



BOARD OF DIRECTORS' MEETING

February 16, 2023
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. Approve Minutes of January 19, 2023
9:10 a.m.	3. Matters from the Public
9:20 a.m.	4. Response to Public Comment
9:25 a.m.	5. Consent Agenda
	a. Monthly Financial Reports
	b. Monthly Capital Improvement Program (CIP) Report
	c. CIP Authorizations
	d. Monthly Maintenance Update
	e. Rivanna Water and Sewer Authority (RWSA) Monthly Update
	f. ACSA Board Policy Future Issues Agenda 2022
	g. Advanced Metering Infrastructure (AMI) Project Update
9:40 a.m.	6. Strategic Plan Development Report
	a. Board Strategic Plan Considerations – Summary
	b. Customer Experience Project – Summary/Recommendations
	c. Best Practices Review Panel – Summary/Recommendations
	d. Discussion of Strategic Plan Process & Next Steps
10:40 a.m.	7. Security Assessment Updates/ IT Report
11:00 a.m.	8. Items Not on the Agenda
	9. Adjourn



ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF CHAIR TO OPEN FEBRUARY 16TH, 2023 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.

1 The Board of Directors of the Albemarle County Service Authority
2 (ACSA) met in a regular session on January 19, 2023, at 9:00 a.m. at the
3 Administration and Operations Center at 168 Spotnap Road in
4 Charlottesville, Virginia.

5 **Members Present:** Mr. Richard Armstrong; Mr. Nathan Moore (joined
6 remotely from home due to temporary health issue); Dr. Lizbeth Palmer;
7 Mr. John Parcells; Mr. Clarence Roberts, Chair; Mr. Charles Tolbert, Vice-
8 Chair.

9 **Members Absent:** None.

10 **Staff Present:** Tim Brown, Mike Derdeyn, Brendan Ganz, Jeremy Lynn,
11 Michael Lynn, Quin Lunsford, Alex Morrison, Gary O'Connell, Emily Roach,
12 Danielle Trent, April Walker, Justin Weiler.

13 **Staff Absent:** None.

14 **Public Present:** James Bowling IV, Partner, St. John, Bowling, Lawrence
15 & Quagliana, LLP.

16
17 1. Call to Order and Establish a Quorum – Statement of Board Chair

18 Mr. O'Connell called the meeting to order, and a quorum was
19 established. He then read the opening Board Chair statement (Attached as
20 Page ____). He stated that Nathan Moore is joining the meeting
21 remotely from home due to a temporary medical condition and has notified
22 the Board in advance. He noted that he would need a Board motion to
23 allow Mr. Moore's remote participation under the ACSA's Remote
24 Participation Policy.

25 ***Mr. Armstrong moved to allow Mr. Moore's remote***
26 ***participation in the January 19, 2023 Board meeting due to a***
27 ***temporary medical condition, seconded by Mr. Parcells. Mr. O'Connell***
28 ***asked for a voice vote. All members voted aye: Mr. Parcells, aye; Mr.***
29 ***Tolbert, aye; Dr. Palmer, aye; Mr. Roberts, aye; Mr. Armstrong, aye;***
30 ***Mr. Moore, aye.***

31

1 2. Election of Officers – Board Organizational Meeting

2 Mr. O'Connell stated that he would now open the floor for
3 nominations for the office of Chair.

4 ***Mr. Tolbert nominated Mr. Armstrong, seconded by Dr. Palmer.***
5 ***There being no further nominations, the floor was closed for***
6 ***nominations. All members voted aye. Mr. Armstrong was elected as***
7 ***Chair.***

8 Mr. O'Connell turned the office of Chair to Mr. Armstrong. Mr.
9 Armstrong thanked the Board and Mr. Roberts for all of the work he has
10 done as Chair over the years.

11 Mr. Armstrong stated that he would now open the floor for
12 nominations for the office of Vice-Chair.

13 ***Mr. Parcels nominated Mr. Tolbert for the office of Vice-Chair,***
14 ***seconded by Mr. Roberts. There being no further nominations, the***
15 ***floor was closed for nominations. All members voted aye. Mr. Tolbert***
16 ***was re-elected as Vice-Chair.***

17 Mr. Armstrong stated that the next nomination would be for the
18 office of Secretary-Treasurer. He stated that this office has traditionally
19 been filled by the ACSA's Executive Director. He stated that the floor was
20 now open for nominations for the office of Secretary-Treasurer.

21 ***Mr. Tolbert nominated the Executive Director, Gary O'Connell,***
22 ***for Secretary-Treasurer, seconded by Dr. Palmer. There being no***
23 ***further nominations, the floor was closed for nominations. All***
24 ***members voted aye. Mr. O'Connell was re-elected as Secretary-***
25 ***Treasurer.***

26
27 3. Recognitions –Jim Bowling – ACSA Attorney Service Recognition/
28 William Roach & Roland Bega- 2022 VRWA Expo

29 Mr. Armstrong stated that the first recognition was for Mr. Bowling,
30 who has been the ACSA's attorney for 50 years. He then read the
31 recognition resolution to the Board (Attached as Page _____).

1 ***Mr. Parcels moved to approve the resolution as presented to***
2 ***the Board, seconded by Dr. Palmer. The Chair asked for a roll-call***
3 ***vote: Mr. Parcels, aye; Dr. Palmer, aye; Mr. Tolbert, aye; Mr. Roberts,***
4 ***aye; Mr. Armstrong, aye; Mr. Moore, aye.***

5 Mr. Bowling stated that it has been a great honor and pleasure to
6 work for the Albemarle County Service Authority. He stated that as the
7 ACSA Board members and staff know, the ACSA's mission is simple,
8 which is to keep costs low enough that customers can afford to turn their
9 faucet on and have drinking water. He stated that this is not as easy as it
10 sounds, but the ACSA has managed to do this over the years. He stated
11 that the ACSA is in a business that can be political because it is a
12 governmental entity, but the job is not really political. He noted that the job
13 is to provide safe, clean water. He added that he has been impressed over
14 the years with the ACSA's ability to resist the temptation to deviate from the
15 effective strategy of everyone paying their fair share into the system.

16 Mr. Bowling stated that he has enjoyed the people the most,
17 including all of the great employees and Board members that have served
18 the citizens of Albemarle County. He stated that he wanted to thank the
19 Board and staff for all of the courtesies they have shown him and for
20 allowing him to give not only legal advice but counsel as well.

21
22 Mr. O'Connell stated that the next recognition for William Roach
23 and Roland Bega was mentioned last month, but he wanted to share the
24 write up on their tapping contest win at the 2022 VRWA Expo that was
25 published in VRWA's quarterly magazine, StreamLine. He stated that both
26 Mr. Roach and Mr. Bega are supervisors in the ACSA's Maintenance
27 department and are long-standing winners of this contest. Mike Lynn,
28 Director of Operations, stated that they have been the winners for about 10
29 years. He noted that they had one off year because they were not available
30 to participate. He added that they typically also win the horseshoe and
31 cornhole competitions as well. Mr. O'Connell stated that the two are

1 experts at what they do, and he wanted to share this great accomplishment
2 with the Board.

3 Mr. Armstrong stated that he noted Mr. Roach and Mr. Bega had a
4 winning time of 2:04. Mr. Lynn stated that these two do not practice for the
5 contest, nor do they do this type of work on a daily basis, which shows how
6 good they are.

7
8 4. Approve Minutes of December 15, 2022

9 Mr. Parcels stated that he had a couple of minor corrections, which
10 he emailed to the Board clerk prior to the meeting. Dr. Palmer thanked Ms.
11 Trent for getting the minutes to her early for review, as she had a hard time
12 hearing at the last meeting. She stated that she would abstain from voting,
13 since her remote participation last meeting was not formally approved by
14 the Board at the start of the meeting.

15 ***Mr. Tolbert moved to approve the minutes as amended,***
16 ***seconded by Mr. Parcels. All members voted aye. Dr. Palmer***
17 ***abstained from voting.***

18
19 4. Matters from the Public

20 There were no matters from the public.

21
22 5. Response to Public Comment

23 There was no response to public comment.

24
25 6. Consent Agenda

26 ***a. Monthly Financial Reports*** – Mr. Roberts stated that RWSA's invoice
27 on page 35 is \$1.9 million. He stated that it would be interesting to
28 know the amount the ACSA paid to RWSA last year for comparison.
29 Mr. Lunsford stated that he can add that information to the report.

30 ***b. Monthly CIP*** – Mr. Parcels stated that he had a question about the
31 Crozet Phase 4 Water Main Replacement Project on pages 71-72. He

1 noted that the memo noted one holdout on the require easements and
2 possibly going through condemnation proceedings. He mentioned that
3 he was curious as to what that means and the effect on the project.

4 Jeremy Lynn, Director of Engineering, stated that the ACSA is
5 down to the last easement. He stated that the staff thinks construction
6 can begin without it but, at some point during the project, they will need
7 to eventually obtain that easement. He stated that if the ACSA is
8 unable to reach an agreement with the property owner, the staff will
9 come before the Board with a resolution to consider condemnation. He
10 mentioned that the property owner would also be invited to that
11 meeting and provided an opportunity to make their case. He noted that
12 the ACSA has had minimal contact with the property owner recently
13 and is still far from a financial compensation amount.

14 Mr. Parcels stated that his second question was about the Ragged
15 Mountain Water Main Project on page 72. He stated that the issue is
16 utilizing the Morey Creek Bridge in conjunction with the VDOT project
17 to replace the bridge. He asked if VDOT does not replace the bridge,
18 what will the ACSA do, and can the project proceed as if the bridge will
19 ultimately be replaced.

20 Jeremy Lynn replied that moving forward without the bridge will
21 significantly increase the cost of the project, and they would not be
22 able to utilize the current design. He stated that the ACSA staff would
23 have to obtain additional surveying information, additional permitting
24 because the line would be crossing under the creek, and the timeline
25 of the project would be significantly delayed. He stated that the last
26 time he spoke with VDOT, they were going to revisit the bridge
27 replacement in early 2023, so the ACSA's project is on hold until they
28 hear back from VDOT. He added that ideally, VDOT will find funds ad a
29 contractor to move forward with their bridge replacement project.

30 Mr. Parcels asked at what point the ACSA will have to commit to
31 the project. Mr. Lynn replied that the ACSA staff will continue to

1 evaluate whether it is important to replace the line sooner, or if they
2 can wait longer and roll it in with VDOT's project. Mr. Parcels asked if
3 there would be a flex-point the ACSA could build up to, until the bridge
4 is replaced and then complete the rest. Mr. Lynn replied that the
5 project is small, so it would be difficult to get a contractor to come in
6 and do a portion of it, and then come back to complete it. He noted that
7 it would not be as cost effective as completing the project all at once.

8 Mr. Parcels stated that his next question was about the Madison
9 Park Pump Station Upgrade Project on page 79. He stated that this
10 project was scheduled to begin construction in October 2022, but it is
11 January 2023 and there has been no progress. He stated that he was
12 also curious about the submittals ACI is working on and how they
13 relate to the work.

14 Jeremy Lynn stated that the Notice to Proceed was issued in
15 October 2022, which is why the construction start date is listed as
16 such. He stated that no physical activity on the site is anticipated until
17 the summer. He noted that there have been significant lead times on
18 materials, so getting the submittals approved and orders placed is
19 critical at this point.

20 Mr. Parcels stated that his last question was about the Lewis Hill-
21 West Leigh Water Connection Project on page 80. He stated that the
22 Lewis Hill HOA has refused to grant the necessary easement and
23 asked what the next step is.

24 Jeremy Lynn stated that the ACSA staff is working with Mike
25 Derdeyn, ACSA attorney. He stated that they have found a deed but
26 there is no associated plat. He stated that the next step is to find out
27 what rights the ACSA has to the existing deed and if it can be used to
28 replace the existing line in the same location. He mentioned that the
29 preference was to put the line in a different location, but it may have to
30 go back in the same location.

1 Mr. Parcels asked if the HOA understood and was ok with this
 2 second option. Mr. Lynn replied that the ACSA has not presented this
 3 option to the HOA yet because staff wanted to make sure this option
 4 was feasible first.

5 Mr. Tolbert asked what the security film is that is mentioned in the
 6 Risk Assessment Improvements Phase 1 Project update. Mr. Lynn
 7 replied that security film is a product that is put on a window or door to
 8 strengthen them.

9 ***c. CIP Project Close-Outs –***

10 ***d. Monthly Maintenance Update –***

11 ***e. Rivanna Water and Sewer Authority (RWSA) Update –***

12 ***f. ACSA Board Policy Future Issues Agenda 2022 –***

13 ***g. Advanced Metering Infrastructure (AMI) Project Update –***

14 ***h. Holiday Schedule for 2023 –***

15 ***i. ACSA Board Meeting Schedule for 2023 –***

16 ***Mr. Tolbert moved to approve the consent agenda, seconded by***
 17 ***Mr. Parcels. The Chair asked for a roll-call vote: Mr. Parcels, aye;***
 18 ***Dr. Palmer, aye; Mr. Tolbert, aye; Mr. Roberts, aye; Mr. Armstrong,***
 19 ***aye; Mr. Moore, aye.***

20
 21 **7. Operational Presentation – Lead and Copper Regulations and**
 22 **Inventory**

23 Mr. O'Connell stated that Tim Brown, Environmental Compliance
 24 Specialist, and Jeremy Lynn, Director of Engineering, would present this
 25 Power Point together (Attached as Pages_____). He stated they would
 26 walk the Board through the regulations and how the ACSA is responding to
 27 those. He mentioned that the ACSA has done great inventory work and is
 28 way ahead of any regulatory requirements.

29 Jeremy Lynn stated that Tim Brown has been with the ACSA since
 30 2009 and oversees the environmental group, which handles the water
 31 quality, FOG, backflow prevention, and cross-connection programs. He

1 stated that Mr. Brown would begin the presentation by discussing the Lead
2 and Copper Rule, including what it is, how it is changed over the years and,
3 more specifically, the highlights from the revised Lead and Copper Rule
4 and how they are impacting the ACSA. Mr. Lynn stated that he would then
5 give an update on the efforts that the ACSA is currently undertaking and
6 where the organization is headed in the next year or two to reach full
7 compliance.

8 Tim Brown stated that he would attempt to bring the Board up to
9 speed on revisions to the Lead and Copper Rule. He stated that the rule
10 was established by the Environmental Protection Agency over 30 years
11 ago. He mentioned that it is a significant regulatory approach, but also a
12 unique one. He noted that although there were changes with the revisions,
13 there are three unique aspects of the rule that have not changed. He stated
14 that typically, the ACSA is responsible for delivering the cleanest and
15 safest water to the meters of its customers. He noted that with the Lead
16 and Copper Rule, however, the water purveyor has a responsibility for the
17 water to each customer's tap.

18 Mr. Brown stated secondly, the testing program is one in which the
19 customer collects the sample. He stated that the ACSA provides them with
20 significant detail and instructions, but the staff has to rely on the customer
21 to collect the sample in the manner prescribed. He stated that thirdly, when
22 the Lead and Copper Rule was established in 1991, there were also action
23 levels established for these two metals. He stated that for all other
24 contaminants that are monitored, there is a maximum contaminant level
25 (MCL). He noted that with lead and copper, there is no MCL but rather an
26 action level. He stated the water purveyor is required to take action when
27 more than 10% of the samples exceed a level of 15 parts per billion.

28 Mr. Brown stated that these significant revisions have been
29 discussed since 2004, which speaks to how slow and complicated the
30 federal regulatory process can be. He stated that the date for full
31 implementation of all the various changes is the fall of 2024.

1 Mr. Brown stated that the next slide shows six highlights from the
2 Revised Lead and Copper Rule that he would discuss. He stated that
3 Jeremy Lynn would touch on the first and most challenging revision, which
4 is service line identification and inventory. He mentioned that if lead service
5 lines are identified, there then needs to be a replacement plan. He stated
6 that another revision to the rule is the increase focus on corrosion control
7 treatment, and the ACSA has worked closely with RWSA in this area. He
8 stated that there are also changes to how the samples are collected and
9 the tiering, which determines which customers are asked for samples. He
10 noted, for example, if there is a lead service line identified, that customer is
11 not to collect the first draw from the tap after a period of non-use. He stated
12 that for customers with lead service lines, they are to collect a fifth liter
13 sample. He mentioned that he would also discuss the change in testing for
14 school and childcare facilities, which is now mandated. He added that the
15 last highlight he would touch on is the continued accountability, enhanced
16 transparency, and education for customers.

17 Mr. Brown moved to the next slide outlining corrosion control
18 treatment by RWSA. He stated that RWSA was very proactive in adjusting
19 the corrosion control treatment that they have used at all of the water
20 treatment plants for nearly 40 years. He noted that corrosion control by
21 RWSA preceded the EPA Lead and Copper Rule established in 1991. He
22 stated that with the approval of the Virginia Department of Health (VDH),
23 RWSA began a two-tiered shift from the use of polyphosphate to
24 orthophosphate at all of the plants. He mentioned that the latter is more
25 effective for lead and copper.

26 Mr. Brown stated that the first year of the shift involved using a
27 blended product of polyphosphate and orthophosphate. He stated that the
28 second year, the full shift was made to an all-orthophosphate product. He
29 mentioned that the Crozet system was the first to go through the two-year
30 cycle, followed by Scottsville. He noted that the Urban system is about 1.5
31 weeks away from completing the cycle as well. He added that there was a

1 significant event around 2014-2015 that is not reflected in the timeline and
2 that was the crisis in Flint, Michigan, which put the focus on the critical
3 nature of these new regulations that are finally in place.

4 Mr. Brown stated that he would next discuss school and childcare
5 facility testing. He stated that in the revised rule, there is a requirement that
6 there be testing in at least 20% of the elementary schools and licensed
7 childcare facilities annually. He mentioned that based on the revised rule's
8 definition of elementary school, this would include Albemarle County
9 middle schools as well. He noted that the mandate does not include high
10 schools, but they can petition to be included in the testing.

11 Mr. Roberts asked if schools outside of the jurisdiction area would
12 be tested, such as Broadus Wood Elementary. Mr. Brown replied that the
13 ACSA's responsibility is to the schools that we provide water to. He
14 mentioned that after the crisis in Flint, Albemarle County Public schools
15 (ACPS) was extremely proactive in testing all of their schools, including
16 those on wells. He noted that there was only one issue found with a rarely
17 used pot-scrubbing sink at one of the high schools. He stated that the sink
18 was immediately removed, replaced, and retested.

19 Mr. Brown stated that with the childcare facilities, the testing can be
20 done by the ACSA or the customer, if they are comfortable with following
21 the sample collection guidelines. Mr. Parcels asked if the testing is at the
22 cost of the ACSA. Mr. Brown replied yes. Mr. Parcels asked if it is also the
23 ACSA's responsibility to perform the testing for anyone and send the
24 samples off to the lab. Mr. Brown replied yes. He stated that the ACSA
25 makes use of the state labs in downtown Richmond, VA. He mentioned
26 that because samples have to be collected after a non-use period which is
27 typically first thing in the morning, most residents do not want ACSA staff
28 showing up that early to collect them.

29 Mr. Tolbert asked if a customer has a lead service line, who pays to
30 have it replaced. Mr. Brown stated that Mr. Lynn would cover that in the
31 next half of the presentation. He noted that there are an estimated 6-10

1 million lead service lines in the country, with 400,000 alone in Chicago. He
2 stated that our area is in a fortunate situation, in part because of the
3 newness of the construction. He mentioned, however, that even the
4 customers who had lines installed as far back as the 1960s when the lead
5 content of the solder was higher showed no detectable lead in their water.

6 Mr. Tolbert mentioned the required annual testing at the schools.
7 He asked if the lead is caused by the pipes, why does there need to be
8 testing every year. Mr. Brown replied that the testing is required annually at
9 20% of the schools. He stated that within five years, all schools will have
10 been tested at the elementary level, which includes middle schools in
11 Albemarle County. He stated that at the end of the five years, the testing is
12 not to continue unless there is another revision that extends the testing.

13 Mr. Tolbert stated that the rule is for lead and copper, and he has
14 heard all about the dangers of lead. He stated that he has copper pipes in
15 his house but has not heard anything about the dangers of copper. Mr.
16 Brown replied that the strong focus of the Lead and Copper Rule from the
17 beginning, and maybe even more so now, has been on lead as opposed to
18 copper. He mentioned that with the revised rule, samples collected for
19 copper testing are taken from the first liter, as opposed to the fifth liter for
20 lead. He stated that the action level for lead is 15 parts per billion, but for
21 copper it is much higher at 1.3 parts per million which is 1,300 parts per
22 billion. He noted that in other words, there has to be an excessive amount
23 of copper before there is a health concern. He added that this is largely
24 why there is such a focus on lead.

25 Dr. Palmer stated that she had lead solder in her kitchen plumbing
26 years ago. She stated that when she had it tested, the health department
27 indicate that it was way over the action level. She asked if stores have
28 stopped selling lead solder completely. Mr. Brown replied yes. He stated
29 that it was first reduced in 1986 and most recently around 2015. He noted
30 that anyone can safely use the solder that is manufactured today.

1 Dr. Palmer asked if the Virginia Extension Service that performs
2 well testing would have to do anything different because of the revisions.
3 Mr. Brown replied that if anything, their testing may increase but they are
4 not water purveyors like the ACSA. Dr. Palmer asked who was paying for
5 the lead line replacement on private property. Mr. Brown replied that it is
6 not a short answer. He stated that there is federal money available to assist
7 with the replacements.

8 Mr. Lynn stated that next he would talk about the lead service line
9 identification and inventory efforts, which is the bulk of what the ACSA has
10 been focused on. He stated that the graphic on the next slide shows a
11 typical set up at a customer's home. He stated that there is a water main in
12 the street, an ACSA owned line between the main and the meter, which is
13 essentially where the water shut-off valve is located. He stated that from
14 the meter to the house is the customer's private service line.

15 Mr. Lynn stated that the ACSA as the water purveyor, has been
16 tasked with establishing an inventory of the public and private lines. He
17 stated that this will be a living document that will continue to be updated
18 based on the findings in the field. He mentioned that the ACSA must
19 include information on active and inactive services. He added that the EPA
20 is also requiring any utility system with over 50,000 customers to make this
21 information available online.

22 Mr. Lynn stated that on the public side, the ACSA has decided to
23 identify the actual material of the pipe such as copper, plastic, or
24 galvanized. He stated that because it is an asset owned by the ACSA, it is
25 imperative that the staff know exactly what material the pipe is. He stated
26 on the private side, however, the EPA has identified four classifications
27 which are lead, galvanized requiring replacement, non-lead, or lead status
28 unknown. He noted that the challenging part with lines where the lead
29 status is unknown, the ACSA must assume they are lead until they
30 determine it is not.

1 Mr. Lynn stated that the ACSA has established a methodology on
2 how to identify both the public and private side, which is outlined on the
3 next slide. He stated that the bulk of the lines that have been identified to
4 date, have been through age of construction. He mentioned that there was
5 a federal lead ban on the public side that went into effect in 1986, therefore
6 anything newer than around 1998 cannot be lead on the public side. He
7 stated that on the private side, the Uniform Building Code of 1978 outlawed
8 the use of lead, thus any lines newer than around 1979 on the private side
9 would not contain lead.

10 Mr. Lynn stated that the ACSA staff has also began to look at water
11 system records and as-built drawings on the public side. He stated that
12 with new main installation, everything that is being installed is updated in
13 the GIS system right away. He stated that with CIP projects such as
14 Jefferson Village, the staff was able to physically see every private service
15 line when they were connected from the new service back to the old line.
16 He stated that the ACSA has not gotten as far as performing in-home
17 inspections or excavation but may have to as the staff attempts to reach
18 100% identification and inventory. He stated that with excavation, which is
19 costly and time consuming, they would dig around the meter a few feet in
20 either direction to see both the public side and the private side.

21 Mr. Lynn stated that the next slide shows an illustration of the
22 dashboard the IT team created to track the progress. He stated that there
23 is about 85% completion on both the public and private side. He noted that
24 the grey areas are what the ACSA has not been able to determine so far.
25 He stated that the same data is shown in the middle as a map, so it is easy
26 to see areas of the system that the staff needs to focus on. He stated that
27 the pie chart on the right shows where the data came from, with the biggest
28 portion being identified through age of construction. He noted that the
29 important part is that to date, there has been nothing identified that would
30 be categorized as lead.

1 Dr. Palmer stated that she remembers being told a long time ago
2 that the raw water line from Sugar Hollow to Ragged Mountain has lead
3 joints. She asked if this is taken out during the water treatment process. Mr.
4 Lynn replied yes. He noted that the good thing about those packings is that
5 they are on the outside of the pipe, so it is not in contact with the water
6 itself.

7 Mr. Lynn stated that in terms of next steps, the ACSA has been in
8 touch with its liaison, Lindsay Snoddy with ACPS and will be moving
9 forward with testing at the schools. He noted that most schools do not want
10 to be in year four or five of testing, so it is likely that all of the testing will
11 occur in the first year. He mentioned that the ACSA has not reached out to
12 the licensed childcare facilities yet, as it needs to determine a
13 communication and testing plan before starting the process. He added that
14 the ACSA will also continue its service line identification and inventory
15 efforts.

16 Mr. Roberts asked if it was the health department's responsibility to
17 conduct testing and then file with the Department of Education to license
18 private or public schools. Mr. Lynn replied that the ACSA will probably be
19 working directly with the schools and childcare facilities, getting the results
20 from the state lab, and sharing that information with the schools and the
21 VDH.

22
23 9. ACSA 2022 Annual Report- Power Point Presentation

24 Mr. O'Connell stated that this presentation (Attached as
25 Pages_____) would take a look back over the past year. He stated that it
26 was an amazing year, given that COVID was still in our midst. He
27 mentioned that all of the strategic goals were met, and customers were still
28 provided with a high level of service. He stated that it was a sudden
29 challenge to the ACSA workplace and continued to be. He noted that Emily
30 Roach, in particular, dealt with all types of employee issues and every

1 department head dealt with scheduling issues and various changes that
2 occurred.

3 Mr. O'Connell stated that the next slide entitled "The Year That
4 Was" shows highlights of the past year from a Board perspective. He
5 stated that there were many months spent on the budget and rates, and
6 there was a formal rate study that helped structure the budget process. He
7 mentioned that there were a number of issues centered around
8 disconnections and changes occurring due to the pandemic. He stated that
9 there were contractor issues and mediations that took a lot of staff and
10 Board time. He stated that the ACSA reviewed its investment policies and
11 there were a couple of bigger agreements around the Urban water system
12 cost allocation, as well as a couple of line transfers that occurred with
13 RWSA. He added that the ACSA also transitioned back from virtual to in-
14 person Board meetings. He stated that there was a lot of effort from the IT
15 staff to make that shift.

16 Mr. O'Connell moved to the next slide which outlined all of the
17 background and operational presentations given to the Board over the past
18 year. He stated that the staff has attempted to give the Board an
19 awareness of operational things happening day-to-day. He mentioned that
20 the presentations cover a variety of topics, and he enjoys having different
21 staff members present every month.

22 Mr. O'Connell stated that the next slide shows the ACSA
23 Leadership Team that makes things happen. He stated that it has change a
24 bit and will probably change more over the next few years. He stated that
25 the following slide shows a picture of the ACSA staff that includes Mr.
26 Roberts and a few retirees. He stated that the employees are the heart and
27 soul of the ACSA, and their work is greatly appreciated. He stated that the
28 recent customer survey results, illustrated in the next couple of slides,
29 show that customers appreciate their hard work as well.

30 Mr. O'Connell stated that 85% of customers that took the survey
31 are satisfied overall with the ACSA and rate the ease of doing business

1 with the ACSA as easy. He stated that the consulting firm that the ACSA
2 worked with on the survey said that 85% is one of the higher percentages
3 that they have seen.

4 Dr. Palmer asked how many customers answered the survey. Mr.
5 O'Connell replied that he believes there were 700 customers that
6 responded. Mr. Parcells stated that in 2019, 1,200 people responded to the
7 survey and the satisfaction rate was much higher at around 95%. Mr.
8 O'Connell stated that the last survey was done by the ACSA alone, and
9 neutral responses were added in the total. He stated with this recent
10 survey, the ACSA used a group of consultants that conduct these surveys
11 nationally. He noted that the consultants recommended removing the
12 neutral responses from the total, as some customers that respond with
13 neutral could still have a negative opinion.

14 Mr. O'Connell stated that the next slide shows a bar graph of
15 customer responses to various statements. He stated that the one he
16 thinks is the most significant is the response to the statement about the
17 ACSA having reasonable prices. He mentioned that even though the ACSA
18 does not hear from customers directly or at the budget and rates public
19 hearings, 40% of the customers that responded to the survey have
20 concerns over the rates. He noted that while this only represents 700 of the
21 ACSA's 20,000 costumers, it is still a significant percentage. Dr. Palmer
22 stated that she does not disagree, but people who answer surveys are
23 frequently people who have an issue so there can be some bias in their
24 responses.

25 Mr. O'Connell moved to the next slide which illustrated water quality
26 satisfaction in the form of pie graphs. He stated that the ACSA prides itself
27 on safe, clean, reliable water and most customers see that with the level of
28 the water quality. He stated that the ACSA continues to have excellent
29 results on all the testing that is done. He noted that there are 400,000 tests
30 performed on the water every year.

1 Mr. O'Connell stated that he would next go over some of the key
2 accomplishments over the past year. He stated that one of the big Strategic
3 Plan items was succession and preparing people for transitions. He stated
4 that the following slide lists people that have made successful transitions,
5 some of which are long-term employees that have done a lot of training to
6 get ready. He noted that some of the employee training was delayed due to
7 COVID. He mentioned that the UVA Darden School is a new training
8 resource that many of the department heads have utilized. He stated that
9 BizLibrary is a new training resource as well, which uses videos on a
10 variety of topics from safety to leadership. He added that the staff would go
11 into more detail on this topic next month.

12 Mr. O'Connell stated that there were significant advancements with
13 AML, even with the meter issue. He stated that CityWorks was a huge
14 project that is continuing to be refined as the data is being used. He
15 mentioned that the Compensation Study was a significant effort to keep the
16 ACSA competitive with the market, which is a continuing struggle. He
17 stated that the new MyWater branding will be seen more after the new AML
18 system is fully implemented. He noted that the Best Practices review was
19 completed this past fall, and there were some recommendations that came
20 out of that. He added that the IT staff has also done a number of things to
21 improve the ACSA's cybersecurity, and security in general.

22 Mr. O'Connell stated that another huge project for the ACSA, which
23 was not foreseen with the last Strategic Plan, was the switch to a new
24 financial system – Munis. He stated that this is the first year that budgets
25 were developed using the system. He stated that he wanted to thank the
26 Finance and Human Resources & Administration staff for all of their hard
27 work on that project. He stated that Mike Lynn, Director of Operations, has
28 worked hard to put emergency response plans in place. He noted that one
29 item the ACSA spent a lot of time on over the past year is the customer
30 arrearages and payment plans. He stated that the ACSA received federal
31 grants to assist customers with their bills to avoid disconnection. He stated

1 that the percentage of customers utilizing electronic payments hit 70%,
2 which shows the ACSA's success in converting customers to more
3 convenient payment methods.

4 Mr. O'Connell stated that the next few slides represented some of
5 the bigger CIP projects from the last year. He stated that the first one was
6 the Hessian Hills Water Main Replacement Project, which the staff spent a
7 lot of time talking about due to contractor issues. He noted that it was one
8 of the more difficult projects but in the end, it yielded a good product. He
9 stated that the Oak Forest Pump Station Abandonment Project was a new
10 type of project for the ACSA, not to mention a big one, but it was
11 successful. He stated that the final one he wanted to mention, which is
12 about to reach completion, is the Jefferson Village Water Main
13 Replacement Project. He stated that this project has gone faster than
14 expected and will most likely be completed ahead of schedule.

15 Mr. O'Connell stated that looking ahead at 2023, the ACSA is
16 hopeful that AMI will get to the next phase. He stated that the budget
17 process will begin in March, as well as discussions for the new Strategic
18 Plan.

19 Mr. Parcels stated that in the Strategic Plan summary, there are a
20 couple of red dots on page 9 of the list which, according to the legend,
21 indicates that those items have not been started. He noted, however, the
22 metrics next to them refer to items in the past tense, which does not make
23 sense because the project has not been started. He stated that it is a minor
24 matter of semantics, but the metrics might be better stated in the future
25 tense.

26
27 10. Strategic Plan 2020-2022 Final Update Report

28 Mr. O'Connell stated that the staff has provided the Board with
29 quarterly updates on the Strategic Plan over the three-year period. He
30 stated that the end of December, in essence, was the end of the current
31 Strategic Plan, and this is the final update (Attached as Pages_____).

1 He stated that the first slide outlines the ACSA's vision and values, which
2 focus on safe, clean, reliable water and high-quality customer service. He
3 stated that he thinks the feedback the ACSA receives from its customers
4 reinforces that idea.

5 Mr. O'Connell stated that the second slide is an AMI graphic from
6 the original Strategic Plan three years ago. He stated that there has been a
7 tremendous amount of work done on this project, and all of the
8 infrastructure is in place. He mentioned that the ACSA is now waiting on
9 the meters. He noted that there has already been great success with the
10 200 meters that are in the ground, from leak detection to water
11 conservation.

12 Mr. O'Connell stated that CityWorks was another huge project,
13 which was summarized on the next slide. He stated that it involved a huge
14 number of employees and big transitions from doing things by hand to a
15 sophisticated tracking system. He mentioned that there are lots of reports
16 and information that the staff can utilize and is still learning about. He noted
17 that he wanted to thank the CityWorks team, which was led by Justin Ray,
18 GIS and CMMS Coordinator. He added that April Walker, Director of IT,
19 Mike Lynn and his staff, as well as a number of other employees were
20 heavily involved in the process as well.

21 Mr. O'Connell stated that he touched on most of the areas of focus
22 listed in the next slide, including succession planning and best practices
23 inclusion. He mentioned the Emergency Response Plan and that part of
24 Mike Lynn's efforts over the next year will be to take this a step further and
25 institutionalize it. He stated that improved data utilization will be an area of
26 focus, as well as implementing recommendations from the IT Risk
27 Assessment. He noted that the Facility Master Plan Project is underway,
28 and the ACSA is currently going through the County planning process. He
29 stated that the final area of focus is related to employee pay and ensuring
30 that the ACSA stays competitive in the market, which will be a continuing
31 effort.

1 Mr. Parcels stated that with respect to the Emergency Response
2 Planning, he noticed that there was mention of tabletop exercises and an
3 effort to conduct one annually. He asked if the ACSA participated in one
4 last year. Mr. O'Connell replied no. He stated that RWSA is planning a
5 regional exercise around one of the dams, and the ACSA will try to
6 incorporate its exercise in the midst of that bigger, regional exercise.

7
8 11. Imagine a Day Without Water Art Contest

9 Mrs. Roach stated that this was the 8th annual Imagine a Day
10 Without Water Art Contest that the ACSA has participated in, in conjunction
11 with the City of Charlottesville and RWSA. She stated that students were
12 asked to create artwork that displayed the theme of the "Value of Water."
13 She stated that she had a short video about the art contest and the winners
14 that she would now share with the Board.

15 Dr. Palmer stated that she knows RWSA displays some of the
16 artwork submissions at their offices in the hallway, and asked if the ACSA
17 does the same thing. Mrs. Roach replied yes. She stated that the artwork is
18 displayed in the lobby upstairs, and they are also utilized in various ACSA
19 publications such as the budget and PAFR. Mr. Tolbert asked if the ACSA
20 will be participating in this event again this year and if so, what the dates
21 would be. Mrs. Roach replied yes and that it would be in the fall.

22
23 12. Items Not on the Agenda

24 There were no items to discuss.

25
26 13. Adjourn

27 *There being no further business, Mr. Parcels moved that the*
28 *meeting be adjourned, seconded by Dr. Palmer. All members voted*
29 *aye.*

1

2

Gary B. O'Connell, Secretary-Treasurer

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Monthly Financial Reports STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance	AGENDA DATE: February 16, 2023 ACTION: Informational ATTACHMENTS: Yes
----------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------

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

DISCUSSION:

- Water consumption for the month of December decreased 9.3% compared to November. Water consumption for the month of December 2022 compared to December 2021 decreased 4.0%.
- RWSA's invoice of \$2,025,214 for the month of December was paid on January 6, 2023.
- Unearned water and sewer connection charges totaled \$1,535,381 at month end.
- System connection charges were above budgeted expectations with \$559,005 recognized in December. Total system connection charges for FY 2023 are more than those in FY 2022 by 2%.
- Water and Wastewater revenues for FY 2023 are above budgeted expectations by 0.7%. Please see the water/wastewater trend analysis included illustrating that when adjustment for expected variations in seasonal consumption are considered, revenues are 2.7% lower than budgeted expectations.
- The ACSA has received nearly \$20,000 for 50 ACSA customers that have submitted applications and requested assistance through the LIHWAP program for qualifying arrearages.
- Per Board request at last month's meeting, we have included a comparison of monthly charges from the RWSA for water and sewer treatment services. This comparison will be updated monthly and included in future board packets.

BUDGET IMPACT: Informational only.

RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ATTACHMENTS:

1. Statement of Net Position
2. Year-to-Date Budget to Actual Comparison/Commentary
3. Investment Summary
4. Capacity/System Development Reserves

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

ATTACHEMNTS (Continued):

5. Connection Charges/ERC Analysis
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. Monthly Water and Sewer Charges from the RWSA
12. Check Register

ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF NET POSITION

January 31, 2023

ASSETS

Cash and cash equivalents	\$ 10,599,123
Accounts receivable	4,393,891
Investments	43,143,630
Capital assets: (net of accumulated depreciation)	177,737,134
Inventory	552,651
Prepays	67,788
Cash and cash equivalents, restricted	448,590
	<hr/>
Total assets	236,942,807
	<hr/>

DEFERRED OUTFLOWS OF RESOURCES

Combined deferred outflows of resources	1,174,141
	<hr/>

LIABILITIES

Accounts payable	2,058,240
Accrued liabilities	356,763
Compensated absences	763,469
Net pension liability	695,494
Other post-employment benefits	1,144,368
Unearned connection fees	1,535,381
Long-term debt	4,669,118
	<hr/>
Total liabilities	11,222,833
	<hr/>

DEFERRED INFLOWS OF RESOURCES

Combined deferred inflows of resources	2,880,258
	<hr/>

NET POSITION

224,013,857

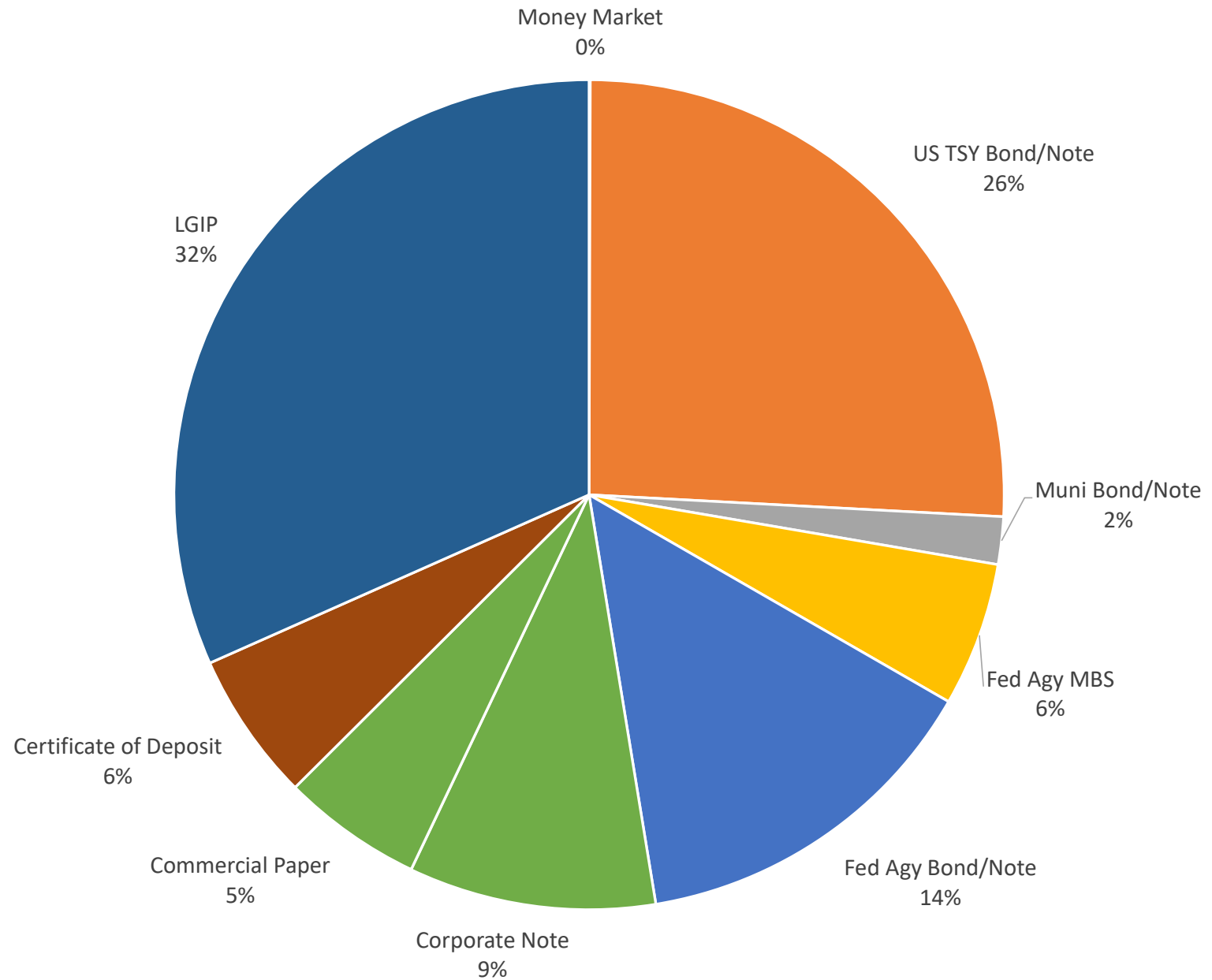
ALBEMARLE COUNTY SERVICE AUTHORITY
For the One Month Ending January 31, 2023

	Budget FY 2023	Budget Year-to-Date 2023	January Actual Year-to-Date	Actual vs. Budget	Variance Percentage
Revenues					
Water Sales	19,285,000.	11,249,583.	11,201,296.	(48,287.)	(0.43%)
Sewer Service	15,137,000.	8,829,917.	9,017,829.	187,912.	2.13%
Total operating revenues	34,422,000.	20,079,500.	20,219,125.	139,625.	0.70% A
Operating Expenses					
Purchase of bulk water	(13,774,000.)	(8,034,833.)	(7,768,057.)	266,776.	(3.32%) B
Purchase of sewer treatment	(10,776,000.)	(6,286,000.)	(6,433,462.)	(147,462.)	2.35% B
Administration	(1,306,475.)	(762,110.)	(738,588.)	23,522.	(3.09%) C
Finance	(2,516,082.)	(1,467,715.)	(1,384,792.)	82,923.	(5.65%) C
Information Technology	(1,521,900.)	(887,775.)	(798,838.)	88,937.	(10.02%) C
Engineering	(2,289,721.)	(1,335,671.)	(1,265,415.)	70,256.	(5.26%) C
Maintenance	(4,726,083.)	(2,756,882.)	(2,200,281.)	556,601.	(20.19%) C
Total operating expenses	(36,910,261.)	(21,530,986.)	(20,589,433.)	941,553.	(4.37%)
Operating gain(loss)	(2,488,261.)	(1,451,486.)	(370,308.)	1,081,178.	(74.49%)
Nonoperating Revenues					
System connection charges	5,926,800.	3,457,300.	5,555,615.	2,098,315.	60.69% D
Investment/Interest Income	100,000.	58,333.	426,938.	368,605.	631.89% E
Rental income	16,000.	9,333.	8,508.	(825.)	(8.84%)
Miscellaneous revenues	455,000.	265,417.	486,336.	220,919.	83.23% F
Total nonoperating revenues (expenses)	6,497,800.	3,790,383.	6,477,397.	2,687,014.	70.89%
Nonoperating Expenses					
Miscellaneous expenses	(434,200.)	(253,283.)	(118,628.)	134,655.	(53.16%) G
Bond interest charges	(162,272.)	(94,659.)	(106,600.)	(11,941.)	12.62% H
Depreciation	0.	0.	(2,436,893.)	(2,436,893.)	0.00% I
Total nonoperating revenues (expenses)	(596,472.)	(347,942.)	(2,662,121.)	(2,314,179.)	665.10%
Capital contributions	0.	0.	479,670.	479,670.	0.00%
Change in Net Position	3,413,067.	1,990,955.	3,924,638.	1,933,683.	97.12%

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

- A.** Water and sewer revenues exceed budgeted amounts by 0.70%. Consumption through January (gallons) appears reasonable considering the ACSA's normal seasonal consumption pattern. Further 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 0.83%. 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.
- D.** System connection charges are higher than the prorated 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 losses on disposal of capital assets. 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.

Allocation of Investments by Type



Portfolio Summary and Statistics

For the Month Ending **January 31, 2023**

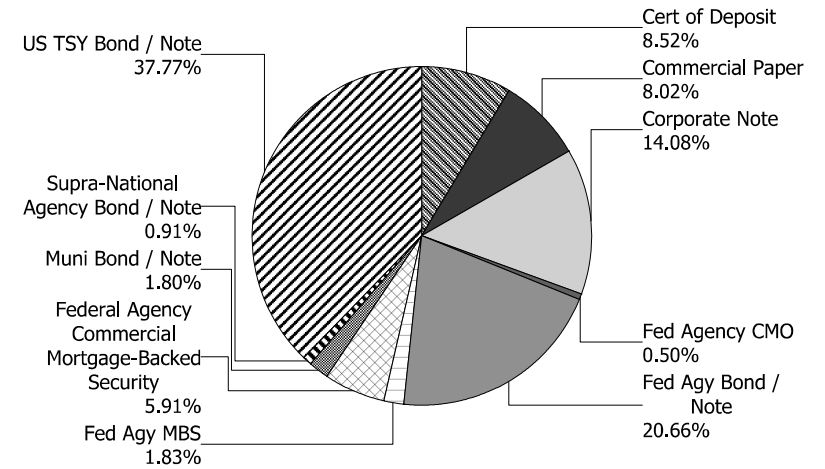
ACSA OPERATING FUNDS - 03100100

Account Summary

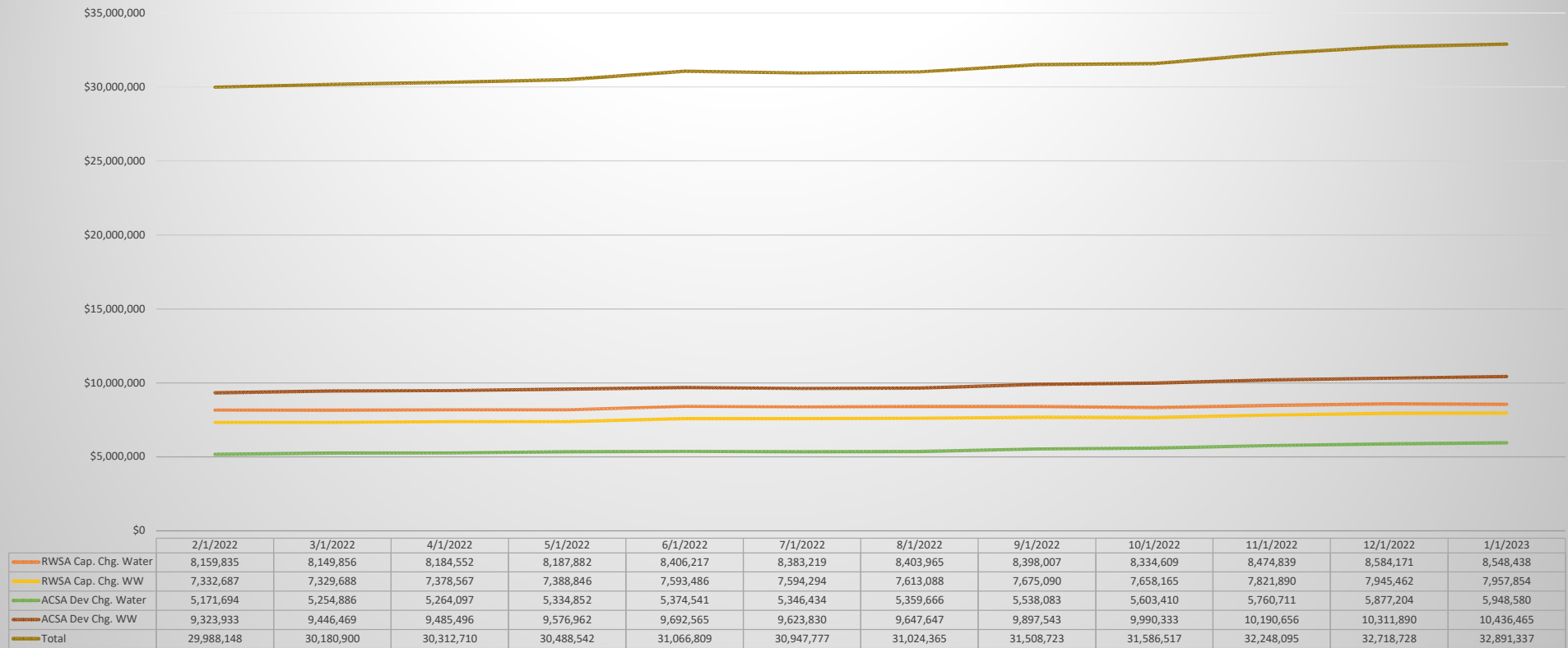
Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	11,655,000.00	11,123,531.37	37.77
Supra-National Agency Bond / Note	265,000.00	267,073.63	0.91
Municipal Bond / Note	550,000.00	531,321.00	1.80
Federal Agency Mortgage-Backed Security	566,457.27	538,585.92	1.83
Federal Agency Commercial Mortgage-Backed Security	1,783,018.11	1,740,046.94	5.91
Federal Agency Collateralized Mortgage Obligation	150,000.00	146,472.15	0.50
Federal Agency Bond / Note	6,235,000.00	6,086,645.92	20.66
Corporate Note	4,215,000.00	4,148,119.85	14.08
Commercial Paper	2,400,000.00	2,362,858.20	8.02
Certificate of Deposit	2,525,000.00	2,510,979.35	8.52
Managed Account Sub-Total	30,344,475.38	29,455,634.33	100.00%
Accrued Interest		116,759.97	
Total Portfolio	30,344,475.38	29,572,394.30	

Unsettled Trades	150,000.00	144,547.20
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Sector Allocation



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
December 2022**

Area	December 2022 Monthly Connection Fees	December 2021 Monthly Connection Fees	\$ Change	% Change
Crozet	\$ 141,435	\$ 134,700	\$ 6,735	5%
Urban	417,570	228,990	188,580	82%
Scottsville	-	-	-	-
Total Connection fees	\$ 559,005	\$ 363,690	\$ 195,315	54%
Through December				
Area	YTD FY 2023 Connection Fees	YTD FY 2022 Connection Fees	\$ Change	% Change
Crozet	\$ 936,165	\$ 727,380	\$ 208,785	29%
Urban	3,773,015	3,889,100	(116,085)	-3%
Scottsville	-	-	-	-
Total Connection fees	\$ 4,709,180	\$ 4,616,480	\$ 92,700	2%

Area	December 2022 ERC's	December 2021 ERC's	Change	% Change
Crozet	11	10	1	10%
Urban	31	17	14	82%
Scottsville	-	-	-	-
Total ERC's	42	27	15	56%
Through December				
Area	YTD FY 2023 ERC's	YTD FY 2022 ERC's	Change	% Change
Crozet	70	54	16	30%
Urban	280	289	(9)	-3%
Scottsville	-	-	-	-
Total ERC's - YTD	350	343	7	2%

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
December 2022**

Area	December 2022 ERC's	December 2021 ERC's	December 2020 ERC's
Crozet	11	10	8
Urban	31	17	10
Scottsville	-	-	-
Total ERC's	42	27	18

Through December			
Area	YTD 2023 ERC's	YTD 2022 ERC's	YTD 2021 ERC's
Crozet	70	54	117
Urban	280	289	261
Scottsville	-	-	-
Total ERC's - YTD	350 #	343	378

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, YTD ERCs in Fiscal Year 2023 appear reasonable considering continued development within the ACSA's service area.

**Albemarle County Service Authority
Consumption Analysis
Fiscal Year 2023**

	FY 2023 Consumption	FY 2022 Consumption		Monthly Precipitation (In.)	
				FY 2023	FY 2022
July	155,932,214	162,247,194	-3.89%	6.42	2.30
August	159,969,362	183,549,927	-12.85%	4.10	4.60
September	155,676,979	167,986,757	-7.33%	2.79	5.46
October	152,513,014	159,438,005	-4.34%	2.24	5.26
November	148,761,821	148,641,595	0.08%	4.52	1.01
December	134,997,083	140,551,064	-3.95%	4.60	0.26
January		142,192,560	-100.00%		4.04
February		127,434,073	-100.00%		1.81
March		131,636,356	-100.00%		3.50
April		135,122,656	-100.00%		3.23
May		144,519,955	-100.00%		6.04
June		150,608,842	-100.00%		4.11
	907,850,473	1,793,928,984		24.67	41.62
YTD	907,850,473	962,414,542	-5.67%	24.67	18.89

Note: Consumption through December 2022 is 5.67% less than the same period in fiscal year 2022. 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)

December 2022

Billed by Area:	Water	Sewer
Crozet	16,509,446	15,300,338
Scottsville	1,023,186	730,431
Urban	117,430,748	104,971,575
Red Hill	33,703	0
Total	134,997,083	121,002,344

Billing by Sewer Plant:	
AWT	120,271,913
less Glenmore	(3,587,150)
Urban Total	116,684,763
Scottsville	730,431
Total	117,415,194

Number of Installed Meters:	
Urban	28
Crozet	13
Scottsville	0
Total	41

Metered Consumption (billed by invoice):	
Urban	415,900
Crozet	14,000
Scottsville	0
Total	429,900

Unmetered Consumption:	
ACSA Fire Flow Consump.	14,010
Total	14,010

Unmetered Leak Consumption (estimated):	
1313 Peach Tree Dr-12/6	Crozet 500
1160 Cedarbrook Ct-12/8	Crozet 1500
101 Terrybrook Dr-12/9	Urban 300
5224 Three Notch Rd-12/10	Crozet 500
301 Rookwood Dr-12/19	Urban 500
Ashwood Blvd PRV-12/28	Urban 200
Total	3,500

Billed Consumption for Selected Customers

	<u>Water</u>	<u>Sewer</u>		<u>Water</u>	<u>Sewer</u>
*Virginia Land Holding	455,266	455,266	Boar's Head Inn	446,318	420,518
Southwood Mobile Homes	1,578,480	2,230,000	Farmington, Inc.	635,751	429,648
Turtle Creek Apts.	1,220,121	1,219,321	Westgate Apts.	1,277,915	1,277,915
Barracks West Apartments	1,460,500	1,460,500	Abbingdon Crossing	1,949,731	1,949,731
Monroe Health & Rehab.	896,020	896,020	Four Seasons Apts	1,762,958	1,762,958
Sunrise Senior "Colonnades"	647,760	405,060	Ch'ville/Alb Airport	121,625	122,194
ACRJ	919,660	869,660	State Farm Insurance	455,370	455,370
Westminster Canterbury	1,289,260	1,228,260	Hyatt @ Stonefield	313,174	313,174
SEMF Charleston	1,592,486	1,592,486	Doubletree	455,312	455,312
Martha Jefferson Hospital	1,587,543	1,296,543	Arden Place Apts	436,914	436,914
Crozet Mobile Home Village	272,600	272,600	Hilton Garden Inn	249,247	238,973
The Home Depot (prev Fashion Sq)	125,505	125,505	The Blake & Charlottesville	280,077	280,077
County of Albemarle	1,108,766	998,477	The Lodge @ Old Trail	261,379	261,379
University of Virginia	1,178,567	1,176,310	Gov't-Defense Complex	433,420	413,417
Wegmans	300,551	300,551	Harris Teeter Stores	102,084	102,084

* indicates Industrial Discharge Permit Holders

WATER

Class Type	Number of Connections by Area			Total
	Urban	Crozet	Scottsville	
Single-Family Residential	15,773	3,753	196	19,722
Multi-Family Residential	557	43	3	603
Commercial (Offices)	202	12	5	219
Commercial (Other)	925	76	52	1,053
Industrial	36	11	4	51
Institutional	171	32	12	215
Total Water Accounts	17,664	3,927	272	21,863
Plus Multiple Units	12,877	748	89	13,714
Total Water Units	30,541	4,675	361	35,577

SEWER

Class Type	Number of Connections by Area			Total
	Urban	Crozet	Scottsville	
Single-Family Residential	13,463	3,475	158	17,096
Multi-Family Residential	526	41	4	571
Commercial (Offices)	186	12	5	203
Commercial (Other)	719	52	44	815
Industrial	15	5	1	21
Institutional	133	25	10	168
Total Sewer Accounts	15,042	3,610	222	18,874
Plus Multiple Units	12,460	745	56	13,261
Total Sewer Units	27,502	4,355	278	32,135

POPULATION SERVED

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

	Urban	Crozet	Scottsville	Total
Total Water Customers	71,625	11,253	713	83,590
Total Sewer Customers	64,808	10,550	535	75,893

**Albemarle County Service Authority
Major Customer Analysis
December 2022 and December 2021**

	December 2022		December 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
Abbingtion Crossing	1,949,731	1,949,731	1,723,000	1,723,000	13.16%	13.16%
Martha Jefferson Hospital	1,587,543	1,296,543	1,440,670	1,134,170	10.19%	14.32%
Westgate Apts.	1,277,915	1,277,915	1,161,000	1,160,700	10.07%	10.10%
Westmisnster Canterbury	1,289,260	1,228,260	1,199,110	1,139,110	7.52%	7.83%
Four Seasons Apts.	1,762,958	1,762,958	1,693,000	1,693,000	4.13%	4.13%
Barracks West Apartments	1,460,500	1,460,500	1,424,300	1,424,300	2.54%	2.54%
County of Albemarle	1,108,766	998,477	1,117,742	995,542	-0.80%	0.29%
SEMF Charleston	1,592,486	1,592,486	1,629,200	1,629,200	-2.25%	-2.25%
Turtle Creek Apts.	1,220,121	1,219,321	1,330,900	1,330,000	-8.32%	-8.32%
Southwood Mobile Homes	1,578,480	2,230,000	1,807,000	2,716,306	-12.65%	-17.90%
University of Virginia	1,178,567	1,176,310	1,479,470	1,400,900	-20.34%	-16.03%
ACRJ	919,660	869,660	1,341,380	1,303,380	-31.44%	-33.28%

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
December 2022 and November 2022**

	December 2022		November 2022		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
SEMF Charleston	1,592,486	1,592,486	1,421,852	1,421,852	12.00%	12.00%
Southwood Mobile Homes	1,578,480	2,230,000	1,514,260	2,020,000	4.24%	10.40%
Abbingtion Crossing	1,949,731	1,949,731	1,884,832	1,884,832	3.44%	3.44%
Barracks West Apartments	1,460,500	1,460,500	1,454,200	1,454,200	0.43%	0.43%
Westgate Apts.	1,277,915	1,277,915	1,272,791	1,272,191	0.40%	0.45%
Four Seasons Apts.	1,762,958	1,762,958	1,892,499	1,892,499	-6.84%	-6.84%
Martha Jefferson Hospital	1,587,543	1,296,543	1,744,721	1,263,541	-9.01%	2.61%
Turtle Creek Apts.	1,220,121	1,219,321	1,349,683	1,348,783	-9.60%	-9.60%
ACRJ	919,660	869,660	1,030,210	954,210	-10.73%	-8.86%
Westmisnster Canterbury	1,289,260	1,228,260	1,457,890	1,359,890	-11.57%	-9.68%
County of Albemarle	1,108,766	998,477	1,295,740	1,152,753	-14.43%	-13.38%
University of Virginia	1,178,567	1,176,310	1,490,511	1,487,946	-20.93%	-20.94%

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 -- December

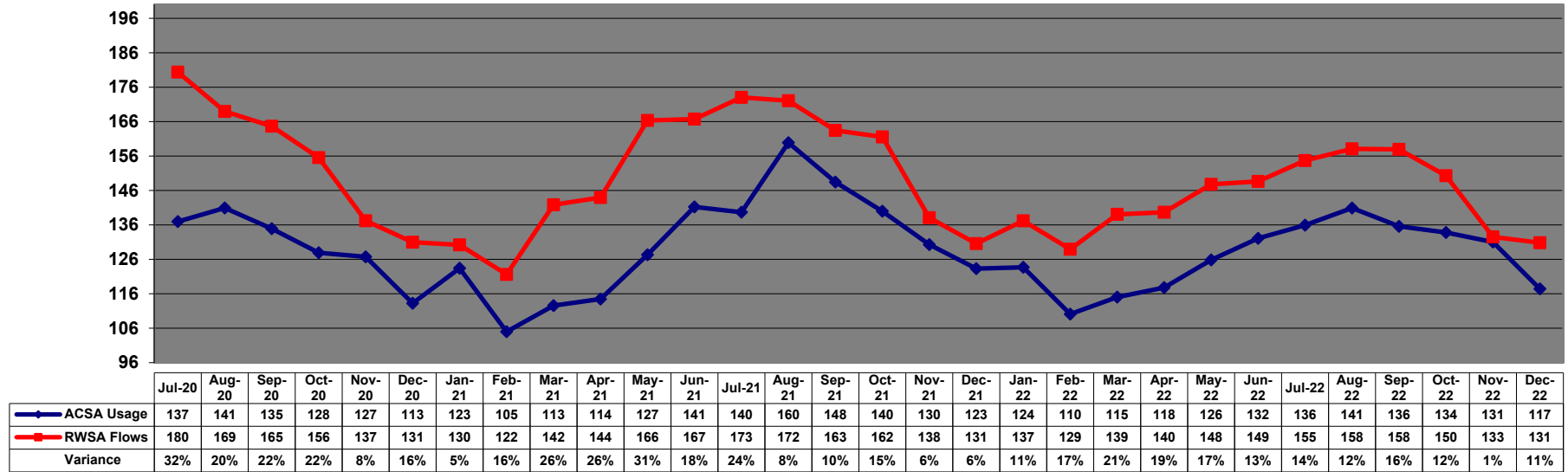
	YTD FY 2023		YTD FY 2022		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
Four Seasons Apts.	10,230,384	10,230,384	9,582,000	9,582,000	6.77%	6.77%
Abbingtion Crossing	11,204,409	11,204,409	10,539,200	10,539,200	6.31%	6.31%
Westgate Apts.	7,644,576	7,638,276	7,369,000	7,360,000	3.74%	3.78%
Martha Jefferson Hospital	13,205,082	6,788,578	12,757,033	6,407,933	3.51%	5.94%
Barracks West Apartments	8,877,100	8,877,100	8,724,300	8,724,300	1.75%	1.75%
Turtle Creek Apts.	7,422,055	7,395,955	7,631,200	7,624,000	-2.74%	-2.99%
Southwood Mobile Homes	10,659,735	12,880,000	11,677,000	22,361,550	-8.71%	-42.40%
County of Albemarle	8,193,442	6,480,043	9,405,626	7,133,626	-12.89%	-9.16%
Westmisnster Canterbury	9,113,550	8,529,550	10,588,380	9,016,380	-13.93%	-5.40%
University of Virginia	11,726,114	11,701,118	15,635,420	15,344,493	-25.00%	-23.74%
ACRJ	6,661,370	5,650,370	9,463,190	8,462,190	-29.61%	-33.23%
SEMF Charleston	8,666,787	8,666,787	13,323,850	13,323,850	-34.95%	-34.95%

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.**

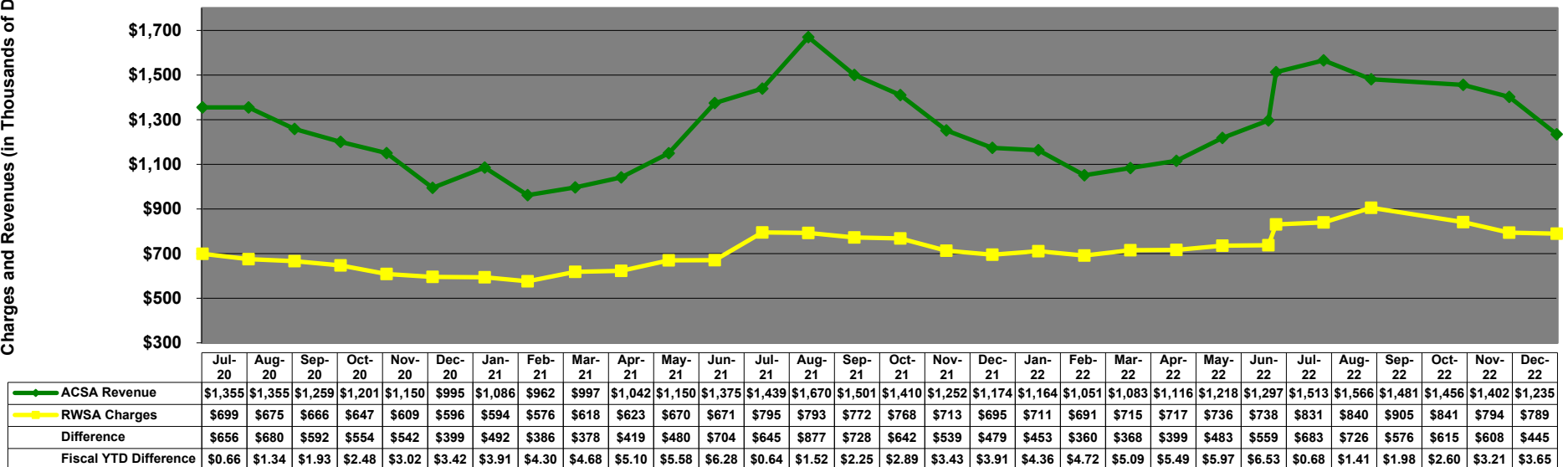
FY 2021, 2022, and 2023 Urban Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



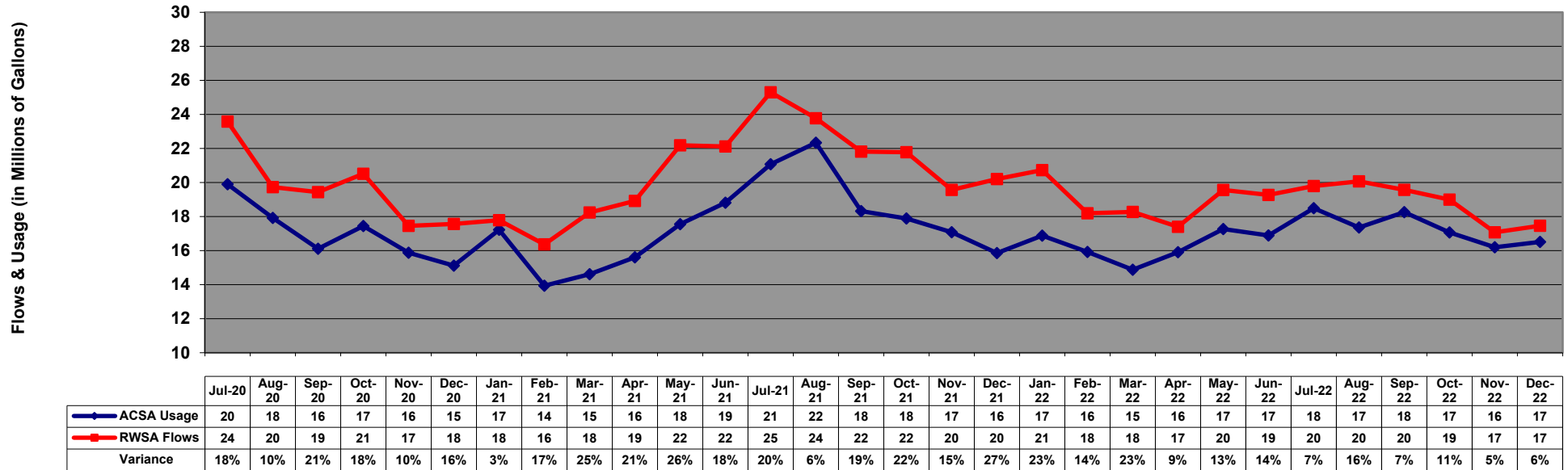
Charges and Revenues (in Thousands of Dollars)

FY 2021, 2022, and 2023 Urban Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

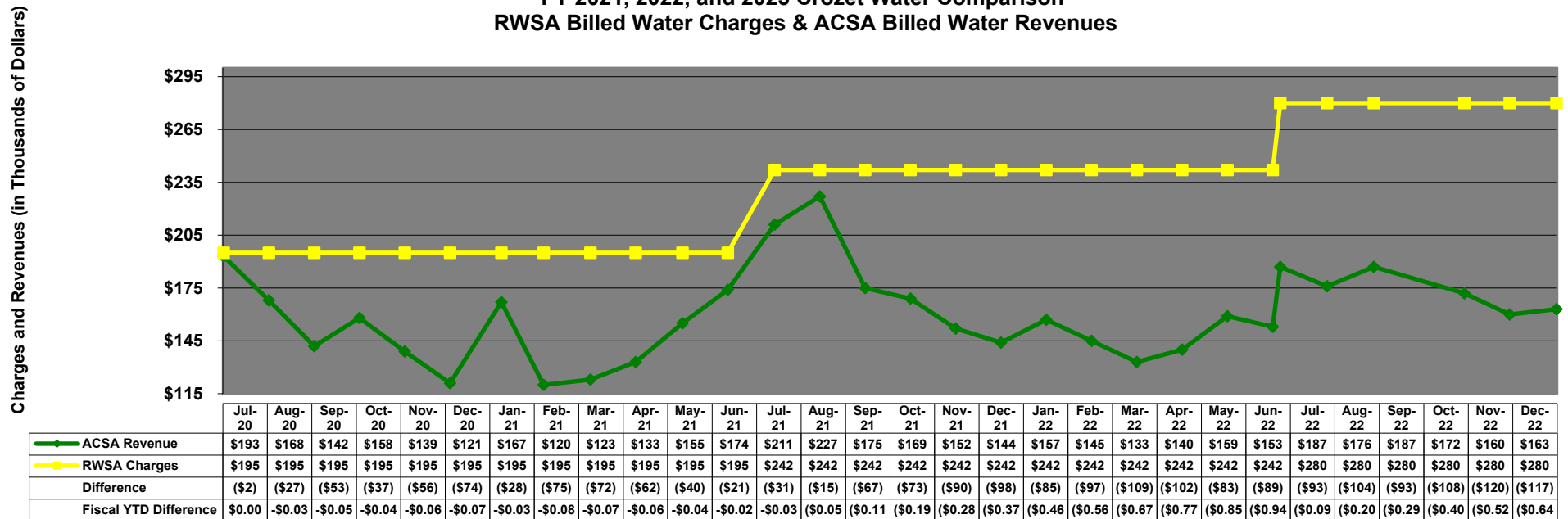


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

**FY 2021, 2022, and 2023 Crozet Water Comparison
RWSA Flows & ACSA Customer Usage**

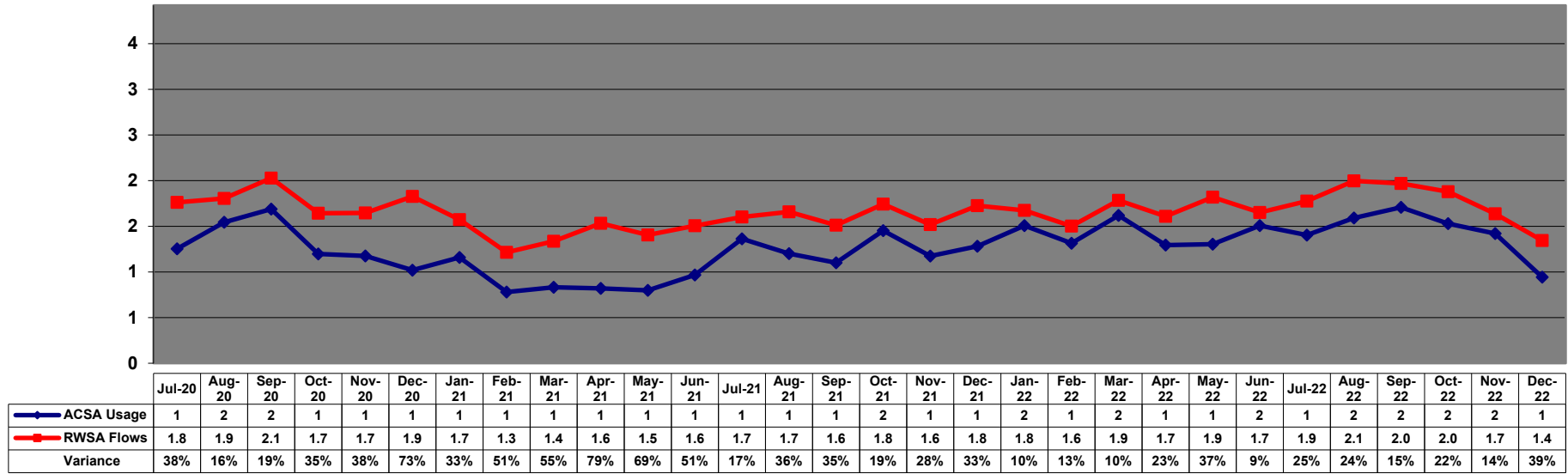


**FY 2021, 2022, and 2023 Crozet Water Comparison
RWSA Billed Water Charges & ACSA Billed Water Revenues**



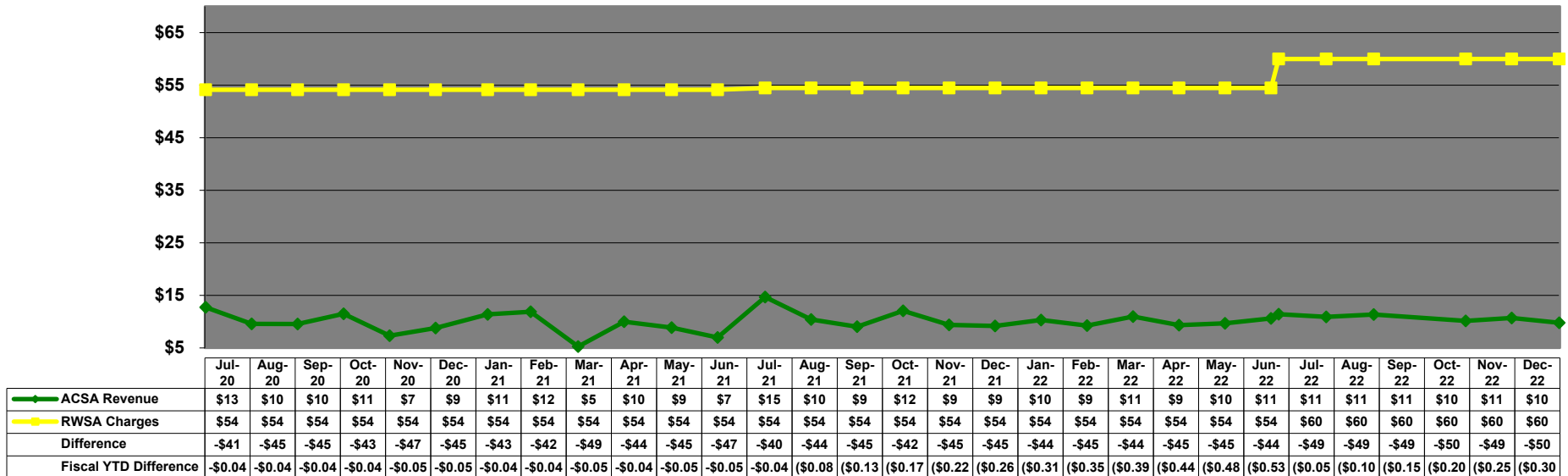
**FY 2021, 2022, and 2023 Scottsville Water Comparison
RWSA Flows & ACSA Customer Usage**

Flows & Usage (in Millions of Gallons)



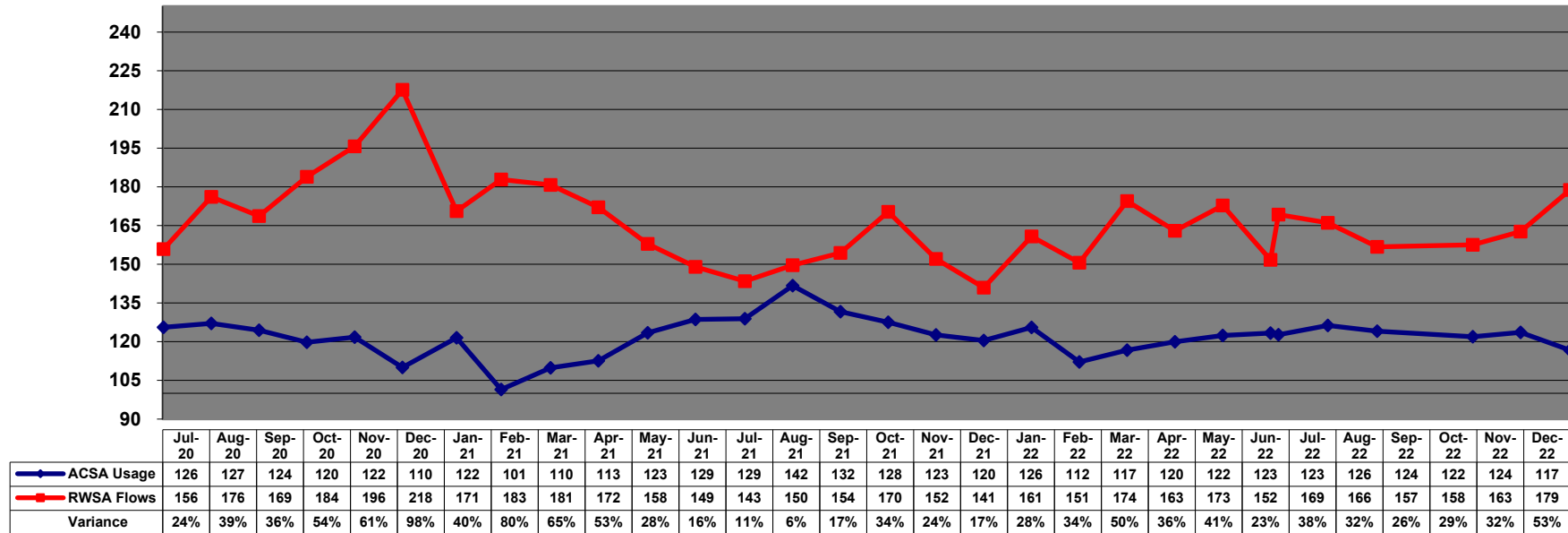
**FY 2021, 2022, and 2023 Scottsville Water Comparison
RWSA Billed Water Charges & ACSA Billed Water Revenues**

Charges and Revenues (in Thousands of Dollars)



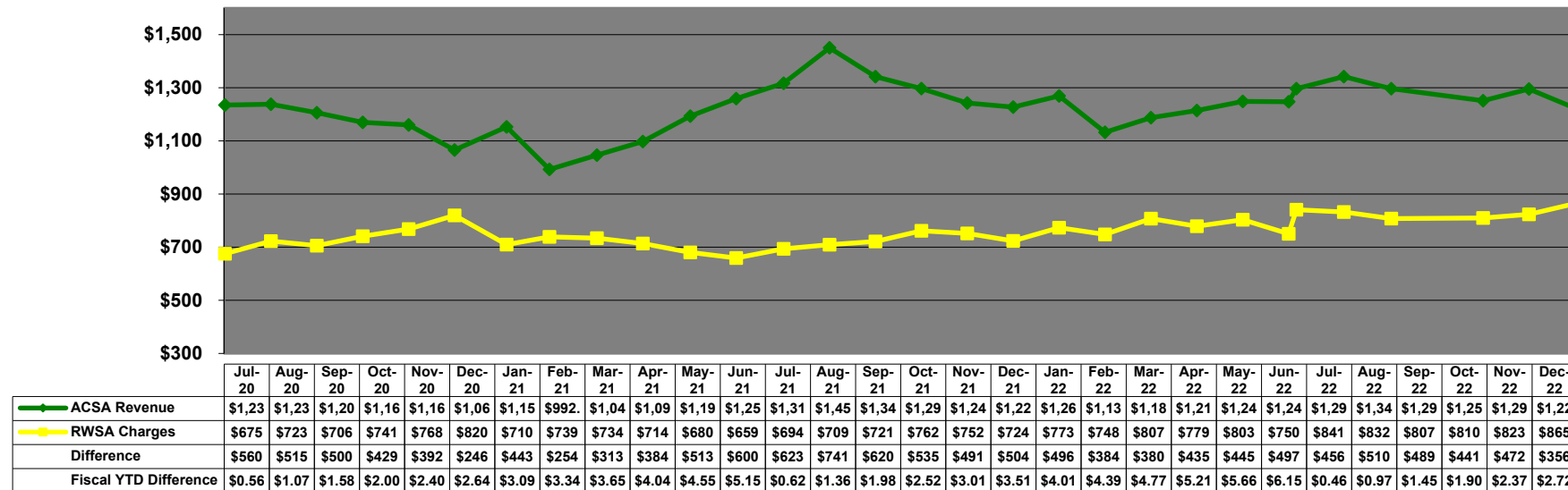
**FY 2021, 2022, and 2023 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Customer Usage & RWSA Flows**

Usage & Flows (in Millions of Gallons)



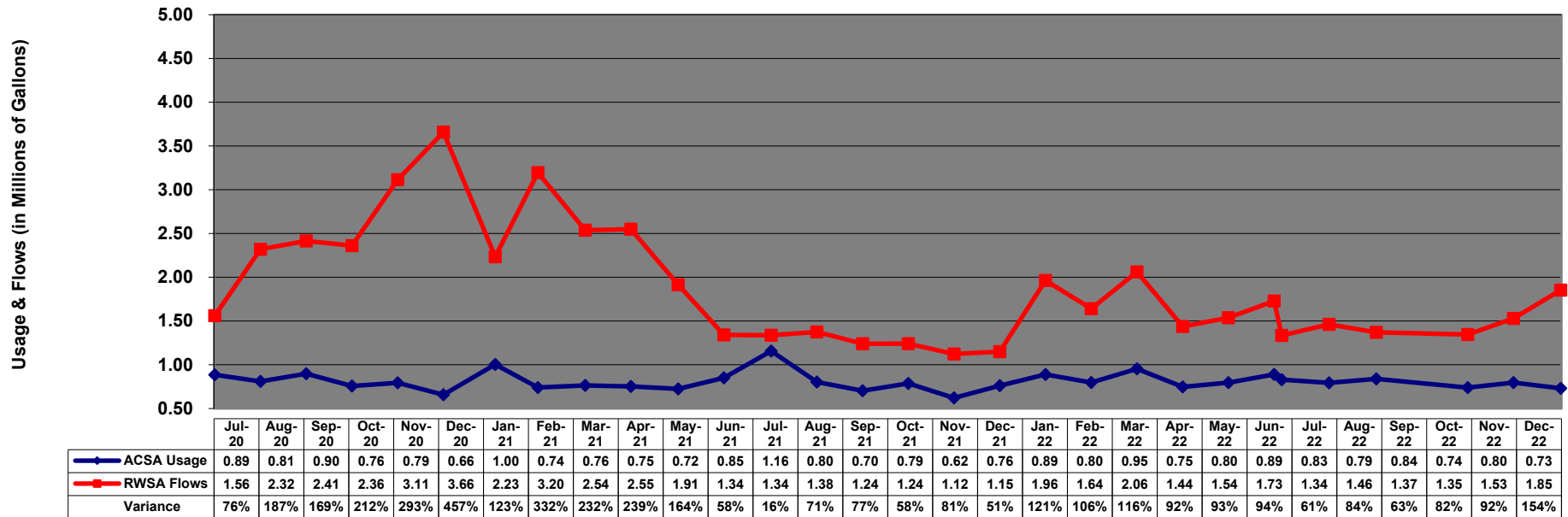
**FY 2021, 2022, and 2023 Urban (including Glenmore) & Crozet Sewer Comparison
ACSA Billed Sewer Usage & RWSA Billed Sewer Charges**

Charges & Revenues (in Thousands of Dollars)

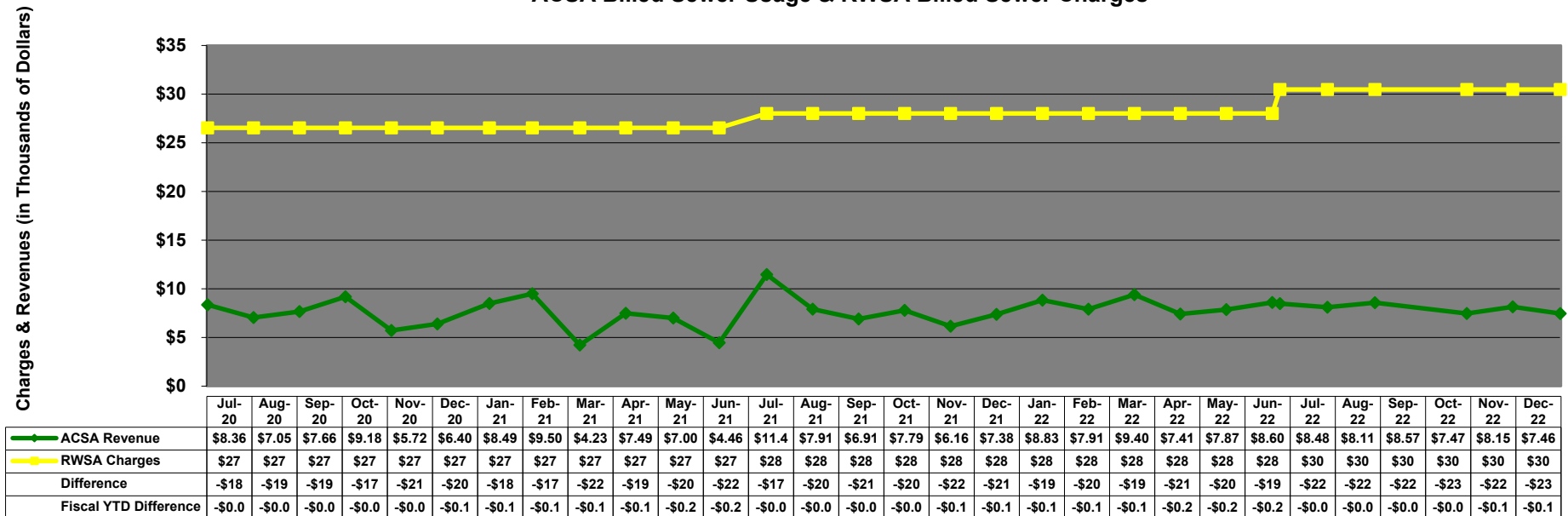


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars

FY 2021, 2022, and 2023 Scottsville Sewer Comparison ACSA Customer Usage & RWSA Flows



FY 2021, 2022, and 2023 Scottsville Sewer Comparison ACSA Billed Sewer Usage & RWSA Billed Sewer Charges



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

Single-Family Residential Water Usage

(Including irrigation through exclusion, irrigation, and auxiliary meters)

	FY 2021											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,910,300	45,665,700	45,167,300	44,787,100	45,134,400	44,331,500	45,900,400	43,314,333	43,786,600	44,618,100	45,900,923	46,255,313
Level 2 (3,001 - 6,000 gallons)	21,030,200	19,112,200	17,329,000	16,285,100	16,315,200	14,519,300	18,251,700	12,572,600	13,283,000	14,314,500	17,440,134	19,373,374
Level 3 (6,001 - 9,000 gallons)	7,266,400	5,921,900	4,575,900	4,441,300	3,890,700	2,817,300	4,255,500	2,201,100	2,371,500	2,609,300	4,280,004	6,283,886
Level 4 (over 9,000 gallons)	9,237,400	7,302,100	4,762,100	4,978,000	3,886,400	1,744,700	2,307,000	1,477,100	1,583,000	1,631,400	3,370,714	7,573,293
Total	83,444,300	78,001,900	71,834,300	70,491,500	69,226,700	63,412,800	70,714,600	59,565,133	61,024,100	63,173,300	70,991,775	79,485,866

	FY 2022											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,715,768	46,650,649	45,763,766	45,032,204	45,171,862	45,419,967	45,519,835	43,528,147	44,213,375	44,847,991	45,928,802	46,038,996
Level 2 (3,001 - 6,000 gallons)	18,273,794	20,170,499	17,049,266	15,725,032	15,151,382	14,875,487	15,122,551	12,929,554	12,730,722	13,260,281	16,086,013	16,576,525
Level 3 (6,001 - 9,000 gallons)	6,123,440	7,439,890	5,100,810	4,617,427	3,808,811	2,996,781	3,076,904	2,659,279	2,230,016	2,424,233	3,744,303	4,334,397
Level 4 (over 9,000 gallons)	8,544,212	14,373,474	7,815,394	7,173,929	4,280,811	2,811,464	3,100,290	2,921,259	1,746,818	1,865,133	3,644,494	5,309,110
Total	78,657,214	88,634,512	75,729,236	72,548,592	68,412,866	66,103,699	66,819,580	62,038,239	60,920,931	62,397,638	69,403,612	72,259,028

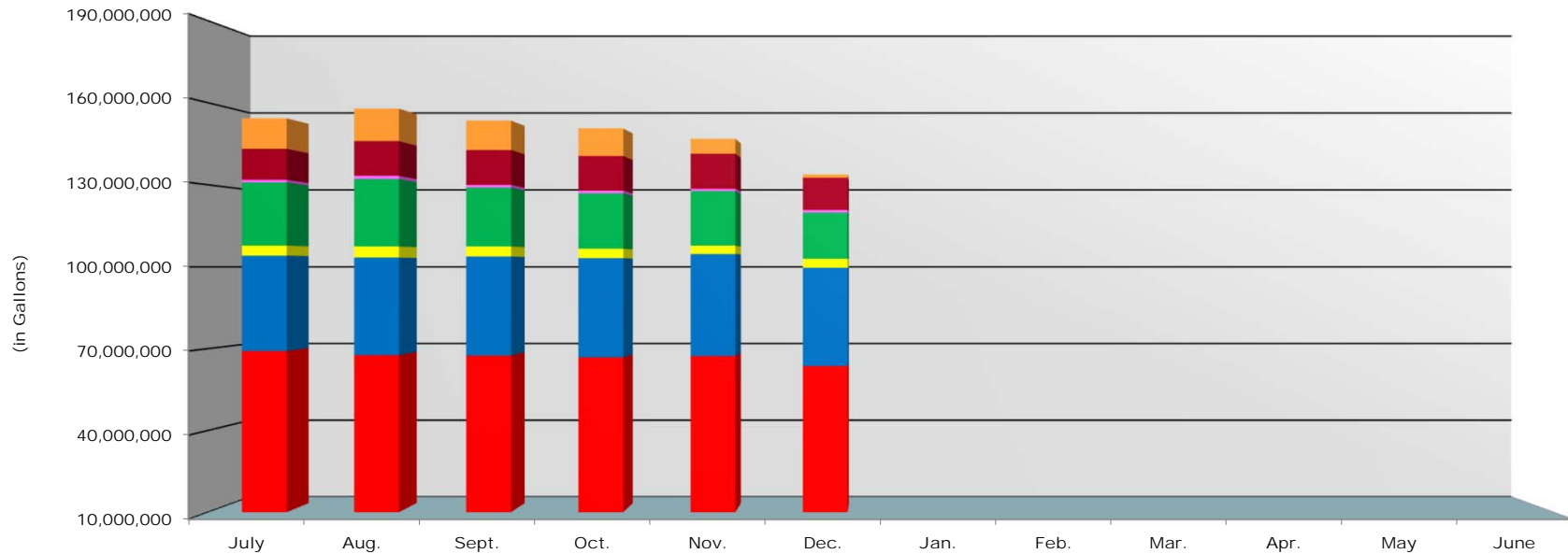
	FY 2023											
	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	45,599,911	45,505,082	45,632,349	45,357,143	45,992,076	45,339,022						
Level 2 (3,001 - 6,000 gallons)	16,363,636	15,612,084	15,525,446	15,374,370	15,677,968	13,744,408						
Level 3 (6,001 - 9,000 gallons)	4,849,724	4,363,645	4,161,371	4,369,132	3,918,235	2,545,163						
Level 4 (over 9,000 gallons)	7,208,522	6,639,465	6,037,842	6,071,945	4,079,700	2,079,589						
Total	74,021,793	72,120,276	71,357,008	71,172,590	69,667,979	63,708,182	-	-	-	-	-	-

System-Wide Irrigation Water Usage

(All usage measured through exclusion, irrigation, and auxiliary meters)

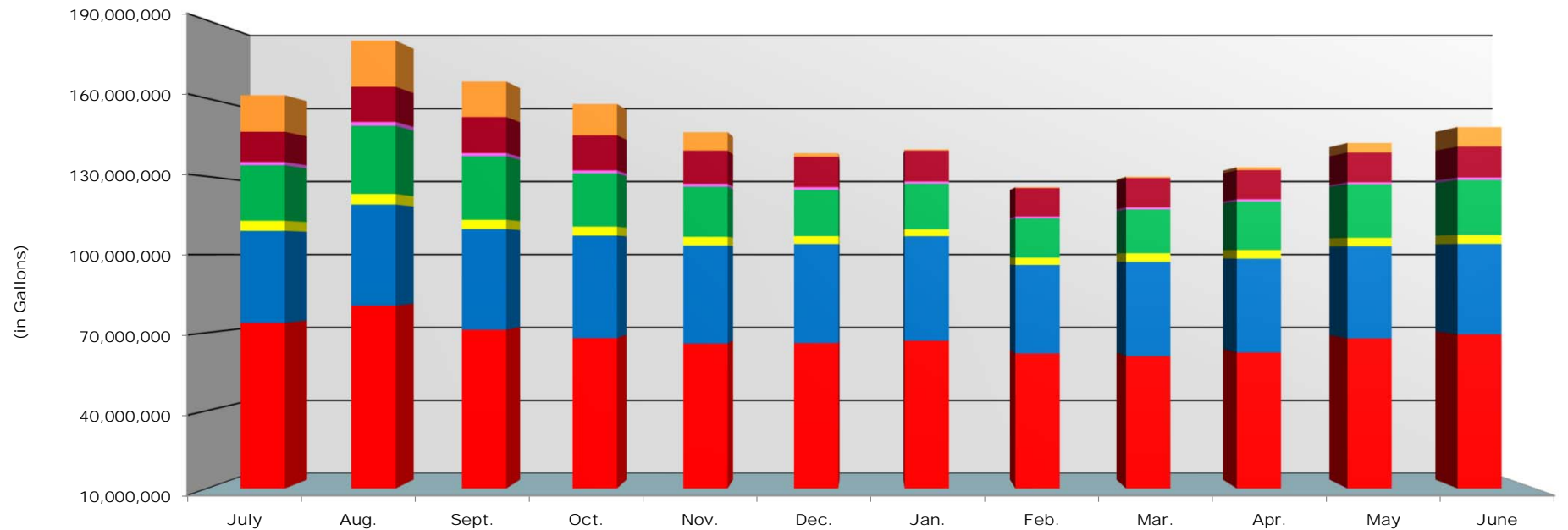
FY 2022	July	August	September	October	November	December	January	February	March	April	May	June
Level 1 (0 - 3,000 gallons)	186,665	182,392	180,649	172,364	89,160	3,845						
Level 2 (3,001 - 6,000 gallons)	827,558	825,362	768,256	786,824	459,256	27,723						
Level 3 (6,001 - 9,000 gallons)	990,172	970,507	887,729	916,873	528,981	25,500						
Level 4 (over 9,000 gallons)	9,170,743	9,922,557	8,931,018	8,221,764	4,435,683	1,143,312						
Total	11,175,137	11,900,819	10,767,652	10,097,825	5,513,080	1,200,380	-	-	-	-	-	-

Monthly Water Consumption Fiscal Year 2023

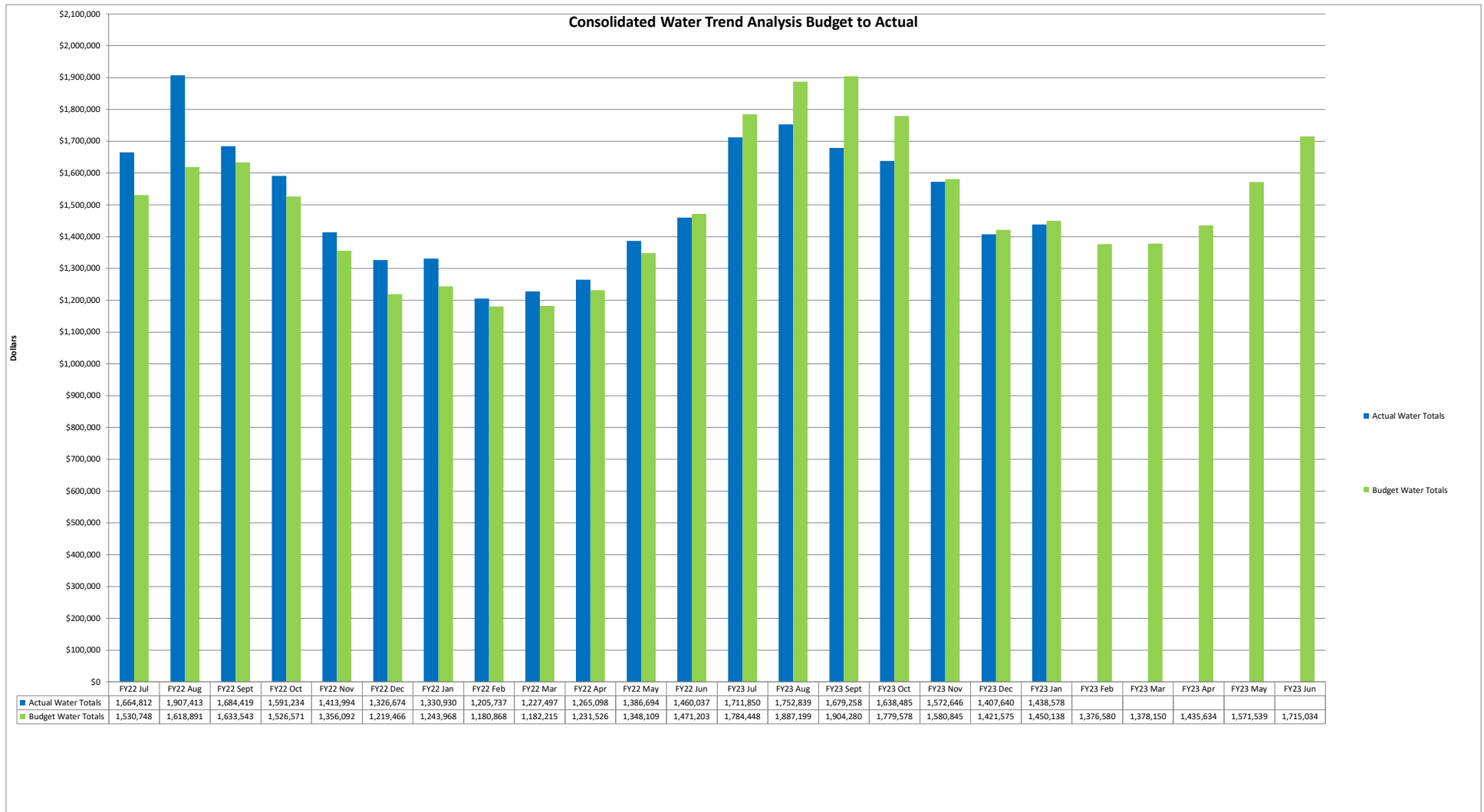


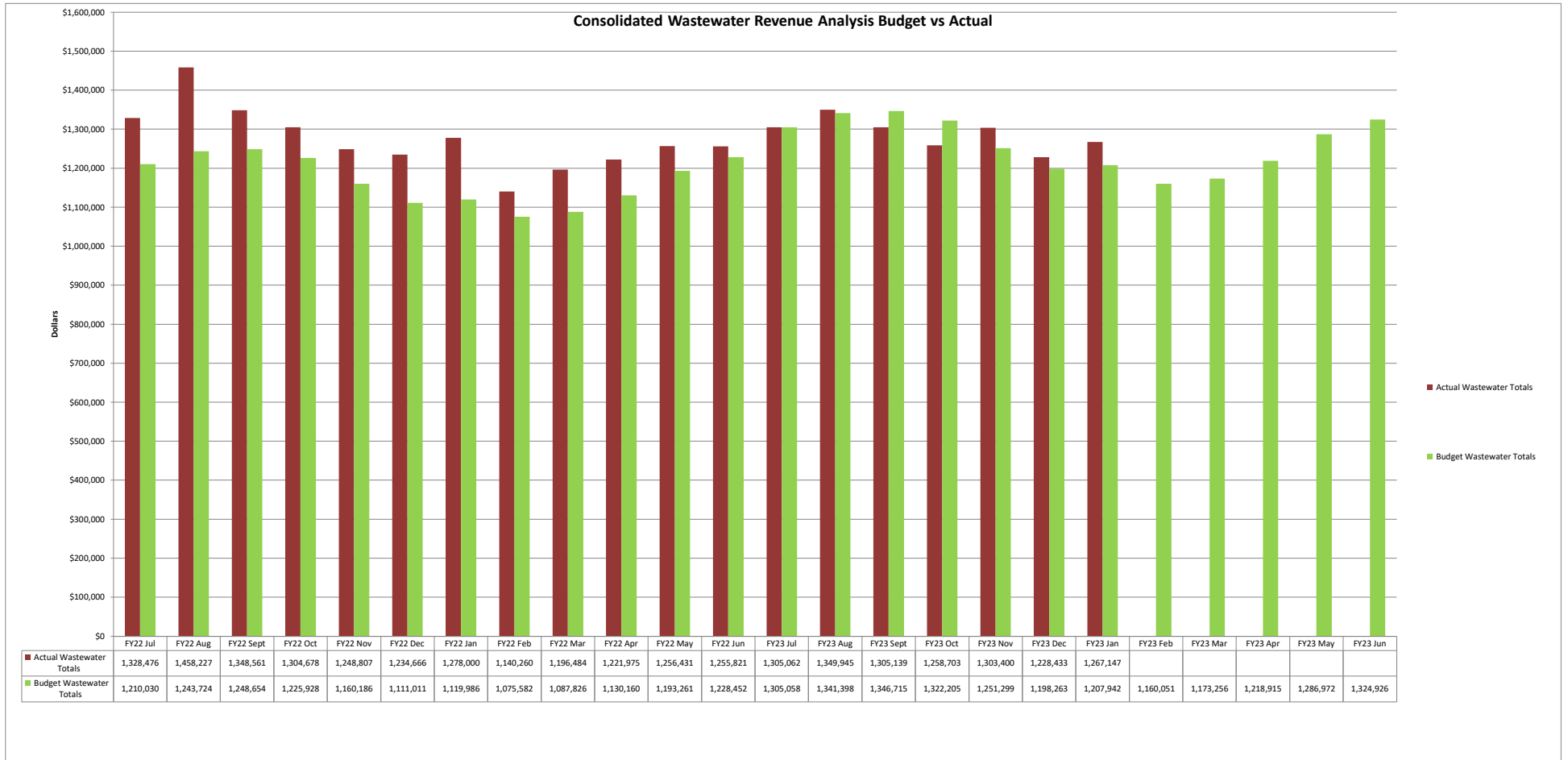
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	7.24%	7.54%	7.02%	6.70%	3.75%	0.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Irrigation	11,175,137	11,900,819	10,767,652	10,097,825	5,513,080	1,200,380						
Institutional - Domestic Consumption	11,319,291	12,674,993	12,747,929	12,683,947	12,771,652	11,778,793						
Industrial	939,061	1,164,077	948,893	933,427	833,612	906,243						
Comm. (Other) - Domestic Consumption	23,118,746	24,680,610	21,554,311	20,295,040	20,004,641	16,893,115						
Offices - Domestic Consumption	3,674,283	4,083,421	3,700,076	3,470,304	3,043,916	3,329,037						
MFR - Domestic Consumption	34,974,805	35,804,051	36,296,110	36,410,800	37,401,009	36,056,416						
SFR - Domestic Consumption	69,126,793	67,577,187	67,479,481	66,746,613	67,286,795	63,599,125						

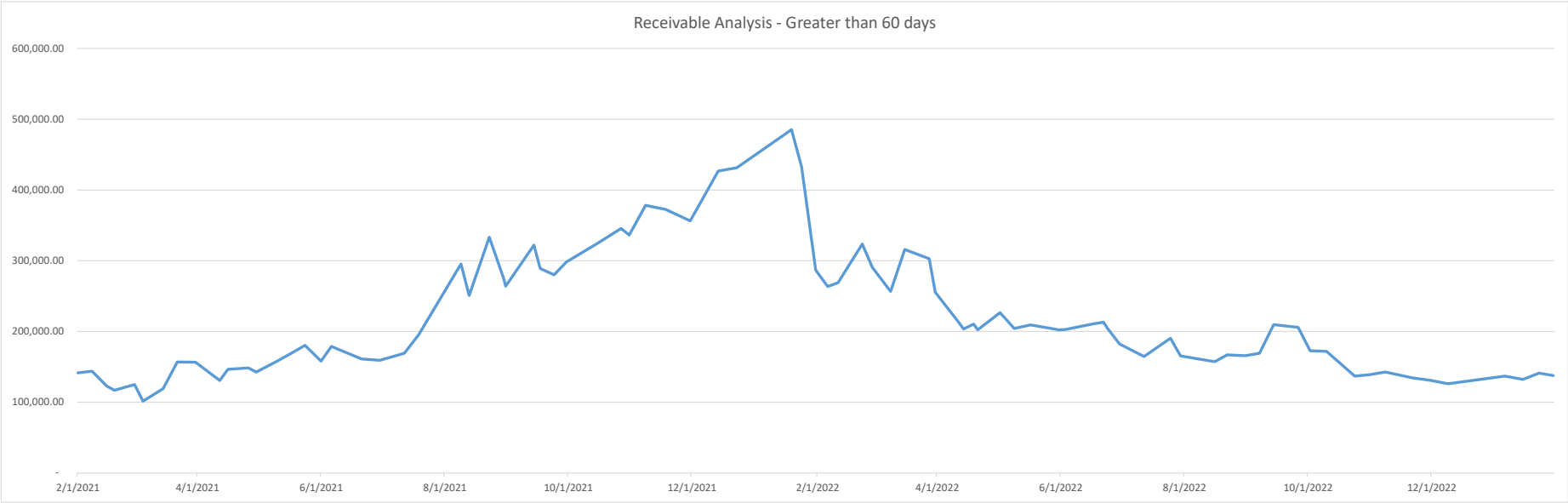
Monthly Water Consumption Fiscal Year 2022



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	8.73%	9.74%	8.19%	7.63%	4.82%	1.01%	0.34%	0.28%	0.38%	0.79%	2.57%	5.03%
Total Irrigation	14,081,507	17,746,655	13,631,436	12,050,529	7,093,317	1,406,778	470,655	357,324	497,487	1,058,531	3,669,728	7,491,053
Institutional - Domestic Consumption	11,582,738	13,489,815	13,865,774	13,494,096	12,724,964	11,630,981	11,883,862	10,962,679	11,319,135	11,212,974	11,454,262	11,915,469
Industrial	1,262,587	1,519,053	1,193,165	1,128,786	1,121,916	1,050,113	810,668	718,305	787,267	845,945	751,304	951,318
Comm. (Other) - Domestic Consumption	21,372,075	26,208,337	24,479,570	20,510,511	19,291,182	17,778,992	17,574,070	15,092,224	16,832,508	18,691,391	20,575,249	21,115,992
Offices - Domestic Consumption	3,879,956	4,069,097	3,591,164	3,441,196	3,335,735	3,025,301	2,634,609	2,778,047	3,334,693	3,305,569	3,261,990	3,439,334
MFR - Domestic Consumption	35,402,612	38,868,005	38,709,217	39,341,545	37,682,580	38,067,253	40,137,903	34,042,165	36,211,107	36,066,312	35,359,564	34,760,663
SFR - Domestic Consumption	73,692,893	80,350,479	71,047,224	67,925,415	65,790,587	65,994,951	66,908,674	61,974,946	60,946,308	62,355,766	67,822,510	69,331,219







**Albemarle County Service Authority
Water and Sewer Charges from the RWSA
Fiscal Year 2023**

	FY 2023	FY 2022	Increase	
	RWSA Charges	RWSA Charges	(Decrease)	
July	\$ 2,041,957	\$ 1,813,287	\$ 228,671	12.61%
August	\$ 2,042,399	\$ 1,826,679	\$ 215,720	11.81%
September	\$ 2,083,284	\$ 1,818,536	\$ 264,748	14.56%
October	\$ 2,021,265	\$ 1,854,295	\$ 166,970	9.00%
November	\$ 1,987,793	\$ 1,789,319	\$ 198,474	11.09%
December	\$ 2,025,214	\$ 1,743,520	\$ 281,694	16.16%
January		\$ 1,808,835		-100.00%
February		\$ 1,764,098		-100.00%
March		\$ 1,847,231		-100.00%
April		\$ 1,820,145		-100.00%
May		\$ 1,863,638		-100.00%
June		\$ 1,812,590		-100.00%
	\$ 12,201,912	\$ 21,762,171		
YTD	\$ 12,201,912	\$ 10,845,635	\$ 1,356,277	12.51%

Note: The charges noted above from the RWSA include operating and debt service charges for water and sewer treatment by month.

Albemarle County Service Authority
January 2023 Payments

CHECK NUMBER	CHECK DATE	VENDOR NAME	AMOUNT	DESCRIPTION OVER \$5,000
Wire	01/06/2023	Rivanna Water & Sewer Authority	2,025,214.08	Monthly Water & Wastewater Service
65456	01/31/2023	East Coast Utility Contractors	167,200.00	Sewer Pump Station Comminutors
ACH	01/13/2023	Payroll	157,660.22	Net Pay
ACH	01/31/2023	Payroll	155,717.48	Net Pay
65362	01/13/2023	Azteca Systems Holdings LLC	67,284.00	Cityworks Renewal
228470210	01/13/2023	IRS - Federal Tax Deposit	64,141.81	Payroll
231584259	01/31/2023	IRS - Federal Tax Deposit	59,232.58	Payroll
65355	01/05/2023	Hawkins-Graves Incorporated	50,000.00	2006 International 4300 Crash Truck
Wire	01/27/2023	The Bank of New York Mellon	49,081.78	Debt Service
65378	01/13/2023	Dewberry Engineers Incorporated	43,614.00	Avon Property PH1 Dev & PH2 Amend
231584258	01/31/2023	County of Albemarle	35,509.78	Payroll
228470209	01/31/2023	County of Albemarle	33,813.50	Payroll
65364	01/13/2023	Bank of America	30,329.17	Supplies, Memberships, Tools, Travel, Software
228470206	01/31/2023	Virginia Retirement System	30,268.74	Payroll
231584255	01/31/2023	Virginia Retirement System	30,268.72	Payroll
228470208	01/13/2023	Valic	27,489.17	Payroll
65468	01/31/2023	Harrisonburg Construction	21,185.00	Security Improvements Priority One
65489	01/31/2023	Paymentus Corporation	17,814.85	Transaction Fees for December 22
65521	01/31/2023	Virginia Department of Health	16,203.75	VDH Waterworks Operation Fee
65485	01/31/2023	Ramboll Americas Engineering	15,010.75	On-Call Sewer Rehabilitation/Replace
65399	01/13/2023	Ramboll Americas Engineering	12,377.75	Briarwood Water Main Replacement
65426	01/13/2023	Whitman, Requardt & Assoc LLP	10,841.20	Madison Office Park Pump Station
65453	01/31/2023	Daly Computers Incorporated	10,445.00	Antivirus Renewal
228470211	01/13/2023	Virginia Depart of Taxation	10,154.58	Payroll
231584260	01/31/2023	Virginia Depart of Taxation	9,830.88	Payroll
65397	01/13/2023	Michael Baker International Incorporated	7,368.66	Raintree & Fieldbrook PVC WMRP
65380	01/13/2023	Dominion Energy Virginia	5,674.96	Monthly Energy Service
65493	01/31/2023	Piedmont Virginia	5,440.00	Employee Heartsaver Adult CPR/AED and First Aid Classed
231584257	01/31/2023	Valic	5,355.00	Payroll
65449	01/31/2023	Core & Main LP	5,269.77	Inventory - Meter Omni T2 2 in & Meter Supplies
65421	01/13/2023	Cellco Partnership	5,105.36	Monthly Cellular Service
65458	01/31/2023	EWT Holdings III Corporation	5,083.00	Bioxide Delivery
65450	01/31/2023	County of Albemarle	4,959.46	
65455	01/31/2023	Dominion Energy Virginia	4,953.76	
65448	01/31/2023	Consolidated Pipe & Supply	4,834.00	
231584254	01/31/2023	Nationwide	3,842.15	
228470205	01/13/2023	Nationwide	3,842.15	
65511	01/31/2023	Traffic Safety Supplies LLC	3,842.03	
65408	01/13/2023	Siemens Industry Inc.	3,790.00	
65457	01/31/2023	Ed's Floor Care Services LLC	3,703.33	
65452	01/31/2023	Cues Incorporated	3,701.60	
65425	01/13/2023	Michael Sean McGill	3,500.00	
65496	01/31/2023	W & H Resources Incorporated	3,308.00	
65396	01/13/2023	Mansfield Oil Company	3,245.89	
231584253	01/31/2023	ICMA Membership Renewals	2,962.87	
228470204	01/13/2023	ICMA Membership Renewals	2,962.87	
65470	01/31/2023	Hydraflo Incorporated	2,811.23	
65517	01/31/2023	HD Supply Facilities Maint LTD	2,614.93	
65393	01/13/2023	Lowe's	2,558.76	
65411	01/13/2023	Greenbrier Incorporated	2,410.97	
65524	01/31/2023	CitySourced Incorporated	2,400.00	
65465	01/31/2023	Fortiline Incorporated	2,398.41	
65509	01/31/2023	Todd Thorpe	2,275.00	
65405	01/13/2023	Rivanna Water & Sewer Authority	2,241.33	
65422	01/13/2023	Verizon Wireless Services LLC	2,227.61	
65412	01/13/2023	Keith Loren Mann	2,100.00	
65533	01/31/2023	Minnesota Life Insurance Co	2,012.69	
65512	01/31/2023	TRC Parks Edge LLC	2,002.91	
65477	01/31/2023	Thomas B Lincoln Land Surveyor	1,993.00	
65530	01/31/2023	Guardian	1,866.38	

65501	01/31/2023	Rockingham Construction	1,752.66
65417	01/13/2023	UniFirst Corporation	1,742.23
231584261	01/31/2023	Flexible Benefit	1,736.00
228470212	01/13/2023	Flexible Benefit	1,736.00
65463	01/31/2023	Flora Pettit PC	1,680.00
65515	01/31/2023	UniFirst Corporation	1,648.24
231584262	01/31/2023	ACSA Flexible Spending	1,601.15
228470213	01/13/2023	ACSA Flexible Spending	1,601.15
65497	01/31/2023	Rappahannock Electric Cooperative	1,545.73
65519	01/31/2023	UVA-WorkMed	1,533.00
65460	01/31/2023	Ferguson US Holdings Inc	1,515.66
65518	01/31/2023	UVA Darden School Foundation	1,495.00
65423	01/13/2023	VA Utility Protection Service Inc	1,417.50
65446	01/31/2023	Comcast	1,409.09
65483	01/31/2023	Jason Miller	1,362.61
65499	01/31/2023	Rexel USA Inc DBA Mayer Electric Supply Co	1,261.86
65454	01/31/2023	Dewberry Engineers Incorporated	1,129.00
65400	01/13/2023	ODP Business Solutions LLC	1,025.22
65486	01/31/2023	ODP Business Solutions LLC	997.56
65381	01/13/2023	E Source Companies LLC	950.00
65385	01/13/2023	Fortiline Incorporated	900.00
65444	01/31/2023	Cole Show Amusement	852.96
231584256	01/31/2023	AFLAC	813.33
228470207	01/31/2023	AFLAC	813.33
65516	01/31/2023	University Tire & Auto	793.70
65395	01/13/2023	Mailing Services of Virginia	784.90
65525	01/31/2023	ACAC	752.00
65361	01/13/2023	Aqua Air Laboratories Inc	750.00
65356	01/13/2023	Advance Stores Company Inc	715.35
65404	01/13/2023	Rivanna Solid Waste Authority	706.00
65431	01/31/2023	Carsons LLC	700.00
65492	01/31/2023	Petrotest Incorporated	690.00
65392	01/13/2023	LB Technology Incorporated	687.50
65406	01/13/2023	S L Williamson Company Inc	685.67
65439	01/31/2023	Culpeper Auto Parts Incorporated	673.16
65532	01/31/2023	Herbert Beskin Trustee	669.00
65382	01/13/2023	Ferguson US Holdings Inc	657.69
65447	01/31/2023	Melissa Conley	652.49
65407	01/13/2023	Siemens Industry Incorporated	650.00
65445	01/31/2023	Comcast	641.34
65475	01/31/2023	L/B Water Service Incorporated	638.60
65520	01/31/2023	VACORP	637.39
65522	01/31/2023	Whitman, Requardt & Assoc LLP	632.40
65424	01/13/2023	Protocol SSD Corporation	618.20
65480	01/31/2023	Mansfield Oil Company of Gainesville Inc	614.40
65434	01/31/2023	Appalachian Power	572.54
65503	01/31/2023	Safelite Fulfillment Inc	562.03
65451	01/31/2023	Crown Castle	530.45
65376	01/13/2023	Crown Castle	530.45
65510	01/31/2023	Greenbrier Incorporated	497.25
65502	01/31/2023	S L Williamson Company Inc	489.06
65513	01/31/2023	Commonwealth of Virginia DPOR	480.00
65529	01/31/2023	Cincinnati Insurance Company	468.71
65427	01/13/2023	Cincinnati Insurance Company	468.71
65494	01/31/2023	Pitney Bowes Global	441.60
65478	01/31/2023	Luck Stone Corporation	441.20
65438	01/31/2023	MWP Supply Incorporated	439.73
65372	01/13/2023	City of Charlottesville	433.65
65537	01/31/2023	Treasurer of Virginia	430.90
65428	01/13/2023	Treasurer of Virginia	430.90
65479	01/31/2023	Mailing Services of Virginia	395.90
65357	01/13/2023	Shannon Jenkins	345.00
65387	01/13/2023	Hathaway Solutions LLC	331.64

65490	01/31/2023	Performance Signs LLC	320.00
65437	01/31/2023	Brink's Incorporated	310.59
65507	01/31/2023	TSRC Incorporated	295.12
65416	01/13/2023	U S Bank National Assoc	291.67
65459	01/31/2023	FedEx	285.82
65388	01/13/2023	Hawkins-Graves Incorporated	282.47
65508	01/31/2023	Lorraine Thomas	279.02
65500	01/31/2023	Ricoh USA Incorporated	275.00
65484	01/31/2023	Emily Roach	275.00
65359	01/13/2023	American Payroll Institute Incorporated	275.00
65476	01/31/2023	Leonard Holdings Incorporated	261.00
65534	01/31/2023	Piedmont Family YMCA	257.40
65415	01/13/2023	Truck Enterprises Incorporated	251.84
65375	01/13/2023	Core & Main LP	249.00
65506	01/31/2023	Specialty Fasteners of	239.98
65370	01/13/2023	Culpeper Auto Parts Incorporated	215.88
65403	01/13/2023	Republic Services	211.14
65535	01/31/2023	Snap Fitness	199.80
65436	01/31/2023	Blue Ridge Trailer Sales &	192.50
65481	01/31/2023	Martin Marietta Materials	183.98
65498	01/31/2023	Red Wing Business Advantage Account	172.19
65482	01/31/2023	McCarthy Tire Service	166.30
65394	01/13/2023	Luck Stone Corporation	160.77
65471	01/31/2023	James River Communications Inc	159.00
65538	01/31/2023	Virginia Department	150.00
65429	01/13/2023	Virginia Department	150.00
65371	01/13/2023	C.E.S (City Electric Accounts - Chi)	147.80
65523	01/31/2023	William A Wells	140.00
65418	01/13/2023	United Rentals (North	131.94
65531	01/31/2023	The Gym	130.00
65474	01/31/2023	Sarah Kucenas	125.33
65504	01/31/2023	The Sherwin Williams Company	124.77
65435	01/31/2023	Baudville Incorporated	122.54
65360	01/13/2023	American Pest Incorporated	118.00
65384	01/13/2023	Flexible Benefit Administrators Inc	112.00
65398	01/13/2023	Alexander Morrison	101.91
65487	01/31/2023	Yury Varshavsky	100.00
65402	01/13/2023	Josh Miller	100.00
65401	01/13/2023	Ellis and Vivian Deane	100.00
65374	01/13/2023	Michael Collins	99.18
65472	01/31/2023	Wisconsin Quick Lube Inc	98.00
65366	01/13/2023	Blue Ridge Trailer Sales &	96.50
65464	01/31/2023	FlowNetwork Incorporated	96.00
65440	01/31/2023	Charlottesville Sanitary	92.91
65363	01/13/2023	Bailey Printing Incorporated	85.00
65367	01/13/2023	MWP Supply Incorporated	77.03
65377	01/13/2023	Crozet Hardware Co., Inc.	75.98
65383	01/13/2023	Fisher Auto Parts Incorporated	71.84
65420	01/13/2023	UVA-WorkMed	70.00
65379	01/13/2023	Document Destruction of	69.95
65365	01/13/2023	David Bates	60.48
65473	01/31/2023	Price Chevrolet Company	60.00
65419	01/13/2023	University Tire & Auto	60.00
65430	01/31/2023	Advance Stores Company Inc	56.55
65461	01/31/2023	Fisher Auto Parts Incorporated	50.32
65432	01/31/2023	William H Albrecht Jr	49.20
65390	01/13/2023	Wisconsin Quick Lube Inc	49.00
65505	01/31/2023	Marita Sokolowski	46.43
65462	01/31/2023	Flexible Benefit Administrators Inc	41.25
65528	01/31/2023	Anytime Fitness - Zion VA	40.00
65527	01/31/2023	Anytime Fitness-Ruckersville	40.00
65526	01/31/2023	Anytime Fitness-Pantops	40.00
65391	01/13/2023	Price Chevrolet Company	40.00

65536	01/31/2023	Snap Fitness Hollymead	39.96
65369	01/13/2023	Central Virginia Electric Cooperative	33.40
65442	01/31/2023	City of Charlottesville	31.82
65433	01/31/2023	Shannon Jenkins	30.00
65514	01/31/2023	Danielle Trent	27.50
65413	01/13/2023	Commonwealth of Virginia DPOR	25.00
65414	01/13/2023	Troy's Auto & Diesel LLC	24.00
65495	01/31/2023	PMI Commonwealth	22.89
65466	01/31/2023	Wallace Gibson	21.92
65443	01/31/2023	HTM/MTE Associates Inc	20.00
65373	01/13/2023	HTM/MTE Associates Inc	20.00
65409	01/13/2023	SnowKnows Incorporated	19.96
65368	01/13/2023	Independent Battery Retailers of America	18.04
65386	01/13/2023	Anand Harshvardhan	17.27
65488	01/31/2023	One Hundred LLC	13.68
65358	01/13/2023	BPB Holding Corporation	12.51
65491	01/31/2023	Sue J Perry	10.97
65467	01/31/2023	Kwanghee Han	9.45
65389	01/13/2023	Paulette J'Sen	9.14
65410	01/13/2023	Thryv Incorporated	6.50
65469	01/31/2023	Hawkins-Graves Incorporated	4.34
			<hr/>
			3,340,154.39

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: FY 2023 Capital Improvement Program (CIP) STAFF CONTACT(S)/PREPARER: Jeremy M. Lynn, P.E., Director of Engineering	AGENDA DATE: February 16, 2023 CONSENT AGENDA: ACTION: ■ INFORMATION: ■ ATTACHMENTS: YES
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BACKGROUND: Monthly CIP Memo including a status report on active CIP Projects, changes to the CIP Schedule, the revised CIP Schedule, and a list of Active Private Development Projects.

DISCUSSION:

- Questions about the status of active CIP Projects.
- Schedule changes to six projects.

BUDGET IMPACT: None.

RECOMMENDATIONS: None.

BOARD ACTION REQUESTED: Approval of the Consent Agenda.

ATTACHMENTS:

- Monthly CIP Report
- List of CIP schedule changes
- Revised CIP Schedule
- List of Active Private Development Projects

Albemarle County Service Authority (ACSA)
Capital Improvement Project Report
February 2023

a) Risk Assessment Improvements Phase 1 (Account Code 1621):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	35%
Contractor:	Harrisonburg Construction Co., Inc. (HCC)
Construction Start:	November 2022
Completion:	April 2023
Total Budget:	\$1,221,950
Appropriated Funds:	\$1,222,048

Project Description - After the attacks of September 11, 2001 industry leaders were tasked by the federal government to prioritize requirements for the protection of the nation's critical infrastructure. The Water Sector, encompassing both water and wastewater, was one of the categories /identified that were expected to remain resilient and continue operating regardless of emergency events. As part of the on-going preparedness program for the ACSA to remain resilient a Vulnerability Assessment was completed in conjunction with our community partners. All our critical assets were analyzed for risks caused by both natural and human-made hazards, using the AWWA Standard J100: *Risk and Resilience Management of Water and Wastewater Systems*. The result was a report to establish mitigation measures to lower risks and increase resiliency. Some mitigation measures have already been completed with others phased over upcoming fiscal years based upon priority.

2/7/2023: HCC's subcontractor has completed the fencing work at the Scottsville, Mosby Mountain, and Ednam Water Tanks and is currently installing the new fence at the Woodbrook Sewer Pump Station.



b) Energy Audit (Account Code 1625):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Study
Percent Complete:	95%
Contractor:	Unknown
Construction Start:	N/A
Completion:	October 2022 (Study)
Total Budget:	\$390,000
Appropriated Funds:	\$296,000

Project Description - This project will consist of a comprehensive energy audit of the Operations Center and all pump stations. It will evaluate current energy consumption and the factors that drive it, as well as an analysis of utility rate structures to identify potential cost savings. Surveys will be conducted of all systems, including operation and maintenance procedures to determine where energy conservation can be improved.

1/10/2023: The Final Report has been received and is under review by ACSA staff.

c) Avon Street Maintenance Yard (Account Code 1622):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	80%
Contractor:	Undetermined
Construction Start:	2023

Completion:	2024
Total Budget:	\$4,315,000
Appropriated Funds:	\$634,312

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 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. 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.

2/7/2023: Dewberry is scheduled to submit the 100% Architectural Plans to the ACSA around mid-February for final review prior to submission to the County Building Department. Following geothermal and solar array studies performed by Dewberry, the ACSA will be including solar panels in the final design of the Avon Street Facility. Dewberry estimates the solar array system will meet approximately 20% of the building demand.

d) Four-Story Backflow Prevention Assembly Retrofit (Account Code 1765):

Consultant:	ACSA/Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	12%
Contractor:	Foothill Irrigation (Phase 1)
Construction Start:	2023
Completion:	2023
Total Budget:	\$348,000
Appropriated Funds:	\$360,295

Project Description - In late 2018 ACSA staff became aware of four-story residential structures being constructed without proper backflow prevention devices. Section 8 of the ACSA Rules and Regulations details the ACSA Backflow Prevention Program. This program is in accordance with 12VAC5-590-570 through 12VAC5-590-630 of the Virginia Waterworks Regulations. The Containment Policy in 12VAC5-590-610 outlines the requirement for a backflow prevention (BFP) assemblies on the domestic water service line to high rise structures, defined as four (4) or more stories.

2/7/2023: Phase 1 installation activities began on February 6, 2023. ACSA staff is interested in adding Phases 2 and 3 to the current contract with Foothill as change orders. A Board Authorization is proposed for this project.



e) 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:	2024
Completion:	2026
Total Budget:	\$5,004,900
Appropriated Funds:	\$499,410

Project Description - This project continues our systematic program to replace undersized and deteriorating asbestos-cement and cast iron water mains throughout our water systems. 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. The design will begin in FY 2019 and carry over into FY 2020. Construction is not anticipated to begin until FY 2025.

11/7/2022: The SWPPP and VSMP application has been submitted to the County for review. The 90% Design Documents are currently under review by ACSA staff. Easement plat preparation is also underway.

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

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2025
Total Budget:	\$6,183,500
Appropriated Funds:	\$588,156

Project Description - Our Strategic Plan calls for the eventual replacement of all asbestos-cement and PVC (pre-1990) water mains in our system, as they are older and made of a weaker material than the current industry norm. 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.

1/10/2023: ACSA staff is working to obtain the final easement; to date 17 of 18 easements required for construction have been obtained. The final easement may require condemnation by the ACSA Board. A Board Authorization is proposed for this project.

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2023
Total Budget:	\$951,400
Appropriated Funds:	\$124,975

Project Description - This project will replace the oldest active water main remaining in our system, which was part of the water main that served customers out Reservoir Road. This cast iron pipe is over 90 years old and

is severely tuberculated, which greatly reduces the flow capacity in this section.

2/7/2023: VDOT continues to review alternative designs and hopes to have more information to share with the ACSA later this spring.

h) Jefferson Village Water Main Replacement (Account Code 1747):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	90%
Contractor:	Commonwealth Excavating, Inc. (CEI)
Construction Start:	August 2022
Completion:	April 2023
Total Budget:	\$2,451,000
Appropriated Funds:	\$1,614,340

Project Description - This project addresses the goal in our Strategic Plan for the eventual replacement of all asbestos-cement water mains in our system. The existing water mains are approximately 49 years old and have reached the end of their useful life. As a former well system that was connected to public water, many of the mains are also undersized.

2/7/2023: CEI has completed all the water main replacement work and is scheduled to return in the spring for yard and pavement restoration. A letter has been sent to residents of the neighborhood advising them of the current status of the project and schedule for completion.

i) Northfields Water Main Replacement (Account Code 1764):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2027
Total Budget:	\$8,130,000
Appropriated Funds:	\$598,497

Project Description - This project addresses the goal in our Strategic Plan for the eventual replacement of all asbestos-cement water mains in our system. The existing water mains are approximately 54 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.

2/7/2023: F&R is scheduled to complete the geotechnical borings the week of February 13, 2023.

j) Briarwood Water Main Replacement (Account Code 1766):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2026
Total Budget:	\$2,430,000
Appropriated Funds:	\$255,338

Project Description - Our Strategic Plan calls for the eventual replacement of PVC (pre-1990) water mains in our system, as they are older and made of weaker material than the current industry norm. This project will replace the PVC water mains that have been in service since the early 1980's. The design phase has been initiated and will carry over into FY 2023. Construction is expected to take place in FY 2025 and FY 2026.

1/10/2023: ACSA staff is reviewing the proposed geotechnical boring plan prepared by Ramboll.

k) Barracks West Water Main Replacement (Account Code 1796):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	50%
Contractor:	Undetermined
Construction Start:	2025
Completion:	2026
Total Budget:	\$3,385,000
Appropriated Funds:	\$209,335

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.

1/10/2023: ACSA staff is reviewing the proposed test hole plan prepared by Dewberry.

l) Broadway Street Water Main Replacement (Account Code 1768):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2023
Total Budget:	\$792,800
Appropriated Funds:	\$128,000

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.

1/10/2023: Design efforts are nearing completion and no easements are anticipated for this project. A Board Authorization is proposed for this project.

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

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	25%
Contractor:	Undetermined
Construction Start:	2027
Completion:	2028
Total Budget:	\$5,947,300
Appropriated Funds:	\$290,887

Project Description - Our Strategic Plan calls for the eventual replacement of PVC (pre-1990) water mains in our system, as they are older and made of weaker material than the current industry norm. This project will replace the PVC water mains that have been in service since the 1980's and will eliminate pipe saddles at the water service connections that have been failing due to corrosion.

9/7/2022: Baker has received the field survey information and is working on the 50% Design Documents.

n) 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:	\$5,908,800
Appropriated Funds:	\$378,459

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 is in need of upgrading 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.

1/10/2023: ACSA staff continues to make efforts to obtain the necessary easements for construction of this replacement sewer. To date, 8 of 24 easements have been obtained.

o) Biscuit Run Sewer Replacement (Account Code 1830):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Design
Percent Complete:	100%
Contractor:	Linco, Inc. (Linco)
Construction Start:	2022
Completion:	2023
Total Budget:	\$479,600
Appropriated Funds:	\$84,916

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.

12/5/2022: Approval from DEQ has been received, allowing construction to begin. ACSA staff is awaiting a schedule from Linco.

p) FY 2021 Miscellaneous Sewer Rehabilitation (Account Code 1904):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	95%
Contractor:	Prism Contractors & Engineers, Inc. (Prism)
Construction Start:	October 2020
Completion:	December 2022
Total Budget:	\$200,000
Appropriated Funds:	\$200,000

Project Description - This project continues our annual “find and fix” program of sanitary sewer rehabilitation to reduce I&I in our system. The ACSA made the decision to split our miscellaneous rehabilitation Contract Documents into separate contracts: one for repair and replacement work, and the other for trenchless pipe rehabilitation plus internal manhole rehabilitation. This contract will be utilized to perform trenchless rehabilitation, including sewer lining, segmental lining, top hats, internal point repairs and manhole rehabilitation that doesn’t require excavation work, to correct problems in our system found with systematic CCTV inspection by ACSA crews. It will also be used to complete rehabilitation recommendations generated from the SSES’s of larger drainage basins.

11/7/2022: Prism has completed the relining and manhole rehabilitation work associated with Work Order No. 6.

q) FY 2022 Miscellaneous Sewer Rehabilitation (Account Code 1906):

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	Underway
Contractor:	Prism Contractors & Engineers, Inc. (Prism)
Construction Start:	October 2021
Completion:	January 2023
Total Budget:	\$200,000
Appropriated Funds:	\$200,000

Project Description - This project continues our annual “find and fix” program of sanitary sewer rehabilitation to reduce I&I in our system. The ACSA made the decision to split our miscellaneous rehabilitation Contract Documents into separate contracts: one for repair and replacement work, and the other for trenchless pipe rehabilitation plus internal manhole rehabilitation. This contract will be utilized to perform trenchless rehabilitation, including sewer lining, segmental lining, top hats, internal point repairs and manhole rehabilitation that doesn’t require excavation work, to correct problems in our system found with systematic CCTV

inspection by ACSA crews. It will also be used to complete rehabilitation recommendations generated from the SSES's of larger drainage basins.

11/7/2022: Work Order No. 3 has been issued and includes manhole rehabilitation and the relining of approximately 2,000 linear feet of sanitary sewer mains.

r) 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:	\$3,493,715
Appropriated Funds:	\$380,295

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. In an effort 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, a majority of the property owners are interested in connecting to public sewer if it was made available.

2/7/2023: An internal meeting has been scheduled for February 9, 2023 to discuss Baker's design.

s) Madison Park Pump Station Upgrade (Account Code 1735):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	0%
Contractor:	Anderson Construction, Inc. (ACI)
Construction Start:	October 2022
Completion:	November 2023
Total Budget:	\$1,550,000
Appropriated Funds:	\$2,003,831

Project Description - This wastewater pump station was constructed 33 years ago by private development and the original equipment is wearing down. In addition 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. A study

to evaluate the best option for upgrading this pump station will be performed, followed by design and construction.

11/7/2022: The Notice to Proceed was issued on October 17, 2022. ACI is working on submittals, but long lead times for some critical items are anticipated.

t) Sewer Pump Station Comminutors (Account Code 1827):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	0%
Contractor:	East Coast Utility Contractors, Ltd. (ECUC)
Construction Start:	July 2022
Completion:	March 2023
Total Budget:	\$731,300
Appropriated Funds:	\$616,193

Project Description - Three sewer pump stations: Glenmore, Georgetown Green, and Crozet have all been experiencing higher than normal amounts of solid debris that have been causing undue wear and tear on our pumps, reducing their effective life. They have also been subjected to clogging from the fibrous cloth wipes that are marketed as flushable but do not break down in the sanitary sewer collection system. Maintenance identified the need to install comminutors (aka grinders) in the wet wells or just upstream of them, to eliminate these solids that are adversely impacting our pumps.

2/7/2023: ECUC is scheduled to mobilize the week of February 13, 2023.

u) Lewis Hill – West Leigh Water Connection (Account Code 1754):

Consultant:	ACSA Engineering Department
Project Status:	Design
Percent Complete:	95%
Contractor:	ACSA Maintenance Department
Construction Start:	2023
Completion:	2023
Total Budget:	\$80,900
Appropriated Funds:	\$7,125

Project Description - The existing PVC water main that serves as the primary connection between West Leigh Subdivision and Lewis Hill Subdivision is at risk for failure due to the encroachment of a nearby stream. The water main has been taken out of service to avoid a catastrophic failure and the resulting large volume of lost water. This project re-establishes the

connection from West Leigh by taking advantage of the recent water main replacement along Sheffield Road with an 8" diameter pipe.

2/7/2023: ACSA legal counsel has indicated the ACSA has the ability to replace the existing water main within the previously recorded easement. This information will be shared with the Lewis Hill HOA and they can decide if they want to grant the new easement or have the ACSA work within the existing easement.

v) Huntington Village Water Connection (Account Code 1770):

Consultant:	ACSA Engineering Department
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2023
Total Budget:	\$60,700
Appropriated Funds:	\$3,533

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. It is anticipated all the work will be coordinated in-house by Maintenance Department personnel.

12/5/2022: The 100% Design Documents have been completed by ACSA staff.

w) Exclusion Meters Replacement (Account Code 1759):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	32%
Contractor:	ACSA Maintenance Department
Construction Start:	September 2019
Completion:	2024
Total Budget:	\$742,500
Appropriated Funds:	\$247,500

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 exclusion meters and required that all future irrigation meters would be tapped separately off our water mains, to be owned and controlled by the ACSA. 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.

2/7/2023: ACSA Maintenance continues to work on exclusion meters in the vicinity of Darby Road (west), focusing their efforts on stubbing future lines out of the pavement. There are currently 339 exclusion meters remaining in our system.

x) Woodbrook Force Main Replacement Project (Account Code 1826):

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	0%
Contractor:	Linco, Inc. (Linco)
Construction Start:	2022
Completion:	2023
Total Budget:	\$149,468
Appropriated Funds:	\$228,745

Project Description – Pure Technologies recently completed a condition assessment of all ACSA’s sanitary sewer force mains. Based on that work, they recommended replacement of a portion of the Woodbrook Force Main due to thinning pipe walls from corrosion.

11/7/2022: A Work Order under our FY 2022 Miscellaneous Sewer Repair/Replacement Contract was issued to Linco on October 26, 2022. VDOT has advised that repaving along Idlewood Drive is anticipated in 2023, so this will drive our schedule for replacement.

y) SCADA System Phase 3 (Account Code 1605):

Consultant:	Whitman, Requardt & Associates, Inc. (WRA)
Project Status:	Construction
Percent Complete:	0%
Contractor:	M.C. Dean
Construction Start:	November 2022
Completion:	June 2023
Total Budget:	\$943,115
Appropriated Funds:	\$1,224,918

Project Description - The ACSA Utility System has over 40 critical assets that include water and wastewater pump stations, water storage tanks and master PRV stations. They are considered critical because malfunctions or failures at any of the assets could have a drastic effect on our utility system and our customers. These assets are currently monitored by site visits of assigned Maintenance personnel. This project will create a Supervisory Control and Data Acquisition (SCADA) System that will allow ACSA employees to remotely monitor the operations of these critical assets from the main office building. It will also allow personnel to change the operational settings of some pump stations from the main office building. Using alarms, we will be able to more quickly evaluate problems and prevent some failures before they happen. The project will be completed in three phases over a three year period.

11/7/2022: M.C. Dean has begun providing submittals for review by WRA.

Albemarle County Service Authority (ACSA)

CIP Schedule Revisions
February 2023

1. The design phase of the Avon Street Maintenance Yard has been extended to April 2023.
2. The design phase of the Northfields Water Main Replacement Project has been extended to June 2023.
3. The design phase of the Barracks West Water Main Replacement Project has been extended to May 2023.
4. The design phase of the Broadway Water Main Replacement Project has been extended to April 2023.
5. The design phase of the Airport Trunk Sewer Upgrade Project has been extended to June 2023.
6. The design phase of the Northfields Phase 5 Project has been extended to June 2023.

Capital Improvement Program			Percent		2022	2023	2021	2021	2021	2021	2021	2021	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2023	2023	2023	2023	2023	2023
Proposed Project Schedule Worksheet: February 2023		Acct. #	Growth	PM	Forecast	Forecast	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
Risk Assessment Improvements		1621	0%	AM	117,000																									
Data Management and Dashboarding			100%			20,000																								
Billing System Analysis and Replacement			100%			50,000																								
ESRI Utility Network Implementation			100%			50,000																								
Cityworks Operational Insights Impelmentation			100%			45,000																								
Energy Audit		1625	0%	AM		40,000																								
Avon Street Maintenance Yard		1622	100%	AM	60,000	3,750,000																								
ACSA Facilities - Security System Upgrade			100%			158,000																								
AMI Implementation		1620	15%	PG	5,000,000																									
Four-Story Backflow Prevention Assembly Retrofit		1765	0%	AM																										
Scottsville Phase 4 Water Main Replacement		1758	0%	AM		100,000																								
Crozet Phase 4 Water Main Replacement		1756	0%	JL		1,412,050																								
Ragged Mountain Phase 1 Water Main Replacement		1760	0%	JL		417,000																								
Jefferson Village Water Main Replacement		1747	0%	RN	262,300																									
Northfields Water Main Replacement		1764	0%	RN																										
Hessian Hills Water Main Replacement		1753	0%	JL	3,456,675																									
Briarwood Water Main Replacement		1766	0%	JW																										
Barracks West Water Main Replacement		1796	0%	JW	452,500																									
Townwood Water Main Replacement			0%			170,000																								
Broadway Street Water Main Replacement		1768	0%	RN		650,000																								
Raintree and Fieldbrook PVC Water Main Replacement		1771	0%	JL	432,300																									
Pantops Drainage Basin Rehabilitation		1824	0%	RN																										
Hollymead Drainage Basin Rehabilitation		1825	0%	RN																										
Airport Trunk Sewer Upgrade		1828	100%	JL		115,000																								
Northfields Phase 5 Sewer			100%	RN		70,000																								
Biscuit Run Sewer Replacement		1830	0%	RN	206,000	206,000																								
FY 2021 Miscellaneous Sewer Rehabilitation		1904	0%	JL																										
FY 2022 Miscellaneous Sewer Repair/Replacement		1905	0%	JL	200,000																									
FY 2022 Miscellaneous Sewer Rehabilitation		1906	0%	JL	200,000																									
FY 2023 Miscellaneous Sewer Repair/Replacement		1905	0%	JL		200,000																								
FY 2023 Miscellaneous Sewer Rehabilitation		1906	0%	JL		200,000																								
Oak Forest Pump Station Abandonment		1807	0%	JL																										
Bellair - Liberty Hills Sewer		1829	100%	JL	80,515																									
Madison Office Park Pump Station Upgrade		1735	0%	JL	123,875	425,000																								
Sewer Pump Station Comminutors		1827	0%	RN	291,300																									
Lewis Hill - West Leigh Water Connection		1754	0%	RN																										
Parkview Drive Water Connection			0%																											
Huntington Village Water Connection		1770	0%	RN																										
Briarwood Pump Station Generator		1767	0%	AM																										
Exclusion Meters Replacement		1759	0%	JL																										
Pipe Saddles Replacement		1763	0%																											
SCADA System Phase 3		1605	100%	AM	186,800																									
Developer Participation			100%		100,000	100,000																								
Total Capital Projects to be appropriated in the Fiscal Year					\$ 11,169,265	\$ 8,178,050																								

	In house construction		Engineering		Construction
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Albemarle County Service Authority (ACSA)
Active Private Development Projects
February 2023

- a. Albemarle Business Campus – Block 1 (Scottsville): Water and sewer main extensions to serve 128 multi-family units. The site is located to the northeast of the Old Lynchburg Road and Country Green Road intersection.
- b. Belvedere Phase 5B Offsite Sewer (Rio): Offsite sewer extension to serve Belvedere 5B (20 single family homes at the end of Fowler Street). It will also provide sewer service to future phases of Belvedere and a portion of Dunlora Village.
- c. Brookhill Blocks 9-11 (Rivanna): Water and sewer main extensions to serve 85 single family homes in the Brookhill subdivision, located east of Stella Lane between Ashwood Boulevard and Archer Avenue.
- d. 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 East of the Montgomery Ridge Subdivision.
- e. Galaxie Farm Subdivision (Scottsville): Water and sewer main extensions to serve 65 residential units. This project is located along Scottsville Road, south of Mountain View Elementary.
- f. Glenbrook at Foothills Phase 3 (White Hall): Water and sewer main extensions to serve 120 residential units between the Parkside Village and Glenbrook at Foothills subdivisions along Park Ridge Drive.
- g. Hollymead Town Center Area C Townhomes – Block II (Rio): Water and sewer main extensions to serve 56 attached single family units. This project is located to the south of Timberwood Boulevard, in between Connor Drive and Berkmar Drive.
- h. Lochlyn Hill – Phase 4 (Rio): Water and sewer main extensions, and demolition of 14 existing homes for 14 single family detached units and 8 single family attached units. This project is located along Pen Park Lane, north of the City limits.
- i. Mountain View Elementary Building Addition (Scottsville): Water main extension to facilitate building addition.

- j. Old Trail Village Block 7C (White Hall): Water and sewer main extensions to serve 30 residential units. This project is located along Old Trail Drive near Golf View Drive.
- k. Pleasant Green – Phase 2A (White Hall): Water and sewer main extensions to serve 24 residential units. This project is located to the southeast of the Orchard Acres subdivision.
- l. Pleasant Green – Phase 2B and 3 (White Hall): Water and sewer main extensions to serve 173 residential units. This project is located to the southeast of the Orchard Acres subdivision.
- m. Proffit Road Townhomes South (Rivanna): Water and sewer main extensions to serve 31 town home units. This project is located along Proffit Road, south of Martha Jefferson Outpatient Care Center.
- n. Regents School of Charlottesville (Samuel Miller): Water and sewer main extensions to serve a private school, grades K-12. The site is located west of Trinity Presbyterian Church, along Reservoir Road.
- o. Rivanna Station – Nicholson Building Addition (Rivanna): Water main extension to serve an expansion of the Nicholson Building and a parking garage at NGIC, located east Route 29 and south of Boulders Road.
- p. 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.
- q. Southwood Phase 1 – Blocks 9-11 (Scottsville): Water and sewer main extensions to serve 70 single family units and 16 condominium units. This project is located west of Horizon Road and south of Hickory Street.
- r. Stonefield Block D1 (Jack Jouett): Water main extension to serve a 220 unit apartment building at the intersection of Inglewood Drive and Bond Street.

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

<p>AGENDA TITLE: FY 2023 CIP Authorizations</p> <p>STAFF CONTACT(S)/PREPARER: Jeremy M. Lynn, P.E., Director of Engineering</p>	<p>AGENDA DATE: February 16, 2023</p> <p>ACTION: <input type="checkbox"/> INFORMATION: <input type="checkbox"/></p> <p>CONSENT AGENDA:</p> <p>ACTION: <input checked="" type="checkbox"/> INFORMATION: <input type="checkbox"/></p> <p>ATTACHMENTS: YES</p>
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BACKGROUND: Authorization for two CIP Projects, both of which are included in the CIP Rate Model Budget. The first authorization is for permission to exceed the \$50,000 limit on increasing the original contract amount for the Four-Story Backflow Prevention Assembly Retrofit Project. The second authorization is funding for Design Phase Services for the Townwood Water Main Replacement Project.

DISCUSSION:

- ❖ Allows ACSA staff to continue with installation of backflow assemblies under the current contract for Phases 2 and 3.
- ❖ Allows ACSA staff to implement our goal of replacing all PVC water mains within our system that were installed prior to 1990.

BUDGET IMPACT: The adjusted construction cost of the Four-Story Backflow Prevention Assembly Retrofit Project (all three phases) is approximately \$240,000 less than originally anticipated in the Rate Model. The cost of Design Phase Services for the Townwood Water Main Replacement Project will be within the amount budgeted in the CIP Rate Model.

RECOMMENDATIONS: Authorize the increase of the Four-Story Backflow Prevention Assembly Retrofit Project by more than \$50,000 and authorize funding for the Townwood Water Main Replacement Project to keep our CIP Project Schedule moving forward and improving our utility system.

BOARD ACTION REQUESTED: Approve the Consent Agenda.

ATTACHMENTS:

- ❖ Detailed memo of the proposed CIP authorization.
- ❖ Proposal from Dewberry Engineers Inc. for Design Phase Services for the Townwood Water Main Replacement Project.



MEMORANDUM

To: Board of Directors
From: Jeremy M. Lynn, P.E., Director of Engineering
Date: February 16, 2023
Re: FY 2023 CIP Authorizations
cc: Michael E. Derdeyn

The following projects require Board authorization:

- A. Four-Story Backflow Prevention Assembly Retrofit Project:** On December 21, 2022, the ACSA accepted proposals for the Four-Story Backflow Prevention Assembly Retrofit Phase 1 Project. One (1) contractor submitted a proposal on the project and that was Agilis, LLC DBA Foothill Irrigation with a proposal totaling \$26,376. Phase 1 of this project includes the installation of backflow assemblies for 24 homes. Based on the initial success in completing the installations in Phase 1, ACSA staff has determined it would be advantageous to add Phases 2 and 3 to the current contract. As outlined in the Virginia Procurement Act, a contract cannot be increased by more than twenty-five percent or \$50,000, whichever is greater, without the advance written approval of the governing body. Based on our projected expenditures for Phases 2 and 3 totaling approximately \$80,000, our contract would exceed the \$50,000 allowable increase.

Board Action

We request the Board of Directors authorize the ACSA to exceed the \$50,000 increase limit for the original contract for the Four-Story Backflow Assembly Retrofit Project.

- B. Townwood Water Main Replacement Project:** As part of the ACSA's continuing efforts to identify and upgrade aging infrastructure and eliminate older PVC water mains, the ACSA has developed a Scope of Services for the Townwood Water Main Replacement Project. This project will include the design of approximately 2,700 linear feet of water main. Attached is a letter, dated February 6, 2023 from Dewberry Engineers, Inc. with their proposed fee to complete the design. The total estimated fee to complete the design of the

Townwood Water Main Replacement Project is \$169,180. The ACSA staff has reviewed this proposal and finds it satisfactory.

Board Action

We request the Board of Directors appropriate \$169,180 from the FY 2023 3R Fund for Design Phase Services for the Townwood Water Main Replacement Project.

JML/jml

Attachments

010101CIPAuthorizations02162023



Dewberry Engineers Inc.
4805 Lake Brook Drive, Suite 200
Glen Allen, VA 23060

804.290.7957
804.290.7928 fax
www.dewberry.com

February 6, 2023

Mr. Richard Nelson
Civil Engineer
Albemarle County Service Authority
168 Spotnap Road
Charlottesville, Virginia 22911

VIA E-MAIL

**RE: Townwood Water Main Replacement Project
Professional Engineering Services
Scope of Services Task Spreadsheet and Schedule**

Dear Mr. Nelson:

Enclosed please find Dewberry Engineers Inc.'s (Dewberry's) Scope of Services Task Spreadsheet and Project Schedule for the above referenced project. These documents have been prepared in response to your letter dated January 23, 2023.

We offer the following clarifications to your letter dated January 23, 2023:

1. The survey fee is based on surveying the general corridor of the magenta and red water main alignments included with your letter dated January 23, 2023. It does not include any additional area that may be required for alternative routing options. Any additional survey required can be provided by Dewberry under a separate proposal for additional services.
2. Subsurface Utility Engineering (SUE) for utility designation (Quality Level B) is included in this proposal given it appears portions of the project corridor may be located on privately owned property. In addition, based on Dewberry experience with discrepancies encountered in the past between the Miss Utility Designer ticket markings completed for a project design versus the Miss Utility Dig ticket markings completed for construction, Dewberry now regularly subcontracts utility designation to eliminate the need for redesign based on any utilities that are missed or unmarked during a Designer ticket. SUE shall be completed through the use of a specialized consultant, Accumark Inc. Accumark will perform utility designating in compliance with Quality Level B, as defined in CI/ASCE 38-02, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data. Known non-locatable utilities will be added to the designating mapping at Quality Level C or D, as appropriate. Quality Level B Utility Designating Services will be provided along the general corridor of the magenta and red water main alignments included with your letter dated January 23, 2023. SUE field markings will be surveyed and compiled for incorporation into the design documents. Per Section 3.2 of the Agreement for Engineering Services between ACSA and Dewberry, the total fee for the utility designation is Accumark's cost plus a maximum of 8% to cover administrative costs.

3. Per your scope, geotechnical investigations are included with the fee; however, we have shifted this task to the 90% Design Documents phase based on this task's completion for past ACSA projects. The requested borings for rock determination along the proposed water line route shall be completed through the use of a specialized consultant, Schnabel Engineering Consultants, Inc. Schnabel's fee of \$11,850 includes eight (8) test borings (see enclosed figure for proposed boring locations) with Standard Penetration Tests to a depth of 6 feet, boring location layout using GPS, Miss Utility coordination, sample collection, laboratory testing, and a geotechnical report with boring logs, corrosivity evaluation based on the DIPRA 10-point Soil Evaluation system, earthwork recommendations, comments on construction dewatering considerations, and evaluation of rock excavation considerations if applicable. This proposal assumes borings shall be accessible with truck-mounted equipment. Final boring locations will be offset as necessary to avoid existing structures, subsurface and overhead utilities, and other obstructions to drill rig access. Schnabel has assumed the requirement of VDOT Land Use Permit (LUP) and traffic control for work in the right-of-way and allowable work hours between 9 AM and 3 PM. Asphalt coring is not included. Borings will be backfilled with drilling spoils and a borehole plug. Asphalt pavement at boring locations will be patched with Aquaphalt. Per Section 3.2 of the Agreement for Engineering Services between ACSA and Dewberry, the total fee for the geotechnical investigations line item is Schnabel's cost for eight (8) borings and geotechnical report plus a maximum of 8% to cover administrative costs.

Schnabel noted in their proposal that the VDOT Charlottesville Residency has recently been taking the position that boring locations in asphalt require a mill and overlay for non-VDOT projects. A cost for an OPTIONAL ITEM of mill and overlay up to 2 inches in a 3 ft x 3 ft area at each of the boring locations is included as a potential additional service. For budget purposes, this cost is \$22,500 if required by VDOT.

4. Environmental investigations are not included in the proposal per your scope. If environmental services are needed, they can be provided by Dewberry under a separate proposal for additional services.
5. Test holes for locating existing underground utilities and/or structures are not included in our fees. If test holes are required for the confirmed water alignment, these services can be provided by Dewberry under a separate proposal for additional services.
6. The public outreach fee includes preparation for and attendance at a total of one (1) meeting.
7. Per your scope, easement plats are anticipated. An initial review of the project area by our survey manager has identified three (3) distinct parcels that may or may not be owned by the same Homeowner's Association. For budget purposes, a maximum of three (3) plats could be required for this project, at a unit price of \$1,500 per plat. Draft plats could be delivered to ACSA for review anywhere from two (2) to three (3) weeks after issuing approval for plat preparation.

For completion of the scope of services outlined in your letter dated January 23, 2023 and clarified by this letter, Dewberry will be paid a lump sum fee not to exceed amount of **\$169,180.00**.

Mr. Richard Nelson
February 6, 2023
Page 3 of 3

We are available to meet and discuss the information provided for this project at your earliest convenience, if necessary. We appreciate the opportunity to work for the Albemarle County Service Authority on this project. If you find our proposal acceptable, please issue a Letter of Agreement to allow us to begin work.

Sincerely,

Dewberry Engineers Inc.



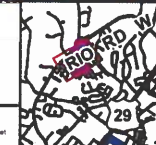
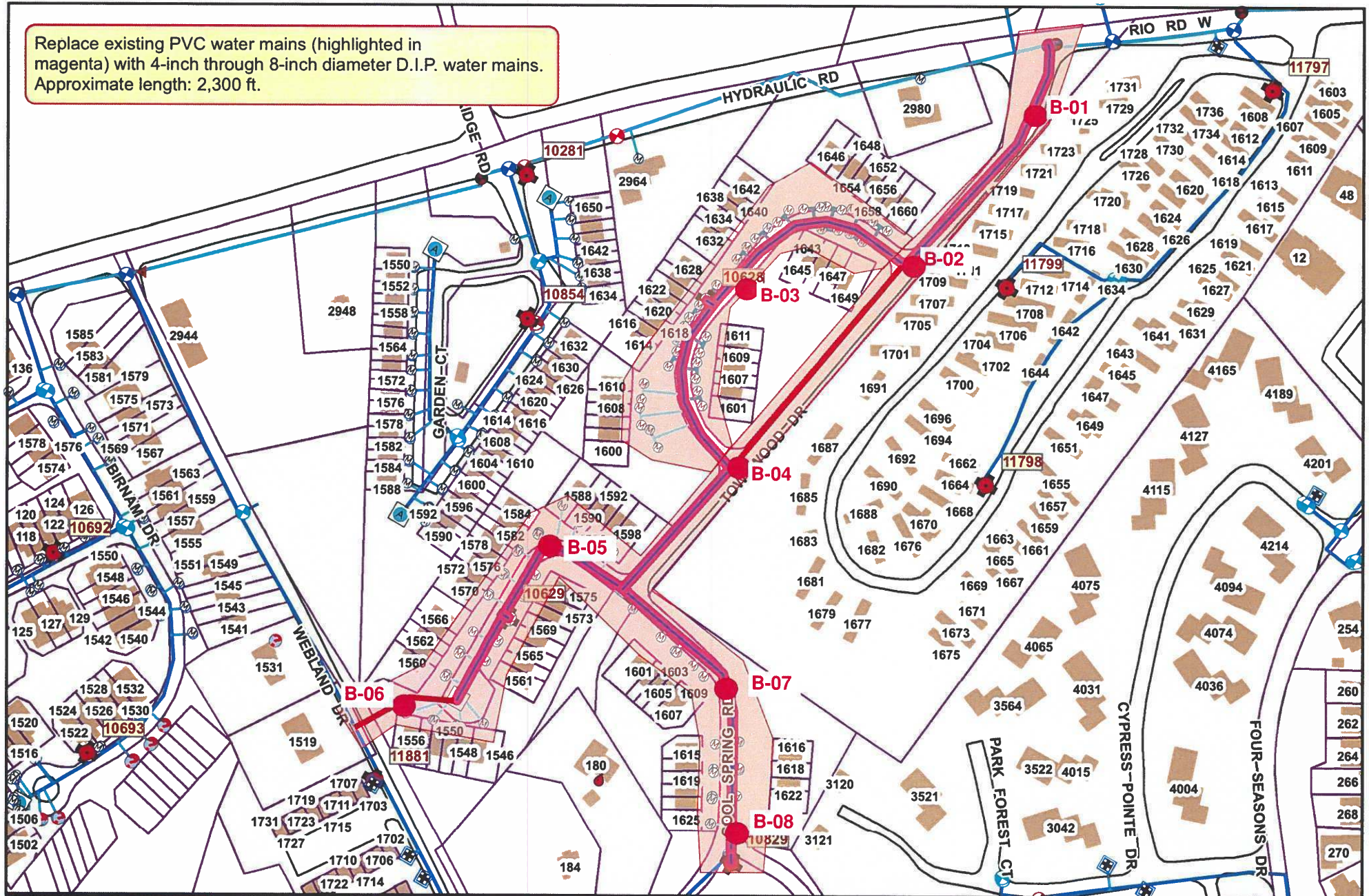
Heather A. Campbell, PE
Contract Manager

Enclosures:

Project Figure with approximate locations of proposed test borings
Dewberry Scope of Services Task Spreadsheet, dated February 6, 2023
Project Schedule, dated February 6, 2023

Q:\PROPOSAL\2023\ACSA\Townwood Water Main Replacement\2023.02.06 Townwood Water Main Replacement Cover Letter.docx

Replace existing PVC water mains (highlighted in magenta) with 4-inch through 8-inch diameter D.I.P. water mains. Approximate length: 2,300 ft.



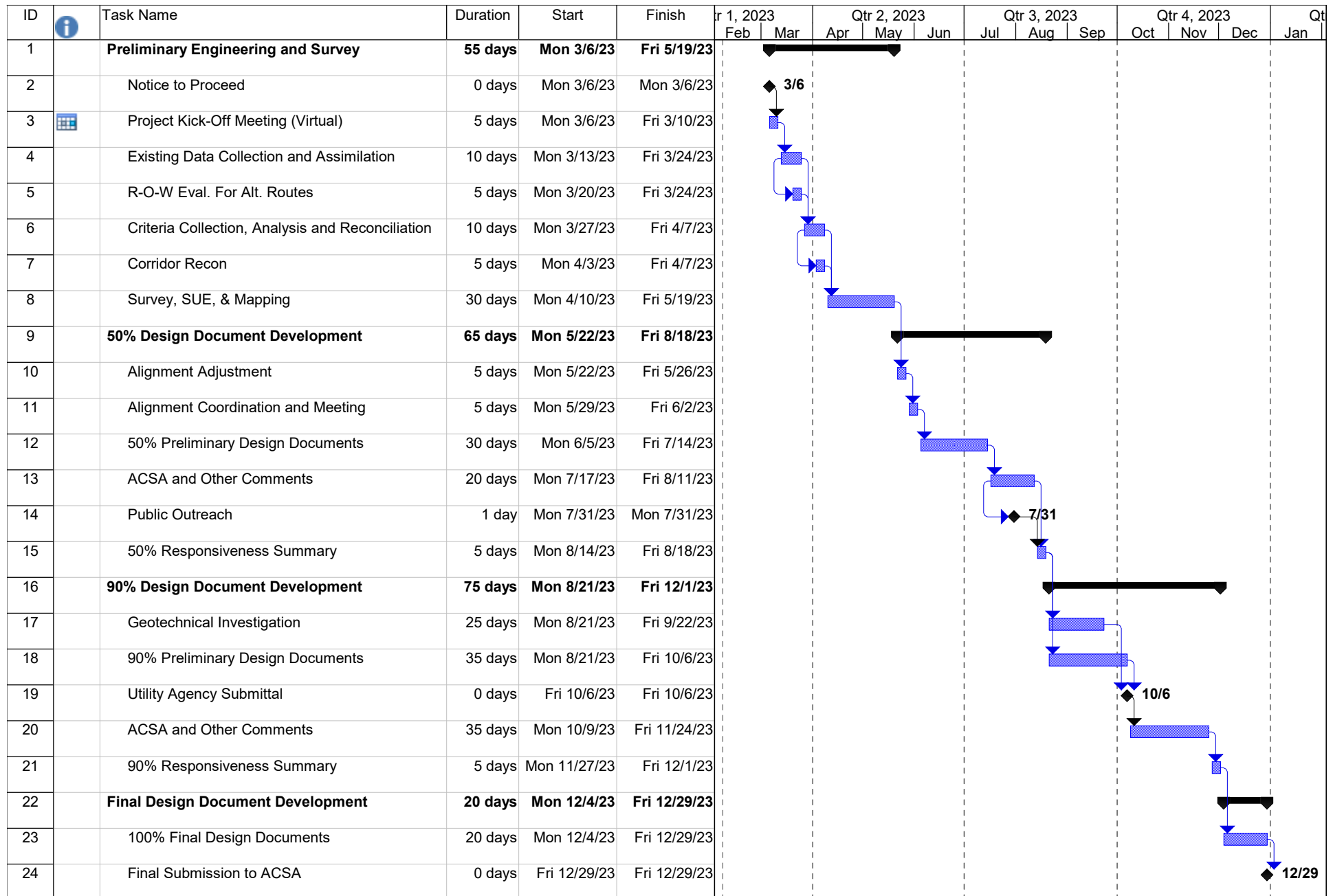
Townwood Water Main Replacement Project
 Albemarle County Service Authority
 6-Feb-23

DEWBERRY LABOR CLASSIFICATIONS										
TASK	Project Officer QA/QC Engineer VIII \$255 (HRS)	Project Manager Engineer VII \$240 (HRS)	Staff Engineer III \$150 (HRS)	CADD III \$120 (HRS)	Surveyor VIII \$185 (HRS)	Survey Crew 3-Person \$220 (HRS)	Computer Surveyor VI \$140 (HRS)	TOTAL (HRS)	DIRECT EXPENSES (\$)	COST PER TASK (\$)
PRELIMINARY ENGINEERING & SURVEY										
Project Kick-Off Meeting (Virtual)		1	1					2		\$390
Existing Data Collection and Assimilation		8	12	8				28		\$4,680
Right-of-Way Investigation for Alternative Routes	1	8	12	8				29		\$4,935
Criteria Collection, Analysis, and Reconciliation	1	12	20					33		\$6,135
Corridor Reconnaissance		6	6					12		\$2,340
Survey, SUE, & Mapping		4			4	80	32	120	\$14,200	\$37,980
SUB-TOTAL	2	39	51	16	4	80	32	224	\$14,200.00	\$56,460.00
50% DESIGN DOCUMENT DEVELOPMENT										
Alignment Adjustment	1	6	24	12				43		\$6,735
Alignment Coordination	1	4	12					17		\$3,015
50% Preliminary Design Documents	3	16	64	56				139	\$225	\$21,150
Public Outreach		6	4	4				14	\$100	\$2,620
50% Responsiveness Summary	1	4	12					17		\$3,015
SUB-TOTAL	6	36	116	72	0	0	0	230	\$325.00	\$36,535.00
90% DESIGN DOCUMENT DEVELOPMENT										
Plats								0	\$0	\$0
Test Holes								0	\$0	\$0
Geotechnical Investigation		3						3	\$11,850	\$12,570
90% Preliminary Design Documents	3	56	96	64				219	\$150	\$36,435
Utility and Agency Submittal		12	24	8				44	\$300	\$7,740
90% Responsiveness Summary	1	4	12					17		\$3,015
SUB-TOTAL	4	75	132	72	0	0	0	283	\$12,300.00	\$59,760.00
FINAL DESIGN DOCUMENT DEVELOPMENT										
100% Final Design Documents	2	20	40	24				86	\$75	\$14,265
Provide Remaining Permit Applications		4	8					12		\$2,160
SUB-TOTAL	2	24	48	24	0	0	0	98	\$75.00	\$16,425.00
TOTALS								835	\$26,900.00	\$169,180.00

Notes:

Plats - maximum of 3 plats @ \$1,500 each

Mill and overlay at boring locations if required by VDOT - \$22,500



Project: Townwood WM Replace
Date: 2/6/23

Task  Milestone 

Summary 

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

CONSENT AGENDA

<p>AGENDA TITLE: Crash Cushion Truck keeps ACSA Maintenance Workers safe</p> <p>STAFF CONTACT(S)/PREPARER: Mike Lynn & Roland Bega</p>	<p>AGENDA DATE: February 19, 2023</p> <p>ACTION: Informational</p> <p>ATTACHMENTS: Yes</p>
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BACKGROUND: Safety is of utmost importance in the Maintenance Department. A number of ACSA's water valves are located in high speed and high traffic volume roadways. These valves need to be exercised regularly to keep them in working condition. Due to the hazard of working on streets and roads, our preventative maintenance program was in jeopardy of falling behind.

DISCUSSION: In December 2022, ACSA had the opportunity to purchase a 2006 International 4300 Crash Cushion Truck with a Scorpion Attenuator and a Trafcon Arrow Board (Attachment 1). Due to supply chain issues, even rental crash cushion trucks have been in short supply the past few years which has hindered the valve exercising program. ASCA Unit 43 will enable us to work on roads such as Routes 29 and 250, where the speed limit is 45 miles an hour or higher as required by law. Also, it will keep our employees safe in high traffic corridors with lower speed limits such as Barracks Road, Hydraulic and Rio Roads. It will also be used on streets and roads with limited road visibility. In addition to aiding the valve exercising program, the crash cushion truck can be used in CCTV camera work, sewer line maintenance and on emergency water leaks.

The Scorpion Attenuator unfolds from its' carrying position above the truck bed (Attachment 2) and is positioned behind the truck to provide a safety barrier 80-120 feet in front of the work area (Attachment 3). In the event of a vehicle hitting the attenuator, the kinetic energy is 100% absorbed into the attenuator. The result is the crash cushion truck will not move forward during the crash. The debris created from the vehicular crash is collected into the attenuator due to its curved side aluminum tubes. This makes the post impact crash area safer for workers and first responder as well as easier cleanup.

Advantages of the Scorpion Attenuator are its' compact size, simple design and ease of post impact repair. The Maintenance Department will be safer in roadway work areas and able to provide more efficient customer service with the addition of Unit 43 to its fleet.

BOARD ACTION REQUESTED: None

ATTACHMENTS:

(Attachment 1) ACSA Unit 43 in transport mode




(Attachment 2) Unfolding the attenuator

ATTACHMENTS:

(Attachment 3) The attenuator unfolded and in operating mode

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

<p>AGENDA TITLE: Rivanna Water & Sewer Authority (RWSA) Monthly Update</p> <p>STAFF CONTACT(S)/PREPARER: Gary O'Connell, Executive Director </p>	<p>AGENDA DATE: February 16, 2023</p> <p>CONSENT AGENDA: Informational</p> <p>ATTACHMENTS: No</p>
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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 January 24th RWSA Board Meeting and other communications.

RWSA Board Meeting and other Updates and Approvals at the January 24th Board Meeting:

- **Financial Update, Credit Rating, Financial Profile and Policies:** RWSA provided an overview of its financial policies which were adopted in August 2011. These policies provide guidance, goals, and targets for management and are crucial for outside financial assessments and bond ratings. The RWSA maintains a high-quality credit rating (Aa2 by Moody's and AA+ by Standard and Poor's) which is a key driver to obtaining the lowest of borrowed funds.
- **Observatory Water Treatment Plant:** This plant will be offline from now to March 15th to complete the renovation and treatment capacity increase from 7.7 to 10 mgd (million gallons daily). During this time, the South Rivanna Water Reservoir Supply and Treatment Plant will be fully operational to serve the Urban Water System.
- **Reservoirs Pipeline Project:** RWSA continues to work with UVA and UVAF to acquire final easements on the pipeline projects.
- **Central Water Line Project:** Engineering design and field investigations continue for the Central Water Line project to be constructed along Cherry Avenue.
- **Reservoirs Storage Level:** At 100% full.
- **History and Organization Agreements of the RWSA:** An overview of the history of the RWSA and organizational agreements was provided to the Board from inception (June 7, 1972) through its most recent agreement (Northern Area Drinking Water Projects Agreement 2022). The agreements, 22 in total, are used to manage RWSA resources, budgets, and charges to the ACSA/City.

- **Sustainability and Climate Action Overview:** Sustainability and environmental protection is fundamental to why the RWSA was formed and what they do. The RWSA will continue to focus on this core mission and is evaluating opportunities to adjust how services are provided, understanding its footprint, and reducing environmental impacts. A key component of the RWSA's strategic plan is environmental stewardship to demonstrate and promote best practices in sustainability, resource conservation, and environmental education. Important program areas include climate action and Green House Gas (GHG) emissions, natural resource protection, and climate change resiliency.

RWSA Major Capital Project Updates:

- **South Rivanna and Observatory Water Treatment Plant Renovations**

Design Engineer:	Short Elliot Hendrickson, Inc. (SEH)
Construction Contractor:	English Construction Company
Construction Start:	May 2020
Percent Completion:	76%
Completion Date:	May 2023
Base Construction Contract:	\$37,889,941
Approved Capital Budget:	\$43,000,000

Current Status:

At South Rivanna, lead paint abatement continues. Work at Observatory includes the new Chemical Storage Building, sedimentation basin improvements, foundation work for the GAC building expansion and a large retaining wall. Shutdown of the OBWTP is underway for December 5, 2022 – March 15, 2023.

History:

The Observatory project includes the design and costs for upgrading the plant systems to achieve an upgraded 10 mgd plant capacity. Much of the Observatory Water Treatment Plant is original to the 1953 construction.

At the South Rivanna Water Treatment Plant significant needs were identified and assembled into a single project. The projects include: expansion of the coagulant storage facilities; installation of additional filters to meet firm capacity needs; the addition of a second variable frequency drive at the Raw Water Pump Station; the relocation of the electrical gear from a sub-terrain location at the Sludge Pumping Station; a new Administration building onsite for additional office, lab, control room and storage space; improvements to storm sewers to accept allowable WTP discharges; and the construction of a new metal building to cover the existing liquid lime feed piping and tanks. The scope of this project will not increase plant treatment capacity, which is at 12 mgd.

- **Airport Road Water Pump Station and Piping**

Design Engineer:	Short Elliot Hendrickson (SEH)
Contractor:	Anderson Construction
Construction Start:	December 2021
Percent Complete:	35%
Completion Date:	December 2023
Base Contract:	\$8,520,312
Budget:	\$10,000,000

Current Status:

The concrete slab for the pump station was poured. Water line installation has begun at the pump station site and will progress south along Berkmar Drive towards Kohl's.

History:

The Route 29 Pipeline and Pump Station Master Plan was developed in 2007 and originally envisioned as a multi-faceted project that reliably connected the North and South Rivanna pressure bands; reduced excessive operating pressures and developed a new Airport pressure zone to serve the highest elevations near the Airport and Hollymead Town Center. The master plan update was completed in June of 2018 to reflect the changes in the system and demands since 2007.

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

Design Engineer:	Michael Baker International (Baker)
Project Start:	August 2018
Project Status:	Easement Acquisition & Design (45%)
Construction Start:	2025
Completion:	2028
Current Project Estimate:	\$44,000,000

Current Status:

Preparation of engineering plans and specifications continues. RWSA staff is reviewing plans for the water line, which includes the vast majority of the piping to be installed under the project. Easement negotiations with UVA, and the UVA Foundation continue. RWSA staff is coordinating with VDOT on the Route 29 Bypass and Fontaine Avenue crossings. Design work on the pump station has begun, at the 45% stage.

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 million gallons per day (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 is planned to replace the existing Stadium Road and Royal Pump Stations, which have exceeded their design lives or will require significant upgrades with the Observatory WTP expansion. The pump station will pump up to 10 million gallons per day (mgd) of raw water to the Observatory WTP. 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.

- **South Rivanna Reservoir to Ragged Mountain Reservoir Raw Water Line-Birdwood to Old Garth Road**

Design Engineer:	Kimley-Horn
Project Start:	June 2021
Project Status:	90% Design
Construction Start:	January 2023
Completion:	December 2023
Current Project Estimate:	\$4,000,000

Current Status:

Preparation of engineering plans and specifications is substantially complete for a 0.25-mile section of this 36" raw water pipe from Birdwood to Old Garth Road. One remaining easement is under negotiation with the UVA Foundation for this phase of the project. The railroad permit application will be finalized when a remaining sod boring is completed.

History:

This project is the continuation of the SRR to RMR 36" raw water pipeline built on the Birdwood Golf Course. Design efforts were authorized in June 2021 with construction anticipated in summer 2022.

- **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:	91% NRCS Planning Process
Construction Start:	2024
Completion:	2027
Budget:	\$43,000,000

Current Status:

A Joint Permit Application and supporting documents were submitted to VDEQ this month. Remaining NRCS requirements, including review and approval of the planning study, are scheduled for completion this winter. The revised Plan Environmental Assessment was approved by the NRCS. NRCS funding for the final design and dam spillway upgrades will be requested at a future date.

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 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. A federal grant totaling \$341,000 was secured from the National Rural Conservation Service (NRCS) to cover the costs of an Environmental Assessment for the dam modifications. RWSA staff will continue to pursue federal funding for later phases of the project to cover a portion (70%) of final design and construction costs.

- **South Fork Rivanna River Crossing**

Design Engineer:	Michael Baker International (Baker)
Project Start:	November 2020
Project Status:	65% Design
Construction Start:	Summer 2023
Completion:	Summer 2024
Budget:	\$7,000,000

Current Status:

Easement acquisition has begun and will include County of Albemarle property in Brook Hill River Park along Rio Mills Road. A required easement on the south side of the river is on a remnant property from the VDOT Berkmar Bridge project and cannot finalize that easement until the property transfer back to the original owner is complete. Submission of the Joint Permit Application (JPA) was completed prior to Thanksgiving and RWSA was issued a VMRC permit at the end of December 2022.

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.

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

Design Engineer:	Michael Baker International (Baker)
Project Start:	October 2017
Project Status:	Easement Acquisition Underway
Completion Date:	2022
Total Capital Project Budget:	\$2,295,000

Current Status:

Progress continues in the efforts to acquire the 8 miles of easements and agreements (with VDOT) for this 36" water line. Discussions continue for remaining easement with the UVA Foundation.

History:

The approved 50-year Community Water Supply Plan includes the future construction of a raw water line from the South Fork Rivanna Reservoir to the Ragged Mountain Reservoir. This water line will replace the existing Upper Sugar Hollow Pipeline along an alternative alignment to increase raw water transfer capacity in the Urban Water System. This project includes a routing study, preliminary design, and preparation of easement documents, as well as acquisition of water line easements along the approved route.

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

Design Engineer:	Frazier Engineering, P.A.
Project Start:	July 2021
Project Status:	Design
Construction Start:	TBD
Completion:	TBD
Current Project Estimate:	\$4,725,000

Current Status

After a recent meeting with City and County staff, RWSA has submitted project summary information and an easement on County property with a valuation estimate for the County's review.

- **SRR to RMR Pipeline – Pretreatment Pilot Study**

Design Engineer:	SEH/DiNatale
Project Start:	August 2020
Project Status:	100% (Phase 1) 99% (Phase 2)
Completion:	December 2022
Budget:	\$22,969 (Phase 1) \$116,401 (Phase 2)

Current Status:

Final efforts are underway to better clarify operations of the raw water transfer system and associated reservoir levels during drought conditions.

History:

As part of the SRR to RMR Pipeline project, the impact of sending raw water from the SRR to RMR has been previously studied and a significant amount of pretreatment was initially identified as being needed to avoid reducing the quality of the raw water contained within the RMR. With the pipeline easement acquisition process well underway and additional information now available associated with the proposed timing of this overall project based on water demand projections, the intent of this project is to update the pretreatment needs anticipated.

The study is anticipated to be completed in four phases: 1. Analysis and Correlation of Existing Water Quality and Seasonal Weather Data; 2. Enhanced Water Quality Sampling; 3. Pretreatment Piloting; 4. Level Setting for the Final Pretreatment Solution.

Phase 1 commenced in January 2021 and was completed in July 2021. Phase 2 began in June 2021.

- **Central Water Line Project**

Design Engineer:	Michael Baker International (Baker)
Project Start:	July 2021
Project Status:	25% Design
Construction Start:	2024
Completion:	2028
Budget:	\$41,000,000

Current Status:

Detailed field investigation and design are underway, as well as adjacent utility coordination.

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.

- **Security Enhancements**

Construction Contractor:	Security 101
Construction Start:	March 2020
Percent Complete:	90% (WA 5), 0% (WA6)
Completion:	May 2023
Budget:	\$2,810,000

Current Status:

WA5, which authorizes card access installation at Glenmore Water Resource Recovery Facility (GWRRF), Scottsville Water Resource Recovery Facility (SVWRRF), and Red Hill Water Treatment Plant (RHWTP), began during the week of June 20th. Conduit and cable pulling is complete at all facilities covered in the WA, and the only work that remains is wiring and programming to be completed this fall. WA6 will include card access installation at RWSA's remote sites and electronic padlocks, including all dams and pump stations. Completion scheduled for May 2023.

History:

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

Regular 3rd Thursday Monthly Meetings	March '23	April '23	May '23	June '23	July '23	August '23	Sept. '23	Oct. '23	Nov. '23	Pending Issues	
	March 16th Recognitions	April 20th Recognitions	May 18th Recognitions	June 15th Recognitions	July 20th Recognitions	August 17th Recognitions	September 21st Recognitions	October 19th Recognitions	November 16th Recognitions	Water Supply Plan Project Status Reports Water Treatment Plants RWSA CIP Central Water Line-Reservoirs Pipeline North Rivanna System	
	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports	Monthly Financial and CIP Reports		
	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations	Capital Project Authorizations		Annual Water Quality Reports (May)
	Proposed CIP Presentation	Proposed Capital Improvements Program (CIP) FY '24 Presentation	Proposed FY 2024 Budget and Rates Workshop	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation - Construction Inspection	Operational Presentation	Board Organizational Meeting each January	
										Annual Report - January	
	AMI Update	Public Hearing on Proposed FY '24 Capital Improvements Program (CIP)		Public Hearing on Proposed FY '24 Budget, Rates and CIP	Strategic Plan Update 2023-25	Year-End Appropriations	Imagine a Day Without Water		Annual Financial Report and Audit Report	Water Audit and Energy Audit	
	New Strategic Plan Draft 2023-2025	Proposed FY '24 Budget and Rates Overview Presentation		Adoption of Proposed FY '24 Budget, Rates and CIP		Operational Presentation - Training and BizLibrary				Strategic Plan Updates-2023-2025 January and July	
	Update on Customer Late Payments	Resolution Scheduling Budget and Rates Public Hearing for June 15, 2023		Amendments to Personnel Management Plan						Annual Water Conservation Report - January	
		National Drinking Water Week Resolution		Amendments to Rules and Regulations - Rate Schedule and Policy Amendments						National Drinking Water Week-April Imagine a Day Without Water - September	
		PAFR (Popular Annual Financial Report) Presentation								AMI Updates - Customer Portal Video	
										Federal/State Water Quality Regulations Lead and Copper; PFAS; Emerging Contaminants	
										Emergency Preparedness - Regional Exercise	
										Annual Investments Report December	
										Operational Presentations	
										ACSA Customer Communications	
										Avon Satellite Operations Center	
										Federal Infrastructure Grant Funds	
										Data Management and Management Dashboards	
			Executive Director Annual Review						Executive Director Mid-Year Review	Purchasing Policy Revisions	
										2/16/2023	

ALBEMARLE COUNTY SERVICE AUTHORITY

AGENDA ITEM EXECUTIVE SUMMARY

AGENDA TITLE: Advanced Metering Infrastructure (AMI) Monthly Update STAFF CONTACT/PREPARER: Quin Lunsford, Director of Finance	AGENDA DATE: February 16, 2023 ACTION: Informational ATTACHMENTS: No
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BACKGROUND: The ACSA Board authorized staff at its October 2019 meeting to execute agreements related to the AMI project. Monthly status updates are provided below:

DISCUSSION: Authority staff continues to collaborate closely with the selected vendor (Core & Main/Sensus) and the project management consultant (Esource). Notable accomplishments since the last update include:

- Meter supply continues to improve and has reached the threshold for re-deployment. The ACSA team is working closely with the contractor to plan the final phase of deployment. These plans include staging inventories, targeted customer communications, and readiness of teams to ensure successful deployment. We anticipate fieldwork to resume in April 2023 for the remaining 20,000 ACSA meters.
- Our contractor has completed replacement of meter registers that were identified as having potential defects which increased the likelihood of meter failure. We have repaired all 270 of the meters with the manufacturing defect noted above.

BUDGET IMPACT: Informational only.

RECOMMENDATIONS: None

BOARD ACTION REQUESTED: None; informational item only.

ATTACHMENTS: N/A



Strategic Plan 2023-2025
Board of Directors Strategic Considerations
February 16, 2023

Strategic Planning Process

- Fall 2022 Planning Process:
 - Customer Experience – Surveys, Interviews – Customers & Employees;
 - Best Practices Review Panel;
 - Board Strategic Plan Issues Areas – Consideration;
 - Leadership Team Facilitated Workshops – December and January;
 - “Close-out” 2020-22 Strategic Plan – January 2023;
- Draft Proposed 2022-25 Strategic Plan:
 - March 2023 is a target date to present.



Board Strategic Considerations

Fall Interviews for Feedback

Summary:

- ACSA is Operating Well in Difficult Times;
- Focus on Our People;
- Overall Water System Improvements (Infrastructure);
- Stable Long-Term Finances;
- Good Job to Make Things Better for Customers, Messaging the “Customer Experience”;
- New Billing System;
- Climate Change and Sustainability.

Board Strategic Considerations - continued



Summary:



ACSA is operating well in difficult times:

- "Hums right along" – well run;
- Steady Leadership;
- Appreciate the good work we are doing;
- Doing really well, examples are with e-bill, metering, customer service, and leak detection;



Staff a plus being at Board meetings; likes the presentations and updates;



Staff quick responses to Board requests;



Good on technology – AMI, Cityworks, IT security, systems security;



Success of technology integration is the most effective way; continued;



Optimization; work; people; time; finances.



The ACSA staff takes a great deal of pride in the work we do, and in supporting the Board;



Strategic Plan facilitated with Leadership Team – a good thing;



Coordination/Integration between all software (SCADA, CMMS, Cityworks, GIS, AMI, and Billing, etc.) for enhanced maintenance, finance, personnel, asset tracking and control.

Staff Comment:

Board Strategic Considerations - continued

Focus on our people:

- Succession – keeping other employees involved;
- Weird hiring market – doing well in it;
- Training;
- High Morale;
- Low turnover, in-house succession/promotions;
- Service and Employee Recognitions;
- Respect, tolerance, and acknowledge;
- Parity of salary to market and equity internally.



Staff Comment:

We agree and have as one of the proposed Strategic Plan themes the “Employee Experience – retain and recruit a highly-skilled workforce and provide employees with resources and opportunities for professional growth.”

Board Strategic Considerations - continued

Overall Water System Improvements (Infrastructure):

- Clean, safe water, affordable;
- Keeping infrastructure up;
- Belief in good, strong infrastructure - keeping up the needed investments;
- Central Water Line;
- Water infrastructure has to keep pace with County growth; one of the Board of Supervisors Strategic Plan items;
- Improving the water/sewer infrastructure;
- Continued infrastructure investment;
- Water Capacity – be sure no gaps;
- Forecasts for growth; assessing impacts on utility infrastructure;
- Most pipe replacements complete and the bigger pipeline projects are underway (a future success);
- Financial readiness for Rivanna big projects (e.g. Pipeline, Central Water Line); start the pipeline sooner than the current 2027 scheduled start;
- Lots of water replacement pipes in neighborhoods;
- Success in improving construction contract process;
- Reservoirs Pipeline.



Staff Comment:

As part of our proposed ACSA and RWSA Capital Improvements Program, we will be addressing these considerations, and supporting a strong infrastructure;

Emergency Response Plan – IT backup; robustness; tabletop exercises; ERP Plan completed; IT Business Continuity readiness;

Reliable infrastructure during weather emergencies;

Inventory lead times affecting capital projects;

Security monitoring of all facilities;

State of the art materials and technology for mechanical infrastructure and IT infrastructure.

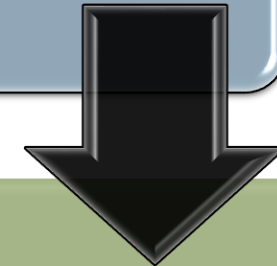
Board Strategic Considerations - continued

Stable Long-Term Finances:

- Steady hand on the financials;
- Keep rate increases to 5%;
- Growth and water – future costs affordable;
- Success in holding rate increases to 5%;
- Size of ACSA rate increases – consider doing larger (7-8%) or more, in line with what RWSA is proposing;
- Success in keeping the rate increases below inflation;
- Utilize reserves efficiently;
- How to improve investment performance?
- Economical water – rate still in the lower half of all VA locales;
- From a business management perspective, concern over dipping further into our reserves;
- Pressure of upward rates from RWSA due to big infrastructure project.

Staff Comment:

These financial considerations will be taken into account with the annual submission of the budget and rates;



FY 2024 proposal to the Board in April.

Board Strategic Considerations - continued

Good Job to Make Things Better for Customers, Messaging the “Customer Experience”:

- Improve customer experience and satisfaction;
- How to improve the complaints about taste;
- Goal of award-winning website for customer experience and user interaction;
- Response to customers;
- Finish AMI implementation;
- A positive-human approach, empathy (e.g. disconnects suspended during COVID);
- Future water use portal for customers (part of AMI project);
- Celebrate the success of overcoming adversity in Hessian Hills project and the efforts to turn it around to end up being a good project; good work with the community; excellent communications to residents;
- Like the focus on the Best Practices Review Panel, and briefing report;
- Like the vision of “serve and conserve”, another word is “preserve”.



CUSTOMER EXPERIENCE

Staff Comment:

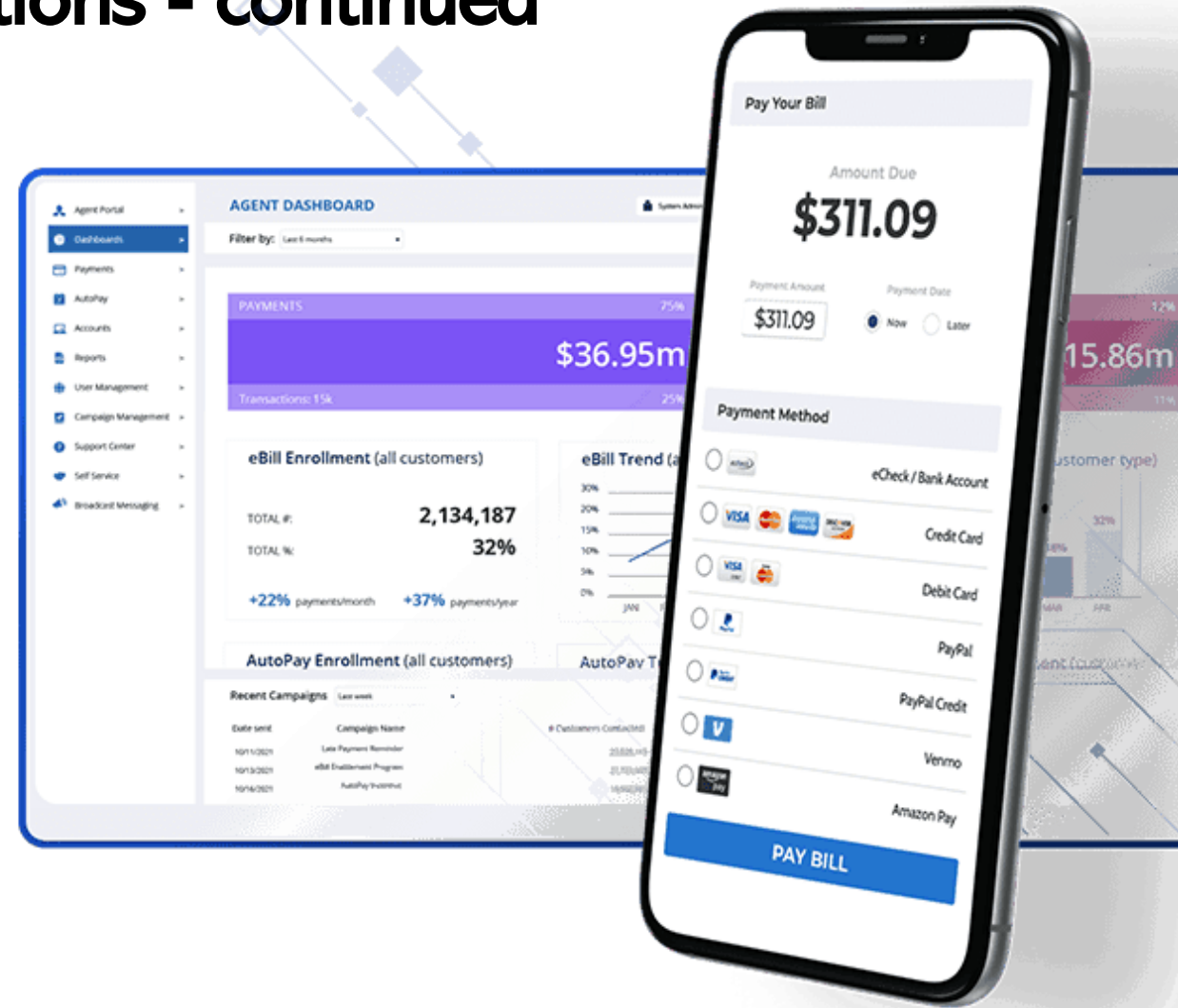
“Customer Experience” will incorporate these issues:

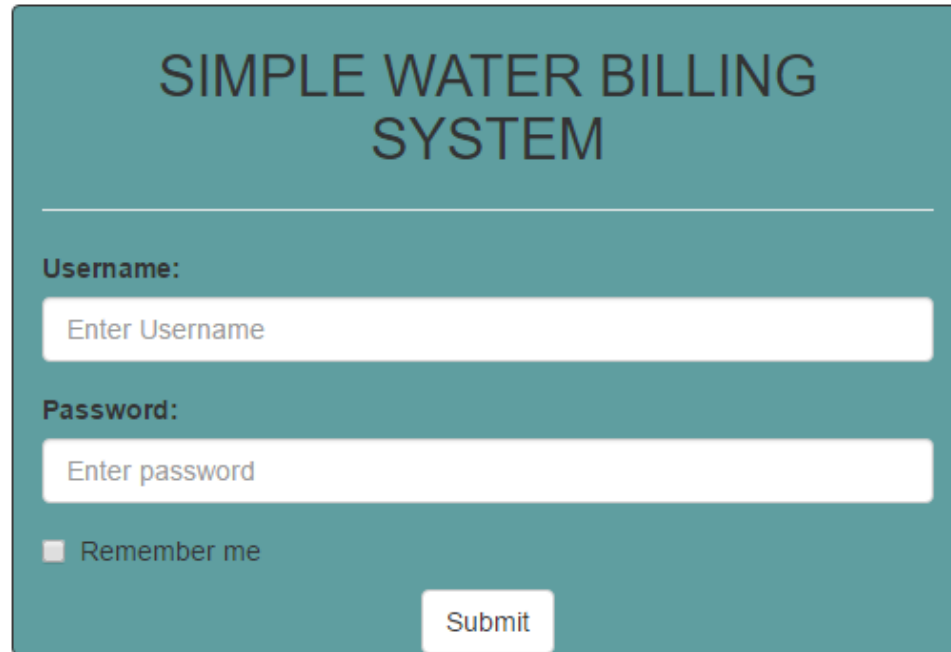
- “Provide Best in Class service ensuring the needs of our customers are exceeded”.

Board Strategic Considerations - continued

New Billing System:

- Do better with the electronic bill pay – complicated to sign up and use as compared to other utilities/banks; two places to go; not auto entry; single sign-on; keep it simple;
- Paymentus issues for customers, how to improve?;
- Time is right for a new billing system that allows customer improvements.





**SIMPLE WATER BILLING
SYSTEM**

Username:

Password:

☐ Remember me

Submit

Staff Comment:

- We agree, and in our proposed Strategic Plan is the replacement of the current billing system with associated customer improvements; as well as integrate with new phone system and website updates/enhancements.

Board Strategic Considerations - continued

Climate Change and Sustainability:

In keeping climate change in focus for a more sustainable planet:

- Mentioned were the energy audit, solar, electric vehicles, and energy savings; water conservation; water preservation; recycling;
- Utilization of electric vehicles;
- Solar power at Avon;
- Water Audit – reduce water losses, unaccountable;
- Total water accountability.



Staff Comment:

Our sustainability initiatives will continue with water conservation methods (AMI)

Implementing our water and energy audits

Use of solar in the new Avon facility, recycling efforts, paving the way for electric vehicles, etc.



Questions

ACSA Customer Experience Project Summary

Melanie Wemple, Senior Managing Director, E Source

ACSA Board of Directors Meeting



We understand utilities because we've made them our business for more than 35 years.



UtiliWorks

STRATEGYWISE

CairnERA

AAC
UTILITY PARTNERS

QuadROI

TROVE

exergy

W S O

DeFG
Customer Insights & Analytics Firm

Research and Advisory

Using market research data, expert analysis, and industry experience, we help utilities put their customers first and meet their business objectives

Data Science

Applying predictive data science to help electric and gas utilities make data-driven decisions that improve their bottom line and increase customer satisfaction

Solution Services

Advancing business and technology solutions that strategically enhance operations for utilities

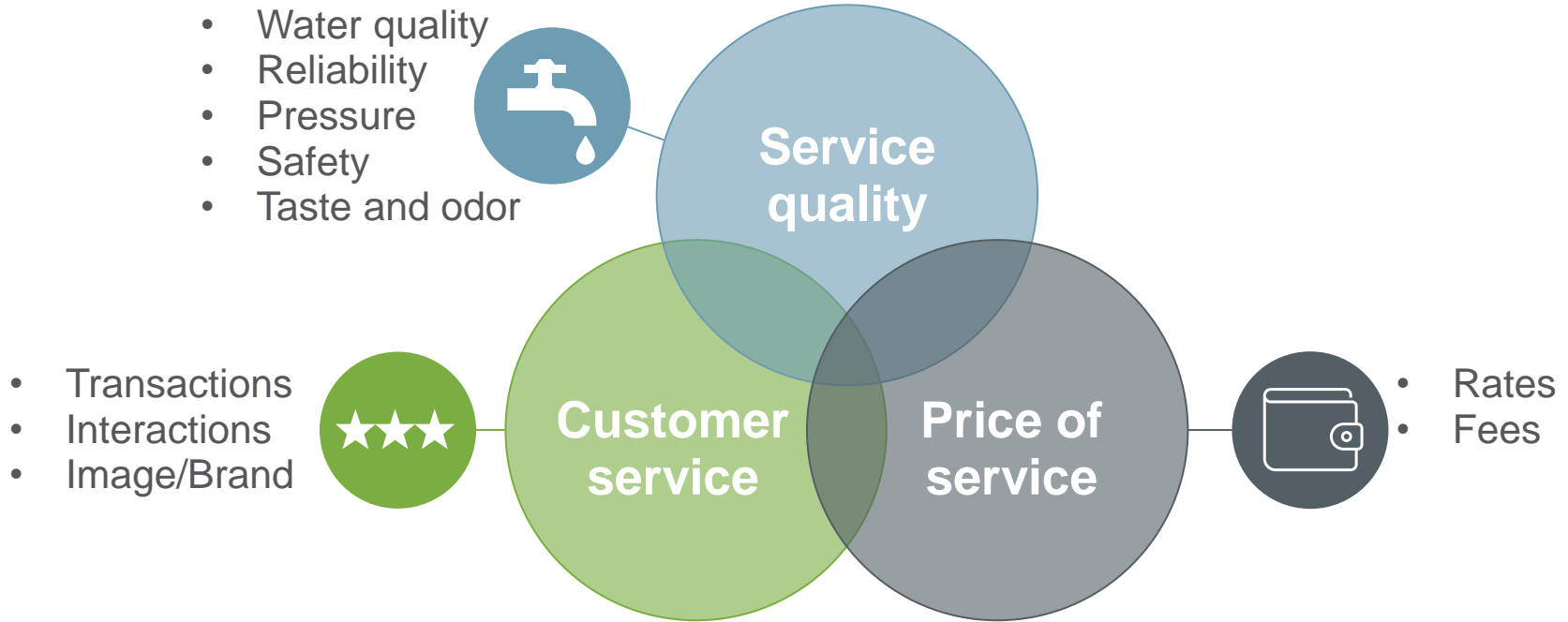
Agenda

- Project overview
- Key insights
- Recommendations



133

Customer experience (CX) is everything related to a business that affects a customer's perceptions and feelings about the business.



ACSA project objectives

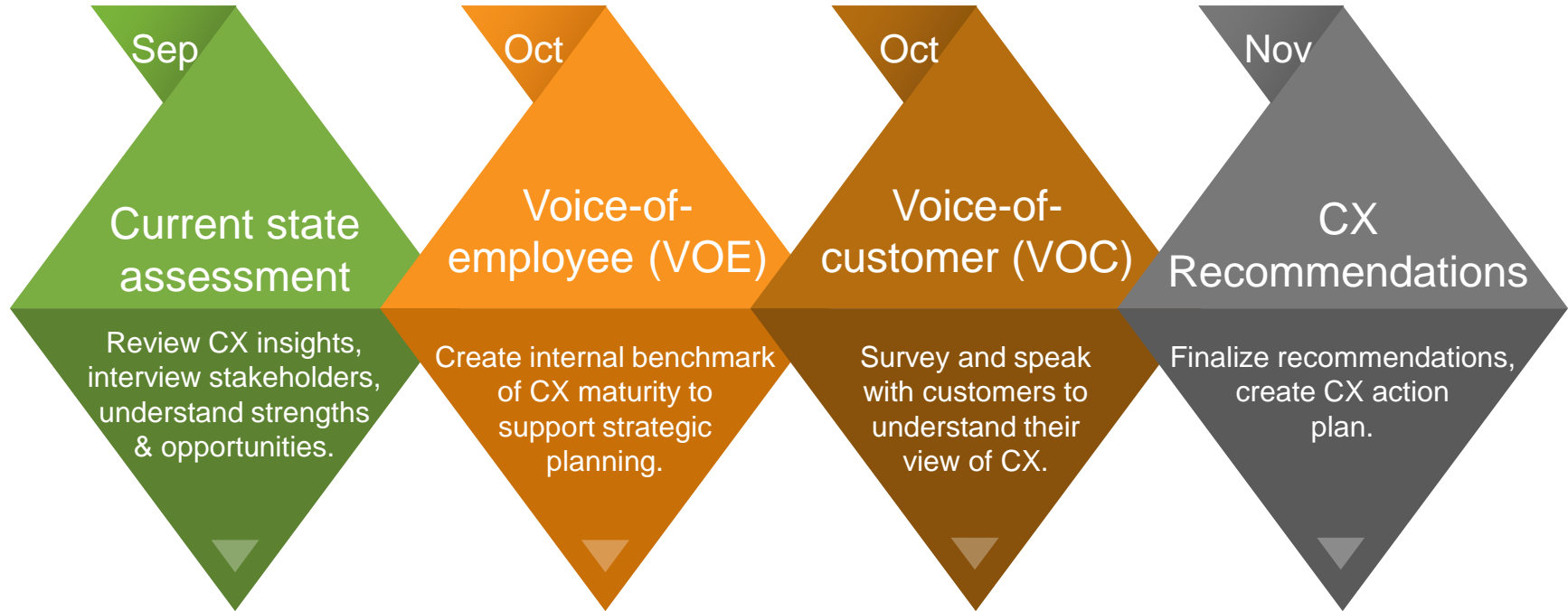
Identify gaps and opportunities

Understand customer experience (CX) across key interactions with the Service Authority.

Outline CX roadmap

Recommend and prioritize CX enhancements and incorporate into ACSA's three-year strategic plan.

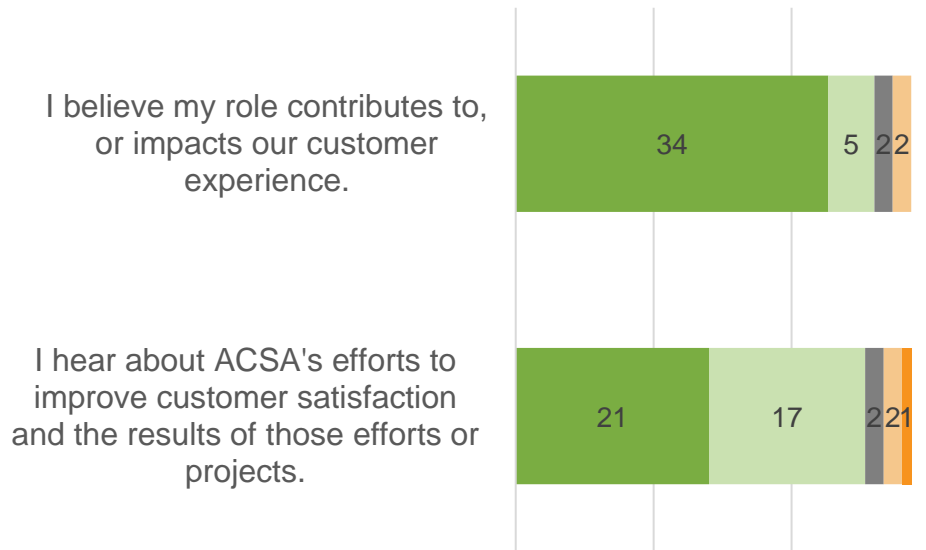
Project approach



Strong understanding of “good” CX

- Recognition of personal impact to CX
- Lower awareness of CX efforts
- Alignment on desired CX, despite not having defined customer experience vision

■ Completely agree ■ Somewhat agree ■ Unsure
■ Somewhat disagree ■ Completely disagree

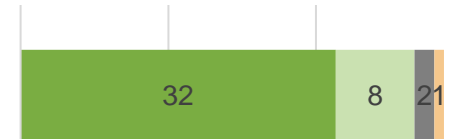


Sentiment that leadership exemplifies desired behaviors

- 'Tools, skills, resources' CX strength
- Support for leadership and belief that leadership supports staff
- Focus on customer has been amplified by executive leadership
- Opportunity to incorporate CX in team or individual goals

■ Completely agree ■ Somewhat agree ■ Unsure
■ Somewhat disagree ■ Completely disagree

I have the tools, skills, and resources required to deliver a positive customer experience (i.e., advise customers on...



Leaders and managers clearly communicate that the customer is a top priority.



My team and individual goals and metrics are designed with the customer experience in mind.

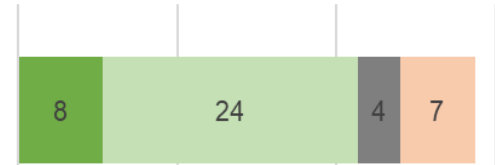


Lean workforce and manual processes create CX risk

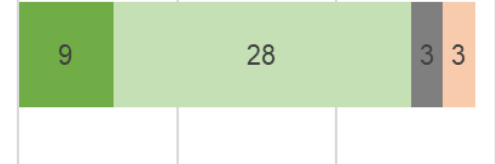
- Concerns about staffing size
- Internal systems not optimized to make it easy
- Reliance on manual processes

■ Completely agree ■ Somewhat agree ■ Unsure ■ Somewhat disagree ■ Completely disagree

ACSA staff is "right-sized" to deliver a positive CX, effective operations, and work-life balance.



Our systems make it easy for me (or others) to effectively serve customers.



Attracting workforce is challenge & CX risk

- Difficult to fill entry-level positions
- Turnover, particularly in maintenance, is a challenge, particularly due to retraining
- Training on CX expectations is informal; opportunity to solidify

"...there is a lot of knowledge, and we need to try to teach the new generation... It's difficult."

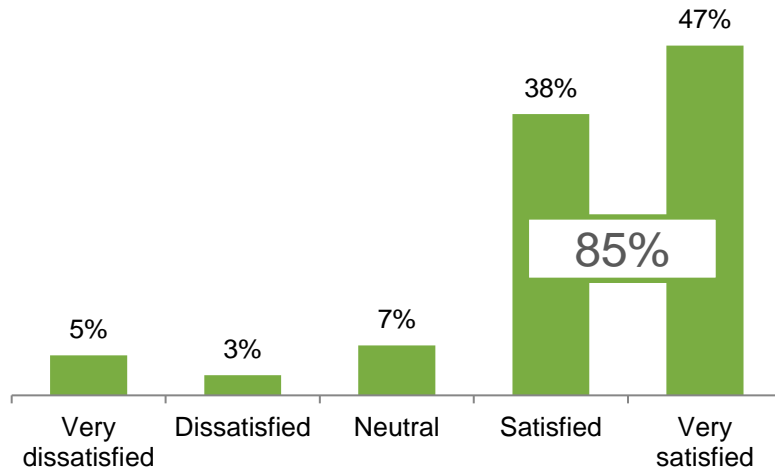
I think that the agency would be better served to announce 'this' is how we handle customers; this is what we expect; I think that there are some assumptions, but for people who are new in their career, that needs to be more explicit...

Evolution of ACSA's customer relationship



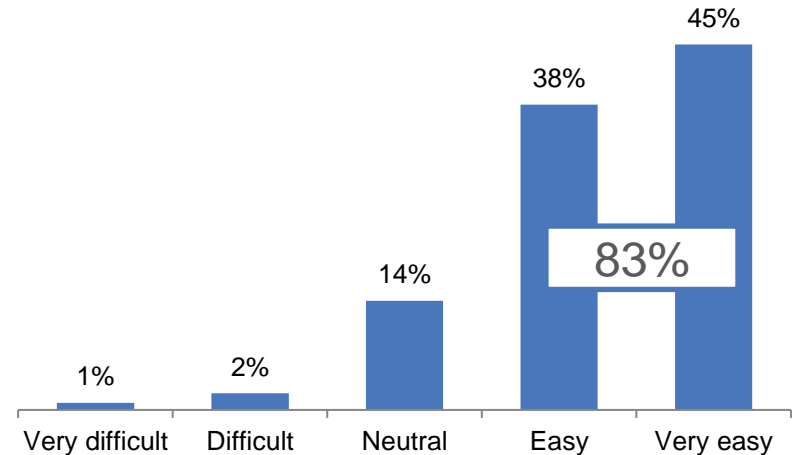
High levels of overall customer satisfaction

Overall satisfaction



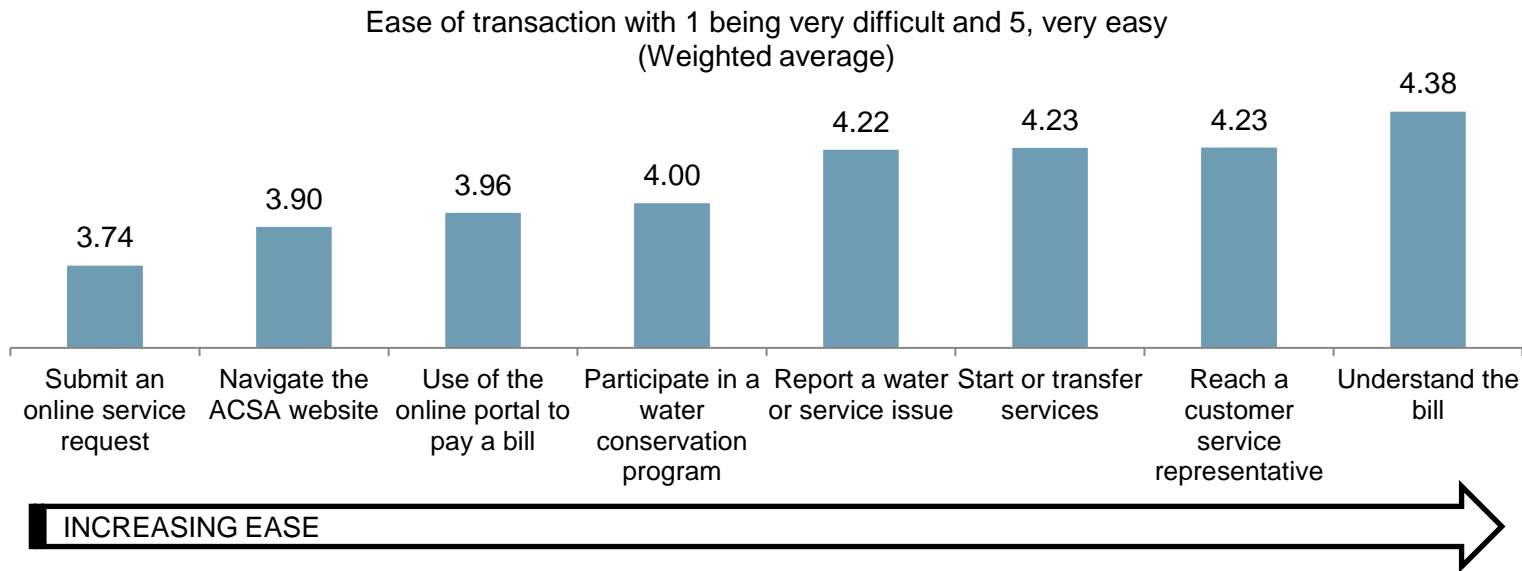
© E Source Question 1: Overall, how satisfied are you with the ACSA? n=669

Ease of doing business



© E Source Question 2: Overall, how would you rate the ease of doing business with the ACSA? n=669

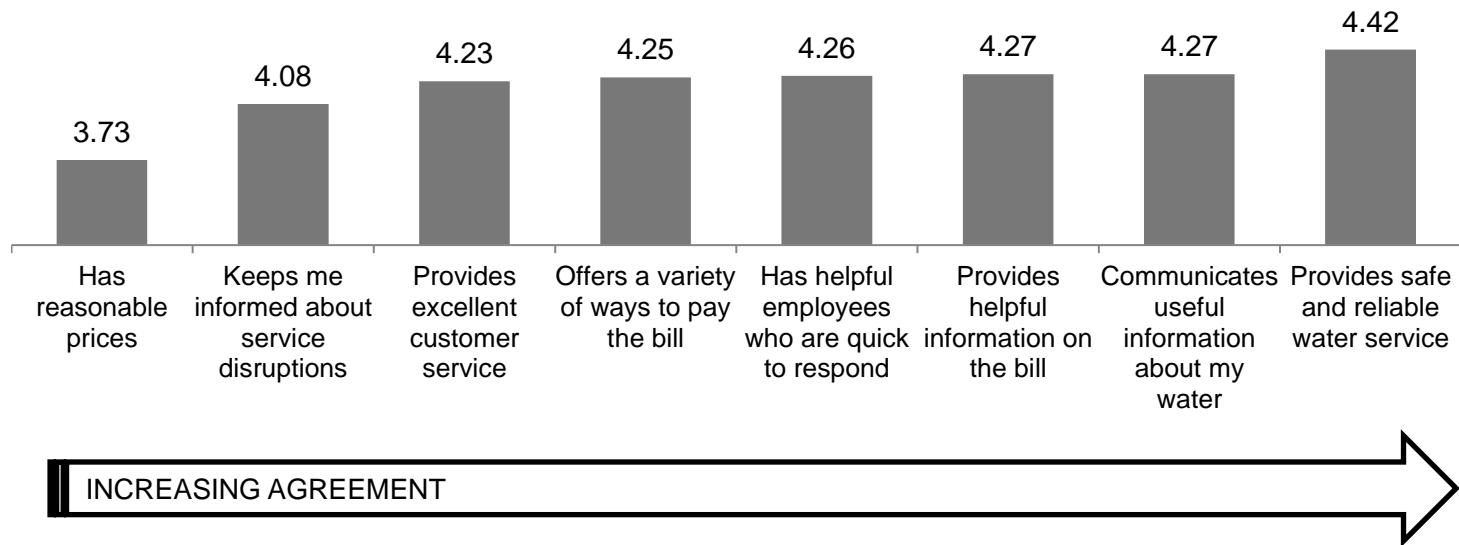
Online interactions rank lowest for 'ease'



© E Source Question 4: We'd like your opinion on the ease of completing different tasks with the ACSA. Please answer the next section based on your experience, and if you don't have experience with the task, please check the box to the far right "Don't know." n=669

Reliability & info. rank highest; price lowest

Agreement with 1 being strongly disagree and 5, strongly agree
(Weighted average)



© E Source Question 3: Please tell us how strongly you agree or disagree with each of the following statements about the ACSA. If you have no opinion, please check the box to the far right. n=669

Key CX recommendations



Codify CX vision to help set CX priorities and shape future enhancements.



Enhance website, increase self-service, and create preference center to support automation.



'Right size' customer service to ensure effective operations (before CIS and AML transformations).



Establish customer communications strategy, with focus on CX, rates, value, reliability.



Map the 'new connection' from planning to connection, with focus on self-service opportunities.



Assess opportunities to attract and retain workforce, particularly in field & maintenance areas

Thank you for partnering with us!

Melanie Wemple

Senior Managing Director, E Source

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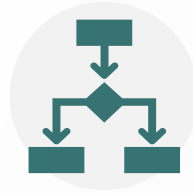
2022 BEST PRACTICES REVIEW

Summary Presentation to the
Albemarle County Service Authority Board of Directors
February 16, 2023

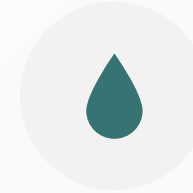
Best Practices Review Panel



Two days in the fall of 2022;



In preparation for the new Strategic Plan (2023-2025);



To obtain an outside view from experienced water professionals of the ACSA Operations and Practices;



Provide a written report of any Best Practices to be explored;



Panelists who participated:

- ❖ Brian Key – Executive Director of the Bedford Regional Water Authority;
- ❖ Bill Mawyer – Executive Director of the Rivanna Water and Sewer Authority;
- ❖ Phil Martin – Executive Director of the Augusta County Water Authority

Panel Agenda And Topical Areas

Day 1

Wednesday, November 16th

8:00 a.m. – Informal light breakfast/coffee with Panel and ACSA Leadership Team

8:30 a.m. – Welcome Session and a brief overview of panel areas and schedule by Gary O'Connell, Executive Director

8:45 a.m. - ACSA Overview and Strategic Plan PowerPoint Presentation by Gary O'Connell, Executive Director

9:45 a.m. – 15- minute break

10:00 - 11:00 a.m. – Human Resources and Administration Overview PowerPoint Presentation by Emily Roach, Director of Human Resources and Administration

11:00 a.m. - 12:00 p.m. – Information Technology Overview PowerPoint Presentation by April Walker, Director of Information Technology

12:00 - 1:00 p.m. – Lunch (catered in)

1:00 - 2:00 p.m. – Maintenance Overview PowerPoint Presentation by Mike Lynn, Director of Operations

2:00 - 3:00 p.m. – Engineering Overview PowerPoint Presentation by Jeremy Lynn, Director of Engineering

3:00 p.m. – 15-minute break

3:15 - 4:15 p.m. – Finance Overview PowerPoint Presentation by Quin Lunsford, Director of Finance

4:15-4:45 p.m. – End of the Day Panel Discussion of Observations, Updates, and Requests - Panel and Gary O'Connell, Executive Director

Day 2

Friday, November 18th

8:00 a.m. – Informal light breakfast/coffee with Panel and ACSA Leadership Team

8:30 – 10:30 a.m. – Identify Key Issues, Gaps, Challenges and Opportunities - Panel and ACSA Leadership Team

10:30-10:45 a.m. – 15-minute break

10:45 a.m. – 12:00 p.m. – Discussion on Key Issues, Gaps, Challenges and Opportunities identified - Panel and ACSA Leadership Team

12:00-1:00 p.m. – Lunch (catered in)

1:00 - 4:00 p.m. – Develop takeaways, recommendations for generating a Summary Report

ACSA Organizational Gaps, Challenges And Opportunities

Infrastructure for a Growing Community – Working with Albemarle County and Economic Development

Keeping up with ACSA Infrastructure as it ages; replacement cycles; CIP; “Asset Management”

Water Quality – safe, clean; monitoring; flushing

System reliability and redundancy

Affordability of Rates for the Average Customer

Financing of \$250,000,000 million RWSA Future CIP

Taking Cityworks to the next level; expanding; assets; management reporting

Telling our Story - ACSA image in the community – customer survey feedback; communications

AMI Full Implementation and customer portals

MyWater branding and opportunities to promote

New Billing System improvements and E-pay and other opportunities

Staffing – Morale, Hiring, Training, Retention, Progression, Diversity; Good Place to Work

ACSA Organizational Gaps, Challenges And Opportunities – (continued)

Lead Inventory and Documentation

Document/Records Management and Retention

Data Management – reporting; integrating the various systems at the ACSA; Dashboards

Succession – preparing employees with training; aging workforce; pending retirements (high years of service); Management and Supervisory Training; skill-set training

Future staffing needs – right staffing and skills for the future

Board of Directors transitions (appointed by the Board of Supervisors)

Succession and transitions to new Leadership upcoming

Cyber Security and IT Technology Planning

Customer Experience – feedback; lessons learned for improvements

New Strategic Plan and focus areas for the next 3 years - 2023-2025

Are we focusing on the right issues future forward?

ACSA Best Practices Review Panel – Summary Comments

**Presented by Brian Key, Executive
Director, Bedford Regional Water
Authority**

- Maintenance department is amazing given the staffing vacancies and conducting all training;
- Administration department is very energetic and engaged, need more staffing resources, contract some needs outside of the department;
- Reduce items one department is doing, therefore, freeing up more time and enhancing productivity;
- All departments are very strong;
- BizLibrary, video SOPs inclusion a great addition;
- Valve and Hydrant Program great;
- Unidirectional Flushing Program – a great idea – can be improved upon;
- Technology good;
- Mike Lynn – strong connections, especially in “safety”, expert in that area; a large knowledge base that will be lost when he retires;
- Great confined space training team – great asset (2 FTEs);
- Great that six hydrants are designated for the Hydrant Meter Program;

ACSA Best Practices Review Panel – Summary Comments

continued

Presented by Brian Key, Executive Director, Bedford Regional Water Authority



Well advanced on e-bill and e-pay;



Very competent and collaborative leadership team;



Well maintained facilities;



Technology and audio/visual equipment very nice;



Level of continued focus on AMI is right;



Budget document receiving GFOA award is great.

ACSA Best Practices Review Panel - Recommendations and Follow-up Comments

- Public Relations staffing and consultants
 - Review Water PIO; E Source Communications Plan Review as part of the Customer Experience Project;
- Consider use of additional consultants to support staff in a variety of ways
 - Strategic Plan item;
- Safety Coordinator position to free up more time for other departments
 - Safety Culture Decentralized (size/scale);
- Winter Sewer limits (charge); explore alternatives to exclusion metering program
 - Exploring policy alternatives;
- System-wide CCTV program – more proactive – systematic approach to the entire system, to add more of a documentation to the program already in place
 - Cityworks data collection; scheduling, reporting;
- Firm to assist with easement negotiations
 - Engineering exploring pros/cons to utilizing;
- Cityworks, expand it for “life-cycle” use
 - Cityworks Operational Insights for Asset Management;
- Member of Sourcewell, a cooperative procurement organization
 - ACSA eGov used for procurement; state contract;
- More focus on diversity
 - Part of recruiting efforts and Strategic focus;
- Evaluate staffing levels to determine if more resources are needed
 - Strategic Plan item.

ACSA Best Practices Review Panel – Recommendations and Follow-up Comments (continued)

- Evaluate a call-out system (County system?) for outages; determine a better approach
 - Customer Experience and Strategic Plan item;
- Evaluate the use of SWAY (part of Office 365) as a communication tool organization-wide
 - Considering other alternative ACSA employee communications;
- Continued communication and collaboration with community partners (RWSA, City, County, UVa) on development and planning
 - Ongoing efforts; regular and expanded, especially in working with the County on new development growth strategy.

Observations and Takeaways from the Panel Experience

- Pride in ACSA Leadership Team and Staff;
- Leader already in Best Practices;
- Good Discussions, Learnings with Panel;
- ACSA is working on the right issues;
- Importance of Phasing New Initiatives – **NOT ALL AT ONCE**;
- Focus on Completing AMI Implementation in 2023;
- ACSA is on the “Lean” side in Staffing – Assessment of that and how;
- Excellent Process to Help ACSA Focus Strategically;
- Incorporating many of the Recommendations in the Proposed 2022-25 Strategic Plan (will present to the Board at their March Meeting).

QUESTIONS?

Questions

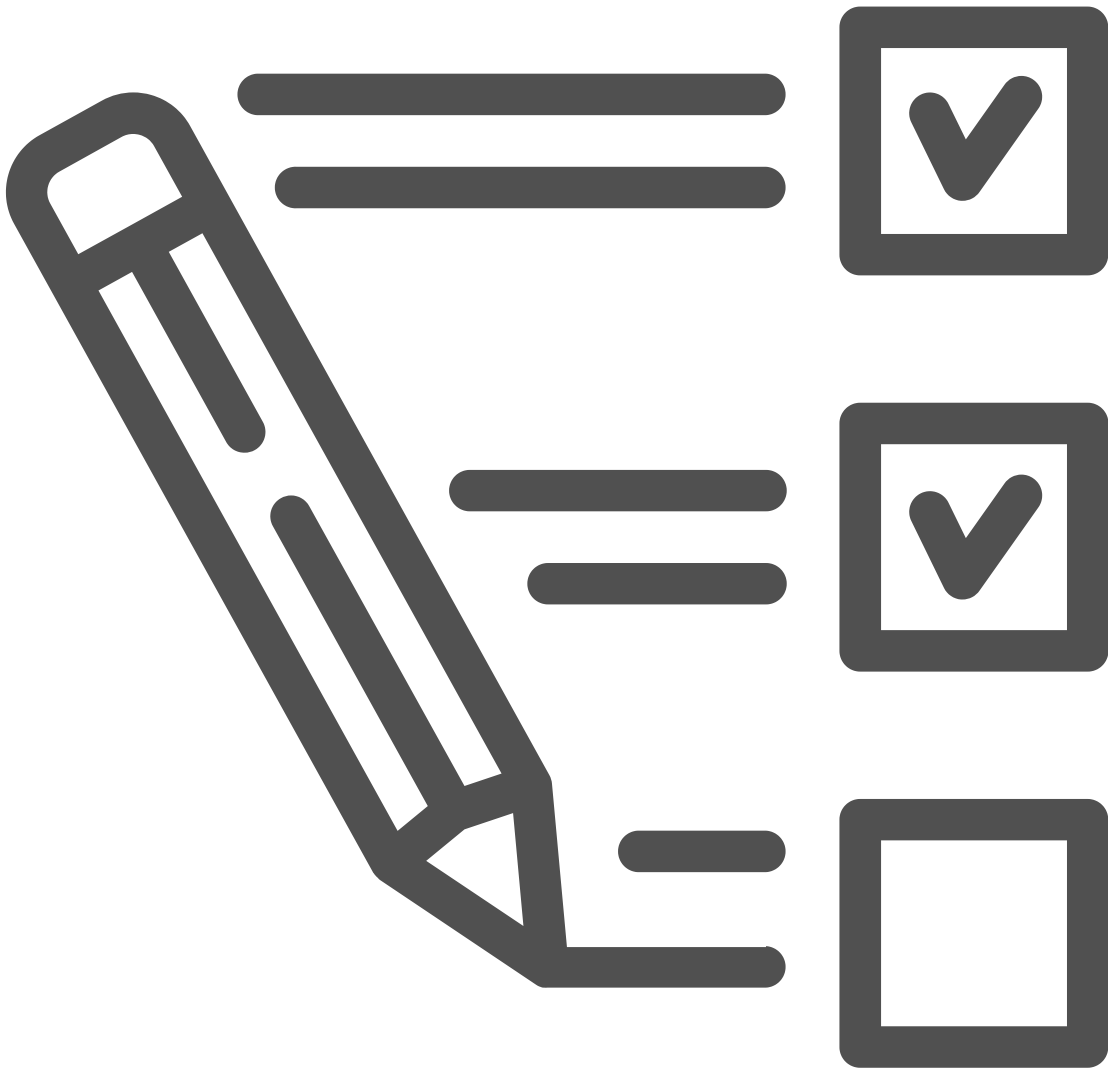
Overall

Assessment

Recap



RECAP

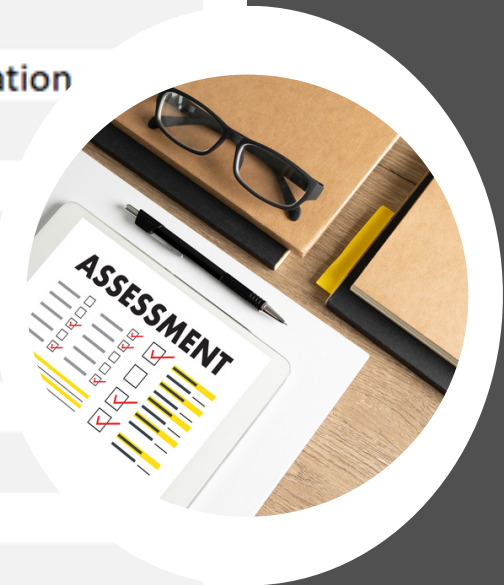


In light of ransomware attacks across the U.S. in 2021, the ACSA contracted with a third party to conduct a Security Assessment of the ACSA.

At that time, the ACSA adopted the Cybersecurity and Infrastructure Security Agency (CISA) standards, the American Water Works Association (AWWA) guidelines and the Federal Bureau of Investigations (FBI) security advisories as the standards we would follow.

Last February, we provided a report and update on the findings and our progress with implementation of the recommendations.

Asset Management
Business Management
Governance
Risk Assessment
Risk Management Strategy
Supply Chain Risk Management
Identity Management, Authentication
Awareness and Training
Data Security
Information Protection Processes
Maintenance
Protective Technology
Anomalies and Events
Security Continuous Monitoring
Response Planning
Communications
Analysis
Mitigation
Improvements
Recovery Planning
Improvements (RC.IM)
Communications (RC.CO)



THE ASSESSMENT

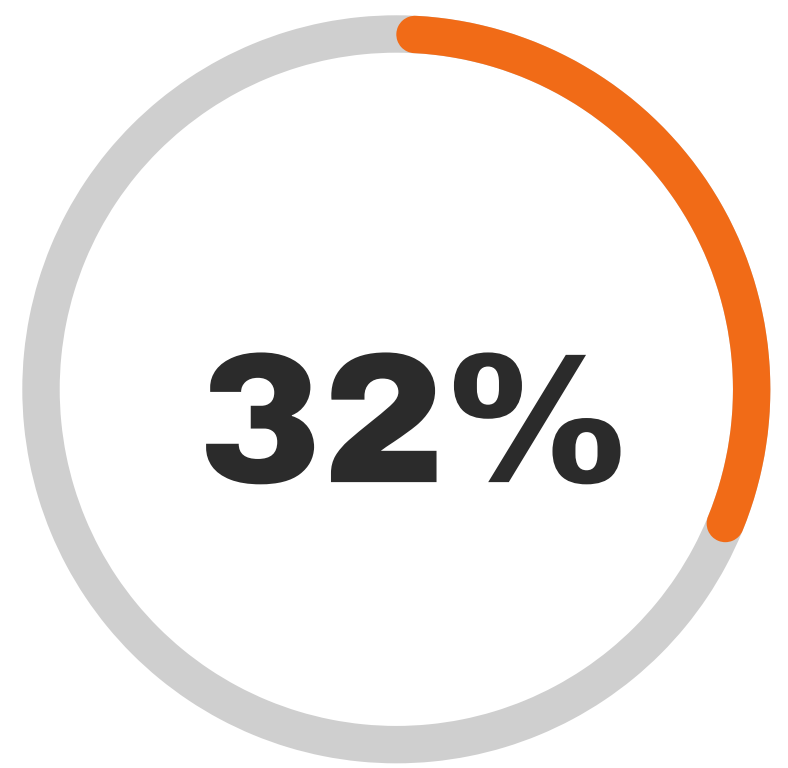
The ACSA was assessed on 102 security controls based off 22 categories.

For each of the 102 security controls, we were graded on whether the recommendation was In Place, Partially In Place, or Not In Place.

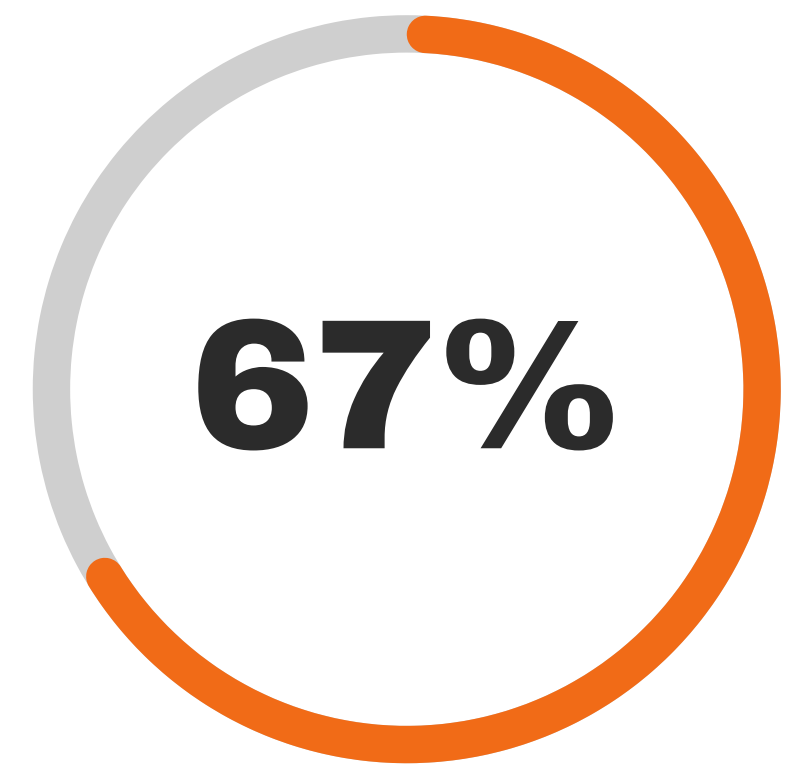
This is an example of just one of the categories we were graded on and also demonstrates the subcategories that were also graded on.

Id	CISA Contr	Category	Title	Safeguard	Description
1	1	Asset Management	Asset Management (ID.AM): The data, personnel, devices, systems, and facilities that enable the organization to achieve business purposes are identified and managed consistent with their relative importance to organizational objectives and the organization's risk strategy.	ID.AM-1	Physical devices and systems within the organization are inventoried
2	1	Asset Management		ID.AM-2	Software platforms and applications within the organization are inventoried
3	1	Asset Management		ID.AM-3	Organizational communication and data flows are mapped
4	1	Asset Management		ID.AM-4	External information systems are catalogued
5	1	Asset Management		ID.AM-5	Resources (e.g., hardware, devices, data, time, personnel, and software) are prioritized based on their classification, criticality, and business value
6	1	Asset Management		ID.AM-6	Cybersecurity roles and responsibilities for the entire workforce and third-party stakeholders (e.g., suppliers, customers, partners) are established

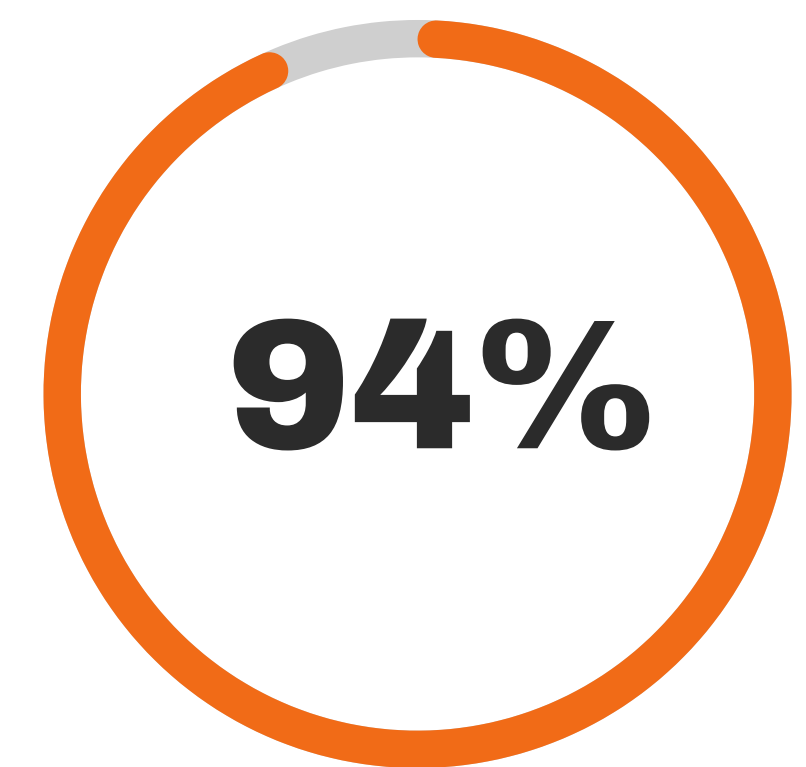
June 2021 Assessment



February 2022 Update



February 2023 Update



IMPLEMENTED RECOMMENDATIONS

- Policy Developments
- Purchased a Learning Management System
- Conducted a 3rd Party Penetration Test
- Hired an Information Security Officer/Systems Engineer
- Lowered incident thresholds
- Upgraded and expanded the ACSA Security System
- SCADA System Upgrades
- Increased monitoring
- Firewall Changes
- Implemented Multi-Factor Authentication
- Implemented an endpoint management system to manage all devices connected to our network.
- Purchased a Security Incident and Event Management Software Solution

PARTIALLY IN PLACE

Questions

Overall

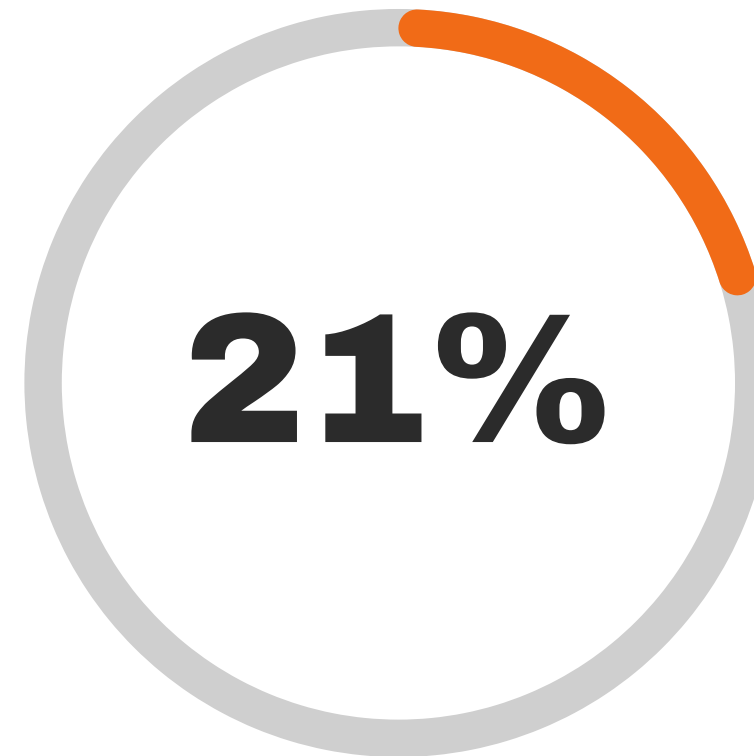
Assessment

Recap

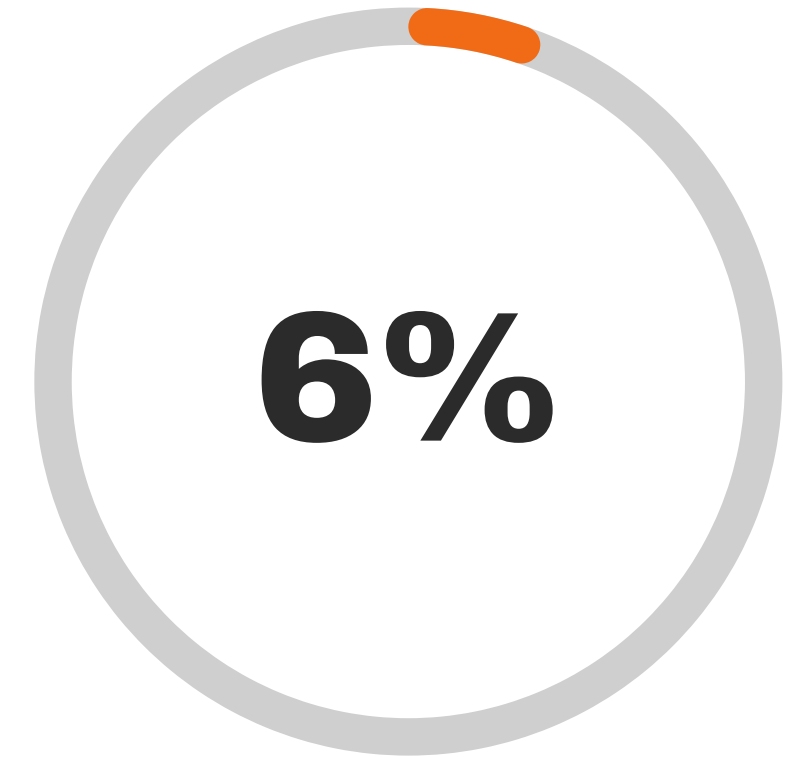
June 2021 Assessment



February 2022 Update



February 2023 Update



PARTIALLY IN PLACE RECOMMENDATIONS

- Data Mapping, Classification and Dashboarding Project
 - *(Funding in Current and Proposed CIP Budget)*
- Avon Property Development
 - *(Funding in Current and Proposed CIP Budget)*
- Firewall Upgrade
 - *(Funding in Proposed Budget)*



NOT IN PLACE

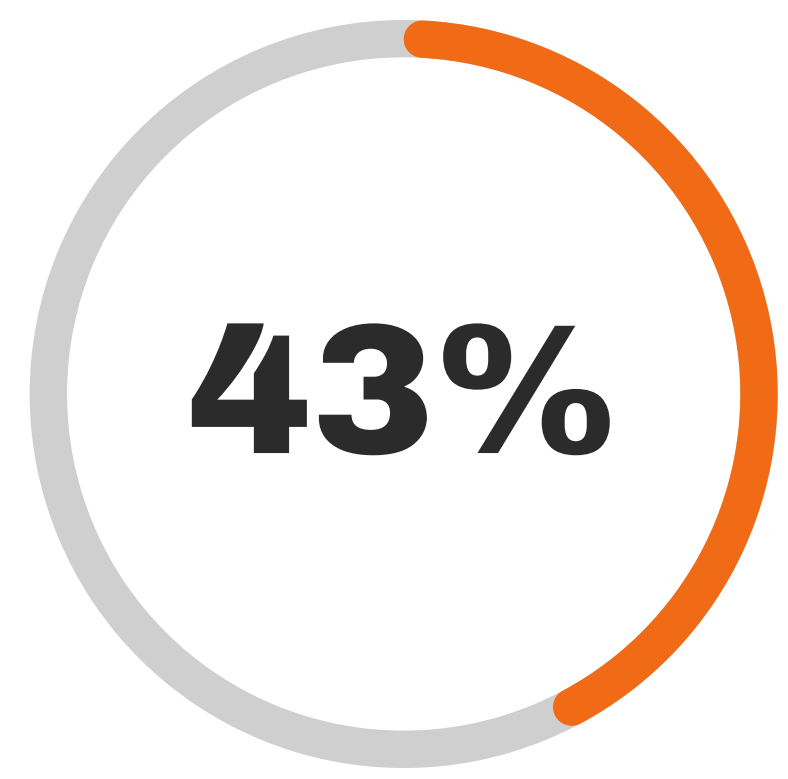
Questions

Overall

Assessment

Recap

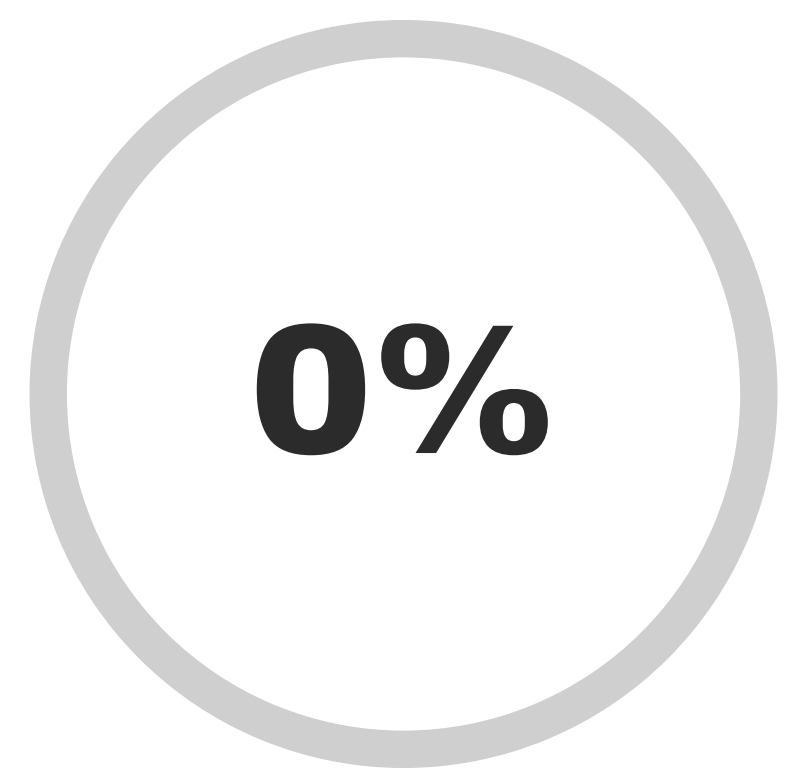
June 2021 Assessment



February 2022 Update

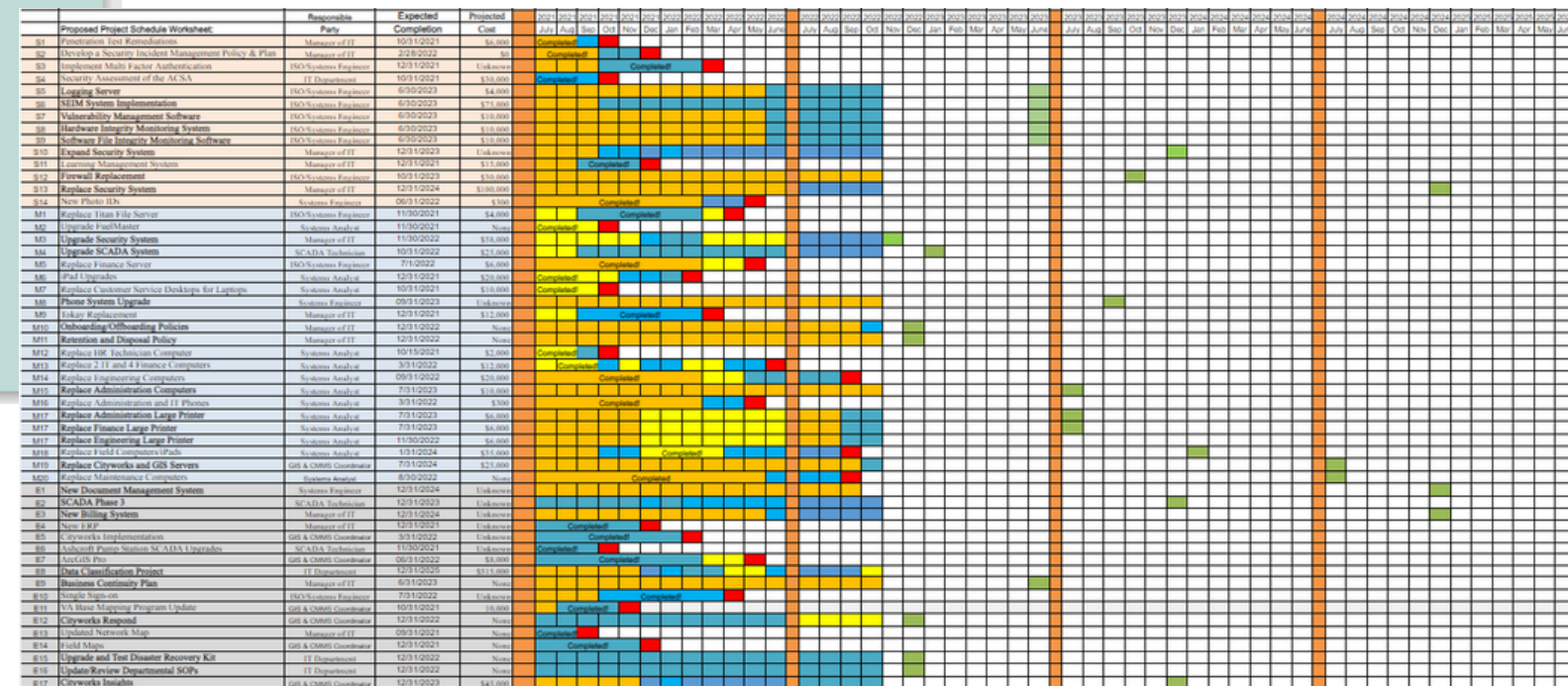


February 2023 Update



	Proposed P
01	Continuation
02	Developing a S
03	Implementatio
04	Software Acq
05	Logging Ser
06	SIEM System
07	Virtualizatio
08	Hardware In
09	Software Fi
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11	Gateway M
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100	Network Sec

Anticipated timelines, budget and responsible parties are detailed in the plan.



IT WAS A LOT OF WORK, BUT WORTH THE EFFORT.

Joe Darmofalski
 Systems Analyst

Brendan Ganz
 Systems Engineer

Eddie Glass
 SCADA Technician

Elise Kiewra
 GIS Technician

Justin Ray
 GIS & CMMS Coordinator

Solomon Wondimu
 ISO/Systems Engineer

RECOGNITION GOES TO THE IT TEAM:



WE COULD NOT HAVE DONE IT WITHOUT...



The Leadership Team who supported our initiatives and championed the changes with their staff.

The Staff who accepted the changes and have adapted.

Each of you who supported the initiatives and the budget implications.

OUR WORK IS NOT DONE

Questions

Overall

Assessment

Recap



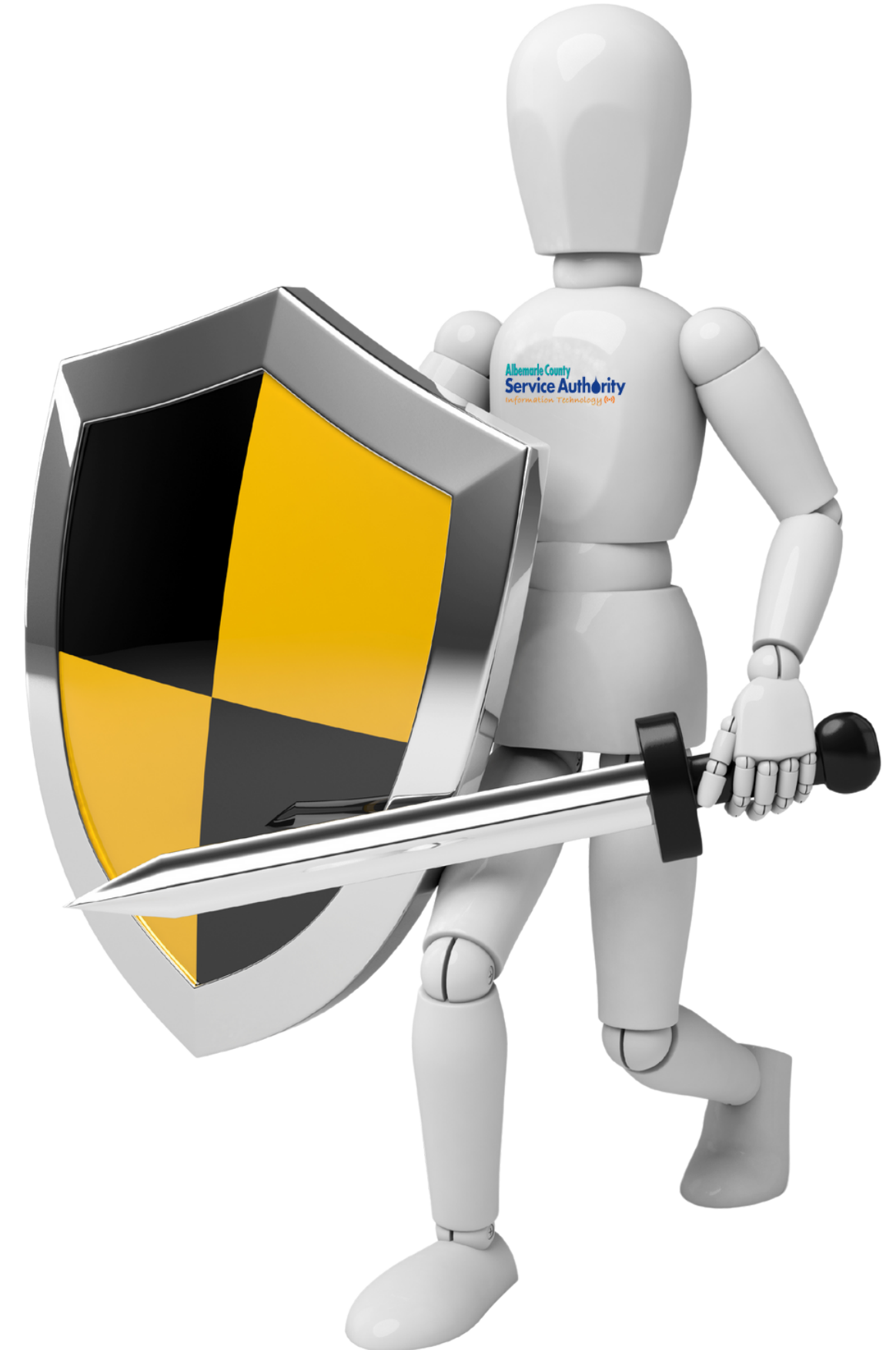
In 2021, we adopted the CISA Standards. Today we are starting to migrate to even stricter standards created by the Internationally-Recognized Center for Internet Security (CIS).



We are reviewing and updating all IT policies and procedures for security enhancements.



We are warned daily of known or potential attacks through the CIS, Homeland Security, AWWA, FBI and Virginia State Police. We stay on top of these notifications to protect our system. Our future projects all include security enhancements.



TLP:CLEAR

MS-ISAC CYBERSECURITY ADVISORY

MS-ISAC ADVISORY NUMBER:

2023-014

DATE(S) ISSUED:

2/07/2023

SUBJECT:

Multiple Vulnerabilities in Google Android OS Could Allow for Privilege Escalation

OVERVIEW:

Multiple vulnerabilities have been discovered in Google Android OS, the most severe of which could allow for **privilege escalation**. Android is an operating system developed by Google for mobile devices, including, but not limited to, smartphones, tablets, and watches. Successful exploitation of the most severe of these vulnerabilities could allow for **privilege escalation**. Depending on the privileges associated with the exploited component, an attacker could then install programs; view, change, or delete data; or create new accounts with full rights.

THANKS

ANY QUESTIONS FOR US?

