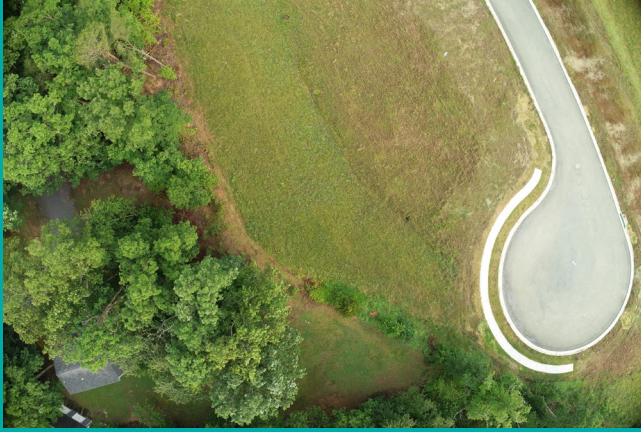
Warning: 2 DJI NFZs nearby, check the map for details.

Current Conditions as of Wednesday 2024-09-04 13:35 EDT												
Time	Wind	Gusts	Temp	Dew Point	Precip Prob	Precip	Cloud Cover	Visibility	Visible Sats	Kp	Est. Sats Locked	Good To Fly?
13:35 ☀	6 mph ↙	16 mph ↙	74°F	53°F	-	-	51%	10 miles	22	2.67	21.8	yes
Wednesday 2024-09-04: sunrise 06:46, solar noon 13:13, sunset 19:38												
Time	Wind	Gusts	Temp	Dew Point	Precip Prob	Precip	Cloud Cover	Visibility	Visible Sats	Kp	Est. Sats Locked	Good To Fly?
14:00 ☀	6 mph ↙	16 mph ↙	74°F	53°F	-	-	48%	10 miles	21	2.00	21.0	yes
15:00 ☀	6 mph ↙	16 mph ↙	75°F	54°F	-	-	48%	10 miles	24	2.00	23.5	yes
16:00 ☀	6 mph ↙	16 mph ↙	75°F	53°F	-	-	47%	10 miles	19	2.00	19.0	yes

I recommend this handheld anemometer to measure wind speeds: [Pocket Anemometer with Digital LCD Display](#).



Using the Phantom 4 RTK to get current photos and update existing assets in the GIS





Tank Inspections

120



Inspection

Rs

Home

Users

History

+

Grid

Settings

Inspection Details

Inspection Id

53145

Type

UAS Facility Inspection

Status

Closed

Priority

3-Medium

Initiated By

Defibaugh, Billy

Initiated Date

Nov 21, 2023, 8:10 AM

Submit To

Kiewra, Elise

Inspected By

Kiewra, Elise

Inspection Date

May 01, 2024, 1:40 PM

Cancel

Resolution

Actual Finish Date

May 06, 2024, 9:20 AM

Related

+

Entity

By Type

Type	UId	SId	Feature Type	Feature UId	Fea
WATER TANK	TANK17	34	WATER TANK	TANK17	34

1-1 of 1

☒ Update Inspection XY when adding/replacing asset?

Observations

Hatches okay?

Answer

Yes

Locks okay?

Answer

Safety rails okay?

Answer

Yes

Access ladders okay?

Answer

Yes

Create Activity

Legend

Locate

Event Layers

Avon Park Tank

SMH7241 6.8'

SMH9910 9'

12" Ductile Iron

10" Ductile Iron

1952

1964

1966

196

3002

3004

300

40 ft

Two staff are licensed to fly with more in the process of getting licensed



Events





Questions?

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

AGENDA TITLE: Customer Telephony Report and Update	AGENDA DATE: September 19, 2024
STAFF CONTACT(S)/PREPARER: Quin Lunsford, Executive Director	ACTION: No
	ATTACHMENTS: No

BACKGROUND AND DISCUSSION:

Through the ACSA's CIP program, funding was established to procure consulting services related to our review of the Customer Experience (CX), current business processes and technology, and developing a roadmap moving forward. Work related to this program includes assistance with the development of RFPs and consideration of available technology to ensure our customers are provided a modern, streamlined interface that meets their individual needs.

DISCUSSION:

Over the last six months, the ACSA has worked closely with Validos to provide insight, project management services, and oversee the analysis of current CIS/Telephony/website offerings, recommending possible areas of improvement, and assisting with the development of RFPs to ensure our new solutions exceed customer expectations and provide enhanced tools for our team to better serve our customers.

A committee represented by all ACSA departments was created to evaluate the current and future system to ensure needs of different user groups were met. The collaborative effort has been positive and helps ensure both employee buy-in and deployment success.

Through a comprehensive and competitive procurement, the committee has identified a vendor that provides modern telephony services and meets all the requirements outlined in our RFP. A Contract and Statement of Work from the highest rated provider was received on September 9th and is currently being reviewed prior to execution.

This new telephony system will provide external customers an efficient and streamlined process to reach the appropriate ACSA parties, tools for our employees to provide enhanced service and support, and integrations with the future CIS. We expect the project to begin in October and will take approximately three months to fully deploy and train staff.

BOARD ACTION REQUESTED: None

ATTACHMENTS: None

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Strategic Plan Update STAFF CONTACT(S)/PREPARER: Quin Lunsford, Executive Director	AGENDA DATE: September 19, 2024 ACTION: No ATTACHMENTS: Yes
--	--

BACKGROUND AND DISCUSSION: The Board approved at the March 2023 meeting a Strategic Plan with four themes: Data Optimization, Business Resilience, Customer Experience and Employee Experience.

Attached is an update on the “status” in each of the theme areas. Several larger projects are progressing, and some have been completed. The list below outlines major accomplishments since the Strategic Plan update in January:

Data Optimization

- Cityworks Respond was deployed.
- Completion of SCADA Phase 3.
- New workorders created for collaboration and coordination between the IT SCADA Tech and Facilities Group.
- Planning/construction of redundant fiber internet connection at ACSA Operations Center.
- Configuration of IT Asset Management and Help Desk software.
- All network switches upgraded and replaced.
- Implementation of a “Security Event and Incident Management (SEIM) software solution implemented.

Business Resilience

- Bids received on Avon Operations Center.
- Initiation of in-depth review of the Emergency Response Plan and Risk and Resilience Assessment.
- EV charging infrastructure work underway.
- Updating LED lighting at facilities.

Customer Experience

- In-depth review and reorganization of the ACSA General Construction Specifications and collaboration with County/local development community representatives to improve processes and realize efficiencies.
- Nearing finalized contract for modernized telephony solution.
- Website in development to enhance the ACSA’s electronic presentment to customers and other users.
- Development of an RFP for a modern CIS system, advertisement expected in January 2025.

ALBEMARLE COUNTY SERVICE AUTHORITY**AGENDA ITEM EXECUTIVE SUMMARY**

- Rain Barrel Workshop/Riverfest/Fix-A-Leak Event held.
- “Imagine a Day Without Water” art context scheduled for fall 2024.
- Development of a “New Customer” packet/mailer outlining ACSA services to those new to our area.

Employee Experience

- Nearing contract execution for Classification and Compensation study.
- Personnel Management Plan updates to stand-by policy.
- Applicant Pro being utilized for job posting/applicant tracking.
- Post-Accident Testing Policy adopted.
- Quarterly supervisory training continues.
- Safety training (CPR/First Aid, Fire Extinguisher, Asbestos, Confined Space, Underground Storage Tank, and Chain Saw).
- Travel policy currently under review with recommendations forthcoming.

BOARD ACTION REQUESTED: None

ATTACHMENTS:

-Strategic Plan updates

2023
through
2027

THE ALBEMARLE COUNTY SERVICE AUTHORITY

STRATEGIC FIVE-YEAR PLAN

129



Data Optimization

Conduct a comprehensive review of all data and their sources to ensure proper access, classification, and utilization.

COMPREHENSIVE REVIEW OF SYSTEMS

Conduct a thorough data mapping and analysis of all existing software and integrations to determine opportunities for improved efficiency.

DOCUMENT MANAGEMENT SYSTEM

Perform classification of data to ensure proper management, and the procurement and implementation of a new Document Management System.

SYSTEM MONITORING AND REPORTING

Review, maintain, and secure the data that we collect and share with users through dashboards or other reporting methods.



Business Resilience

Ensure the current and future operations continue to function to serve our customers and meet environmental and climate action goals.

BUSINESS CONTINUITY PLANNING

Develop a Business Continuity plan to ensure the continual operations during unplanned events.

ENVIRONMENTAL SUSTAINABILITY

Enhance environmentally friendly practices and policies to reduce our carbon footprint and support global efforts to combat climate change.

OPTIMIZATION OF RESOURCES

Perform an audit of current space, assess staffing levels, and explore opportunities to leverage consulting services in support of staff.



Customer Experience

Provide best-in-class service ensuring the needs of our customers are exceeded.

CUSTOMER EXPERIENCE VISION

Perform a comprehensive analysis of services and interactions as experienced through the eyes of our customers.

CUSTOMER INFORMATION SYSTEMS (CIS)

Develop a modern and integrated CIS platform that provides clear, concise information to customers.

CUSTOMER ENGAGEMENT OPPORTUNITIES

Enhance customer outreach to include community events, new customer orientations, and other important information through a variety of communication tools.



Employee Experience

Retain and recruit a highly-skilled workforce and provide employees with resources and opportunities for professional growth.

RECRUITMENT AND RETENTION

Explore strategies to ensure that we are attracting highly qualified candidates and ensure our workforce remains motivated and satisfied.

EMPLOYEE ENGAGEMENT OPPORTUNITIES

Perform a comprehensive analysis of current practices and create new opportunities to ensure the ACSA is a great place to work.

TRAINING AND EDUCATION PROGRAM

Review current learning opportunities to ensure quality, cost-effective training that increases employee and organizational productivity and enrichment.

THE ALBEMARLE COUNTY SERVICE AUTHORITY

STRATEGIC FIVE-YEAR PLAN



Data Optimization



Conduct a comprehensive review of all data and their sources to ensure proper access, classification, and utilization.

1

COMPREHENSIVE REVIEW OF SYSTEMS

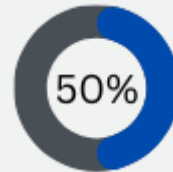
Conduct a thorough data mapping and analysis of all existing software and integrations to determine opportunities for improved efficiency.

STATUS

- Data Inventory was completed for all departments.
- Cityworks Respond was deployed; completion of SCADA Phase 3.
- New Cityworks work order development for collaboration and coordination between IT SCADA Tech and Facilities Group.
- Configuring Cityworks Operational Insights to manage infrastructure assets and identify high-risks and maintenance strategies.
- We are nearing the start of construction for a redundant fiber internet connection.
- Configuring a new I.T. Asset Management and Help Desk software solution.

SUCCESS RESULT

- All data collected is mapped. Additional efficiencies are identified and scheduled with each software application.



2

DOCUMENT MANAGEMENT SYSTEM

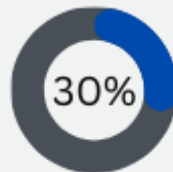
Perform classification of data to ensure proper management, and the procurement and implementation of a new Document Management System.

STATUS

- Security controls were established.
- Data Schemes and Classifications were developed.
- Records Management Policy was drafted.

SUCCESS RESULT

- Data is classified and properly maintained, all documents are digitized and stored in a secured Document Management System.



3

SYSTEM MONITORING AND REPORTING

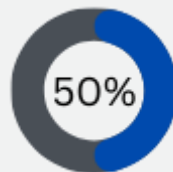
Review, maintain, and secure the data that we collect and share with users through dashboards or other reporting methods.

STATUS

- All network switches were upgraded and replaced.
- A Security Event and Incident Management (SEIM) software solution was purchased and implemented.
- Password storage software was purchased and is currently being implemented.
- Creation of weekly Cityworks Reports related to Out-of-Service Fire Hydrants and Auto-Flusher Inspections.
- Establishing dashboarding to securely leverage SCADA trending and information across departments.

SUCCESS RESULT

- All data is properly managed and secured and dashboards are utilized across the organization.



THE ALBEMARLE COUNTY SERVICE AUTHORITY STRATEGIC FIVE-YEAR PLAN



Business Resilience

Ensure the current and future operations continue to function to serve our customers and meet environmental and climate action goals.



1

BUSINESS CONTINUITY PLANNING

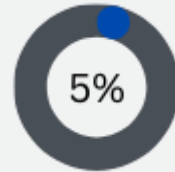
Develop a Business Continuity plan to ensure the continual operations during unexpected events.

STATUS

- Readvertised and opened bids on the Avon Operations Center.
- In-depth review of Emergency Response Plan is beginning for the five-year review, revision and certification.
- In-depth review of the Risk and Resilience Assessment is beginning for the five-year review, revision and certification.

SUCCESS RESULT

- Completion of a Business Continuity Plan document.



2

ENVIRONMENTAL SUSTAINABILITY

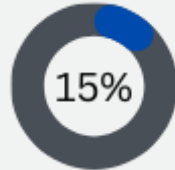
Enhance environmentally friendly practices and policies to reduce our carbon footprint and support global efforts to combat climate change.

STATUS

- IT and Engineering staffs are currently researching two EV's to be purchased in FY 2025.
- The EV charging infrastructure work is underway.
- Facilities updating LED lighting at facilities.

SUCCESS RESULT

- Progress toward maximizing positive environmental practices.



3

OPTIMIZATION OF RESOURCES

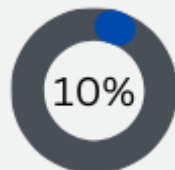
Perform an audit of current space, assess staffing levels, and explore opportunities to leverage consulting services in support of staff.

STATUS

- Role restructuring in Administration, Engineering and IT, with IT doubling up on offices.
- Utilization of Letterpress for communications and PIO.

SUCCESS RESULT

- Current space, staffing levels and evaluation of consultant usage are fully evaluated and recommendations documented.



THE ALBEMARLE COUNTY SERVICE AUTHORITY

STRATEGIC FIVE-YEAR PLAN



Customer Experience

Provide best-in-class service ensuring the needs of our customers are exceeded.



1

CUSTOMER EXPERIENCE (CX) VISION

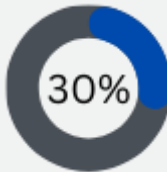
Perform a comprehensive analysis of services and interactions as experienced through the eyes of our customers.

STATUS

- In-depth review and reorganization of the ACSA General Construction Specifications are underway.
- Met with County staff and local development community to review process for proposed new development in an effort to identify improved processes and efficiencies.

SUCCESS RESULT

- The customer experience vision is defined and enhancements are prioritized; follow-up on the CX Project recommendations.



2

CUSTOMER INFORMATION SYSTEMS (CIS)

Develop a modern and integrated CIS platform that provides clear, concise information to customers.

STATUS

- The ACSA has identified and is working through procurement on a modern telephony system, which we anticipate later this calendar year.
- Our teams are working with a website developer to enhance our electronic presentation to customers and other interested parties.
- Continued work on an RFP for a modern CIS system to improve customer outreach and modernized billing, bill payment options, and dissemination of information.

SUCCESS RESULT

- Implementation of a CIS solution that meets the needs of customers through a stable, streamlined, and integrated platform.
- AMI Portal complete for customer on-line usage information.



3

CUSTOMER ENGAGEMENT OPPORTUNITIES

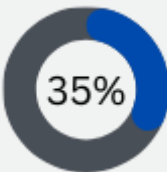
Enhance customer outreach to include community events, new customer orientations, and other important information through a variety of communication tools.

STATUS

- Rain Barrel Workshop, and Riverfest Event held.
- Imagine a Day Without Water Art contest scheduled for fall 2024.
- Fix-A-Leak Event held Spring 2024.
- Development of "New Customer" packet/mailer outlining ACSA services to those new to our area.

SUCCESS RESULT

- Pertinent information is provided to customers in their preferred manner.



THE ALBEMARLE COUNTY SERVICE AUTHORITY

STRATEGIC FIVE-YEAR PLAN



Employee Experience



Retain and recruit a highly-skilled workforce and provide employees with resources and opportunities for professional growth.

1

RECRUITMENT AND RETENTION

Explore strategies to ensure that we are attracting highly qualified candidates and ensure our workforce remains motivated and satisfied.

STATUS

- PMP updates for stand-by policy approved.
- RFP out for Classification & Compensation Study.
- Applicant Pro being utilized for job posting and applicant tracking system.

SUCCESS RESULT

- Implement recruitment and retention strategies.



2

EMPLOYEE ENGAGEMENT OPPORTUNITIES

Perform a comprehensive analysis of current practices and create new opportunities to ensure the ACSA is a great place to work.

STATUS

- Post-Accident Testing Policy in place.
- Hours of operation shifted for field employees.
- Employee of the Month Recognitions continuing.
- Monthly employee engagement activities continuing.

SUCCESS RESULT

- Implement employee engagement strategies.



3

TRAINING AND EDUCATION PROGRAM

Review current learning opportunities to ensure quality, cost-effective training that increases employee and organizational productivity and enrichment.

STATUS

- Quarterly Supervisory Training.
- Safety training (CPR/First Aid, Fire Extinguisher, Asbestos, Confined Space, and Chain Saw).
- Travel Policy is currently under review with recommendations forthcoming.

SUCCESS RESULT

- Employees are properly trained and have equal opportunities to pursue advanced education and training programs.

