



**BOARD OF DIRECTORS' MEETING**  
**November 17<sup>th</sup>, 2022**  
**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](http://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](mailto:board@serviceauthority.org).*

9:00 a.m.	<b>1. Call to Order and Establish a Quorum –Statement of the Board Chair</b>
9:05 a.m.	<b>2. Recognitions – Employee Training</b>
9:15 a.m.	<b>3. Approve Minutes of October 20, 2022</b>
9:20 a.m.	<b>4. Matters from the Public</b>
9:30 a.m.	<b>5. Response to Public Comment</b>
9:40 a.m.	<b>6. Consent Agenda</b>
	a. Monthly Financial Reports
	b. Monthly Capital Improvement Program (CIP) Report
	c. Monthly Maintenance Update
	d. Rivanna Water and Sewer Authority (RWSA) Monthly Update
	e. ACSA Board Policy Future Issues Agenda 2022
	f. Advanced Metering Infrastructure (AMI) Project Update
9:50 a.m.	<b>7. Annual Financial Report-</b>
10:10 a.m.	<b>8. Operational Presentation – Exclusion Meter Replacement Program</b>
10:30 a.m.	<b>9. Water Audit Report</b>
10:50 a.m.	<b>10. Items Not on the Agenda</b>
10:55 a.m.	<b>11. Executive Session – Mid-year Executive Director Performance Review</b>
	<b>12. Adjourn</b>



**ALBEMARLE COUNTY SERVICE AUTHORITY**

**STATEMENT OF CHAIR TO OPEN OCTOBER 20, 2022 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.



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

<b>AGENDA TITLE:</b> Recognitions	<b>AGENDA DATE:</b> November 17, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Gary O'Connell, Executive Director	<b>ACTION:</b> No
	<b>ATTACHMENTS:</b> No

**BACKGROUND:** The ACSA was recently well represented at the Virginia Rural Water Association (VRWA) statewide water conference.

Our Director of Operations, Mike Lynn did a presentation at the conference on our Asbestos Cement Pipe Repair Program and specialized equipment we have for such repairs.

Our Operations Supervisor, Roland Bega and Crew Leader II, William Roach also represented us well in a question and answer session at the conference on several of our maintenance programs including on hydrants, leak repairs and valve maintenance. Also as a team, Roland and William were also the proud winners of the VRWA tapping contest, something they have won on a number of occasions that shows their skill and proficiency in making a water tap.

In addition, this past month three members of our Leadership Team participated in Leadership Development Programs at the University of Virginia Darden School of Business.

Our Director of Finance, Quin Lunsford is participating in the Executive Program this fall and will conclude his training next spring.

Our Director of IT, April Walker and Director of Human Resources and Administration, Emily Roach recently completed their participation in the Darden Women in Leadership Program.

**DISCUSSION:** None

**BOARD ACTION REQUESTED:** None

**ATTACHMENTS:** None

**Albemarle County Service Authority Board of Directors**

1           The Board of Directors of the Albemarle County Service Authority  
2 (ACSA) met virtually in a regular session on October 20, 2022, at 9:00 a.m.  
3 at the Administration and Operations Center at 168 Spotnap Road in  
4 Charlottesville, Virginia.

5 **Members Present:** Mr. Richard Armstrong; Mr. Nathan Moore; Dr. Lizbeth  
6 Palmer; Mr. John Parcels; Mr. Clarence Roberts, Chair; Mr. Charles  
7 Tolbert, Vice-Chair.

8 **Members Absent:** None.

9 **Staff Present:** Roland Bega, Jim Bowling, Jeremy Lynn, Alex Morrison,  
10 Gary O'Connell, William Roach, Emily Roach, Danielle Trent, April Walker,  
11 Terri Knight.

12 **Staff Absent:** Michael Lynn, Quin Lunsford.

13 **Public Present:** Mike Derdeyn, Flora Pettit PC; Neil Williamson, Free  
14 Enterprise Forum (virtual).

15  
16 1.     Call to Order and Establish a Quorum – Statement of Board Chair

17           Mr. Roberts called the meeting to order, and a quorum was  
18 established. He then read the opening Board Chair statement (Attached as  
19 Page \_\_\_\_).

20  
21 2.     Service Recognition – Tony Gibson Retirement – 31 years

22           Kenny Barrow, Meter Operations Supervisor, came forward to say  
23 a few words. He stated that Tony Gibson began working at the ACSA in  
24 August 1991, starting out in the Maintenance department. He stated that  
25 Tony transitioned to the Finance department shortly after, as a Meter  
26 Reader. He mentioned that when Mr. Gibson began his position as a Meter  
27 Reader, there were about 8,000 customers. He stated that the meters were  
28 being read manually at that time, and meter readers carried a route book  
29 with each page representing a different customer. He noted that the meter  
30 readers also had to do the math to figure out the customer's consumption.



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1 Mr. Barrow stated that the meter readers then transitioned to still  
2 reading the meters manually, but then entering those readings into a hand-  
3 held computer. He stated that after that, the department moved to a touch-  
4 read system, which was used in conjunction with the hand-held device. He  
5 noted that today, Tony is starting to install radio units that will be utilized  
6 with the new Automated Metering Infrastructure (AMI) system. He added  
7 that Mr. Gibson has watched the system evolve over 31 years and grow to  
8 serve over 21,000 customers.

9 Mr. Barrow stated that in terms of meter locations, staff uses the  
10 GIS system, which they have done for a while. He stated, however, that Mr.  
11 Gibson is a real-life GIS system. He stated that Tony is able to tell his co-  
12 workers the location of a meter just from a mere description or address of  
13 the property.

14 Mr. Barrow stated that after 31 years, if he had to sum up Mr.  
15 Gibson's career in one word it would be "dedicated." He then showed a  
16 picture of Mr. Gibson, bent over, waist-deep in snow reading a meter. He  
17 stated that the photo was from the winter of 2009 or 2010. He mentioned  
18 that there were two major snowstorms back-to-back, with about 3 feet of  
19 snow on the ground. He noted that the meter readers had to read as much  
20 as they could and estimated the rest. He stated that the dictionary defines  
21 dedicated as "devoted to a task or purpose, having single-minded loyalty or  
22 integrity." He added that this more than adequately describes Tony's time  
23 at the ACSA. He stated that he wanted to thank Mr. Gibson for all he has  
24 done for ACSA customers and for what he has meant to him, and he will  
25 surely be missed.

26 Dr. Palmer stated that she loved the picture and remembers those  
27 snowstorms very well. She mentioned that it must have been challenging  
28 getting to those meters, as it was challenging for her just to get out of her  
29 house. Mr. Roberts stated that he loved the dedication shown in the photo.  
30 He then asked the Clerk to read the resolution (Attached as Page  
31 \_\_\_\_\_).

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1           **Mr. Tolbert 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  
6           3.     Approve Minutes of September 15, 2022

7           There were no corrections or additions to the minutes of September  
8           15, 2022.

9           **Dr. Palmer moved to approve the minutes, seconded by Mr.**  
10          **Armstrong. All members voted aye.**

11  
12          4.     Matters from the Public

13          There were no matters from the public.

14  
15          5.     Response to Public Comment

16          There was no response to public comment.

17  
18          6.     Consent Agenda

19          **a. Monthly Financial Reports –**

20          **b. Monthly CIP –** Mr. Parcels stated that he had a general question  
21          about material delays and shortages, and alternate sourcing as a  
22          result. He asked, overall, if projects were delayed in terms of coming to  
23          completion, particularly the more recent projects. Mr. O'Connell replied  
24          that pipe from another vendor was found for the Jefferson Village  
25          Water Main replacement project and will probably wrap up ahead of  
26          schedule. He mentioned that the ACSA is starting to see some meters  
27          come in for the AMI project. He stated that the ACSA had planned to  
28          use an out of state installer that did the first round of about 1,600  
29          meters. He noted that there have been discussions around a statewide  
30          contractor that can come in and complete phases over time, as



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1       opposed to letting them build up. He stated that there is still a lot of  
2       major equipment that is on back order.

3       Jeremy Lynn, Director of Engineering, stated that there are delays  
4       on pump station equipment. He stated that the Madison Office Park  
5       and Commintors projects are the two big CIP projects that have really  
6       been impacted thus far.

7       Mr. Parcels asked about the ACSA fleet replacement, which has  
8       been delayed as well. He asked if fleet maintenance will be an issue  
9       for those vehicles that were due to be replaced. Mr. Lynn replied that  
10      use of the current fleet has been extended, primarily to try and keep  
11      employees in separate vehicles during COVID. He mentioned that  
12      there have been increased maintenance and repair costs due to  
13      keeping the vehicles longer than normal. Mr. Parcels asked how this  
14      effects the budget. Mr. Lynn replied that he assumes there will be a  
15      budget impact, but he does not know what that is at this point.

16      Mr. Tolbert stated that he had a question about the Sewer Pump  
17      Station Commintors project on page 63. He stated that the CIP  
18      update references receipt of hatches and cranes and asked what type  
19      of cranes this was referring to. Mr. Lynn replied that the cranes are  
20      pole-mounted at the concrete slab around the hatch. He stated that the  
21      cranes allow the commintor to be lifted up and down on a set of  
22      tracks. He mentioned that typically the commintor, or grinder, is down  
23      in the middle of the flow but if it has to be serviced or replaced, the  
24      crane is used to pull it up along the tracks and out through the hatch,  
25      for access. Mr. Tolbert asked if the crane is permanently there. Mr.  
26      Lynn replied that it will stay at the pump station.

27      Mr. Tolbert stated that he also had a question about a note on the  
28      Briarwood Pump Station project on page 64. He stated that it says  
29      Generator Services, the company that will be delivering the generator,  
30      is waiting on availability of their crane truck to make the delivery. He  
31      stated that one would think their crane truck would be available for

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1           them. Mr. Lynn replied that the truck was recently serviced and needs  
2           a follow-up inspection before it can be utilized. He stated that there has  
3           been a discussion about using a third-party crane to get the generator  
4           from Generator Services to the pump station, and the ACSA will  
5           continue to push that option. Mr. Tolbert added that he assumes one of  
6           the reasons ACSA is using Generator Services is because they have a  
7           crane truck, and it is not very useful if they cannot use it.

8           **c. CIP Authorizations** – Mr. Tolbert stated that he had a question about  
9           the Northfields Water Main Replacement project. He asked if the  
10          additional pavement restoration requirements set forth by the Virginia  
11          Department of Transportation (VDOT) only applied to new restoration.  
12          Mr. Lynn replied that historically when geotechnical borings have been  
13          done, the hole is packed with stone, and a layer of asphalt is placed at  
14          the top of the core. He mentioned that now VDOT requires a mill and a  
15          minimum 3x3 patch. He noted that this is what is driving the increased  
16          cost in the geotechnical efforts that the ACSA is undertaking with a  
17          variety of projects.

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

19          **e. ACSA Board Policy Future Issues Agenda 2022 –**

20          **f. Advanced Metering Infrastructure (AMI) Project Update –**

21          **g. VDH Construction Specifications –**

22          **h. Virginia Low Income Household Water Assistance Program**

23          **(LIHWAP)** – Dr. Palmer stated that she had a question about Promise  
24          Network Inc (Promise), which is the organization selected to administer  
25          the funds for the LIHWAP. She asked how the organization is being  
26          compensated. She noted that the material reads that Promise has  
27          about a 95% recovery rate and asked if they were receiving 5% for  
28          their services. Mr. O'Connell replied that Promise has a contract with  
29          the Virginia Department of Social Services, and all the provisions in the  
30          contract are uniform across the state. He noted that in that contract  
31          between Promise and the State, there is an administrative fee, but the



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1 ACSA is not involved with that fee. He added that the funds are sent  
2 directly to the ACSA, and there is no fee taken out of those funds.

3 Mr. Parcels asked what basis the grant funds are allocated to  
4 organizations, and if they know how much funding will be received. Mr.  
5 O'Connell replied that one of the reasons this item was brought before  
6 the Board quickly is because the funds are allocated on a first come,  
7 first serve basis. He mentioned that customers who have been  
8 disconnected or facing disconnection are a priority. He added that the  
9 State has been awarded \$22.5 million, and once that is exhausted, the  
10 program is finished.

11 Mr. Parcels stated that there are a still a number of customers that  
12 are in arrears, which he guesses are the customers being  
13 disconnected and would be the highest priority. He stated, however;  
14 there are other customers that have a financial need and can apply for  
15 the funds as well. Mr. O'Connell concurred. He noted that as time goes  
16 on, there are customers who become further and further in arrears, so  
17 they may identify more priority customers as time goes on.

18 Mr. Parcels asked if the ACSA will be advising their customers to  
19 go to VDSS for assistance. Mr. O'Connell stated that VDSS is one  
20 option, along with a few other community programs and setting up  
21 payment plans with customers. He stated that the LIHWAP is one more  
22 tool, but the customer has to apply and meet the eligibility  
23 requirements.

24 Mr. Parcels stated that the first come, first serve basis seems a bit  
25 unfair. Terri Knight, Customer Service Supervisor, replied that not only  
26 is the program first come, first serve, but the ACSA also does not have  
27 any control over how much each customer receives. She stated that  
28 over the past week, the staff put together an export of all the customer  
29 accounts and sent that to Promise Network. She stated that the hope  
30 is to get the agreement to the organization today, pending Board

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1 approval, along with that data file, to give ACSA customers an  
2 advantage.

3 Dr. Palmer asked if the other community organizations that Mr.  
4 O'Connell mentioned have that customer account information as well.  
5 Mrs. Knight replied that they do not have that information. She stated  
6 that Promise is going to reach out to those delinquent customers, and  
7 the ACSA is providing them any contact information that is needed.  
8 She stated that in terms of community assistance programs, they are  
9 all customer initiated. She mentioned that the customer would give  
10 their delinquent account statement to the organization that is assisting,  
11 who will then send the ACSA a promissory note that payment will be  
12 made within a certain timeframe.

13 Mrs. Knight stated that with Promise, the ACSA will receive a  
14 promissory note and payment within two weeks. She mentioned that  
15 the agreement states that the ACSA must have the payments posted  
16 within five business days of receiving the funds. She noted that the  
17 agreement also states that the ACSA will not disconnect the customer  
18 for at least 90 days after payment has been made. Dr. Palmer asked if  
19 Promise would be privy to those customers that are in need but not  
20 quite delinquent. Mrs. Knight replied yes. She stated that the data file  
21 does show if a customer is in danger of disconnection or has already  
22 been disconnected.

23 ***Mr. Parcels moved to approve the consent agenda, seconded***  
24 ***by Dr. Palmer. The Chair asked for a roll-call vote: Mr. Parcels, aye;***  
25 ***Dr. Palmer, aye; Mr. Tolbert, aye; Mr. Roberts, aye; Mr. Armstrong,***  
26 ***aye; Mr. Moore, aye.***

27  
28 7. Construction and Engineering Contracts

29 Mr. O'Connell stated that this item is one the Board asked about  
30 last spring, and felt it was an appropriate time to bring it back for

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1 discussion. He stated that Jeremy Lynn, Director of Engineering, would  
2 present a Power Point presentation (Attached as Pages \_\_\_\_\_) to  
3 discuss engineering and construction contracts.

4 Mr. Lynn stated that he appreciates the opportunity to provide some  
5 insight into how the ACSA manages construction and engineering  
6 contracts. He shared the presentation agenda with the Board that included  
7 purchasing regulations, engineering and surveying contracts, job order  
8 contracting, advertisement for construction, in-house vs. outside contracts,  
9 and future development.

10 Mr. Lynn stated that in terms of purchasing regulations, the ACSA  
11 is bound by two documents – the Virginia Public Procurement Act (VPPA)  
12 and the ACSA Purchasing Manual. He mentioned that the VPPA provides  
13 a framework for public policies pertaining to government procurement from  
14 nongovernmental sources. He noted that the ACSA's Purchasing Manual  
15 has the primary goal and purpose of assuring that goods and services are  
16 procured in a competitive process which is fair, impartial, administratively  
17 efficient, and accessible to all qualified vendors.

18 Mr. Lynn stated that with engineering term contracts, the ACSA  
19 advertises every four years for consulting firms to provide services to the  
20 organization. He stated that the advertisement identifies what type of  
21 services the ACSA is looking for, primarily water main replacement work,  
22 pump station design, and sanitary sewer extensions. He stated that the  
23 staff will then rank the proposals received, according to the qualifications  
24 that are listed in the advertisement and select who they feel is most  
25 qualified.

26 Mr. Lynn stated that the ACSA currently has four engineering term  
27 contracts. He stated that they are with Dewberry, Michael Baker  
28 International, Ramboll, and Whitman, Requardt and Associates (WRA). He  
29 mentioned that all of these names should be familiar to the Board, as they  
30 occur in the monthly CIP authorizations for various projects. He noted that  
31 the ACSA has a long-standing relationship with most of these consulting

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1 firms, and they have become an extension of the ACSA's engineering staff.  
2 He mentioned that the good part about having great relationships with  
3 these firms is that they know what the organization wants and needs, they  
4 know the ACSA's specifications, and they know the area. He added that a  
5 lot of these consulting firms have also worked with some of the ACSA's  
6 community partners like the City of Charlottesville, RWSA, and UVA.

7 Mr. Tolbert asked if the ACSA did not have to accept the lowest  
8 bidder for these types of contracts. Mr. Lynn replied that the ACSA does  
9 not have to take the lowest bidder for professional services. He stated that  
10 money is not a factor when selecting these firms, as the selection is strictly  
11 based on qualifications. He stated that as the staff identifies a CIP project  
12 that needs to be designed, they look at things like the consultant's  
13 availability and how many other projects the firm has going on, if they have  
14 worked in the area before, or an earlier phase of the same project. He  
15 noted that each firm has a niche, and the engineering staff takes each  
16 firm's strength into consideration when deciding. He added that each  
17 proposal is thoroughly reviewed, including ensuring the price is fair, but the  
18 firms are not competing against each other for the same work.

19 Mr. Lynn stated that another professional service is surveying  
20 services. He stated that the ACSA just went through a request for  
21 proposals (RFP) process. He stated that they received 5 proposals and  
22 selected Lincoln Surveying. He stated that Lincoln is a local surveying  
23 consulting firm, and the ACSA has been in partnership with them since  
24 2011.

25 Mr. Lynn stated that he would now shift from professional  
26 engineering services to non-professional, which is what the ACSA uses for  
27 its tank cleaning and inspections program. He noted that the program is not  
28 part of the ACSA's CIP and has been included in the Maintenance  
29 department's operating budget. He stated that a similar process is followed  
30 when selecting non-professional services. He mentioned that the ACSA  
31 advertises for qualifications, and the proposals received do provide a cost

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1 for the services. He mentioned that cost is not the sole determining factor,  
2 but it is one of them. He noted that the ACSA is currently working with  
3 Dixon Engineering for their tank cleaning and inspections and have done  
4 so since 2016. He added that Dixon is getting ready to perform a cleaning  
5 and inspection of the Glenmore Ground Storage Tank in November.

6 Mr. Lynn stated that he would now discuss job order contracting,  
7 which is utilized for the ACSA's Sewer Rehabilitation and Repair (Find and  
8 Fix) Program. He stated that job order contracts are good for one year, with  
9 two renewable years. He stated that currently, the ACSA is under contract  
10 with Prism Contractors & Engineers, Inc., who performs the rehabilitation,  
11 or "non-dig", work such as cleaning and manhole rehabilitation. He noted  
12 that their contract is set to expire later this month. He stated that on the  
13 "dig" work side, the ACSA is under contract with Linco, Inc. and their  
14 contract is set to expire later this month as well.

15 Mr. Parcels asked if the contracts expiring meant that the ACSA  
16 would put out another RFQ. Mr. Lynn replied that it will not be an RFQ but  
17 rather an advertisement. He stated that the staff is in the middle of  
18 developing the new set of specifications and anticipate advertising in early  
19 2023. He noted that there will be a slight gap, but ACSA is working hard to  
20 give the contractors enough work to allow the program to continue until a  
21 new contractor is on board.

22 Mr. Parcels asked if Mr. Lynn foresees another contractor  
23 successfully bidding and replacing one of the current contractors. Mr. Lynn  
24 replied that there will likely be several contractors interested in the  
25 rehabilitation work on the trenchless side. He noted that it is difficult for a  
26 non-local contractor to compete for the repair and replacement work  
27 because it is small jobs here and there which makes it difficult to mobilize  
28 and make money.

29 Mr. Lynn stated that for a job order contract or typical water main  
30 replacement, the ACSA will advertise for construction. He stated that once  
31 the ACSA works with its term contract consultant to design a project and



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1 obtains the easements, it is then time to advertise. He stated that the  
2 projects are advertised locally with The Daily Progress and Richmond  
3 Times Dispatch, depending on the type of project, and are also posted on  
4 the ACSA website. He mentioned that the engineering staff also has a  
5 contractor's list and will send an invitation for bids to those contractors that  
6 have worked with the ACSA before. He added that plan rooms around the  
7 state are also eligible to receive plans and contractors can view them that  
8 way as well.

9 Dr. Palmer asked what a plan room is. Mr. Lynn replied that a plan  
10 room used to be a physical room that housed plans from across the state.  
11 He stated that contractors had a membership that would allow them to view  
12 those plans and decide if they wanted to bid on them. He stated that  
13 everything is digital now and contractors can purchase subscriptions that  
14 will allow them to log in and view the plans. Dr. Palmer asked if the ACSA  
15 had to pay to participate. Mr. Lynn replied no. He stated that the ACSA  
16 sends the plans to be published and the contractors have to pay to view  
17 them.

18 Mr. Lynn stated that with certain projects, the staff has to decide if it  
19 makes more sense to keep it in-house with ACSA crews or put it out to bid.  
20 He stated that one of the determining factors is the scope of work. He  
21 stated, for example, a jack and bore job is something the ACSA does not  
22 have the equipment for, so it would have to be put out to bid. He stated that  
23 the availability of ACSA crews and whether the project is an emergency or  
24 not are other factors taken into consideration.

25 Mr. Lynn stated that looking ahead, the staff has identified some  
26 future contracts that they have started to work on. He stated that similar to  
27 the sewer rehabilitation and repair program, they thought it made sense to  
28 have a similar contract on the water side. He noted that already having a  
29 contractor on board that has already gone through the procurement  
30 process will help to expedite work as it arises. He stated that the ACSA is  
31 also looking to get a contractor on board for asphalt and concrete

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1 pavement restoration work. He mentioned that often times it is difficult to  
2 get multiple pricing for small jobs. He stated that they are also looking to  
3 hire a firm for easement acquisition services. He stated that it can be  
4 challenging to get easements for work that can be obstructive or intrusive,  
5 and it takes a lot of time and effort to meet with property owners, present  
6 offers, and negotiate. He noted, for example, that the staff has made little  
7 progress with the easements for the Airport Trunk Sewer Project, with only  
8 7 of the 24 necessary easements for the last nine months.

9 Mr. Parcels asked if an easement acquisition service would be able  
10 to acquire the easements better or faster. Mr. Bowling replied that the  
11 engineering staff does not have the time it takes to do the work in  
12 negotiating the difficult easements. Mr. Lynn stated that the ACSA used to  
13 have an easement acquisition service but never used it. He mentioned that  
14 they never found the right project where the cost of the service did not  
15 outweigh the value of the easements.

16 Mr. Parcels stated that he recalls some language changes in the  
17 ACSA's Purchasing Manual. He asked if those changes were to allow more  
18 flexibility in terms of the lowest bidder. Mr. Lynn replied that the changes  
19 were in reference to design build, which is not connected to the lowest  
20 bidder. Mr. Parcels asked if the ACSA could do a design build in place of  
21 the lowest bidder. Mr. Lynn replied that it would be challenging for a  
22 pipeline project. He stated that everything has to be designed, there are  
23 permitting processes with the County of Albemarle and VDOT, and the  
24 easements have to be secured. He noted that he is not aware of a local  
25 contractor that would be able to go through that whole process.

26 Mr. O'Connell asked if Mr. Lynn could discuss some of the changes  
27 that were made for the Jefferson Village project. Mr. Lynn stated that the  
28 staff looked closely at the various bid items. He stated that the ACSA now  
29 pays for the pavement by the weight, as opposed to per square yard, which  
30 eliminates haggling over unit prices. He stated that the staff is also looking

1 at the geotechnical information that is provided and whether it is part of the  
2 contract documents or stand-alone information.

3 Mr. Tolbert stated that in terms of a responsible bidder, the ACSA  
4 could end up in court if they say a bidder is not responsible. Mike Derdeyn,  
5 attorney with Flora Pettit, stated that when talking about a responsible  
6 bidder, he believes the case law focuses primarily on whether or not they  
7 have the capability to do the job. Mr. Lynn added that a responsive bidder  
8 is one that submits all the necessary documentation that is requested in the  
9 advertisement for bids.

10  
11 8. Operational Presentation – ARVs and Auto Flushers

12 Roland Bega, Operations Supervisor, stated that he would be  
13 giving a basic presentation on air release valves, or ARVs (Attached as  
14 Pages \_\_\_\_\_). He stated that the ACAS uses different types of ARVs,  
15 with some for water and some for sewer. He stated that one of the typical  
16 ARVs used for water is the ARI D-040 valve, which are designed for  
17 different size pipes.

18 Mr. Bega stated that ARVs are installed at the high points on a  
19 water line and are used to let out excess air in the system. He stated that  
20 the air in the line came happen when a contractor installs a new line, or a  
21 line needs to be refilled after a water leak. He noted that the ARVs that  
22 contractors install are larger and more difficult to maintain. He added that  
23 the D-040 valve that the ACSA uses is much simpler to repair, and last  
24 about 3-4 years before they need to be repaired. He stated that it is just a  
25 matter of unscrewing it, making the repair, and screwing it back on.

26 Mr. Tolbert asked if the water has to be turned off before  
27 unscrewing the ARV. Mr. Bega replied yes. He stated that the ARV has a  
28 ball valve on it, and the water is turned off before the repair is made. He  
29 noted that if all of the air is not let out of the system, it will travel to the  
30 customers who will draw it from the tap. He mentioned that this results in

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1 milky water, which is not pleasing to look at but is safe to drink. He added  
2 that if left sitting, the water will eventually clear up.

3 Mr. Moore asked how many ARVs would be installed in a one-mile  
4 stretch, on average. Mr. Bega replied that the engineering staff would make  
5 that determination. He stated that if maintenance finds an area that needs  
6 one, then they will work with the engineering staff to try and get one  
7 installed. Mr. O'Connell asked how many ARVs the ACSA has in total. Mr.  
8 Bega replied that he was not sure, but he could find it. William Roach,  
9 Crew Leader II, stated that there are over 200 ARVs in the system.

10 Mr. Bega stated that the Virginia Department of Health (VDH)  
11 requires the ACSA to have its ARVs inspected once a year. He stated that  
12 the staff uses CityWorks to fill out the inspection forms and keep track of  
13 them. He stated that the inspection process typically includes looking for  
14 things like drainage, standing water, or if any gravel is needed inside the  
15 pit. He mentioned that standing water could create cross-contamination, so  
16 it is important to ensure there is proper drainage. He noted that ARV  
17 inspections are usually performed during down time in the schedule, or  
18 during inclement weather when other tasks may create a hazard.

19 Mr. Bega stated that the location of the ARV determines the type of  
20 box used to install it. He stated that generally a contractor will place the  
21 ARV in a manhole. He stated that in the case of the current slide, the frame  
22 and cover were sticking up out of the ground and VDOT was hitting it  
23 during snow removal efforts. He mentioned that ACSA staff went in and  
24 upgraded it to a traffic-rated box. He stated that the next slide shows an  
25 ARV located in someone's front yard, in which case a regular Brooks 2200  
26 box. He noted that there is no traffic or high potential for damage. He  
27 added that the next slide is an example of the Old Castle traffic-rated box.  
28 He stated that this particular box was upgraded from the regular Brooks  
29 box. He mentioned that the next slide is the result of the wrong box  
30 application. He stated that VDOT was clearing their easement, crushed the

1 box and the ARV, and the result was a geyser. He stated that the box has  
2 now been upgraded to the Old Castle style.

3 Dr. Palmer asked if the Old Castle boxes are supposed to be  
4 ground level. Mr. Bega replied yes. Dr. Palmer asked if they are not, then  
5 do they need to be fixed. Mr. Bega replied yes and stated that the  
6 difference is the weight going over it. He stated that if the weight limit of the  
7 box is exceeded, then it will collapse.

8 Mr. Bega stated that the last slide shows a Brooks 2200 box in a  
9 customer's yard who has covered it up with a bird bath. He stated that  
10 customers will cover them with various items because they are unsightly,  
11 but that it does present a challenge sometimes when the maintenance staff  
12 is trying to locate it.

13 Mr. O'Connell stated that William Roach would speak next about  
14 auto-flushers.

15 Mr. Roach stated that an auto-flusher is basically a standpipe  
16 tapped to the water main. He stated that they are installed at various  
17 locations throughout the County to improve the quality of the water.

18 Mr. Roach stated that the next slide shows a permanent automatic  
19 flusher. He stated that the picture on the left shows the flusher covered,  
20 and the one on the right shows the flusher on and uncovered. He noted  
21 that the next slide shows what the automatic flusher looks like before it  
22 goes into the ground. He mentioned that there is an electronic device that  
23 acts as a timer and turns it on and off.

24 Mr. Tolbert asked if the timer is responding to pressure when it  
25 turns it on and off. Mr. Roach replied that it responds to chlorine levels and  
26 time. He stated that they are used on a dead-end water line where the  
27 water does not circulate well, to improve the quality of the water.

28 Mr. Roach stated that the next two slides show two more types of  
29 automatic flushers, one permanent and one portable. He stated that  
30 sometimes, maintenance will find areas that need one and they will use the  
31 portable one. He mentioned that in this case, the staff is in the process of



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1 making this flusher full-time. He stated that they will dig, make a tap, and  
2 install it.

3 Mr. Roach reiterated that the purpose of the automatic flushers is to  
4 improve the water quality. Mr. Tolbert asked where the water from the  
5 flushers goes. Mr. Roach replied that it just goes on the ground. He  
6 mentioned that when the flusher is covered, it helps to deflect the water  
7 and prevent it from damaging anything.

8 Mr. Parcels asked how much of a flush there is. Mr. Roach replied  
9 that it depends on the location. He stated that maintenance controls the  
10 pressure and duration of the flushing. He stated that the flushing is usually  
11 done early in the morning, like around 1am, so it doesn't disturb anyone.

12 Dr. Palmer asked how much flushing is done in terms of gallons.  
13 Mr. Roach replied that everything is metered, and each flusher can tell you  
14 how many gallons are used. Dr. Palmer asked if the flushers had to be a  
15 certain distance away from bodies of water. Mr. Roach replied yes and no.  
16 He stated that dechlorinating tablets are added to the flusher to ensure the  
17 water does not harm any bodies of water nearby.

18 Dr. Palmer stated that she remembers a long time ago, the water  
19 line along Reservoir Road may have had an automatic flusher on it. Mr.  
20 Roach replied yes. He stated that it used to have a portable flusher but has  
21 been changed out since. He stated that the camp in that area has had an  
22 increase in water use as well. Mr. O'Connell added that the camp has gone  
23 to year-round use, as opposed to just peak times, so there is a good flow of  
24 water which has improved the quality.

25 Mr. Roberts asked if they ever use fire hydrants to do the flushing.  
26 Mr. Roach replied that they only use hydrants to flush when a customer  
27 calls in with a water quality complaint.

28 Mr. Tolbert asked if the ARVs are sometimes located in someone's  
29 yard. Mr. Roach replied yes. He stated that most of them are located in a  
30 common area, but there are some in customers' yards. Mr. Tolbert asked if

1 the amount of water that comes out when flushing was enough to cause  
2 damage to their yard. Mr. Roach replied no.

3 Mr. Parcels asked how many ARVs the ACSA has. Mr. Roach  
4 replied that there are 8 flushers. He stated that one is not being used, one  
5 is portable, and the others are currently in use. Dr. Palmer stated that she  
6 did not see the flusher on Reservoir Road listed on the slide of flusher  
7 locations. Mr. Roach replied that is because that one is not being used. He  
8 stated that it was portable, so they would put it in during the winter and take  
9 it out during the summer. He mentioned that now the area does not need a  
10 flusher at all.

11 Mr. Lynn asked if Dr. Palmer was on the Board when the camp on  
12 Reservoir Road had pH issues with the water. Dr. Palmer replied that she  
13 does not recall, but she does remember a lot of discussion about that  
14 particular line. Mr. Lynn stated that a lot of flushing had to occur because  
15 the water was sitting in the cement-lined pipe and the pH levels were  
16 climbing. He mentioned that the ACSA actually invested in a pH adjustment  
17 facility on the camp's property. He noted that over the last year or so, those  
18 pH levels have drastically improved to the point that the water did not have  
19 to be treated. He stated that the year-round use of the camp has improved  
20 the water to the point that a flusher is not needed.

21 Mr. Lynn stated that if you look at the locations of these flushers on  
22 a map, they are at the far reaches of the distribution system. He stated that  
23 the chlorine numbers are great at the points that the water leaves the plant,  
24 but the farther out the line goes, the longer the water sits in the pipe and  
25 the chlorine residual degrades. He added that the flushers are put into  
26 place to automatically flush the system to provide stronger chlorine  
27 residuals at the far reaches of the system.

28 Dr. Palmer asked if there are other by-products in the water, aside  
29 from the chlorine. Mr. Lynn replied yes. He stated that the dichlorination  
30 tablets are added in addition to the normal flushing. He mentioned that  
31 most of these areas are at minimal chlorine residuals.

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1 Mr. Lynn stated that Mr. Bega mentioned something about air in the  
2 line during his presentation earlier. He stated that a number of years ago,  
3 RWSA had a water main break, and the entire line was shut down. He  
4 stated that it was a 24-inch pipe, so obviously there was a lot of air in the  
5 line when they began to refill it. He then shared a time-lapsed video with  
6 the Board of a glass of water at his home after the water main break. He  
7 noted how cloudy the water was, but that the air slowly dissipates from the  
8 glass over time and the water becomes clear.

9  
10 9. Energy Audit Report

11 Alex Morrison, Senior Civil Engineer, stated that there is some  
12 information in the Board packet about the energy audit, and he wanted to  
13 talk through a couple of the items. He stated that the energy audit was a  
14 Strategic Plan item for 2020-2022, to look at energy efficiency initiatives.  
15 He stated that not only did they look at those initiatives with respect to the  
16 existing ACSA facilities, but also how they can be reflected in the future  
17 Avon Street maintenance facility.

18 Mr. Morrison stated that the ACSA is currently reviewing the draft of  
19 the final report. He stated that staff met internally earlier this week to review  
20 some of the energy conservation measures and develop comments,  
21 questions, and clarifications to send back to the term contract engineer  
22 working on the report.

23 Mr. Morrison stated that the ACSA contracted with Ramboll  
24 Americans Engineering Solutions, Inc. (Ramboll) in July 2020 to begin this  
25 project. He stated that Ramboll is one of the term contract engineers that  
26 Mr. Lynn mentioned in his presentation on contracts. He mentioned that  
27 Ramboll has been working with the ACSA since 2006.

28 Mr. Morrison stated that this comprehensive energy audit looked at  
29 a number of ACSA facilities, including the administrative offices, the  
30 maintenance warehouse, maintenance offices on the hill, 10 water pump  
31 stations, and 9 wastewater pump stations. He noted that there were 2

1 wastewater pump stations not included in the audit because they are  
2 scheduled to be abandoned in the coming years. He mentioned that the  
3 pressure reducing stations and water storage tanks were excluded from the  
4 audit as well because the electrical service to these facilities runs SCADA  
5 equipment, which is very low voltage and amperage. He added that the  
6 bills are about \$10-\$15 per month, so there is little room for further savings.

7 Mr. Morrison stated that during the energy audit, the ACSA added  
8 an electrical vehicle review that was not part of the initial scope. He stated  
9 that this gave them some information and criteria for making a possible  
10 fleet transition in the future, whether partial or full.

11 Mr. Morrison stated that he would next discuss the Energy  
12 Conservation Measures (ECMs) that came out of the report, the first being  
13 the LED lighting retrofit. He stated that there is some money in the budget  
14 to complete this project, but the majority of the lighting has already been  
15 switched out for LEDs. He noted that the ACSA was actually able to save  
16 some money on this project because the materials were purchased  
17 directly, and in-house electricians were used to perform the work.

18 Mr. Morrison stated that the next item was Occupancy Based  
19 HVAC Controls. He stated that this was included with the recent HVAC  
20 Rehabilitation project. He mentioned that there were two steps to these  
21 controls, the first being an overall control that looks at when the building is  
22 occupied and not occupied and engages temperature rollback when the  
23 building is empty. He stated that the second step involves sensors in the  
24 offices which will engage that rollback during the day if no one is in all of  
25 the offices served by a certain zone. He added that this second step has  
26 not been implemented yet but will be considered once the entire system is  
27 replaced.

28 Mr. Morrison stated that another item to come out of the report was  
29 the hot water heater in the ACSA Operations Center. He stated that it is a  
30 tank style heater with electric elements. He stated that the recommendation  
31 was to replace the water heater with a hybrid heater that uses a heat pump

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1 setup to cool the room, and the heat from the room would be used to heat  
2 the water as opposed to an electric element. He mentioned that the cost of  
3 this replacement was included in the CIP budget for this year and will be  
4 handled in-house. He added that the staff is also looking at downsizing the  
5 water heater which currently uses an 80-gallon tank.

6 Mr. Morrison stated that in terms of the electric vehicle fleet, the  
7 ACSA took a comprehensive look at its current fleet. He stated that the  
8 vehicles were broken down by department and use type. He stated that  
9 Ramboll developed a tool to help the staff assess the various use types,  
10 how many miles are used annually, and what options for replacement are  
11 available. He noted that the ACSA has not purchased any electric vehicles  
12 yet, nor installed any electric vehicle chargers. He mentioned that charging  
13 stations will be installed at the Avon Street property, knowing that there will  
14 be some change over to electric vehicles in the near future. He stated that  
15 the staff is also evaluating the installation of some chargers at the Spotnap  
16 location in anticipation of that change. He added that the underground  
17 infrastructure for the charging stations was put in during the repaving  
18 project.

19 Mr. Morrison stated that the ACSA also performed a review of solar  
20 power and retrofitting existing facilities. He stated that the staff has  
21 additional questions and clarifications they are discussing with Ramboll,  
22 about the payback period and initial capital to put solar panels on the  
23 maintenance warehouse. He stated that there are some other options  
24 where the ACSA can lease that space to a third-party company that would  
25 cover the capital cost of installing the solar panels, and then have a  
26 contract with that company to purchase some of that energy at a reduced  
27 cost.

28 Mr. Morrison stated that the last item is the Avon Street  
29 Maintenance Yard project. He stated that the Board has heard a lot about  
30 this project, as the ACSA has been working on the design with its internal  
31 design team and term contract engineer, Dewberry Engineers Inc. for



1 about a year and a half. He stated that the final site plan is under review at  
2 the County, and the hope is to have full approval near the end of the  
3 calendar year. He stated that as part of this project, is a proposal for a  
4 building that is almost 15,000 sq. ft. He mentioned that the goal was to take  
5 some of the energy-saving initiatives and factor them into the design of this  
6 building, to avoid retrofitting in the future and to be as green as possible.

7 Mr. Parcels asked if LEED certification was a consideration for  
8 Ramboll in terms of the design of the building. Mr. Morrison stated that  
9 Dewberry is doing the design for this project and LEED certification was  
10 reviewed, but there is quite a bit of it that does not tie in well with how the  
11 facility will be operated. He added, however, many of the requirements that  
12 would be necessary to qualify for that certification will be mirrored in the  
13 design.

14 Mr. Morrison stated that one other ECM that came out of the audit  
15 was water and wastewater pumps. He stated that there was no cost with  
16 implementing these measures, as it was more of making operational  
17 changes. He stated that the engineering group is working with the facilities  
18 group internally to make those changes based on what has been identified  
19 through reviewing the operation of the pump stations for a 3–4-year period.  
20 He added that the ACSA provided electrical interval data for at least 3  
21 years, as well as SCADA information.

22 Dr. Palmer asked if, when selecting LED lighting for outdoor use,  
23 the ACSA takes the hue of the light into consideration. She stated that  
24 insects are dying off at record numbers and LED lighting attracts them  
25 more than the previous type of lighting. She stated that the  
26 recommendation sometimes for outdoor LED lighting is to use a more  
27 amber hue. Mr. Morrison replied that the hue has not been considered, and  
28 he was not aware of this. He stated that he does know that the  
29 replacement lighting for the parking lot adheres to what has been required  
30 by the County of Albemarle. He stated that he would need to check with the

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1 facilities staff to see if the hue was a consideration when the replacements  
2 were selected.

3 Mr. Moore stated that he especially likes the \$6,000 savings at the  
4 water and wastewater pump stations, at \$0 capital cost. Mr. Morrison  
5 replied that this was an easy one to implement. He stated that the pump  
6 mechanics, electricians, and the SCADA technician were able to help make  
7 the changes, with no discernable costs.

8  
9 **10. Amendments to ACSA Purchasing Manual – Design-Build (D/B)**  
10 **Procedures**

11 Jeremy Lynn, Director of Engineering, stated that last month the  
12 staff presented a request to the Board to use the Design-Build (D/B)  
13 process for the fire suppression system replacement at the ACSA  
14 Operations Center. He stated that as they began to dive into this process,  
15 the staff realized there were some differences between the Code of Virginia  
16 and what was in the ACSA Purchasing Manual. He mentioned that Quin  
17 Lunsford, Director of Finance, has worked closely with ACSA attorneys to  
18 identify and make revisions to the manual, which the Board has before  
19 them today.

20 Mr. Lynn stated that the procurement process, with the revisions,  
21 makes a lot of sense from a project standpoint. He stated that using the  
22 D/B process makes the most sense with respect to replacing the fire  
23 suppression system. He stated that the staff is requesting that the Board  
24 approve the revisions and updates to Chapter 27. Design-Build Procedures  
25 of the ACSA's Purchasing Manual. He noted that these updates and  
26 revisions reflect changes to the Code of Virginia, and they have been  
27 approved by ACSA attorneys.

28 Mr. Lynn stated that Mr. Lunsford wanted him to share with the  
29 Board that while today's item is only in reference to Chapter 27, his goal  
30 over the next six months is to go through the manual in its entirety. He

1 stated that Mr. Lunsford wants to ensure that the manual is consistent with  
2 the Code of Virginia.

3 Mr. Parcels stated that references to some of the sections of the  
4 Code of Virginia have been deleted in the revisions. He asked what the  
5 rationale is for removing those references. Mr. Bowling replied that the  
6 Procurement Act was created by a number of procurement officers in the  
7 state of Virginia. He stated that essentially, the ACSA's procurement policy  
8 is taken from the County of Albemarle's Purchasing Manual over the years.  
9 He stated that a few years ago, there was a major amendment with  
10 reference to D/B projects, which explains the revision that is before the  
11 Board today.

12 Mr. Moore stated that it looks as if each D/B proposal will have to  
13 come before the Board for approval first. Mr. Lynn replied that before the  
14 ACSA can initiate a D/B contract, the staff must receive Board approval.  
15 Mr. Moore stated that Mr. Lynn mentioned earlier the type of project that  
16 would not fit a D/B approach. He asked for some examples of how the D/B  
17 approach could be deployed. Mr. Lynn replied that the fire suppression  
18 work is a good example. He mentioned that a pump station would be  
19 another example where a D/B would work. He noted that the site is  
20 controlled, the staff has access to the site and knows what needs to be  
21 done. He stated that the challenge would be to find a contractor that has  
22 the expertise to design something that could then be constructed.

23 ***Mr. Parcels moved to approve the resolution on page 146***  
24 ***amending Chapter 27. Design-Build Procedures of the ACSA***  
25 ***Purchasing Manual, seconded by Mr. Tolbert. The Chair asked for a***  
26 ***roll-call vote: Mr. Parcels, aye; Dr. Palmer, aye; Mr. Tolbert, aye; Mr.***  
27 ***Roberts, aye; Mr. Armstrong, aye; Mr. Moore, aye.***

28  
29 11. Items Not on the Agenda

30 Mr. O'Connell stated that the ACSA is completing its annual  
31 financial report, and the auditors are finalizing their reports. He stated that

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1 an Audit Committee meeting will be scheduled over the next month or so.  
2 Mr. Roberts stated that there are two Board members on the Audit  
3 Committee. Mr. O'Connell stated that yes, Mr. Tolbert and Mr. Parcels, if  
4 willing, would continue to serve as part of the committee.

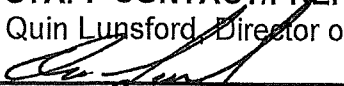
5  
6 12. Adjourn

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

10  
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14 \_\_\_\_\_  
15 Gary B. O'Connell, Secretary-Treasurer  
16  
17  
18  
19

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Monthly Financial Reports  <b>STAFF CONTACT/PREPARER:</b> Quin Lunsford, Director of Finance 	<b>AGENDA DATE:</b> November 17, 2022  <b>ACTION:</b> Informational  <b>ATTACHMENTS:</b> Yes
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**BACKGROUND:** Water and sewer financial reports and check registers for the month of October are attached for your review.

### DISCUSSION:

- Water consumption for the month of September decreased 2.7% compared to August. Water consumption for the month of September 2022 compared to September 2021 decreased 7.33%.
- RWSA's invoice of \$2,083,284 for the month of September was paid on October 6, 2022.
- Unearned water and sewer connection charges totaled \$2,394,091 at month end.
- System connection charges were above budgeted expectations with \$663,710 recognized in September. Total system connection charges for FY 2023 are less than those in FY 2022 by 35%.
- Water and Wastewater revenues for FY 2023 are above budgeted expectations by 4.6%. Please see the water/wastewater trend analysis included illustrating that when adjustment for expected variations in seasonal consumption are considered, revenues are 5.8% lower than budgeted expectations.

**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
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. Check Register



## ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF NET POSITION  
October 31, 2022

## ASSETS

Cash and cash equivalents	\$ 10,889,172
Accounts receivable	4,648,292
Investments	42,584,526
Capital assets: (net of accumulated depreciation)	177,201,771
Inventory	517,958
Prepays	2,814
Cash and cash equivalents, restricted	<u>784,988</u>
Total assets	<u>236,629,521</u>

## DEFERRED OUTFLOWS OF RESOURCES

Combined deferred outflows of resources	<u>1,174,141</u>
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## LIABILITIES

Accounts payable	2,050,248
Accrued liabilities	357,697
Compensated absences	763,469
Net pension liability	695,494
Other post-employment benefits	1,144,368
Unearned connection fees	2,394,091
Long-term debt	<u>5,044,118</u>
Total liabilities	<u>12,449,485</u>

## DEFERRED INFLOWS OF RESOURCES

Combined deferred inflows of resources	<u>2,880,258</u>
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## NET POSITION

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222,473,919

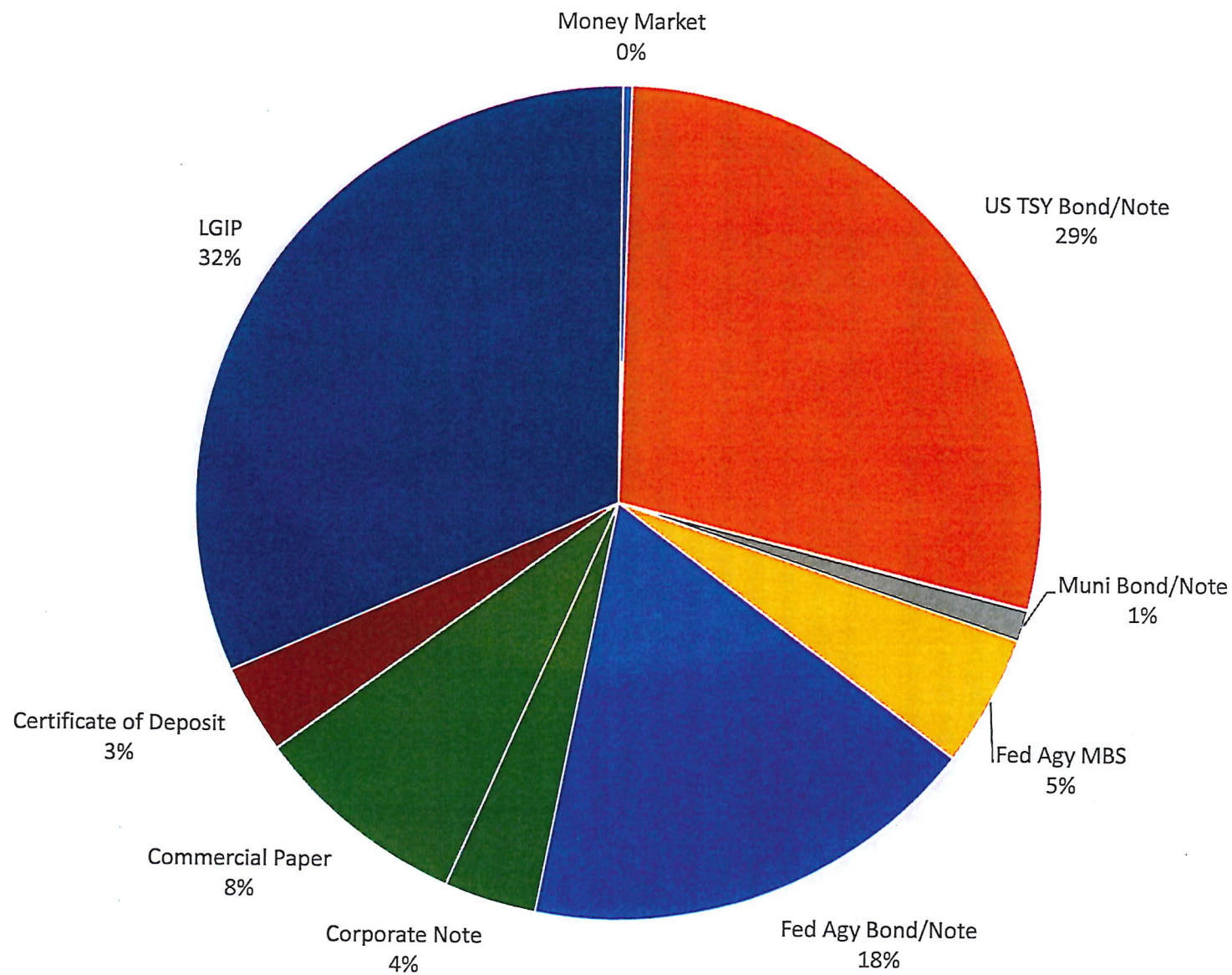
ALBEMARLE COUNTY SERVICE AUTHORITY  
For the One Month Ending October 31, 2022

	Budget FY 2023	Budget Year-to-Date 2023	October Actual Year-to-Date	Actual vs. Budget	Variance Percentage
<b>Revenues</b>					
Water Sales	19,285,000.	6,428,333.	6,782,433.	354,100.	5.51%
Sewer Service	15,137,000.	5,045,667.	5,218,849.	173,182.	3.43%
<b>Total operating revenues</b>	<b>34,422,000.</b>	<b>11,474,000.</b>	<b>12,001,282.</b>	<b>527,282.</b>	<b>4.60% A</b>
<b>Operating Expenses</b>					
Purchase of bulk water	(13,774,000.)	(4,591,333.)	(4,776,590.)	(185,257.)	4.03% B
Purchase of sewer treatment	(10,776,000.)	(3,592,000.)	(3,416,913.)	175,087.	(4.87%) B
Administration	(1,286,500.)	(428,833.)	(436,016.)	(7,183.)	1.67% C
Finance	(2,502,100.)	(834,033.)	(803,425.)	30,608.	(3.67%) C
Information Technology	(1,521,900.)	(507,300.)	(498,380.)	8,920.	(1.76%) C
Engineering	(2,288,400.)	(762,800.)	(758,388.)	4,412.	(0.58%) C
Maintenance	(4,509,000.)	(1,503,000.)	(1,282,582.)	220,418.	(14.67%) C
<b>Total operating expenses</b>	<b>(36,657,900.)</b>	<b>(12,219,300.)</b>	<b>(11,972,294.)</b>	<b>247,006.</b>	<b>(2.02%)</b>
<b>Operating gain(loss)</b>	<b>(2,235,900.)</b>	<b>(745,300.)</b>	<b>28,988.</b>	<b>774,288.</b>	<b>(103.89%)</b>
<b>Nonoperating Revenues</b>					
System connection charges	5,926,800.	1,975,600.	3,245,555.	1,269,955.	64.28% D
Investment/Interest Income	100,000.	33,333.	(165,118.)	(198,451.)	(595.35%) E
Rental income	16,000.	5,333.	4,862.	(471.)	(8.84%)
Miscellaneous revenues	455,000.	151,667.	374,903.	223,236.	147.19% F
<b>Total nonoperating revenues (expenses)</b>	<b>6,497,800.</b>	<b>2,165,933.</b>	<b>3,460,202.</b>	<b>1,294,269.</b>	<b>59.76%</b>
<b>Nonoperating Expenses</b>					
Miscellaneous expenses	(434,200.)	(144,733.)	(117,496.)	27,237.	(18.82%) G
Bond interest charges	(162,272.)	(54,091.)	0.	54,091.	(100.00%) H
Depreciation	0.	0.	(1,381,653.)	(1,381,653.)	0.00% I
<b>Total nonoperating revenues (expenses)</b>	<b>(596,472.)</b>	<b>(198,824.)</b>	<b>(1,499,149.)</b>	<b>(1,300,325.)</b>	<b>654.01%</b>
<b>Capital contributions</b>	<b>0.</b>	<b>0.</b>	<b>394,659.</b>	<b>394,659.</b>	<b>0.00%</b>
<b>Change in Net Position</b>	<b>3,665,428.</b>	<b>1,221,809.</b>	<b>2,384,700.</b>	<b>1,162,891.</b>	<b>95.18%</b>

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

- A. Water and sewer revenues exceed budgeted amounts by 4.60%. Consumption through October (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 higher than budgeted amounts by 0.12%. Monthly billings prepared by the RWSA allocate total water/wastewater flows to the ACSA/City based on the consumption of each for the quarter immediately preceding.
- C. Departmental operating budgets through the current month remain below budgeted expectations for the fiscal year with the exception of Administration. This variance is derived from recognition of expenses related to the "customer experience" consulting project.
- 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 below 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

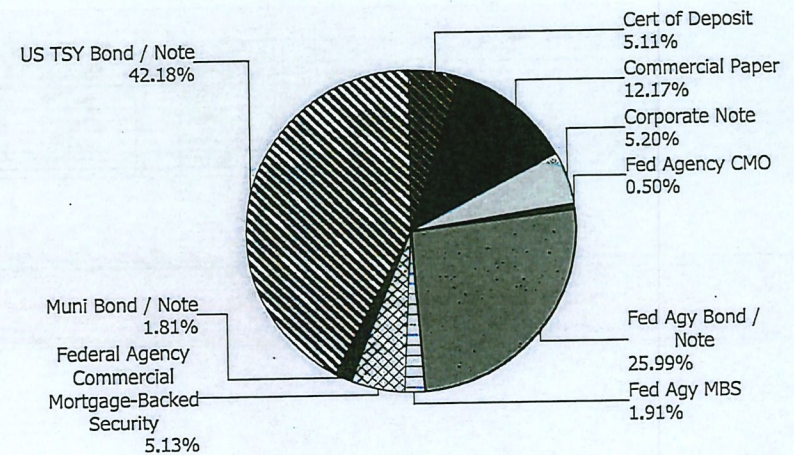
For the Month Ending **October 31, 2022**

### ACSA OPERATING FUNDS - 03100100

#### Account Summary

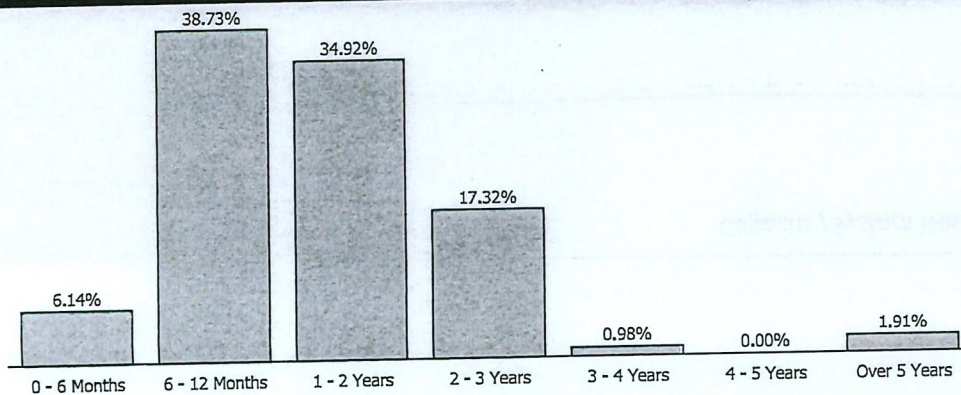
Description	Par Value	Market Value	Percent
U.S. Treasury Bond / Note	12,905,000.00	12,201,813.22	42.18
Municipal Bond / Note	550,000.00	524,705.00	1.81
Federal Agency Mortgage-Backed Security	595,176.15	552,736.93	1.91
Federal Agency Commercial Mortgage-Backed Security	1,536,400.83	1,483,130.70	5.13
Federal Agency Collateralized Mortgage Obligation	150,000.00	145,626.38	0.50
Federal Agency Bond / Note	7,760,000.00	7,519,625.58	25.99
Corporate Note	1,575,000.00	1,504,804.00	5.20
Commercial Paper	3,600,000.00	3,520,461.00	12.17
Certificate of Deposit	1,500,000.00	1,477,530.62	5.11
<b>Managed Account Sub-Total</b>	<b>30,171,576.98</b>	<b>28,930,433.43</b>	<b>100.00%</b>
Accrued Interest		83,587.79	
<b>Total Portfolio</b>	<b>30,171,576.98</b>	<b>29,014,021.22</b>	

#### Sector Allocation



Unsettled Trades 0.00 0.00

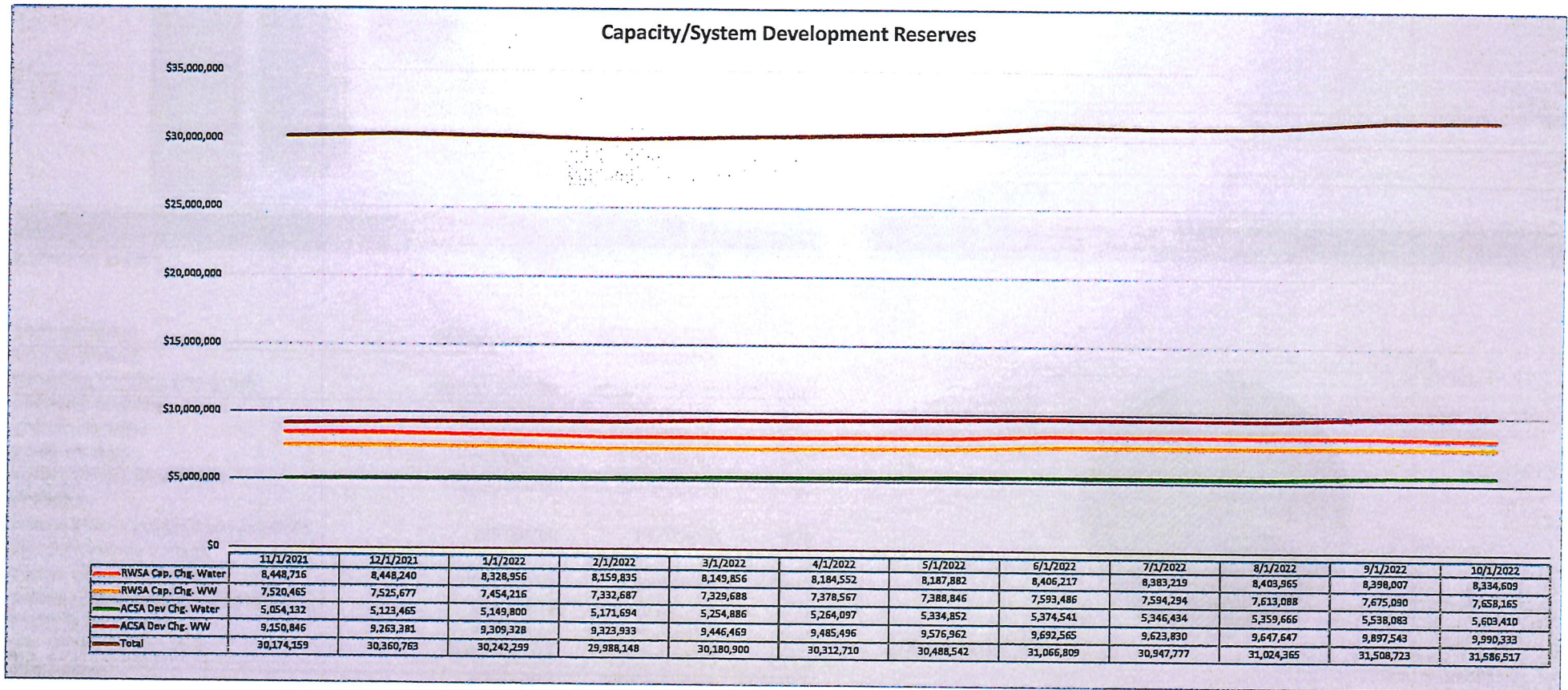
#### Maturity Distribution



#### Characteristics

Yield to Maturity at Cost	1.63%
Yield to Maturity at Market	4.71%
Weighted Average Days to Maturity	538





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**  
**September 2022**

Area	September 2022 Monthly Connection Fees	September 2021 Monthly Connection Fees	\$ Change	% Change
Crozet	\$ 161,640	\$ 67,350	\$ 94,290	140%
Urban	502,070	1,434,470	(932,400)	-65%
Scottsville	-	-	-	-
<b>Total Connection fees</b>	<b>\$ 663,710</b>	<b>\$ 1,501,820</b>	<b>\$ (838,110)</b>	<b>-56%</b>
<b>Through September</b>				
Area	YTD FY 2023 Connection Fees	YTD FY 2022 Connection Fees	\$ Change	% Change
Crozet	\$ 511,860	\$ 282,870	\$ 228,990	81%
Urban	1,599,745	2,963,400	(1,363,655)	-46%
Scottsville	-	-	-	-
<b>Total Connection fees</b>	<b>\$ 2,111,605</b>	<b>\$ 3,246,270</b>	<b>\$ (1,134,665)</b>	<b>-35%</b>

Area	September 2022 ERC's	September 2021 ERC's	Change	% Change
Crozet	12	5	7	140%
Urban	37	107	(70)	-65%
Scottsville	-	-	-	-
<b>Total ERC's</b>	<b>49</b>	<b>112</b>	<b>(63)</b>	<b>-56%</b>
<b>Through September</b>				
Area	YTD FY 2023 ERC's	YTD FY 2022 ERC's	Change	% Change
Crozet	38	21	17	81%
Urban	119	220	(101)	-46%
Scottsville	-	-	-	-
<b>Total ERC's - YTD</b>	<b>157</b>	<b>241</b>	<b>(84)</b>	<b>-35%</b>

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  
September 2022**

<b>Area</b>	<b>September 2022 ERC's</b>	<b>September 2021 ERC's</b>	<b>September 2020 ERC's</b>
<b>Crozet</b>	12	5	27
<b>Urban</b>	37	107	20
<b>Scottsville</b>	-	-	-
<b>Total ERC's</b>	49	112	47

<b>Area</b>	<b>Through September YTD 2023 ERC's</b>	<b>YTD 2022 ERC's</b>	<b>YTD 2021 ERC's</b>
<b>Crozet</b>	38	21	73
<b>Urban</b>	119	220	117
<b>Scottsville</b>	-	-	-
<b>Total ERC's - YTD</b>	157	241	190

Note: The information above presents 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		159,438,005	-100.00%		5.26
November		148,641,595	-100.00%		1.01
December		140,551,064	-100.00%		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
	471,578,555	1,793,928,984		13.31	41.62
<b>YTD</b>	<b>471,578,555</b>	<b>513,783,878</b>	<b>-8.21%</b>	<b>13.31</b>	<b>12.36</b>

Note: Consumption through September 2022 is 8.21% 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>.

# Albemarle County Service Authority



Serving • Conserving

## Water and Sewer Report

(Volumes in Gallons)

September 2022

Billed by Area:	Water	Sewer
Crozet	18,258,969	16,320,710
Scottsville	1,787,629	838,822
Urban	135,582,885	112,053,794
Red Hill	47,496	0
<b>Total</b>	<b>155,676,979</b>	<b>129,213,326</b>

Billing by Sewer Plant:	
AWT	128,374,504
less Glenmore	(4,308,627)
Urban Total	124,065,877
Scottsville	838,822
<b>Total</b>	<b>124,904,699</b>

Number of Installed Meters:	
Urban	24
Crozet	13
Scottsville	0
<b>Total</b>	<b>37</b>

### Metered Consumption (billed by invoice):

Urban	1,029,800
Crozet	100
Scottsville	0
<b>Total</b>	<b>1,029,900</b>

### Unmetered Consumption:

ACSA Fire Flow Consump.	Urban	28,022
<b>Total</b>		<b>28,022</b>

### Unmetered Leak Consumption:

1760 Tinkers Cove-9/2	Urban	1000
5190 Three Notched-9/11	Crozet	100
104 Cannon Pl-9/21	Urban	100
3263 Profit Rd-9/24	Urban	1000
5654 St George-9/26	Crozet	50
2504 Sun Ridge-9/29	Urban	1,800
<b>Total</b>		<b>4,050</b>

### Billed Consumption for Selected Customers

	Water	Sewer
*VA Land Holding/Star Hill	349,907	349,907
Southwood Mobile Homes	1,870,035	2,070,000
Turtle Creek Apts.	1,274,538	1,266,638
Barracks West Apartments	1,355,400	1,355,400
Monroe Health & Rehab.	859,540	859,540
Sunrise Senior "Colonnades"	1,202,579	958,579
ACRJ	1,097,870	864,870
Westminster Canterbury	1,487,470	1,382,470
SEMF Charleston	1,316,758	1,316,758
Martha Jefferson Hospital	2,928,487	1,382,594
Crozet Mobile Home Village	255,200	255,200
Fashion Square Mall	215,932	215,932
County of Albemarle	1,759,864	1,401,009
University of Virginia	2,170,440	2,168,562
Wegmans	274,077	274,077

\* Indicates Industrial Discharge Permit Holders

	Water	Sewer
Boar's Head Inn	617,744	584,944
Farmington, Inc.	913,004	467,352
Westgate Apts.	1,355,448	1,354,248
Abbingdon Crossing	1,741,335	1,741,335
Four Seasons Apts	1,675,053	1,675,053
Ch'ville/Alb Airport	225,640	226,097
State Farm	109,230	32,230
Hyatt @ Stonefield	362,540	362,540
Doubletree	645,871	645,871
Arden Place Apts	431,175	431,175
Hilton Garden Inn	304,481	252,874
The Blake @ Charlottesville	275,882	275,882
The Lodge @ Old Trail	268,823	268,823
Gov't-Defense Complex	917,978	888,911
Harris Teeter Stores	187,957	187,957



**WATER**

Class Type	Number of Connections by Area			Total
	Urban	Crozet	Scottsville	
Single-Family Residential	15,672	3,721	196	19,589
Multi-Family Residential	553	43	3	599
Commercial (Offices)	202	12	5	219
Commercial (Other)	922	76	52	1,050
Industrial	36	10	4	50
Institutional	171	32	12	215
<b>Total Water Accounts</b>	<b>17,556</b>	<b>3,894</b>	<b>272</b>	<b>21,722</b>
<b>Plus Multiple Units</b>	<b>12,759</b>	<b>748</b>	<b>89</b>	<b>13,596</b>
<b>Total Water Units</b>	<b>30,315</b>	<b>4,642</b>	<b>361</b>	<b>35,318</b>

**SEWER**

Class Type	Number of Connections by Area			Total
	Urban	Crozet	Scottsville	
Single-Family Residential	13,363	3,443	158	16,964
Multi-Family Residential	522	41	4	567
Commercial (Offices)	186	12	5	203
Commercial (Other)	716	52	44	812
Industrial	15	5	1	21
Institutional	133	25	10	168
<b>Total Sewer Accounts</b>	<b>14,935</b>	<b>3,578</b>	<b>222</b>	<b>18,735</b>
<b>Plus Multiple Units</b>	<b>12,342</b>	<b>745</b>	<b>56</b>	<b>13,143</b>
<b>Total Sewer Units</b>	<b>27,277</b>	<b>4,323</b>	<b>278</b>	<b>31,878</b>

**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
<b>Total Water Customers</b>	71,078	11,173	713	82,963
<b>Total Sewer Customers</b>	64,263	10,470	535	75,268

Albemarle County Service Authority  
Major Customer Analysis  
September 2022 and August 2022

	September 2022		August 2022		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
County of Albemarle	1,759,864	1,401,009	1,173,029	791,820	50.03%	76.94%
Four Seasons Apts.	1,675,053	1,675,053	1,399,052	1,399,052	19.73%	19.73%
Martha Jefferson Hospital	2,928,487	1,382,594	2,587,614	740,524	13.17%	86.70%
Westgate Apts.	1,355,448	1,354,248	1,279,530	1,278,730	5.93%	5.91%
Turtle Creek Apts.	1,274,538	1,266,638	1,257,919	1,250,019	1.32%	1.33%
Abbingtion Crossing	1,741,335	1,741,335	1,745,808	1,745,808	-0.26%	-0.26%
SEMF Charleston	1,316,758	1,316,758	1,353,682	1,353,682	-2.73%	-2.73%
Southwood Mobile Homes	1,870,035	2,070,000	2,025,000	2,400,000	-7.65%	-13.75%
Barracks West Apartments	1,355,400	1,355,400	1,594,700	1,594,700	-15.01%	-15.01%
ACRJ	1,097,870	864,870	1,311,910	983,910	-16.32%	-12.10%
Westmisnster Canterbury	1,487,470	1,382,470	1,787,040	1,688,040	-16.76%	-18.10%
University of Virginia	2,170,440	2,168,562	2,756,864	2,746,540	-21.27%	-21.04%

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  
September 2022 and September 2021

	September 2022		September 2021		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
Westgate Apts.	1,355,448	1,354,248	1,240,000	1,239,000	9.31%	9.30%
Turtle Creek Apts.	1,274,538	1,266,638	1,212,000	1,209,000	5.16%	4.77%
Martha Jefferson Hospital	2,928,487	1,382,594	2,802,192	1,050,392	4.51%	31.63%
Abbingdon Crossing	1,741,335	1,741,335	1,688,400	1,688,400	3.14%	3.14%
Four Seasons Apts.	1,675,053	1,675,053	1,690,000	1,690,000	-0.88%	-0.88%
Southwood Mobile Homes	1,870,035	2,070,000	2,003,000	2,256,671	-6.64%	-8.27%
Barracks West Apartments	1,355,400	1,355,400	1,456,900	1,456,900	-6.97%	-6.97%
County of Albemarle	1,759,864	1,401,009	2,108,692	1,588,492	-16.54%	-11.80%
Westminster Canterbury	1,487,470	1,382,470	2,146,640	1,726,640	-30.71%	-19.93%
ACRJ	1,097,870	864,870	1,708,920	1,519,920	-35.76%	-43.10%
University of Virginia	2,170,440	2,168,562	3,411,780	3,303,400	-36.38%	-34.35%
SEMF Charleston	1,316,758	1,316,758	2,382,750	2,382,750	-44.74%	-44.74%

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 -- September**

	YTD FY 2023		YTD FY 2022		Increase(Decrease)	Increase(Decrease)
	Water*	Sewer*	Water*	Sewer*	Water Consumption	Sewer Usage
Abbingtion Crossing	5,413,309	5,413,309	5,171,500	5,171,500	4.68%	4.68%
Barracks West Apartments	4,475,500	4,475,500	4,374,600	4,374,600	2.31%	2.31%
Martha Jefferson Hospital	7,893,037	3,088,713	7,912,618	3,331,718	-0.25%	-7.29%
Southwood Mobile Homes	5,934,035	6,570,000	6,067,000	12,449,684	-2.19%	-47.23%
Turtle Creek Apts.	3,618,221	3,597,321	3,715,000	3,711,000	-2.61%	-3.06%
Westgate Apts.	3,867,871	3,862,571	3,977,000	3,968,300	-2.74%	-2.66%
Four Seasons Apts.	4,642,326	4,642,326	4,795,000	4,795,000	-3.18%	-3.18%
Westmisnster Canterbury	4,829,200	4,510,200	5,709,590	4,940,590	-15.42%	-8.71%
County of Albemarle	3,859,440	2,892,255	5,210,176	3,564,776	-25.92%	-18.87%
University of Virginia	7,314,261	7,295,700	9,961,280	9,838,693	-26.57%	-25.85%
ACRJ	3,430,060	2,702,060	5,083,800	4,428,800	-32.53%	-38.99%
SEMF Charleston	4,135,241	4,135,241	7,343,775	7,343,775	-43.69%	-43.69%

**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.



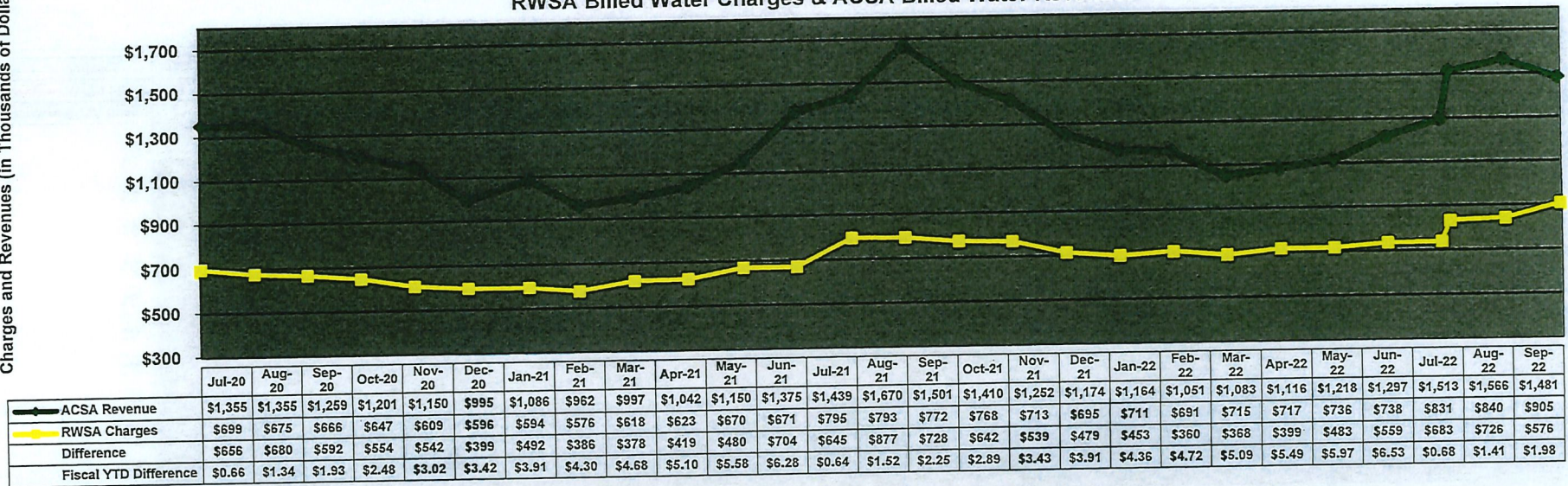
# FY 2021, 2022, and 2023 Urban Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



# FY 2021, 2012, and 2023 Urban Water Comparison RWSA Billed Water Charges & ACSA Billed Water Revenues

Charges and Revenues (in Thousands of Dollars)

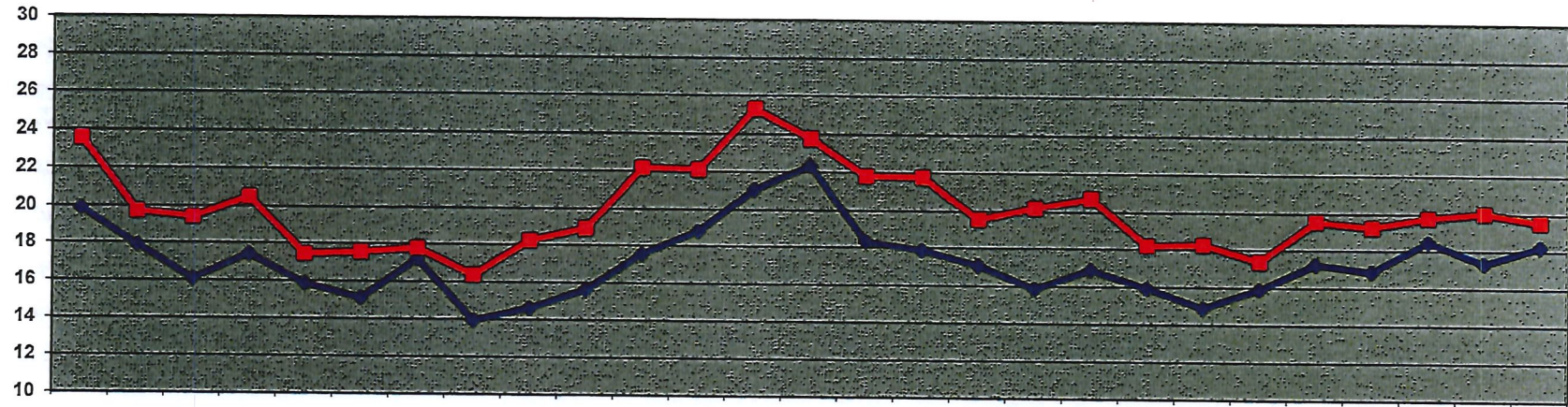


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars



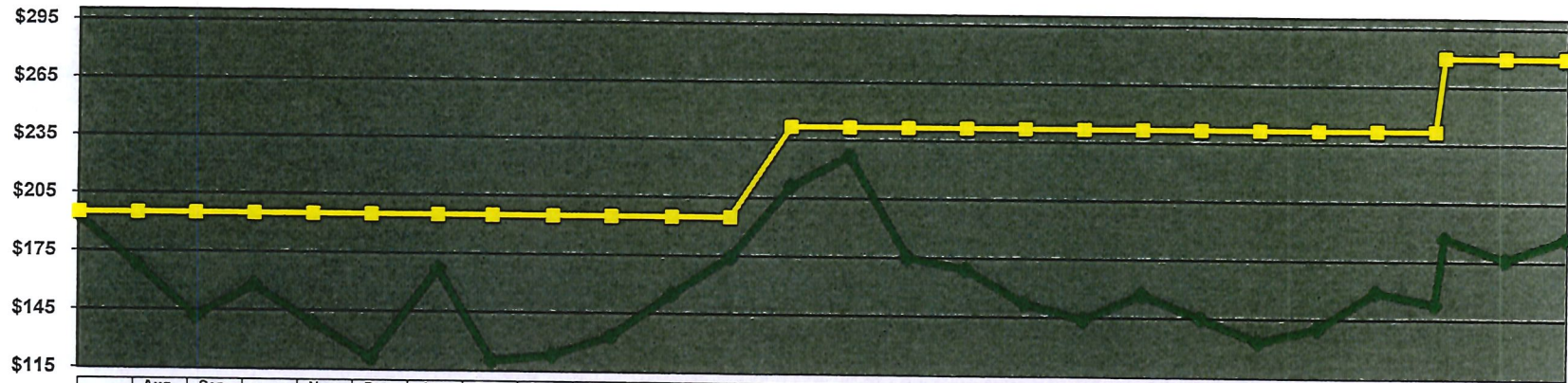
**FY 2021, 2022, and 2023 Crozet Water Comparison  
RWSA Flows & ACSA Customer Usage**

Flows & Usage (in Millions of Gallons)



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

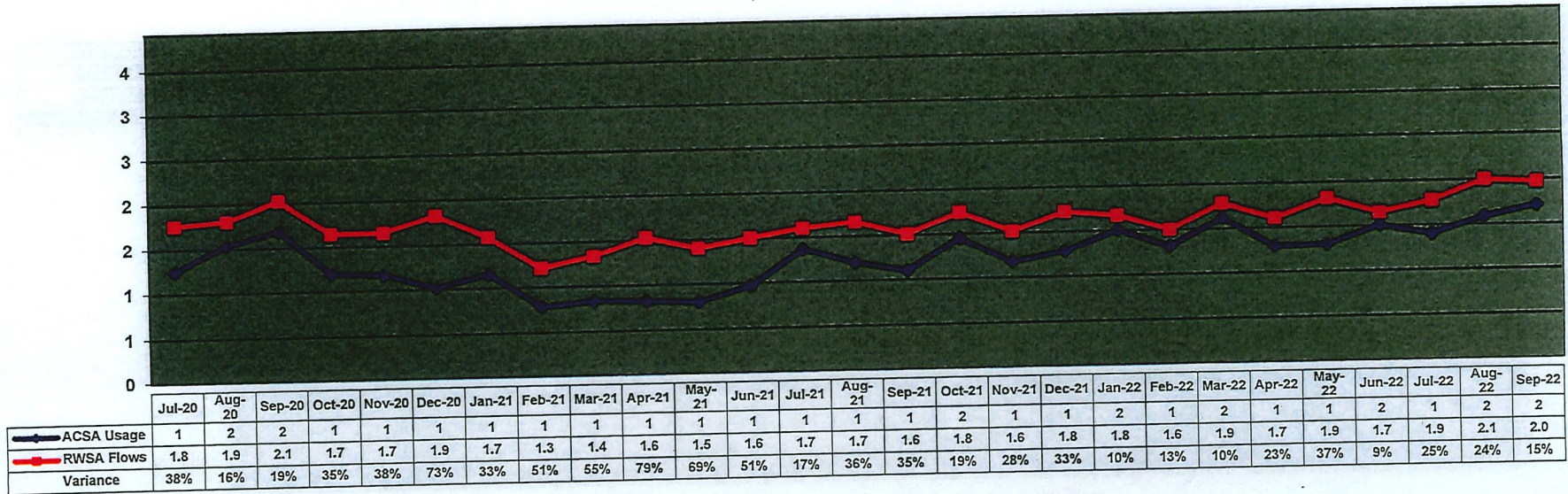
Charges and Revenues (in Thousands of Dollars)





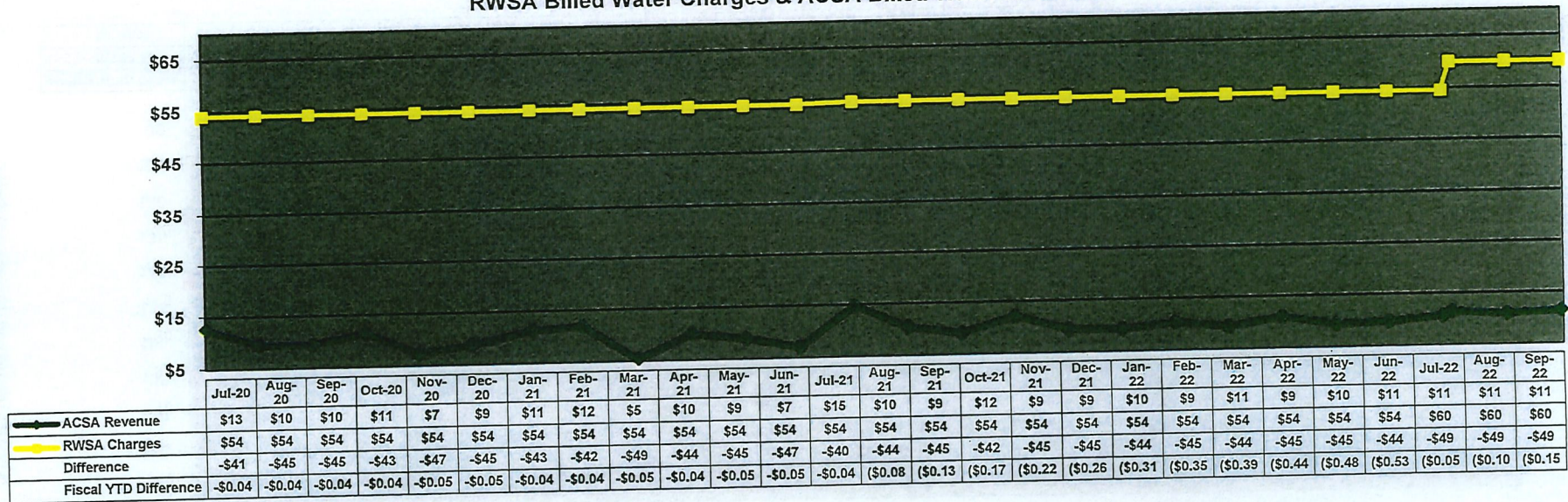
# FY 2021, 2022, and 2023 Scottsville Water Comparison RWSA Flows & ACSA Customer Usage

Flows & Usage (in Millions of Gallons)



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

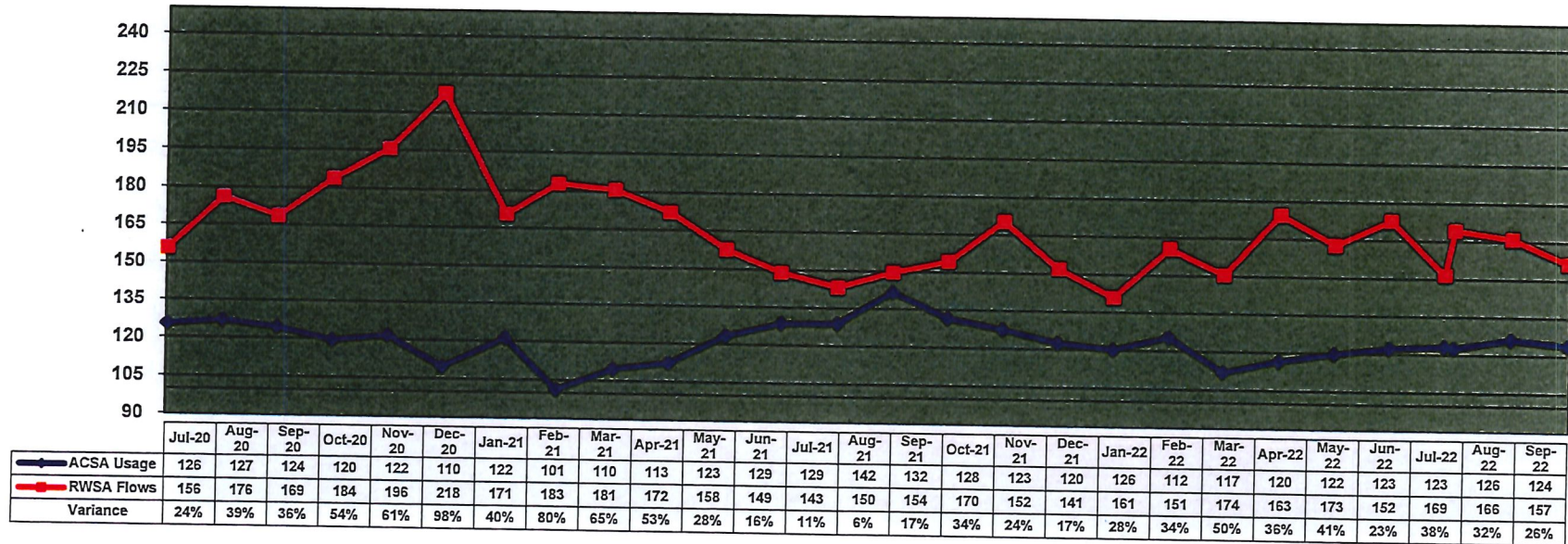
Charges and Revenues (in Thousands of Dollars)





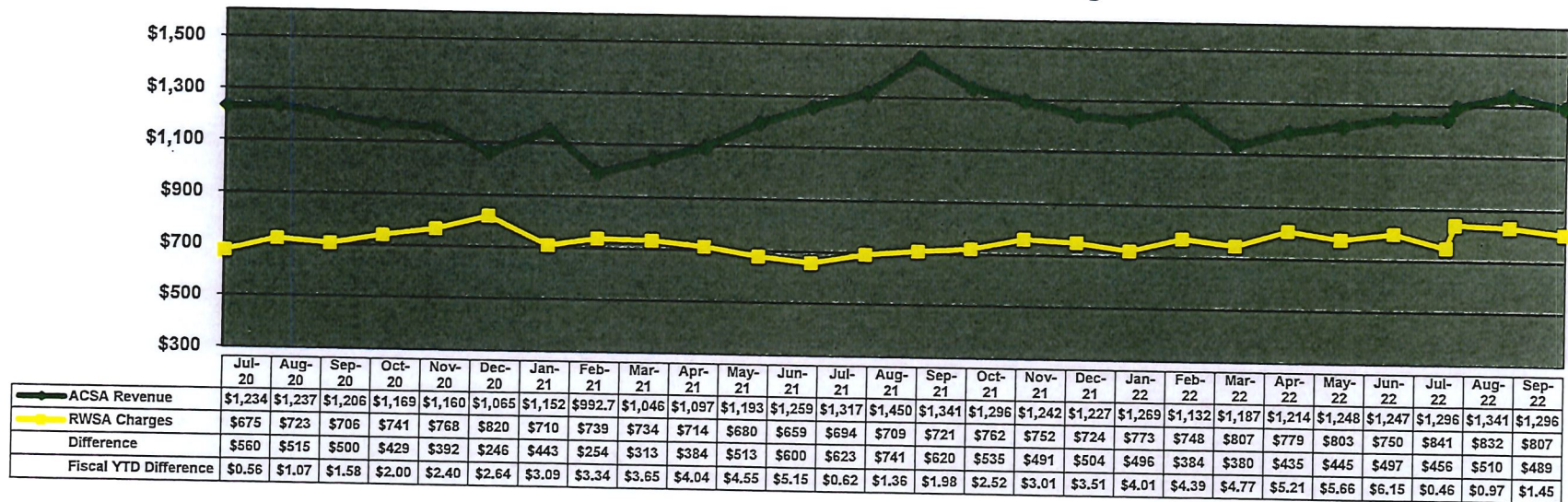
**FY 2021, 2022, and 2023 Urban (including Glenmore) & Crozet Sewer Comparison  
ACSA Customer Usage & RWSA Flows**

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)

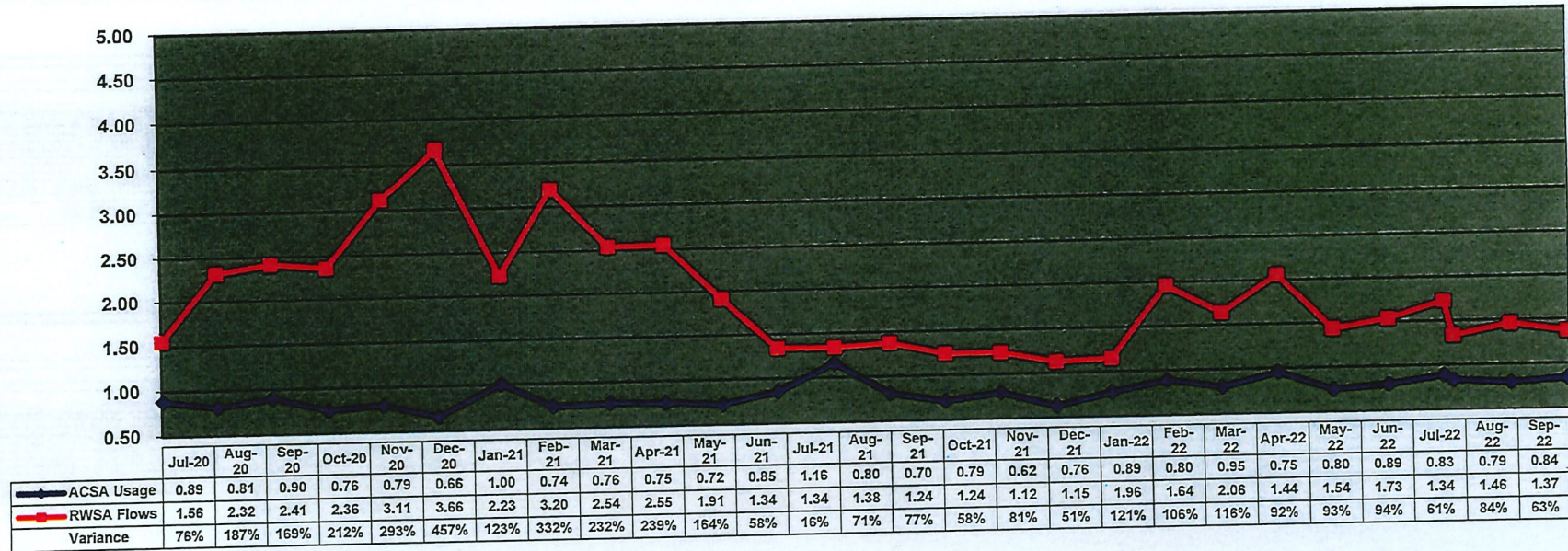


Note: Fiscal YTD Difference (ONLY) in Millions of Dollars



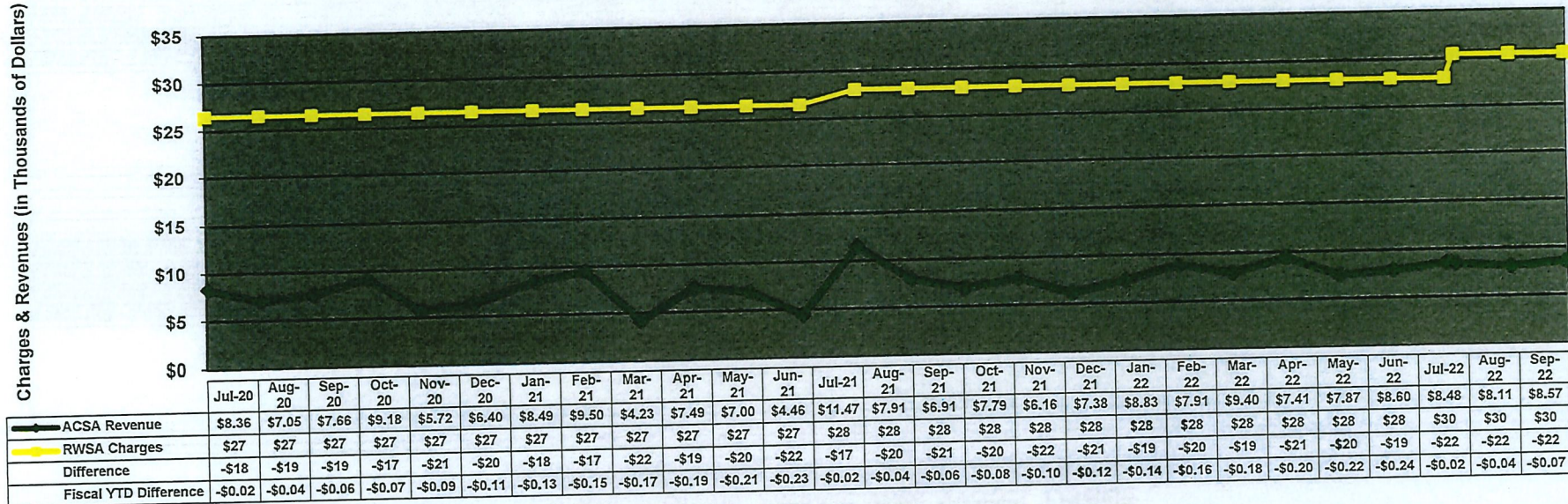
### FY 2021, 2022, and 2023 Scottsville Sewer Comparison ACSA Customer Usage & RWSA Flows

Usage & Flows (in Millions of Gallons)



### FY 2021, 2022, and 2023 Scottsville 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



# 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
<b>Total</b>	<b>83,444,300</b>	<b>78,001,900</b>	<b>71,834,300</b>	<b>70,491,500</b>	<b>69,226,700</b>	<b>63,412,800</b>	<b>70,714,600</b>	<b>59,565,133</b>	<b>61,024,100</b>	<b>63,173,300</b>	<b>70,991,775</b>	<b>79,485,866</b>

	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
<b>Total</b>	<b>78,657,214</b>	<b>88,634,512</b>	<b>75,729,236</b>	<b>72,548,592</b>	<b>68,412,866</b>	<b>66,103,699</b>	<b>66,819,580</b>	<b>62,038,239</b>	<b>60,920,931</b>	<b>62,397,638</b>	<b>69,403,612</b>	<b>72,259,028</b>

	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									
Level 2 (3,001 - 6,000 gallons)	16,363,636	15,612,084	15,525,446									
Level 3 (6,001 - 9,000 gallons)	4,849,724	4,363,645	4,161,371									
Level 4 (over 9,000 gallons)	7,208,522	6,639,465	6,037,842									
<b>Total</b>	<b>74,021,793</b>	<b>72,120,276</b>	<b>71,357,008</b>	-	-	-	-	-	-	-	-	-

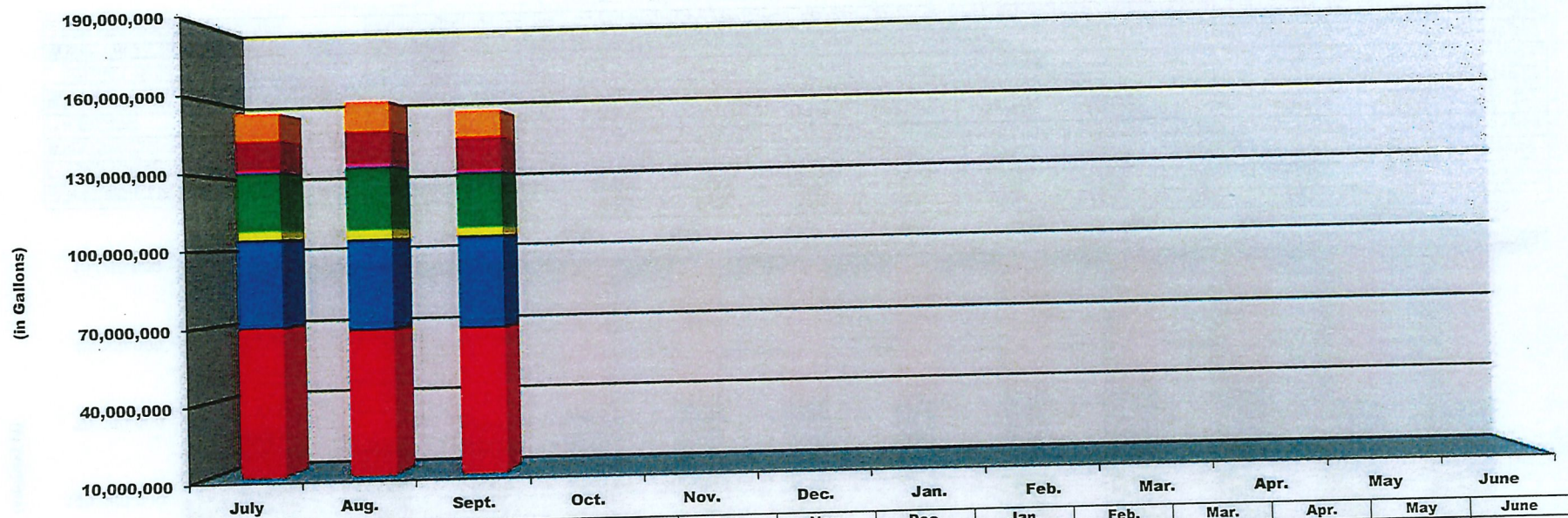
## System-Wide Irrigation Water Usage

(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									
Level 2 (3,001 - 6,000 gallons)	827,558	825,362	768,256									
Level 3 (6,001 - 9,000 gallons)	990,172	970,507	887,729									
Level 4 (over 9,000 gallons)	9,170,743	9,922,557	8,931,018									
<b>Total</b>	<b>11,175,137</b>	<b>11,900,819</b>	<b>10,767,652</b>	-	-	-	-	-	-	-	-	-



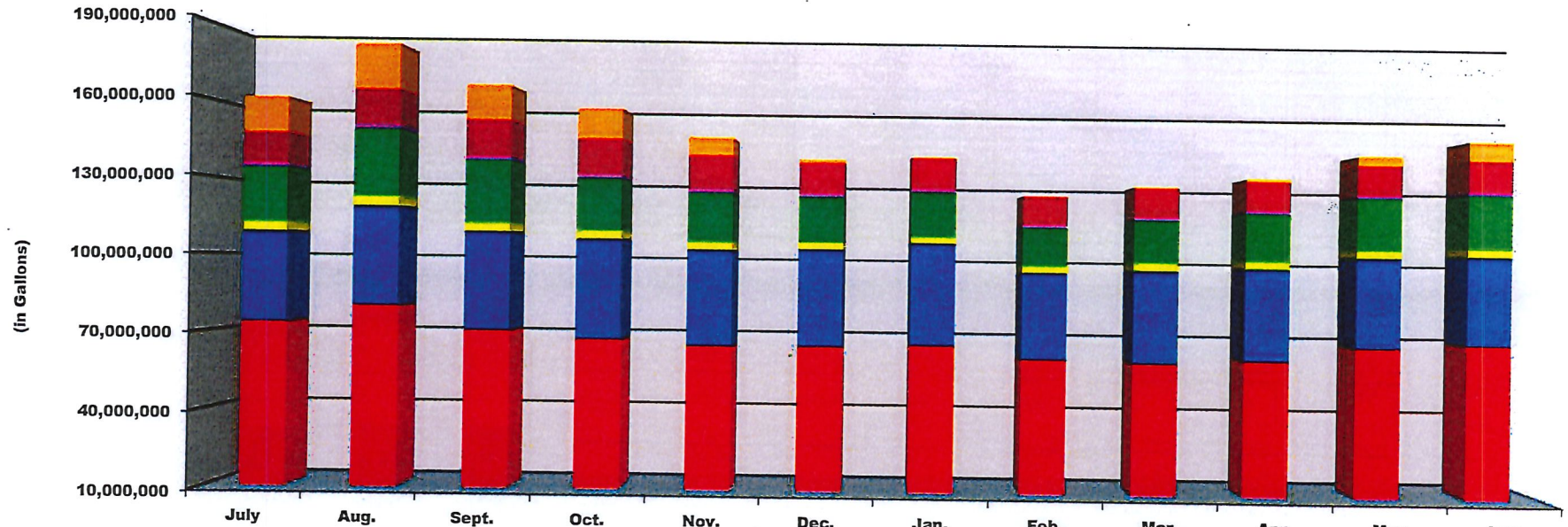
Monthly Water Consumption Fiscal Year 2023



	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
% Irrigation to total	7.24%	7.54%	7.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Irrigation	11,175,137	11,900,819	10,767,652									
Institutional - Domestic Consumption	11,319,291	12,674,993	12,747,929									
Industrial	939,061	1,164,077	948,893									
Comm. (Other) - Domestic Consumption	23,118,746	24,680,610	21,554,311									
Offices - Domestic Consumption	3,674,283	4,083,421	3,700,076									
MFR - Domestic Consumption	34,974,805	35,804,051	36,296,110									
SFR - Domestic Consumption	69,126,793	67,577,187	67,479,481									



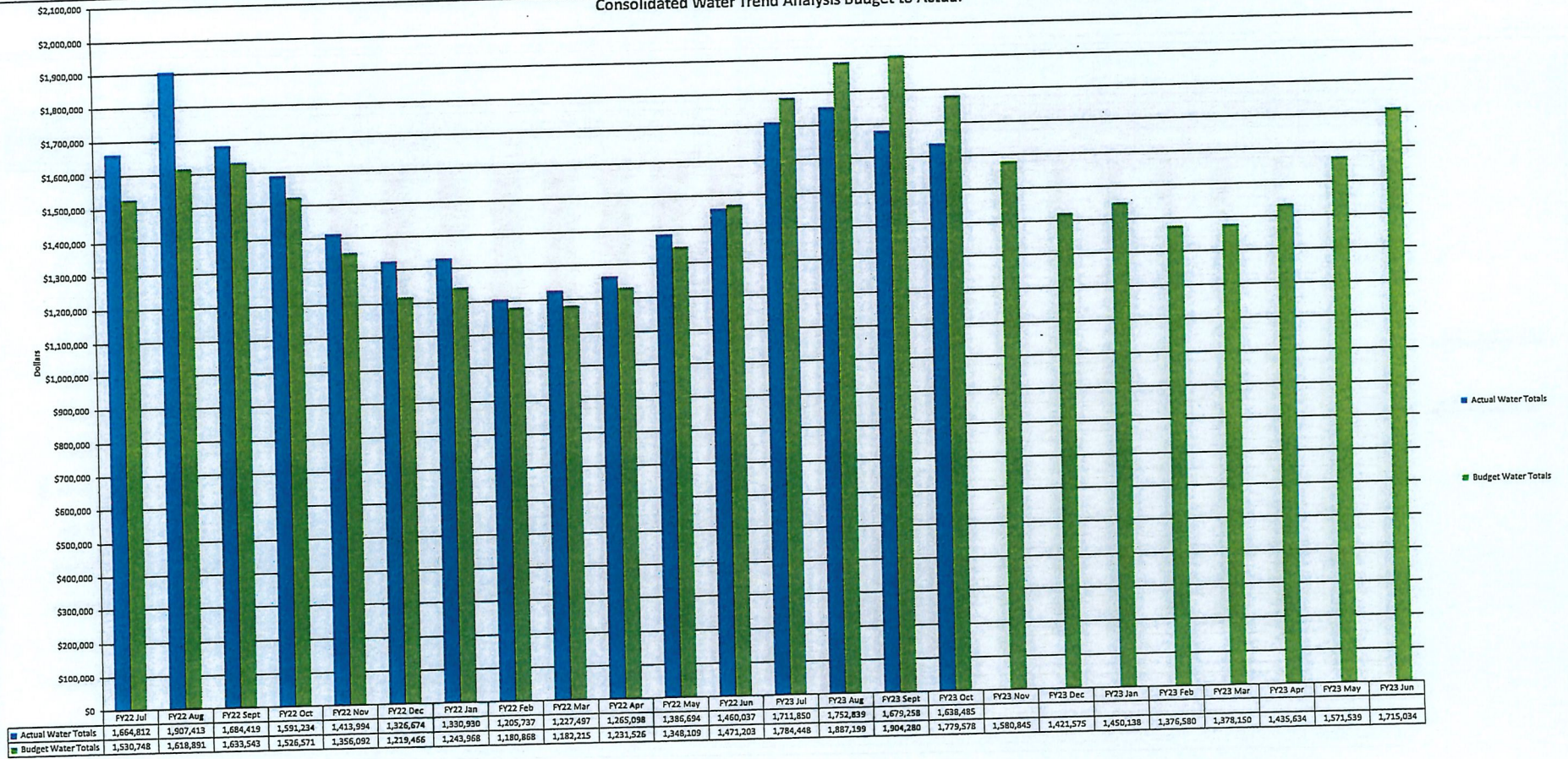
Monthly Water Consumption Fiscal Year 2022



	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

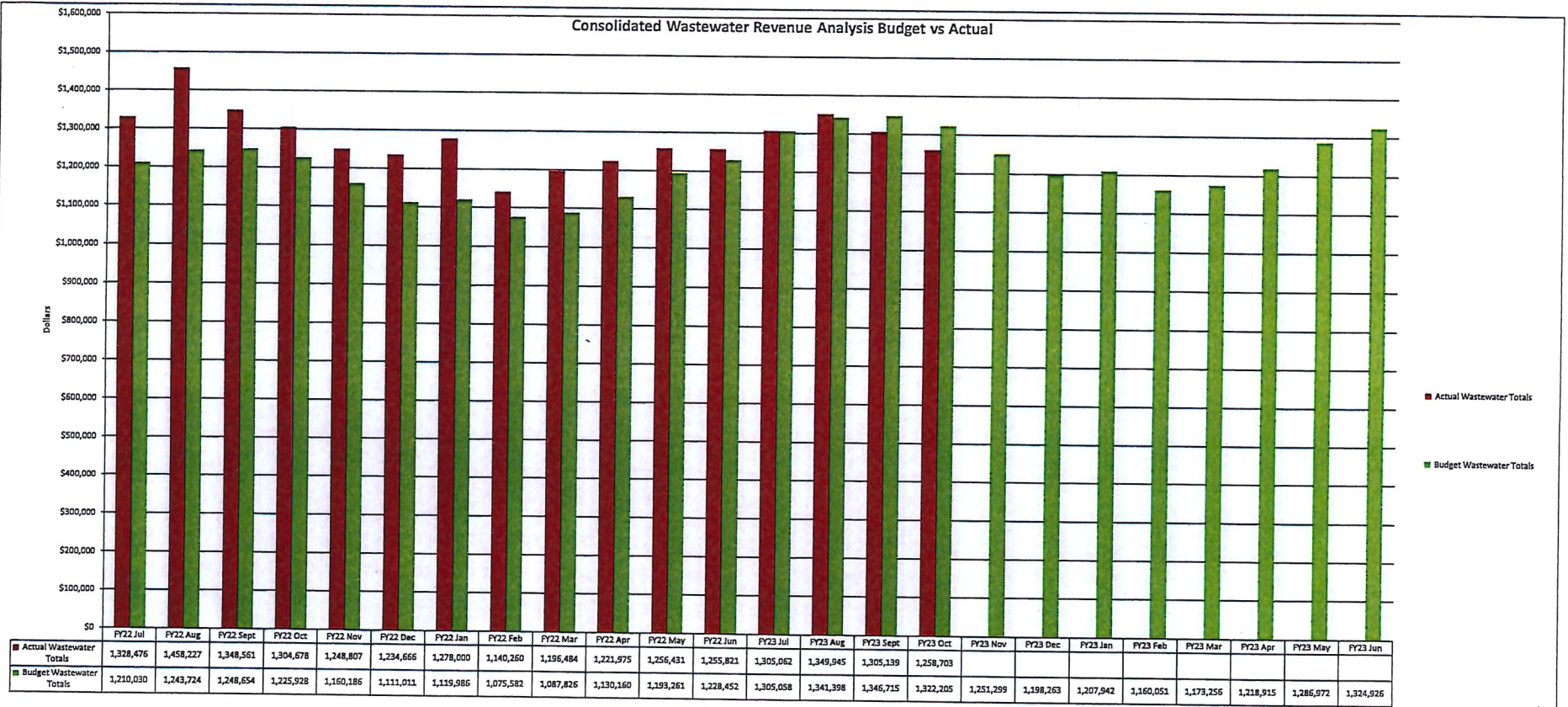


Consolidated Water Trend Analysis Budget to Actual

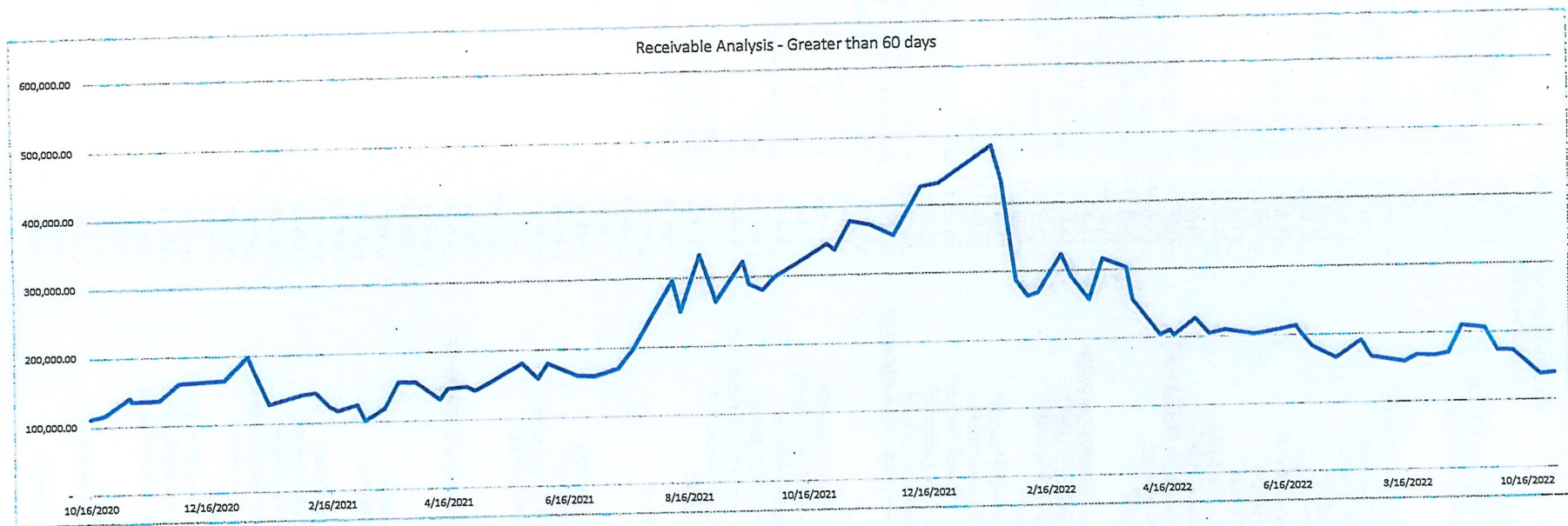




Consolidated Wastewater Revenue Analysis Budget vs Actual







**Albemarle County Service Authority  
October Payment Register**

CHECK NUMBER	CHECK DATE	VENDOR NAME	AMOUNT	DESCRIPTION OF ITEMS OVER \$5,000
Wire	10/6/2022	Rivanna Water & Sewer Authority	2,083,284.04	Monthly Water & Wastewater Service
63907	10/31/2022	Commonwealth Excavating Inc.	330,961.47	Jefferson Village WMRP
ACH	10/31/2022	Payroll	167,370.68	Net Pay
ACH	10/14/2022	Payroll	160,592.12	Net Pay
63938	10/31/2022	Michael Baker International Inc.	119,897.80	Raintree and Fieldbrook PVC WMRP
63826	10/14/2022	Colonial Ford Truck Sales Inc.	69,666.50	2022 Ford F550 Super Cab Hydraulic Dump
228470159	10/31/2022	IRS - Federal Tax Deposit	65,299.58	Payroll
63949	10/31/2022	Prism Contractors	62,295.39	Sewer Rehabilitation
228470149	10/14/2022	IRS - Federal Tax Deposit	61,037.31	Payroll
Wire	10/25/2022	Bank of New York Mellon	49,081.78	Debt Service
228470158	10/31/2022	County of Albemarle	37,938.49	Payroll
228470148	10/31/2022	County of Albemarle	34,250.84	Payroll
228470155	10/31/2022	Virginia Retirement System	31,722.28	Payroll
228470145	10/31/2022	Virginia Retirement System	30,972.63	Payroll
63972	10/31/2022	Whitman, Requardt & Associates, LLP	28,685.11	ACSA-Main Office HVAC System Replacement
63835	10/14/2022	E Source Companies LLC	21,000.00	Customer Experience and Voice of Customer Assessment
63814	10/14/2022	Bank of America	20,153.32	Supplies, Memberships, Tools, Travel, Software
63944	10/31/2022	Paymentus	17,578.98	Transaction Fees for September 22
63955	10/31/2022	S L Williamson Company Incorporated	17,060.63	Hessian Hills WMRP Final Paving Retainage
63884	10/14/2022	Virginia Department of Health	16,203.75	VDH Waterworks Operation Fee
63967	10/31/2022	Virginia Department of Health	16,203.75	VDH Waterworks Operation Fee
63880	10/14/2022	U S Postmaster	12,800.00	Bulk Mail Permit
228470160	10/31/2022	Virginia Department of Taxation	11,520.72	Payroll
228470150	10/14/2022	Virginia Department of Taxation	10,928.93	Payroll
63915	10/31/2022	East Coast Utility Contractors, Ltd.	10,328.40	Sewer Pump Station Comminutors
63858	10/14/2022	Moore's Electrical & Mechanical	10,245.10	Server Room HVAC and Peter Jefferson Pump Station
63817	10/14/2022	Brown, Edwards & Company LLP	10,000.00	FY 2022 Financial Statement and Compliance Audit
63940	10/31/2022	Ramboll Americas Engineering Solutions Inc.	9,860.44	Briarwood Water Main Replacement
63839	10/14/2022	Fortiline Inc.	8,334.76	20 Manhole Ring Standard and Water Service Saddles
63834	10/14/2022	Duncan Parnell	7,678.00	Trimble R2 Receiver and Software
63911	10/31/2022	Dewberry Engineers Incorporated	7,196.00	Avon Property PH1 Dev. & PH2 Amend
63832	10/14/2022	Dewberry Engineers Incorporated	7,149.00	Avon Maint. PH1 Dev. & PH2 Amend
63885	10/14/2022	Verizon Wireless Services LLC	6,791.78	Monthly Cellular Service
63918	10/31/2022	Evoqua Water Technologies LLC	6,674.37	Bioxide
63855	10/14/2022	Mansfield Oil Company of Gainesville, Inc.	6,008.49	Fuel
63876	10/14/2022	St John, Bowling & Lawrence PLC	5,720.00	Legal Services
63954	10/31/2022	RSG Landscaping LLC	5,142.19	Landscaping
63910	10/31/2022	Cues, Inc.	5,079.50	Crawler for Sewer Camera
63825	10/14/2022	Clyde E. Smith, Inc.	4,850.00	
228470147	10/14/2022	VALIC	4,750.00	
228470157	10/31/2022	VALIC	4,730.00	
63833	10/14/2022	Dominion Energy Virginia	4,463.25	
63914	10/31/2022	E Source Companies LLC	4,425.00	
63857	10/14/2022	Michael Baker International Inc.	4,411.25	
63916	10/31/2022	Ed's Floor Care Services LLC	3,703.33	
63970	10/31/2022	WaterPIO	3,500.00	
63908	10/31/2022	Core & Main LP	3,406.05	
63934	10/31/2022	Mansfield Oil Company of Gainesville, Inc.	3,342.49	
228470154	10/31/2022	Nationwide	3,097.15	
228470144	10/14/2022	Nationwide	2,837.15	
63881	10/14/2022	UniFirst Corporation	2,638.05	
63962	10/31/2022	Tyler Technologies Inc.	2,608.00	
63849	10/14/2022	Sarah Kelsey	2,500.00	
63913	10/31/2022	Dominion Energy Virginia	2,497.17	
228470143	10/14/2022	ICMA Membership Renewals	2,465.01	
228470153	10/31/2022	ICMA Membership Renewals	2,465.01	
63983	10/31/2022	Minnesota Life Insurance Company	2,049.65	
63867	10/14/2022	The Pitney Bowes Bank Inc.	2,000.00	
63828	10/14/2022	County of Albemarle	1,946.00	
63903	10/31/2022	Certified Environmental Drilling	1,900.00	
228470151	10/14/2022	Flexible Benefit Administrators, Inc	1,831.25	
228470161	10/31/2022	Flexible Benefit Administrators, Inc	1,831.25	
63979	10/31/2022	Guardian	1,827.81	
63963	10/31/2022	UniFirst Corporation	1,788.61	
63941	10/31/2022	ODP Business Solutions LLC	1,786.97	
63897	10/31/2022	ArborLife, Inc.	1,750.00	
228470152	10/14/2022	ACSA Flexible Spending	1,658.72	

228470162	10/31/2022	ACSA Flexible Spending	1,658.72
63886	10/14/2022	Virginia Utility Protection Service Inc.	1,625.40
63909	10/31/2022	County of Albemarle	1,591.20
63870	10/14/2022	Rivanna Water & Sewer Authority	1,532.58
63852	10/14/2022	Lowe's	1,529.20
63969	10/31/2022	Water Works Inc.	1,507.01
63906	10/31/2022	Comcast	1,407.56
63951	10/31/2022	Rappahannock Electric Cooperative	1,396.37
63928	10/31/2022	Lanford Brothers Co., Inc.	1,382.24
63989	10/31/2022	Department of the Treasury	1,373.15
63901	10/31/2022	Campbell Equipment, Inc.	1,367.92
63853	10/14/2022	Luck Stone Corporation	1,220.74
63818	10/14/2022	Campbell Equipment, Inc.	1,149.90
63919	10/31/2022	Ferguson Enterprises, LLC #1300	1,076.83
63813	10/14/2022	ArborLife, Inc.	1,000.00
63925	10/31/2022	Cox Piping Supply	880.54
63869	10/14/2022	Rivanna Solid Waste Authority	823.00
63809	10/14/2022	Advantage Office Systems	820.94
63973	10/31/2022	Win-911 Software	800.00
63854	10/14/2022	Mailing Services of Virginia	794.70
228470146	10/31/2022	AFLAC	772.26
228470156	10/31/2022	AFLAC	772.26
63920	10/31/2022	Fortiline Inc.	759.21
63932	10/31/2022	Malloy Ford	694.27
63851	10/14/2022	LB Technology Inc.	687.50
63929	10/31/2022	Luck Stone Corporation	676.12
63836	10/14/2022	Ferguson Enterprises, LLC #1300	671.25
63981	10/31/2022	Herbert Beskin Trustee	669.00
63874	10/14/2022	Siemens Industry Inc.	650.00
63896	10/31/2022	Aqua Air Laboratories Inc.	650.00
63905	10/31/2022	Comcast	633.68
63888	10/14/2022	Whitman, Requardt & Associates, LLP	627.30
63871	10/14/2022	S L Williamson Company Incorporated	599.74
63974	10/31/2022	ACAC	598.00
63966	10/31/2022	VACORP	595.79
63878	10/14/2022	The Supply Room	557.33
63829	10/14/2022	Crown Communication LLC	517.99
63859	10/14/2022	ODP Business Solutions LLC	508.59
63864	10/14/2022	Red Bud Supply, Inc.	489.08
63893	10/31/2022	Advance Auto Parts	483.19
63978	10/31/2022	Cincinnati Insurance Company	463.74
63927	10/31/2022	James River Equipment	449.00
63862	10/14/2022	Pitney Bowes Global Financial Services LLC	441.60
63890	10/14/2022	Treasurer of Virginia	430.90
63987	10/31/2022	Treasurer of Virginia	430.90
63956	10/31/2022	Sheetz, Inc.	420.00
63931	10/31/2022	Mailing Services of Virginia	405.10
63923	10/31/2022	Greenstone Materials	395.00
63947	10/31/2022	Pitney Bowes Inc.	383.16
63842	10/14/2022	Greenwood Homes	367.40
63848	10/14/2022	Jump Gardens, LLC	355.01
63877	10/14/2022	Syn-Tech Systems	350.00
63922	10/31/2022	Gingerich Outdoor Power Specialist	339.35
63879	10/14/2022	U. S. Bank	322.47
63812	10/14/2022	API Service Center	308.30
63933	10/31/2022	Timberland Associates	295.00
63822	10/14/2022	Childress Paints	288.99
63808	10/14/2022	Advance Auto Parts	286.57
63830	10/14/2022	Dannyz Unique Upholstery	285.00
63965	10/31/2022	UVA-WorkMed	280.00
63984	10/31/2022	Piedmont Family YMCA	279.90
63952	10/31/2022	Ricoh USA Inc.	275.00
63895	10/31/2022	Appalachian Power	271.55
63971	10/31/2022	Victoria Wenninger	259.33
63924	10/31/2022	Hathaway Solutions LLC	253.06
63943	10/31/2022	Vishal Patel	221.01
63968	10/31/2022	VoiceLink Communications	211.46
63866	10/14/2022	Republic Services	204.73
63894	10/31/2022	AM Conservation Group Inc.	203.87
63964	10/31/2022	University Tire & Auto Center Inc.	201.11

63865	10/14/2022	Red Wing Business Advantage Account	200.00
63985	10/31/2022	Snap Fitness	199.80
63846	10/14/2022	Charles W. Hurt	196.30
63945	10/31/2022	Performance Signs LLC	195.00
63982	10/31/2022	Lendmark Financial Services	192.28
63889	10/14/2022	Lendmark Financial Services	192.27
63898	10/31/2022	April Bennett	189.77
63838	10/14/2022	Flora Pettit PC	175.00
63930	10/31/2022	Kevin Luke	168.67
63926	10/31/2022	James River Communications Inc.	159.00
63806	10/11/2022	Jennifer A Bryant	158.50
63807	10/11/2022	Deanna Davenport	158.50
63837	10/14/2022	Flexible Benefit Administrators, Inc	155.25
63891	10/14/2022	Virginia Department	150.00
63988	10/31/2022	Virginia Department	150.00
63948	10/31/2022	Priority Elevator	149.00
63887	10/14/2022	Virginia Risk Sharing Association	146.00
63841	10/14/2022	Juan Gomaz	142.50
63959	10/31/2022	Julian D Thomas	140.00
63882	10/14/2022	University Tire & Auto Center Inc.	131.14
63821	10/14/2022	Charlottesville Wrecker	130.00
63980	10/31/2022	The Gym	130.00
63917	10/31/2022	Erin England	119.82
63811	10/14/2022	American Pest, Inc.	118.00
63946	10/31/2022	PG Harris Construction Company	107.28
63883	10/14/2022	USABlueBook	107.16
63827	10/14/2022	Ann Cooper	105.82
63868	10/14/2022	Juliana Risell	101.58
63860	10/14/2022	James Bunn	100.00
63942	10/31/2022	Sharon Campbell	100.00
63950	10/31/2022	Ashley Privott	94.20
63899	10/31/2022	Blue Ridge Farmers Co-op	92.88
63840	10/14/2022	Judith Giering	91.22
63872	10/14/2022	Safeware, Inc.	83.44
63902	10/31/2022	Cardinal Home Center	83.02
63936	10/31/2022	Mayer Electric Supply Company Inc.	81.05
63831	10/14/2022	Tye Deering	75.70
63912	10/31/2022	Document Destruction of Virginia LLC	69.95
63937	10/31/2022	Joan McGraw	62.90
63961	10/31/2022	Troy's Auto & Diesel LLC	60.00
63939	10/31/2022	Charlottesville Auto Parts	48.81
63819	10/14/2022	Jeff Cavnac	44.79
63847	10/14/2022	Jim Price Chevrolet	40.00
63975	10/31/2022	Anytime Fitness-Pantops	40.00
63976	10/31/2022	Anytime Fitness-Ruckersville	40.00
63977	10/31/2022	Anytime Fitness - Zion VA	40.00
63986	10/31/2022	Snap Fitness Hollymead	39.96
63810	10/14/2022	Batteries Plus, LLC	36.08
63863	10/14/2022	PMI Commonwealth	35.44
63957	10/31/2022	Nancy Switzer	34.20
63816	10/14/2022	Belinda Braden	34.19
63820	10/14/2022	Central Virginia Electric Cooperative	33.40
63861	10/14/2022	Kandice Levental	30.00
63921	10/31/2022	Joshua Foster	22.11
63873	10/14/2022	Maureen Scott	18.32
63900	10/31/2022	Braden Property	15.75
63845	10/14/2022	Ryan Howard	15.47
63875	10/14/2022	Didier Simonin	15.46
63843	10/14/2022	Gaby Hall	15.33
63844	10/14/2022	Athena Hanny	14.37
63824	10/14/2022	City of Charlottesville	14.36
63823	10/14/2022	C.E.S (City Electric Accounts - Chi)	13.72
63904	10/31/2022	City of Charlottesville	13.34
63935	10/31/2022	Martin Hardware Co., Inc.	12.42
63953	10/31/2022	Rohm, Diane	11.50
63958	10/31/2022	The Supply Room	10.08
63856	10/14/2022	Mayer Electric Supply Company Inc.	9.72
63960	10/31/2022	Thryv, Inc.	6.50
63815	10/14/2022	Blue Ridge Farmers Co-op	2.98
63850	10/14/2022	Rosanna Lantz	2.00

63892

10/18/2022 Reissue

3,718,975.67

# ALBEMARLE COUNTY SERVICE AUTHORITY

61

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> FY 2023 Capital Improvement Program (CIP) <b>STAFF CONTACT(S)/PREPARER:</b> Jeremy M. Lynn, P.E., Director of Engineering	<b>AGENDA DATE:</b> November 17, 2022 <b>CONSENT AGENDA:</b> <b>ACTION:</b> ■ <b>INFORMATION:</b> ■ <b>ATTACHMENTS:</b> 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 for four 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**  
**November 2022**

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	0%
Contractor:	Harrisonburg Construction Co., Inc. (HCC)
Construction Start:	2022
Completion:	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.

**11/7/2022: Change Order 1 has been executed. The Preconstruction Conference with HCC is scheduled for November 8, 2022.**

**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.

**11/7/2022: The Draft Final Report is currently under review. A report on the Energy Audit was provided at the October Board Meeting.**

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

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	75%
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.

**11/7/2022: The ACSA continues to await County approval on the change order for the stormwater connection stub-out. The Final Site Plan, VSMP, and WPO applications have been submitted to the County for review.**

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

Consultant:	ACSA/Dewberry Engineers, Inc. (Dewberry)
Project Status:	Design
Percent Complete:	100%
Contractor:	Undetermined
Construction Start:	2022
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.

9/7/2022: ACSA staff have identified three phases for this project based on geographic areas. Phase 1 will be the Out of Bounds neighborhood which includes 24 homes. A Request for Quotes is currently being developed by ACSA staff.

**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:	\$520,911

**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.

10/10/2022: Easement acquisition efforts continue; to date 16 of 18 easements required for construction have been obtained.

**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.

8/8/2022: The Deed of Easement from University of Virginia Foundation has been executed and recorded in the Clerk's Office. VDOT has twice been unsuccessful in their advertisement of the Morey Creek Bridge Replacement and is evaluating their next steps.

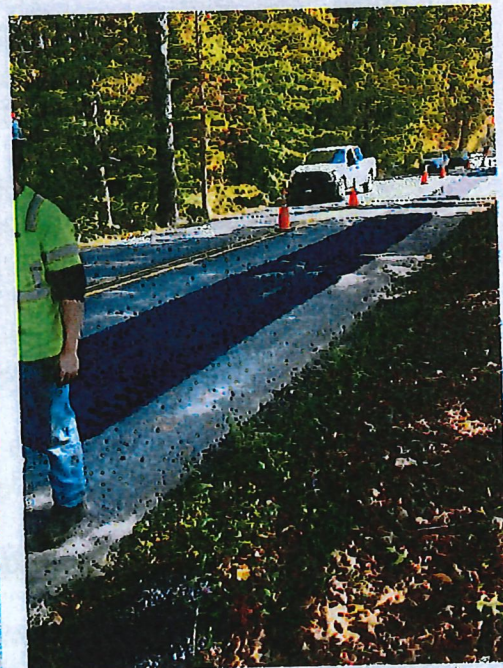


#### h) Jefferson Village Water Main Replacement (Account Code 1747):

Consultant:	Dewberry Engineers, Inc. (Dewberry)
Project Status:	Construction
Percent Complete:	45%
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.

**11/7/2022:** Within the neighborhood, CEI has completed the installation of water mains along Colonial Drive, Madison Court, Monroe Court, and Adams Court. CEI has also installed most of the water main along Proffit Road.



#### 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.

**11/7/2022:** The Letter of Agreement for the additional pavement restoration associated with geotechnical borings has been sent to Ramboll.

**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.

5/10/2022: Comments on the 50% design documents have been returned to Ramboll for the preparation of the 90% design.

**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.

**11/7/2022:** The revised 50% Design Drawings have been provided to the property owner for review and comment. An offer to meet and discuss the plans has been extended to the property owner.

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

Consultant:	Whitman, Requardt & Associates, Inc.
Project Status:	Design
Percent Complete:	90%
Contractor:	Undetermined
Construction Start:	2023
Completion:	2023
Total Budget:	\$792,800
Appropriated Funds:	\$99,820

**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.

**8/8/2022:** 90% Design Documents have been received and they are currently under review by ACSA staff.

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

Consultant:	Michael Baker International, Inc. (Baker)
Project Status:	Design
Percent Complete:	0%
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.

9/7/2022: ACSA staff continues to make efforts to obtain the necessary easements for construction of this replacement sewer. To date, 7 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.

**11/7/2022:** A Work Order under our FY 2022 Miscellaneous Sewer Repair/Replacement Contract was issued to Linco on October 27, 2022. ACSA staff is still awaiting approval from DEQ for the stream disturbance necessary for the project.

**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 Repair/Replacement (Account Code 1905):**

Consultant:	OBG, A Ramboll Company (Ramboll)
Project Status:	Construction
Percent Complete:	Complete
Contractor:	Linco, Inc. (Linco)
Construction Start:	December 2021



Completion:	October 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 make point repairs and undertake pipe replacement, which requires 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:** Linco has completed the point repair of a gravity sewer main in Highlands, which completes Work Order No. 1. Work Order No. 2 has been issued in connection with the Woodbrook Force Main Replacement Project and Work Order No. 3 has been issued in connection with the Biscuit Run Sewer Replacement Project. As these two projects are standalone CIP Projects listed in the CIP Monthly Report, this project will be removed from the list and future updates will be provided under those respective projects.





**r) 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.**

**s) 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.

10/10/2022: Baker has submitted the 50% Design Documents and they are currently under review by ACSA staff.

**t) 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.**

**u) 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:	2022
Completion:	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.

10/10/2022: ECUC has reported receipt of the hatches and cranes necessary for construction. They also reported delivery of the grinders is expected within the next month.

**v) 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.

**11/7/2022: The ACSA has prepared and presented a financial compensation offer to the HOA for their consideration.**

**w) Huntington Village Water Connection (Account Code 1770):**

Consultant:	ACSA Engineering Department
Project Status:	Design
Percent Complete:	90%
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.

10/10/2022: ACSA staff have received a fee proposal for preparation of a Maintenance of Traffic (MOT) plan and have begun preparing the 100% Design Documents.

**x) Briarwood Pump Station Generator (Account Code 1767):**

Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	95%
Contractor:	ACSA Maintenance Department
Construction Start:	October 2021
Completion:	November 2022
Total Budget:	\$54,100
Appropriated Funds:	\$54,100

**Project Description** - This wastewater pump station was constructed in 1995 by private development and didn't include a permanent generator. In an effort to reduce risk and increase resiliency at the station, Maintenance identified the need to install a generator at this site to avoid deployment of one of our portable generators.

**11/7/2022: Generator Services delivered and set the generator on November 2, 2022. ACSA Facilities Group is working to make the final connections and place the generator in service. Minor gate modifications are required to address an issue identified by the County Building Inspector.**







y) **Exclusion Meters Replacement (Account Code 1759):**

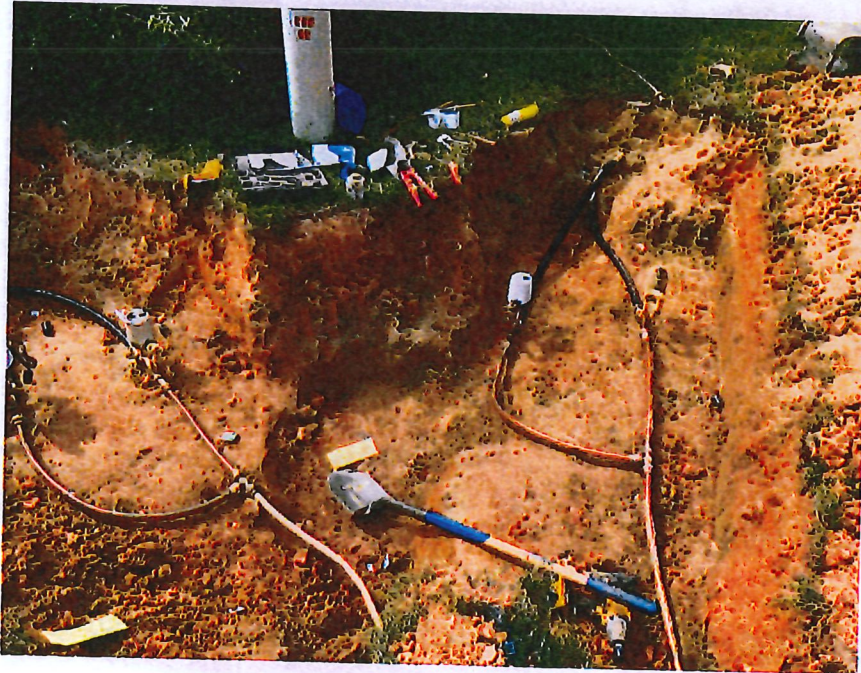
Consultant:	ACSA Engineering Department
Project Status:	Construction
Percent Complete:	29%
Contractor:	ACSA Maintenance Department
Construction Start:	September 2019
Completion:	2024
Total Budget:	\$742,500
Appropriated Funds:	\$247,500

**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.

**11/7/2022: ACSA Maintenance continues to work on exclusion meters in the vicinity of Darby Road (west). There are currently 353 exclusion meters remaining in our system.**



**z) 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.**



**aa) 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: The Preconstruction Conference with M.C. Dean was held on November 2, 2022 and the Notice to Proceed date of November 7, 2022 has been set.**

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**Albemarle County Service Authority (ACSA)**

**CIP Schedule Revisions**  
**November 2022**

1. The design phase of the Energy Audit has been extended to December 2022.
2. The construction phase of the FY 2021 Miscellaneous Sewer Rehabilitation Project has been extended to December 2022.
3. The construction phase of the FY 2022 Miscellaneous Sewer Rehabilitation Project has been extended to January 2023.
4. The construction phase of the Madison Office Park Pump Station Upgrade Project has been extended to November 2023.



Capital Improvement Program							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: November 2022		Acct. #	Percent Growth	PM	2022 Forecast	2023 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



**Albemarle County Service Authority (ACSA)**  
**Active Private Development Projects**  
**November 2022**

- a. Albemarle Business Campus – Block 1 (Scottsville): Water and sewer main extension to serve 128 multi-family units. The site is located to the northeast of the Old Lynchburg Road and Country Green Road intersection.
- b. Albemarle Business Campus – Block 5 (Scottsville): Water and sewer main extension to serve a storage facility and retail spaces between Old Lynchburg Road and Wahoo Way.
- c. Ashcroft Phase 2 Sections 6 & 7 (Rivanna): Water main extension to serve 14 residences. The project is located at the upper end of Summit Ridge Trail.
- d. Berkmar Drive Apartments (Rio): Water and sewer main extensions to serve 10 apartment buildings, totaling 261 units. The project is located along Berkmar Drive, south of the Forest Springs Mobile Home Park.
- e. Boys and Girls Club – Drivers Ed Site (Jack Jouett): Water main extension to serve a new Boys and Girls Club. The project is located southeast of Jack Jouett Middle School.
- f. Brookhill Blocks 9-11 (Rivanna): Water and sewer main extension to serve 85 single family homes in the Brookhill subdivision, located east of Stella Lane between Ashwood Boulevard and Archer Avenue.
- g. 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.
- h. Galaxie Farm Subdivision (Scottsville): Water and sewer main extension to serve 65 residential units. This project is located along Scottsville Road, south of Mountain View Elementary.
- i. Georgetown Hydraulic (Jack Jouett): Water main extension to serve a commercial office building at the intersection of Georgetown Road and Hydraulic Road.
- j. 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.

- k. 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.
- l. Pleasant Green – Phase 2 (white Hall): Water and sewer main extensions to serve 134 residential units. This project is located to the southeast of the Orchard Acres subdivision.
- m. Proffit Road Townhomes South (Rivanna): Water and sewer main extension to serve 31 town home units. This project is located along Proffit Road, south of Martha Jefferson Outpatient Care Center.
- n. PVCC - Advanced Technical Training Center (Scottsville): Water main extension to serve new building on PVCC campus off College Drive.
- o. Regents School of Charlottesville (Samuel Miller): Water and sewer main extension to serve a private school, grades K-12. The site is located west of Trinity Presbyterian Church, along Reservoir Road.
- p. 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.
- q. 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.
- r. 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.
- s. Stonefield Block D1 (Jack Jouett): Water main extension to serve a 220 unit apartment building at the intersection of Inglewood Drive and Bond Street.
- t. Umansky Subaru of Charlottesville – Major Amendment (Rio): Water main relocation to facilitate the proposed building expansion of the Umansky Subaru. The project is located to the east of Walmart, along Hilton Heights Road.
- u. White Gables Major Amendment (Samuel Miller): Water main extension to serve three multi-family condominium buildings, with 30 units each. This site is located to the east of the existing White Gables neighborhood along Old Ivy Road.

# ALBEMARLE COUNTY SERVICE AUTHORITY

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## AGENDA ITEM EXECUTIVE SUMMARY

### CONSENT AGENDA

<b>AGENDA TITLE:</b> ACSA Winter Weather Preparation Guidelines	<b>AGENDA DATE:</b> November 17, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Mike Lynn, Director of Operations	<b>ACTION:</b> Informational
	<b>ATTACHMENTS:</b> Yes

**BACKGROUND:** Fall is here and now is the time to prepare for the winter weather that will soon follow. We are familiar handling events as they happen with minimal resources and assets. The key to our success over the years has been preplanning procedures with a checklist for employees to review and act on.

**DISCUSSION:** October is a good time for us to make sure we have supplies on hand as well as prepare frontline vehicles and equipment for snow and ice. We have two pickup trucks with properly serviced snowplows, backhoes and two snow blowers. New this year is a side-by-side utility vehicle with a snowplow. All this equipment is in place to prepare the parking lot and sidewalks so our employees can report to work to serve our customers. In addition, we use the snow plows to clear our pump station driveways.

During October, our maintenance crews check the snow chains for the large dump trucks. This is also an opportunity for new employees to learn how to install the chains. Batteries and coolant levels in the trucks are also checked during this time. Finally, tires are checked for sufficient tire tread to operate in several inches of snow.

Facilities Supervisor, Billy Defibaugh is responsible for ordering and keeping an adequate supply of ice melt on hand, Billy has established a rotation of eight snow crews made up of Maintenance Department employees. During the winter weather events, he coordinates the parking lot and sidewalk clearing so the ACSA offices can open as quickly as is prudent.

While not common, back-to-back snows may require us to haul snow over to a designated dump site. Significant snows also create issues with snowplows causing access issues to fire hydrants when the streets are cleared.

Routine ACSA assignments are not performed until snow that is covering utility marks can be removed. Maintenance staff is sent out to clear snow around hydrants. Critical customer locations such as nursing homes, medical facilities and schools are the highest priority. High occupancy buildings such as apartment buildings come next and then residential areas.

**BOARD ACTION REQUESTED:** None



## ATTACHMENTS:

### Predictable Cold Weather Addendum:

1. Extreme Cold Weather and Winter Storms issues to prepare for:
  - Pipe breaks throughout the distribution system.
  - Frozen meters and /or service lines.
  - Loss of power and communication lines.
  - Reduced work force due to icy road conditions or debris from downed tree limbs.
  - Road conditions that make access to valves difficult.
  - Work zone hazards from ice causing slippery surfaces for employees and vehicles.
  - Protecting employees from exposure and frostbite issues.
2. Preparation for Extreme Cold Weather and Winter Storms:
  - October all vehicles and equipment will be serviced and prepared for winter weather. Flush radiators and replace antifreeze if not sure of age or condition. Antifreeze should be at the optimum freeze point.
  - Check belts and hoses.
  - Check Batteries (Age and Strength)
  - Check and replace wiper blades as needed.
  - Make sure washer fluid is suitable for optimum freeze point.
  - Tires should be replaced if the vehicle operation will be compromised during a snow event.
  - Chains for trucks inspected and crews will spend time training newer employees on the proper way to install chains. Units #29, #30, #32, #33, #36, #37.
  - Make sure vehicles are equipped with ice scrapers.
  - Fuel additive anti-gel when filling up diesel vehicles and equipment that are stored outside.
  - Check air driers on trucks if equipped and make sure they work and change filters as needed.
  - Check tire pressure weekly to prevent underinflation due to cold weather.
  - Welding trailer will be serviced and checked.
  - Air compressors will be serviced and checked.
  - Tailgate talks and handouts to staff about prevention & first aid for frostbite.
  - Biz Library videos on Driving Winter Weather.

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

### CONSENT AGENDA

#### 3. Facilities Preparation:

- Generators serviced and prepped for winter operations.
- Portable generators and pumps moved to predetermined locations.  
(Scottsville WPS)
- Consider adding fuel additive anti-gel to diesel powered generators.
- Check batteries (Age and Strength)
- Ice melt and abrasives stockpiled.
- Snowplows and salt spreader serviced and readied.
- Identify and mark curbs and other assets that could be damaged or cause damage during snow plowing operations.
- Service snow blower and prep for winter weather.


#### 4. Staffing:

- Operations Supervisors and Manager should drive assigned vehicle to and from work if possible, during predicted weather events. (I am flexible with this if the employee must drive their personal vehicle due to transporting family members.)
- The decision to put additional staff on call during predicted weather events is up to the discretion of the Director of Operations, Operation Supervisors or Facilities Supervisor should ask Director of Operations if they see a need to add additional personnel. Forecasts and conditions will be taken into consideration.
- Should road conditions and weather conditions warrant; authorization to suspend emergency responses will be determined by the Executive Director or his/her designee. Personnel safety is our main priority.
- Should the state or local authorities recommend that people stay at home do not assume that we must also stay at home. We are essential personnel, and we may have no choice to stay home.

# ALBEMARLE COUNTY SERVICE AUTHORITY

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## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Rivanna Water & Sewer Authority (RWSA) Monthly Update <b>STAFF CONTACT(S)/PREPARER:</b> Gary O'Connell, Executive Director 	<b>AGENDA DATE:</b> November 17, 2022 <b>CONSENT AGENDA:</b> Informational <b>ATTACHMENTS:</b> Yes
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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 October 25<sup>th</sup> RWSA Board Meeting and other communications.

RWSA Board Meeting and other Updates and Approvals at the October 25<sup>th</sup> Board Meeting:

- **Approved Additional Engineering Work for Reservoir Pipeline Project:** The Board authorized additional engineering work to complete a greater level of subsurface geotechnical services. This work is part of the design for another leg of the South Fork Rivanna Reservoir to Ragged Mountain Reservoir Raw Water Line from the Birdwood Golf Course to Old Garth Road. These additional soil borings are needed to finalize the CSX railroad permit application for the RWSA plan to install the water line in a casing pipe beneath the railroad track.
- **Rivanna Conservation Alliance (RCA):** Presented their annual water quality in streams monitoring report, as well as discussed their river restoration efforts. Their work is primarily in the Rivanna River watershed, including below the Moores Creek Wastewater Treatment Plan. This section of the river is showing water quality improvement.
- **Major Capital Project Updates:** See the attached report on updates for projects, which represents nearly \$240 million in project costs.

### **RWSA Major Capital Project Updates:**

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

Design Engineer:  
Construction Contractor:  
Construction Start:  
Percent Completion:  
Completion Date:

Short Elliot Hendrickson, Inc. (SEH)  
English Construction Company  
May 2020  
70%  
May 2023



## ALBEMARLE COUNTY SERVICE AUTHORITY

### AGENDA ITEM EXECUTIVE SUMMARY

Base Construction Contract:	\$37,467,169.49
Approved Capital Budget:	\$43,000,000

#### Current Status:

At South Rivanna, improvements to the new Lab/Control Room in the Filter Building and final modifications to various chemical feed processes continues. Work at Observatory includes the new Chemical Storage Building, sedimentation basin improvements, foundation work for the GAC expansion and a large retaining wall. Shutdown of the OBWTP is planned for December – February 2023.

#### History:

The Observatory project will consider the design and costs for upgrading the plant systems to achieve a consistent 7 MGD plant capacity, as well as consider the costs involved with upgrading the plant to 10 or 12 MGD 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:	20%
Completion Date:	December 2023
Base Contract:	\$8,520,312
Budget:	\$10,000,000

#### Current Status:

The initial pipe installation work at the Kohl's site has been completed, more work next spring. Excavation at the pump station is complete and the contractor will begin rebar and concrete work next.

## AGENDA ITEM EXECUTIVE SUMMARY

### 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 (30%)
Construction Start:	2025
Completion:	2028
Current Project Estimate:	\$44,000,000

### Current Status:

Preparation of engineering plans and specifications continues. 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.

### 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

## ALBEMARLE COUNTY SERVICE AUTHORITY

### AGENDA ITEM EXECUTIVE SUMMARY

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.

**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:	85% 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 submitted to the NRCS in August. An NRCS construction grant will be requested for this project.

# ALBEMARLE COUNTY SERVICE AUTHORITY

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## AGENDA ITEM EXECUTIVE SUMMARY

### 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. 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:	55% Design
Construction Start:	2024
Completion:	2028
Budget:	\$7,000,000

### Current Status:

Geotechnical work has begun to determine rock depths for the trenchless crossing under the river parallel to the west side of the Berkmar Bridge and follow Rio Mills Road until it intersects the new 24" water line in Route 29. Easement work has begun.

### 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.



# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

- **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 easements with the UVA Foundation and one final private property owner.

**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 is preparing 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

# ALBEMARLE COUNTY SERVICE AUTHORITY

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## AGENDA ITEM EXECUTIVE SUMMARY

Project Status:	100% (Phase 1) 90% (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:	10% Design
Construction Start:	2024
Completion:	2028
Budget:	\$41,000,000

### Current Status:

Detailed field investigation and design are underway.

### History:

The hydraulic connectivity in the Urban System is less than desired, creating operational challenges and reduced system flexibility and redundancy. Recent efforts

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

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:	50% (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. This work was authorized in early August, with completion scheduled for May 2023.

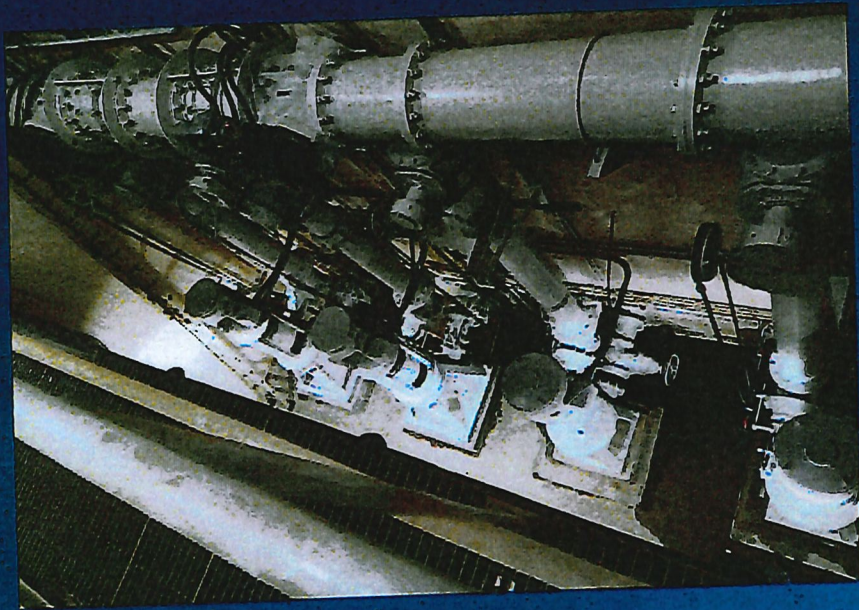
**History:**

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.



# Crozet Wastewater Flow Equalization Tank and Pumping Station Upgrade

- Store wet-weather flow to minimize impact on downstream sewer capacity
- 1 MG Capacity and improvements to existing Crozet Pump Station No. 4
- Completed: October 2020 - October 2022
- Cost: \$5.4M





# Scottsville WTP Lagoon Liners Replacement

- Replacement of liners in both lagoons
- New draining devices, lagoon access walkways and access road improvements
- Completed : May - August 2022
- Cost: \$540,000 (\$350k in ARPA funds from County)





# MC Lighting Improvements

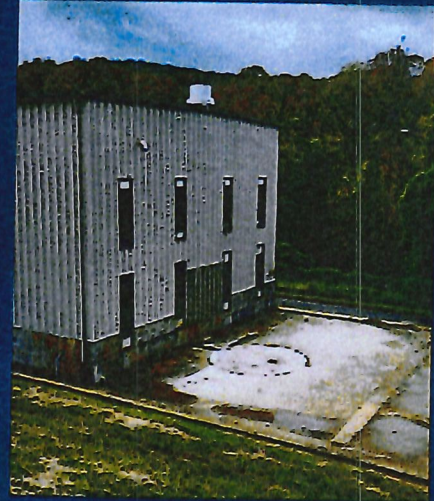
- Updated site lighting to improve safety and meet Albemarle County requirements
- Completed : April 2021 - June 2022
- Cost: \$575,000





# MC Clarifiers and Lime Silo Demolition

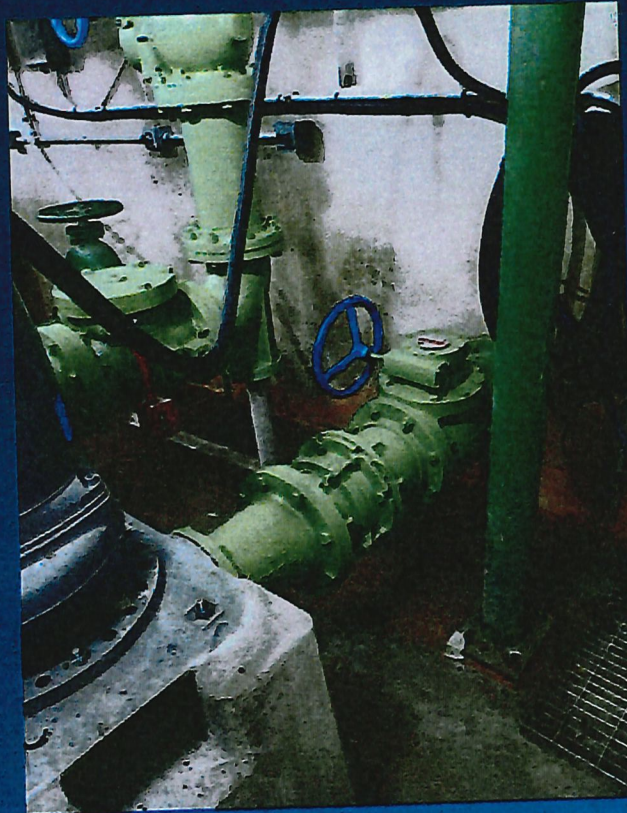
- Demolished 2 clarifiers to remove safety concerns and create space for future plant expansion
- Removed lime silo and the electrical enclosure
- Completed – September 2021 - July 2022
- Cost: \$790,000





# Glenmore WRRF Influent Pump and VFD Addition

- New influent pump and VFD
- New exhaust fan for the wet well
- Completed – September 2021 - September 2022
- Cost: \$370,000





# Observatory and South Rivanna WTPs – Rehabilitation and Expansion Project



- Increases OBWTP capacity from 7.7 to 10 MGD and increases SRWTP reliability at 12 MGD
- Includes plate settlers and new chemical building at OBWTP, new Alum, Fluoride and Admin Buildings + 2 new filters at SRWTP
- OBWTP shutdown this winter (Dec – Feb)
- Completion - May 2020 - May 2023
- Budget \$43M



# Observatory WTP – Rehabilitation and Expansion Project





# Airport Road Pump Station and Piping

- Will reliably connect Piney Mountain and Urban pressure zones
- Will feed the Piney Mountain Tank and will be part of future Airport pressure zone
- Completion – December 2021 - December 2023
- Budget \$10 M





# MC 5kv Electrical System Upgrade

- Replacement of major electrical components that are at the end of their useful lives
- Includes MCCs, transformers, new switchgear building
- Completion: May 2022 – June 2024
- Budget \$5M

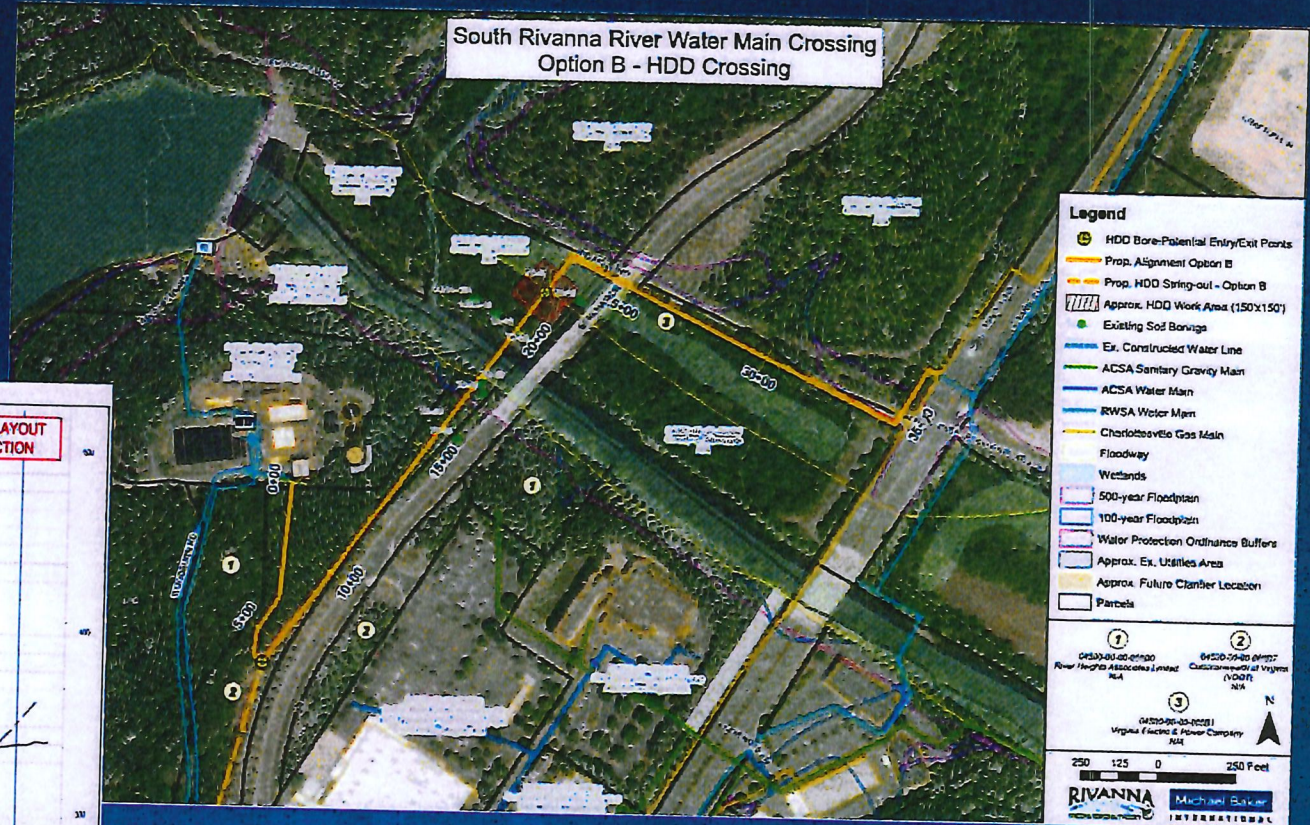
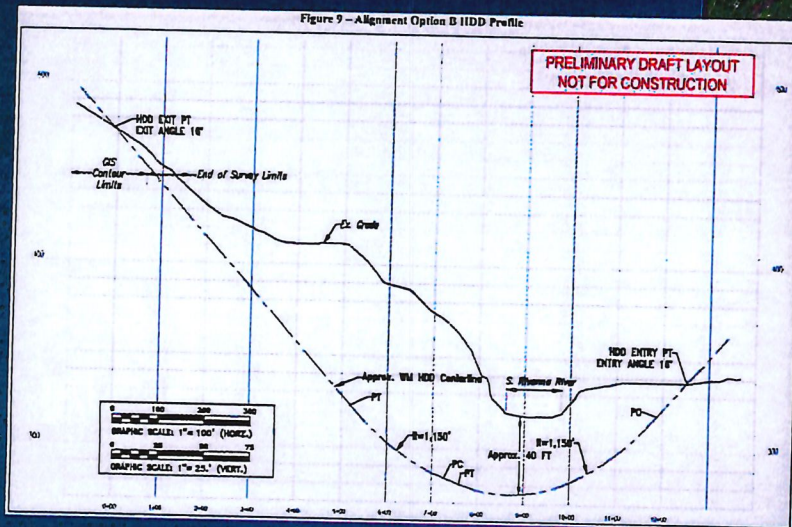




# South Rivanna River Crossing

- Second crossing under the South Rivanna River
- Selected Option B – HDD Crossing
- Completion - 2023 - 2024
- Budget \$7 M

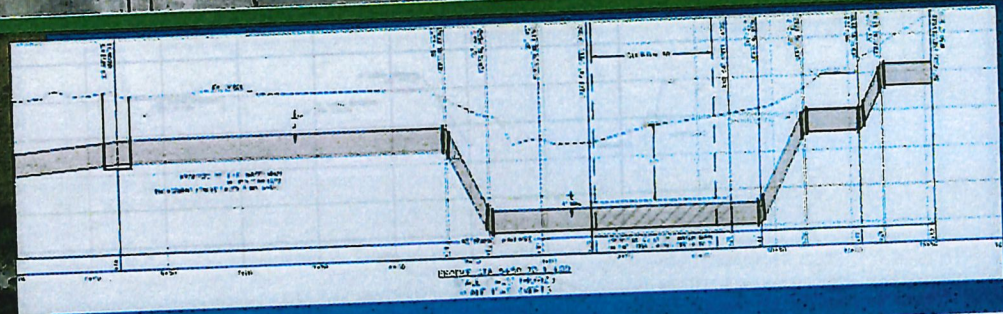
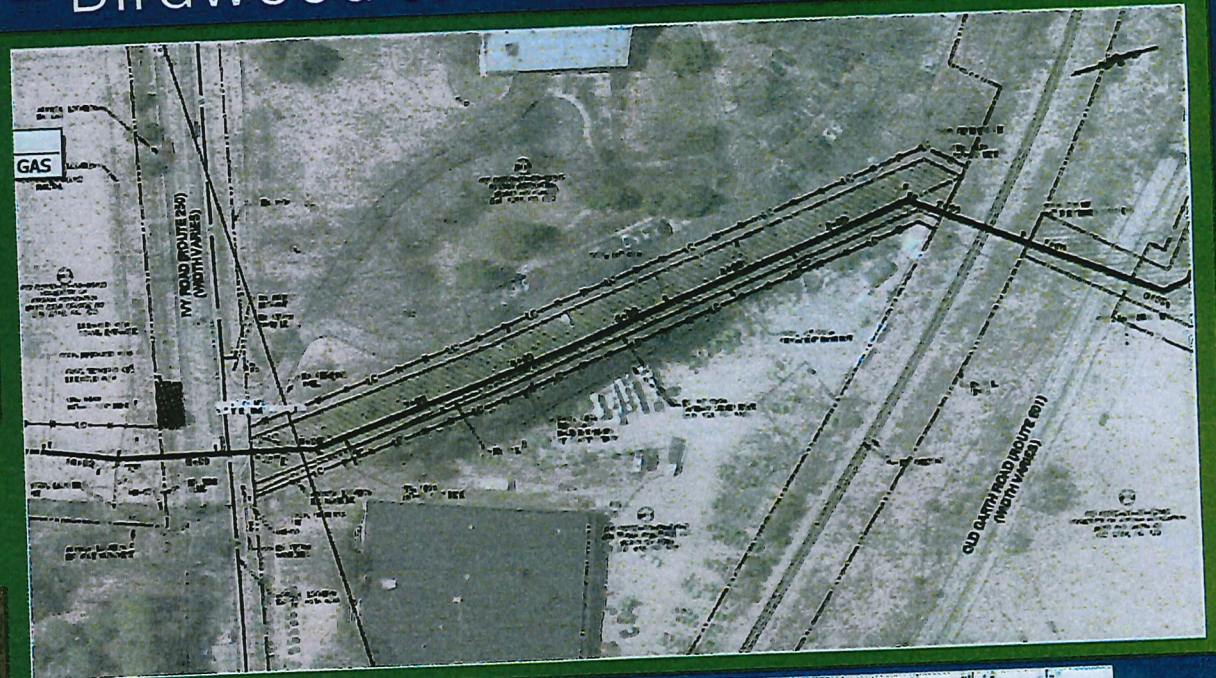
Figure 9 – Alignment Option B HDD Profile





# SRR to RMR – Birdwood to Old Garth

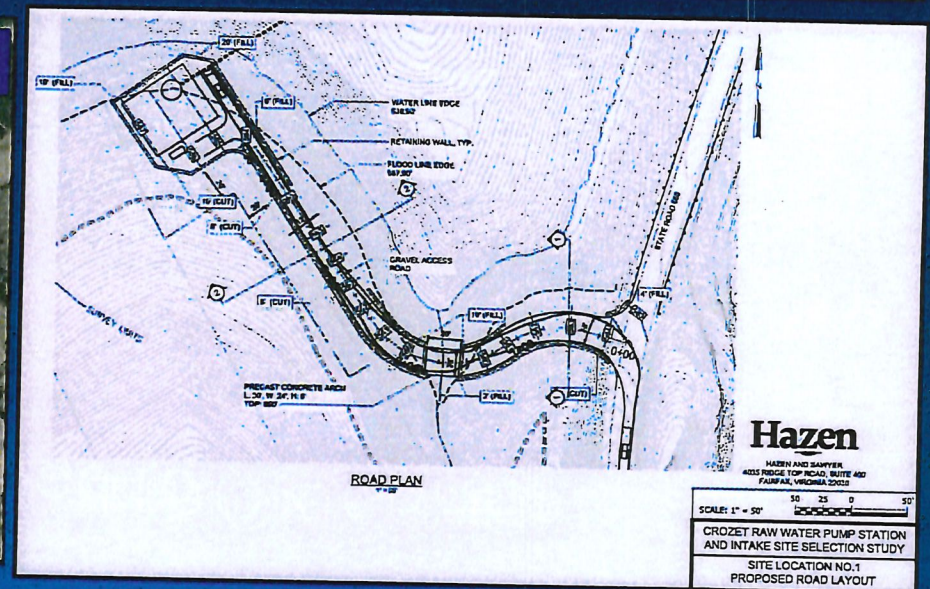
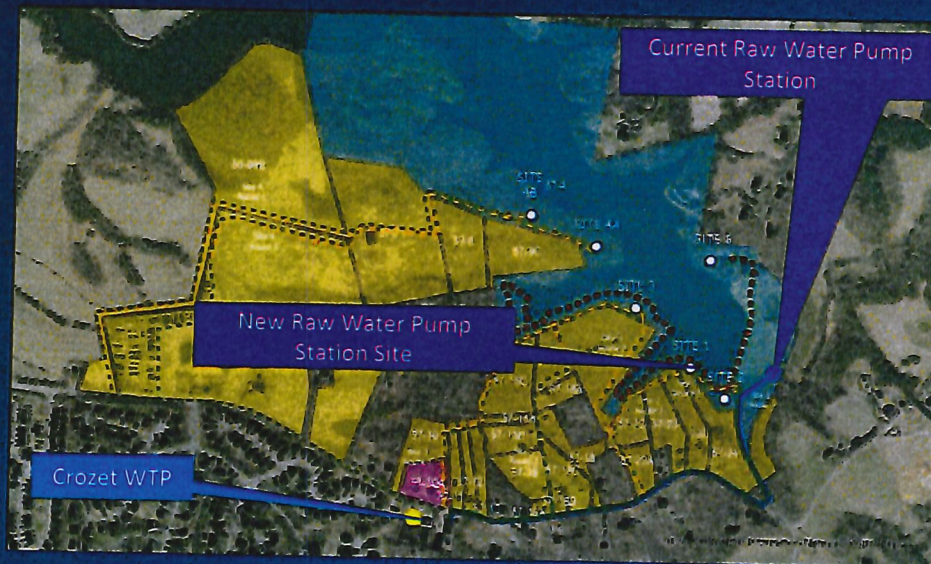
- Installation of a section of the 36" SRR to RMR transfer pipeline to precede private development and avoid costs
- Finalizing easements and permitting
- Completion 2023 - 2024
- Budget \$4 M





# Beaver Creek Dam, Pump Station & Piping Modifications

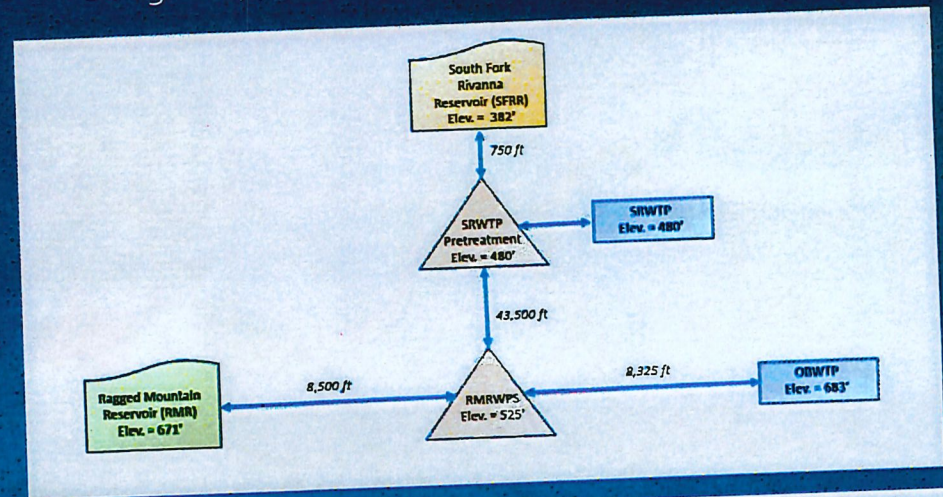
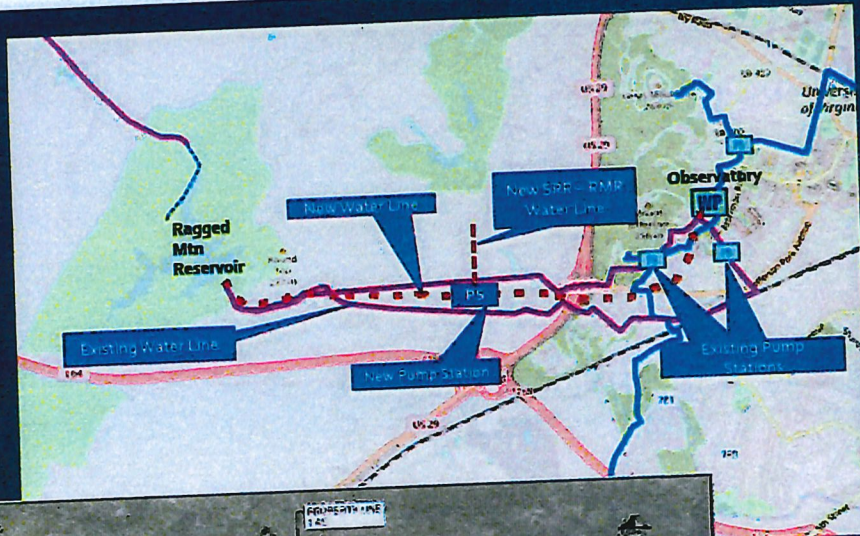
- Upgrade the spillway to meet DCR dam safety standards
- Replace the raw water pump station, intake, and pipe to the Crozet WTP
- Working through NRCS funding process
- Completion 2024 - 2027
- Budget \$43 M





# RMR to OBWTP – Pump Station and Water Line

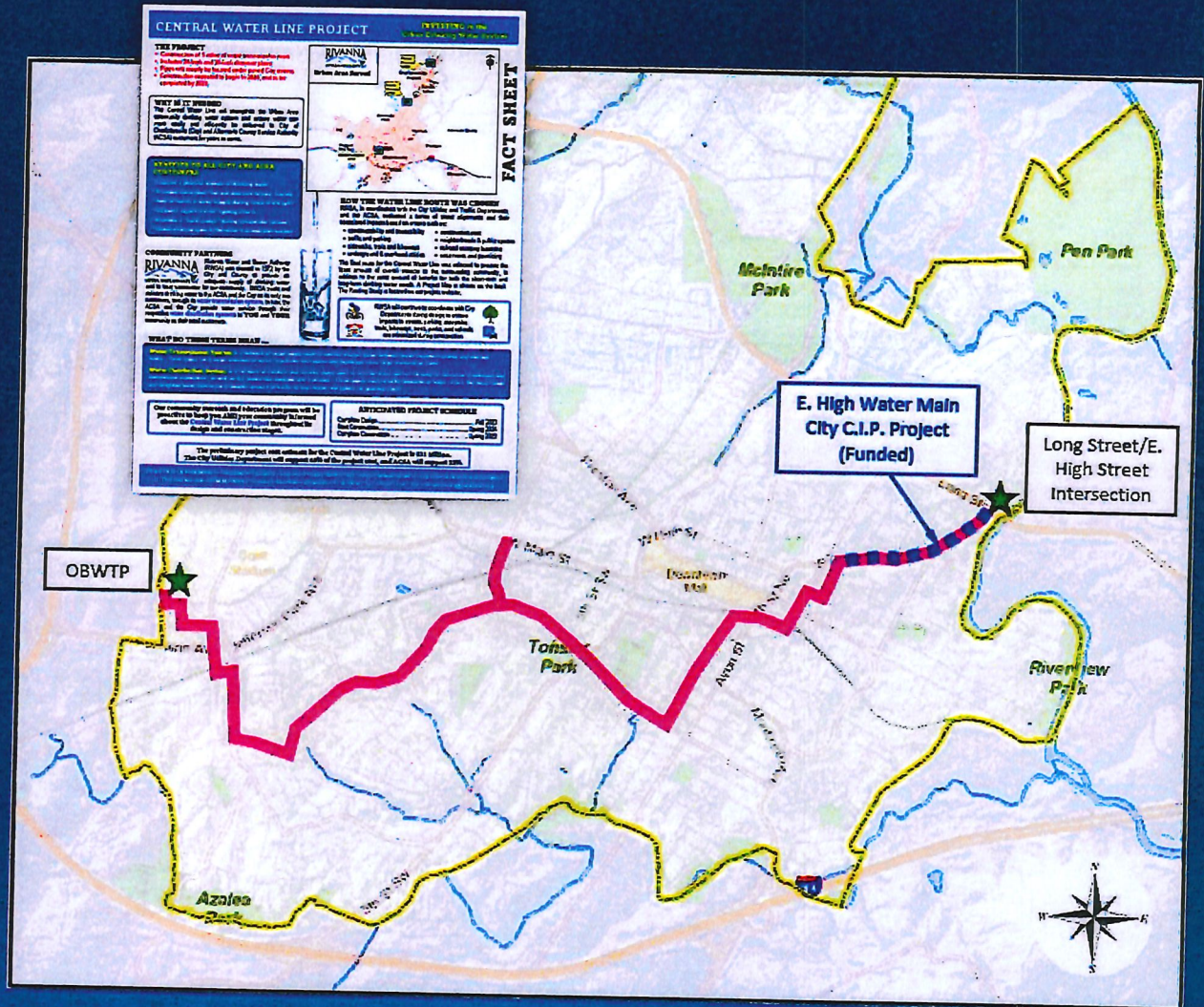
- Improves raw water conveyance capacity to OBWTP
- Replaces outdated infrastructure - 40 and 70 year old pump stations and 70 - 110 year old water lines
- Working through pump station site acquisition with UVAF and final water line easements
- Refining pump station design
- Completion 2025 - 2028
- Budget \$44 M





# Central Water Line

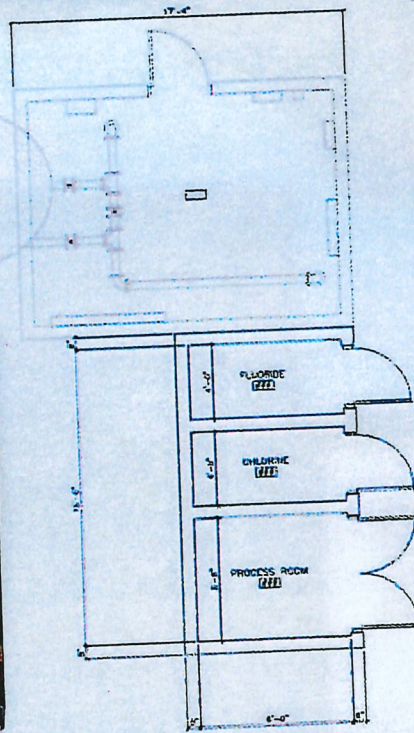
- Improve water flow, pressure, redundancy in Urban System
- Hydraulically connect the OBWTP to our transmission mains in the center and eastern parts of the City
- Selected Alignment #4 – Southern (Cherry)
- Survey work and design are underway
- Completion 2024 - 2028
- Budget \$41 M





# Red Hill WTP Upgrades

- Operated more as a water treatment facility as opposed to a well system
- Will provide for additional chemical storage, monitoring and automation
- Needs assessment completed and design is underway
- Completion 2023
- Budget \$450 k (\$400k in ARPA funding from County)



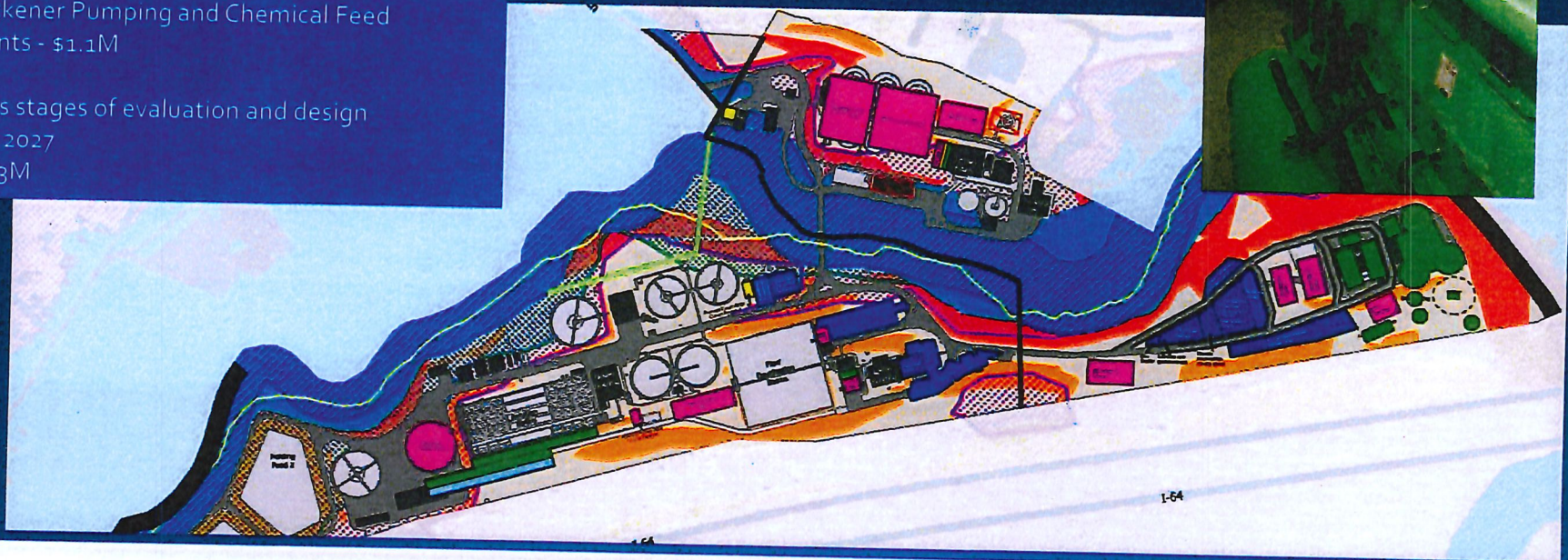
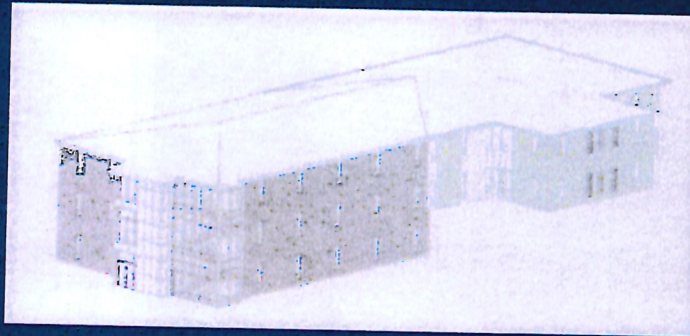
HILL WTP PROPOSED LAYOUT





# Moore's Creek AWWRF – Various Projects

- Engineering and Administration Building - \$10.5M
- Gas Sphere Rehabilitation - \$995k
- Aluminum Slide Gate Replacements - \$1.35M
- Compost Shed Roof Rehabilitation - \$1.5M
- Operations and Maintenance Building Upfits - \$3.4M
- Cogeneration Upgrades - \$2.6M
- Structural Modifications and Miscellaneous Concrete Repair - \$5.05M
- Meter and Valve Replacements - \$775k
- Digester Replacement/Repair - \$4M
- Gravity Thickener Pumping and Chemical Feed Improvements - \$1.1M
- All at various stages of evaluation and design
- Completion 2027
- Budget \$31.3M



1-64



# ACSA Board Future Policy Issues Agendas 2022-2023

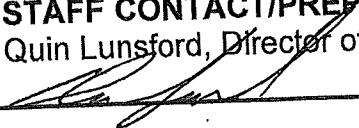
Regular 3rd Thursday Monthly Meetings	Dec. '22	Jan. '23	Feb. '23	March '23	April '23	May '23	June '23	July '23	August '23	Pending Issues
	December 15th	January 19th	February 16th	March 16th	April 20th	May 18th	June 15th	July 20th	August 17th	Water Supply Plan Project Status Reports Water Treatment Plants RWSA CIP Central Water Line
	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	Recognitions	
	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 Authorization	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)
	Operational Presentation - 4 Story Backflow	Operational Presentation-Lead and Copper	Operational Presentation-Training and Biz Library	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation	Operational Presentation	Board Organizational Meeting each January
										Annual Report - January
	Budget Guidelines and Schedule for FY '24 Budget	Board Organizational Meeting	PAFR (Popular Annual Financial Report) Presentation	Proposed CIP Presentation	Proposed Capital Improvements Program (CIP) FY '24 Presentation	Proposed FY 2024 Budget and Rates Workshop	Public Hearing on Proposed FY '24 Budget, Rates and CIP	Strategic Plan Update	Year-End Appropriations	Water Audit and Energy Audit
	Annual Investment Report	ACSA Annual Report 2022	Security Assessment Updates; IT Report	AMI Update	Public Hearing on Proposed FY '24 Capital Improvements Program (CIP)		Adoption of Proposed FY '24 Budget, Rates and CIP			Strategic Plan Updates-2023-2025 January and July
	Recognition for Jim Bowling	Strategic Plan Updated 2020-2022 Final Report	New Strategic Plan Draft 2023-2025		Proposed FY '24 Budget and Rates Overview Presentation		Amendments to Personnel Management Plan			Annual Water Conservation Report - January
	New Attorney Appointment	Annual Water Conservation Report (Consent Agenda)	Customer Experience Report		Resolution Scheduling Budget and Rates Public Hearing for June 15, 2023					National Drinking Water Week-April Imagine a Day Without Water - September
	Recognition for Calvin Underwood		Best Practices Review Panel - Report		National Drinking Water Week Resolution					AMI Updates - Customer Portal Video
			Update on Customer Late Payments							Federal/State Water Quality Regulations
										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						Strategic Plan Update	
									Purchasing Policy Revisions	
										11/17/2022



# ALBEMARLE COUNTY SERVICE AUTHORITY

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## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Advanced Metering Infrastructure (AMI) Monthly Update  <b>STAFF CONTACT/PREPARER:</b> Quin Lunsford, Director of Finance 	<b>AGENDA DATE:</b> November 17, 2022  <b>ACTION:</b> Informational  <b>ATTACHMENTS:</b> No
---	---

**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:

- We continue to monitor meters that have been deployed and are notifying customers daily of irregular consumption/leaks. Feedback from customers continues to be extremely positive.
- Our contractor continues to replace meter registers on a small number of meters that have been identified as having potential defects that increase the likelihood of meter failure. We expect approximately 50 meters to be repaired out of the total 270 meters with the manufacturing defect in November. The remainder will be replaced as replacement registers are received.

**BUDGET IMPACT:** Informational only.

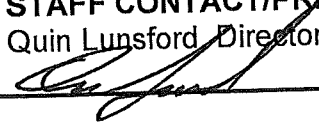
**RECOMMENDATIONS:** None

**BOARD ACTION REQUESTED:** None; informational item only.

**ATTACHMENTS:** N/A

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Annual Comprehensive Financial Report - Fiscal Year 2022  <b>STAFF CONTACT/PREPARER:</b> Quin Lunsford, Director of Finance 	<b>AGENDA DATE:</b> November 17, 2022  <b>ACTION:</b> Informational  <b>ATTACHMENTS:</b> Yes
--	--

**BACKGROUND:** The Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022, is complete and has been provided for Board review. The Authority's auditor, Brown Edwards, LLP will present their audit opinion and report on internal control over financial reporting and other matters based on an audit of financial statements. The Finance Department will provide a PowerPoint presentation to summarize financial and operational highlights from the fiscal year.

**DISCUSSION:** Over the past four months, staff has accumulated, analyzed, and prepared financial and operational records in conjunction with year-end requirements. The accumulation of this information culminates with the financial statement audit performed by the ACSA's independent auditor, Brown, Edwards & Company, L.L.P. Finance Department staff, with information and assistance from the Administration, Engineering, IT and Maintenance Departments, compiles the audited financial information into an Annual Comprehensive Financial Report. A presentation has been prepared to assist the Board in further understanding major components of the Report and other highlights from Fiscal Year 2022.

Additionally, the Authority and Brown Edwards staff met with the Authority's Audit Committee on November 8<sup>th</sup> to review information related to the audit and financial highlights for Fiscal Year 2022.

**RECOMMENDATIONS:** None

**BOARD ACTION REQUESTED:** None

**ATTACHMENTS:**

1. Fiscal Year 2022, Annual Comprehensive Financial Report PowerPoint presentation.
2. Albemarle County Service Authority Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2022.





Charlottesville, Virginia



**ANNUAL COMPREHENSIVE FINANCIAL REPORT**  
For The Fiscal Year Ended June 30, 2022



# AGENDA



Annual Financial Report  
Overview



Fiscal Year 2022 financial  
highlights



Operating Information



Summary



# Annual Comprehensive Financial Report Team

- Special thanks to:
  - Maintenance:
    - Mike Lynn, Calvin Underwood, and Roland Bega for operational information
  - Information Technology
    - April Walker, Brendan Ganz, and Justin Ray for support of financial software applications and operational information
  - Administration
    - Emily Roach and Danielle Trent for their contributions and ongoing collaboration within the financial module
  - Engineering
    - Jeremy Lynn, Alexander Morrison, Justin Weiler and Richard Nelson for financial and operational information
  - Finance
    - Terri Knight and Elizabeth Wallace for ongoing financial and operational information
    - Deanna Davenport, Tonya Foster, Jennifer Bryant, and Theresa Whiting for preparation and compilation of the Annual Financial Report and administration of the annual financial statement audit

# COMPONENTS OF THE ANNUAL FINANCIAL REPORT





# Financial Highlights

- Increase in net position of \$8,128,512 or an increase over beginning fiscal year net position or 3.8%
- Operating Income (before depreciation exp.)
  - FY 2022 -- \$ 1,761,423
  - FY 2021 -- \$ 1,320,833
  - FY 2020 -- \$ 2,733,184
  - FY 2019 -- \$ 1,179,680
  - FY 2018 -- \$ 4,091,411

# Financial Highlights

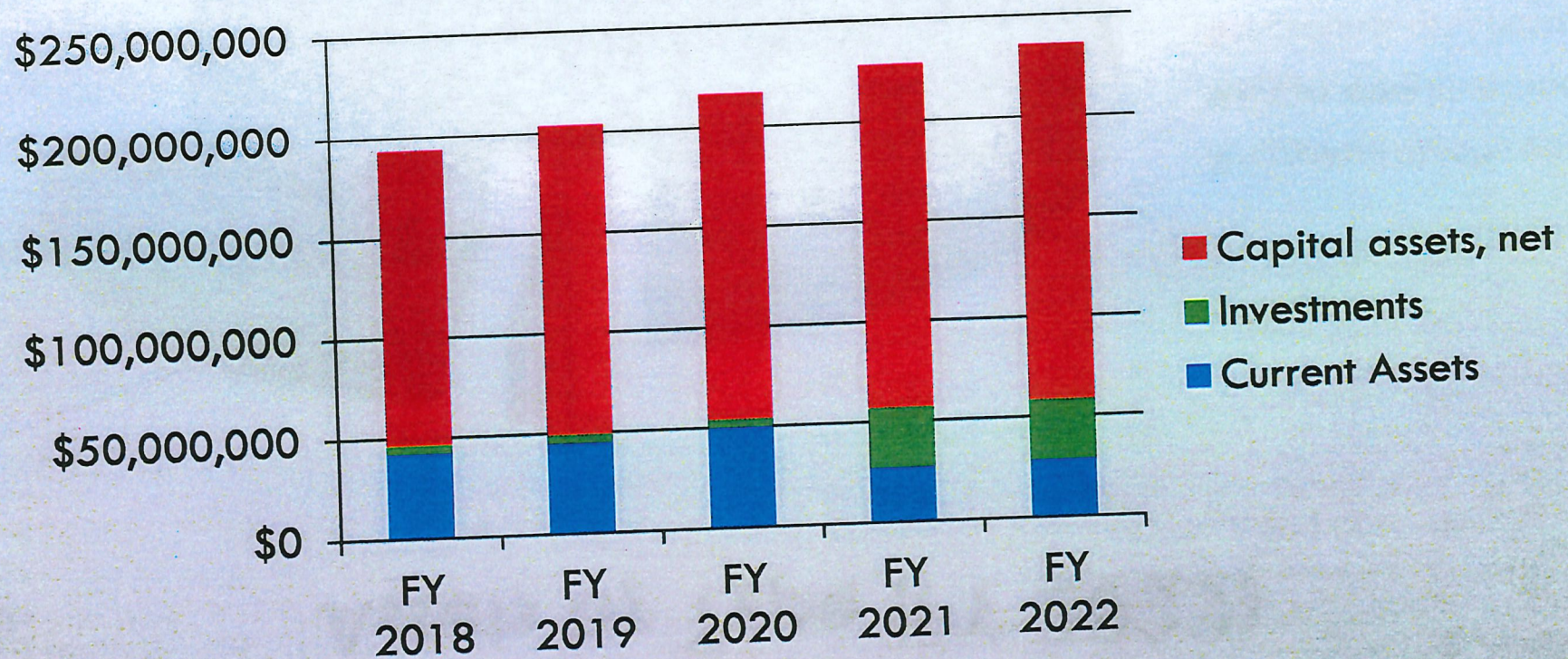
Operating revenues increased by \$2,931,736 or 9.8% in comparison to fiscal year 2021.

Operating expenses (including depreciation expense) increased by \$2,706,978 or 8.3% in comparison to fiscal year 2021.

Capital contributions decreased by \$2,787,734 or 19.8% in comparison to fiscal year 2021.

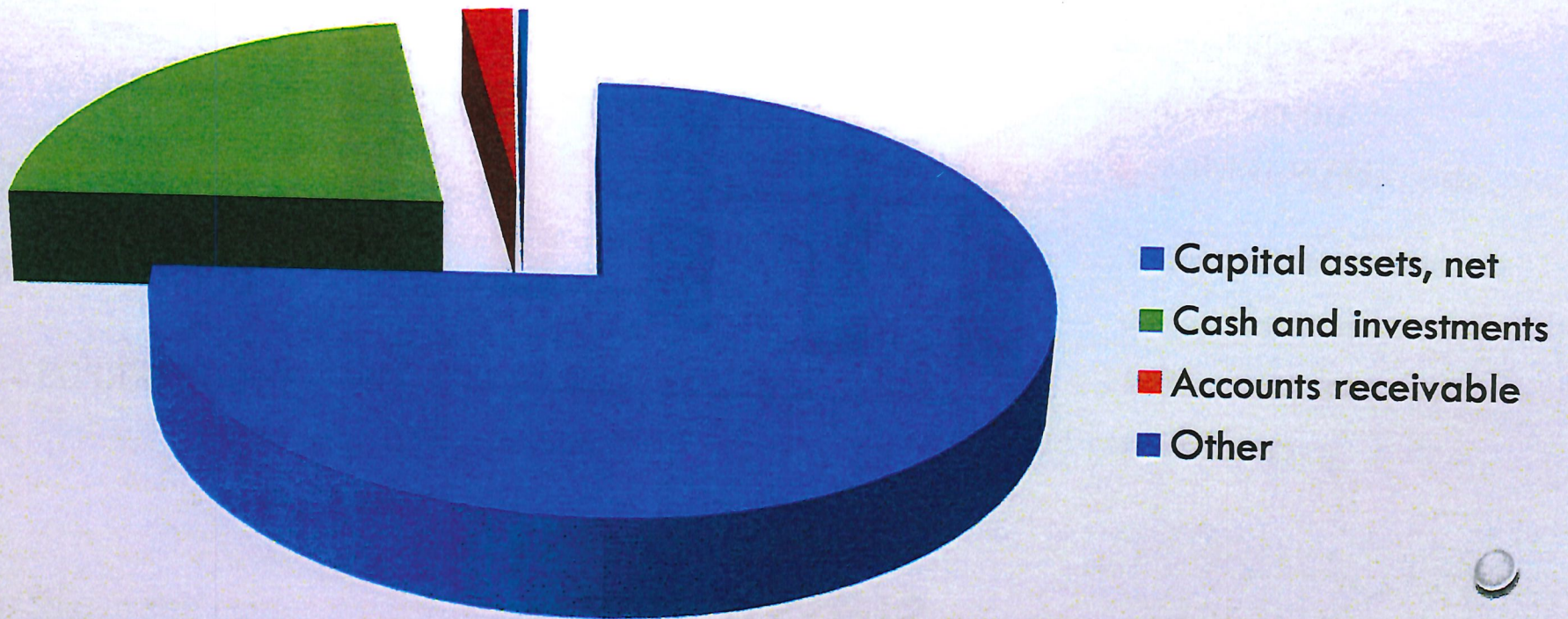


# Total Assets



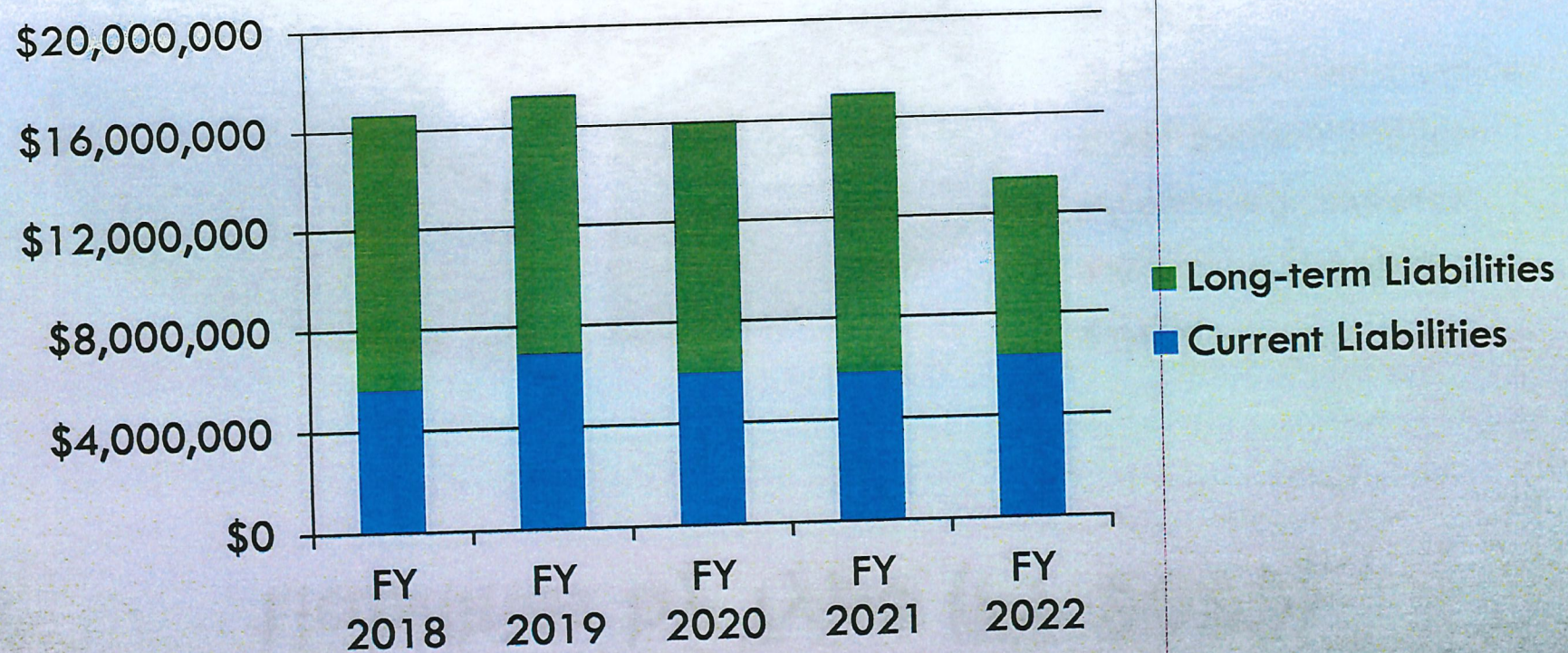


## Assets by Type (FY 2022)



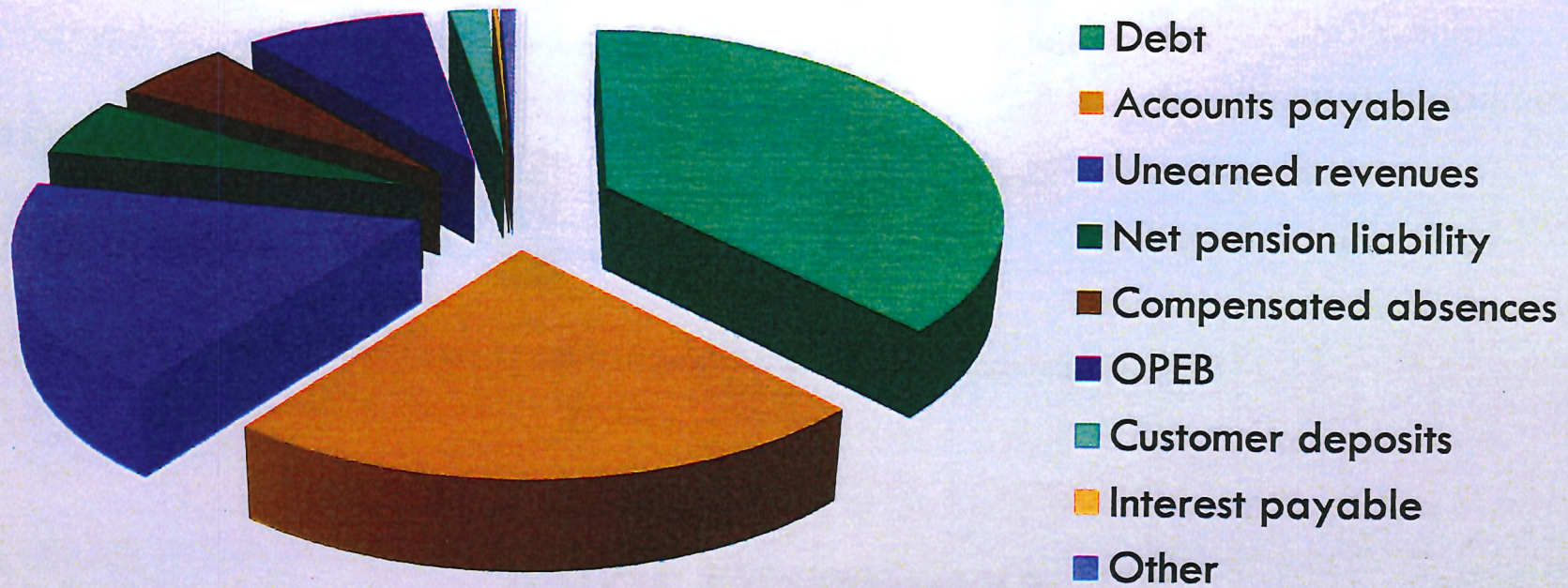


# Total Liabilities



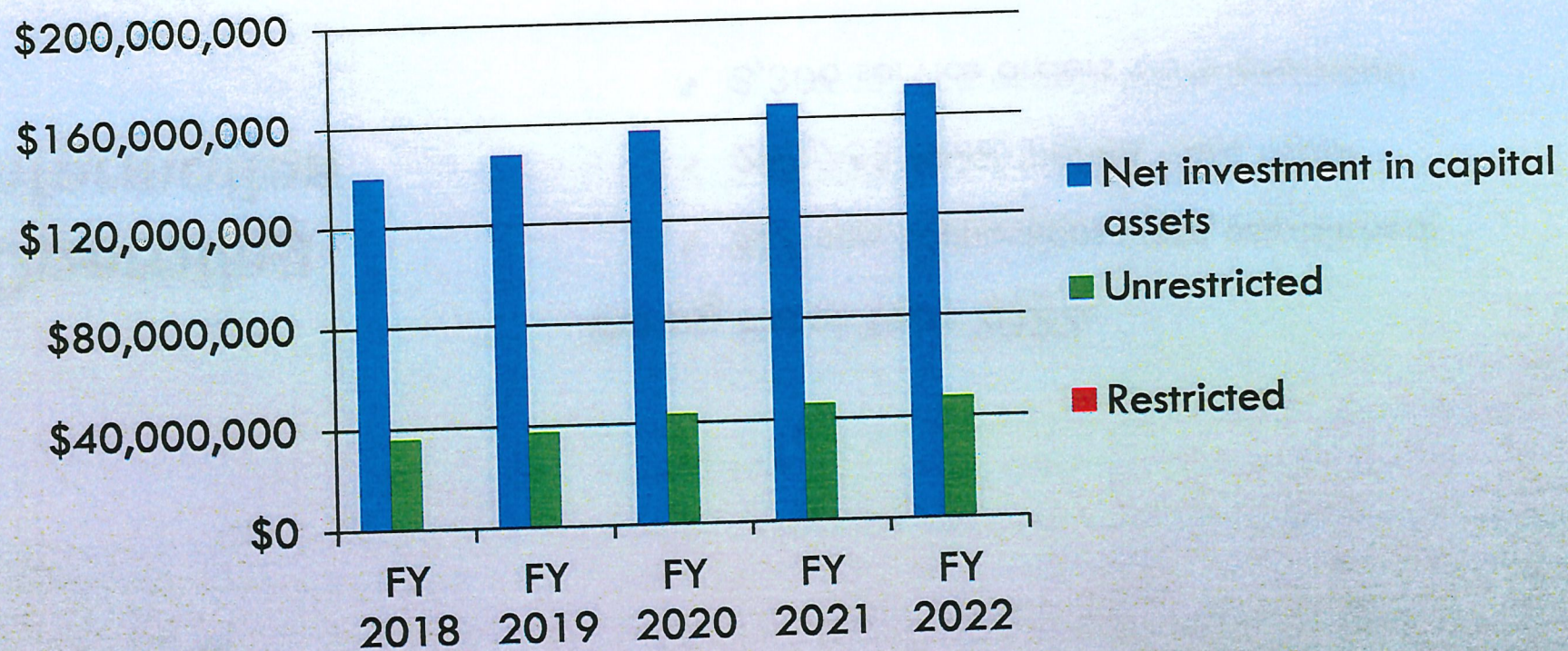


## Liabilities by Type (FY 2022)





# Net Position



## Operating Information

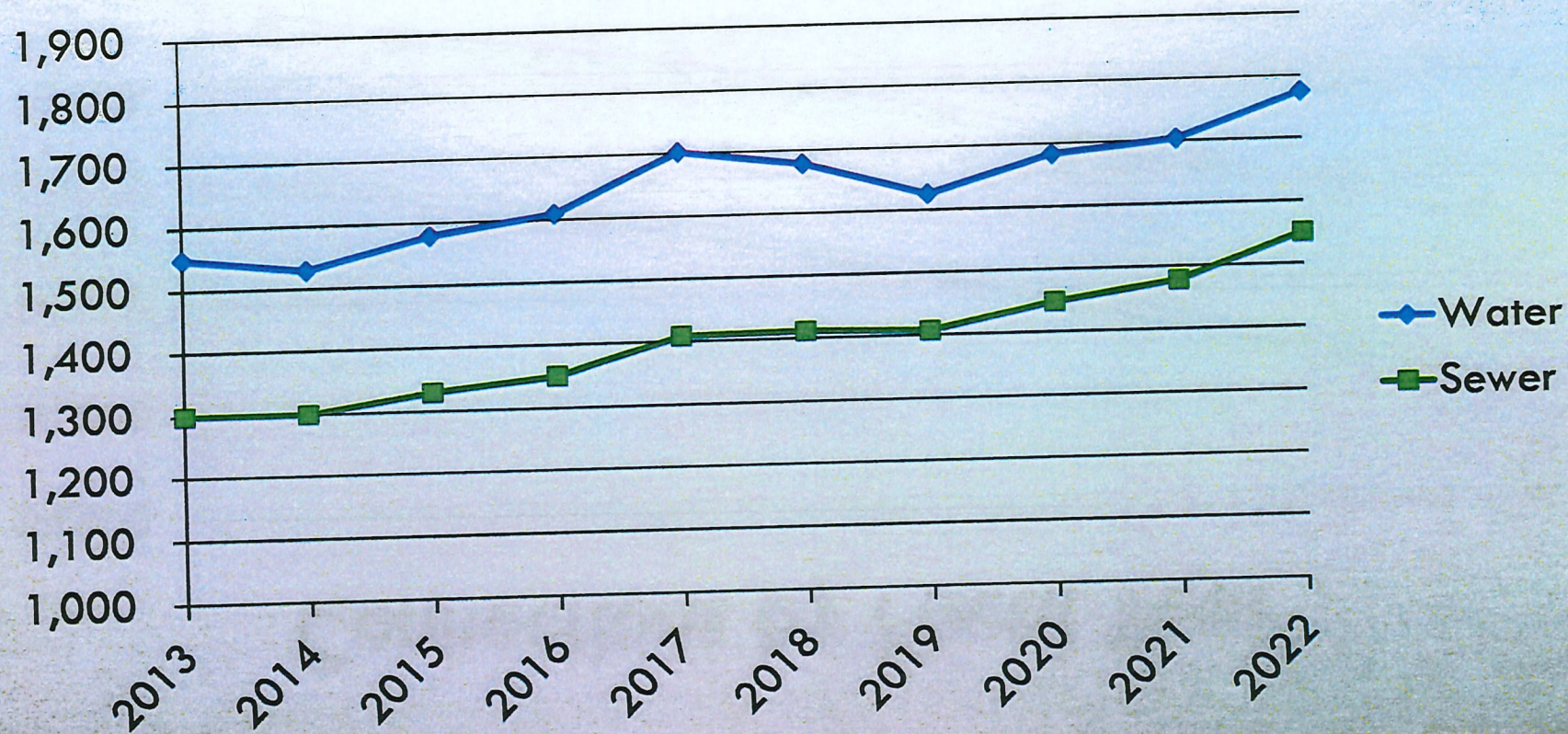
During Fiscal Year 2022:

- 357 new connections were established
- 265,753 water meters were read
- 8,306 service orders were processed



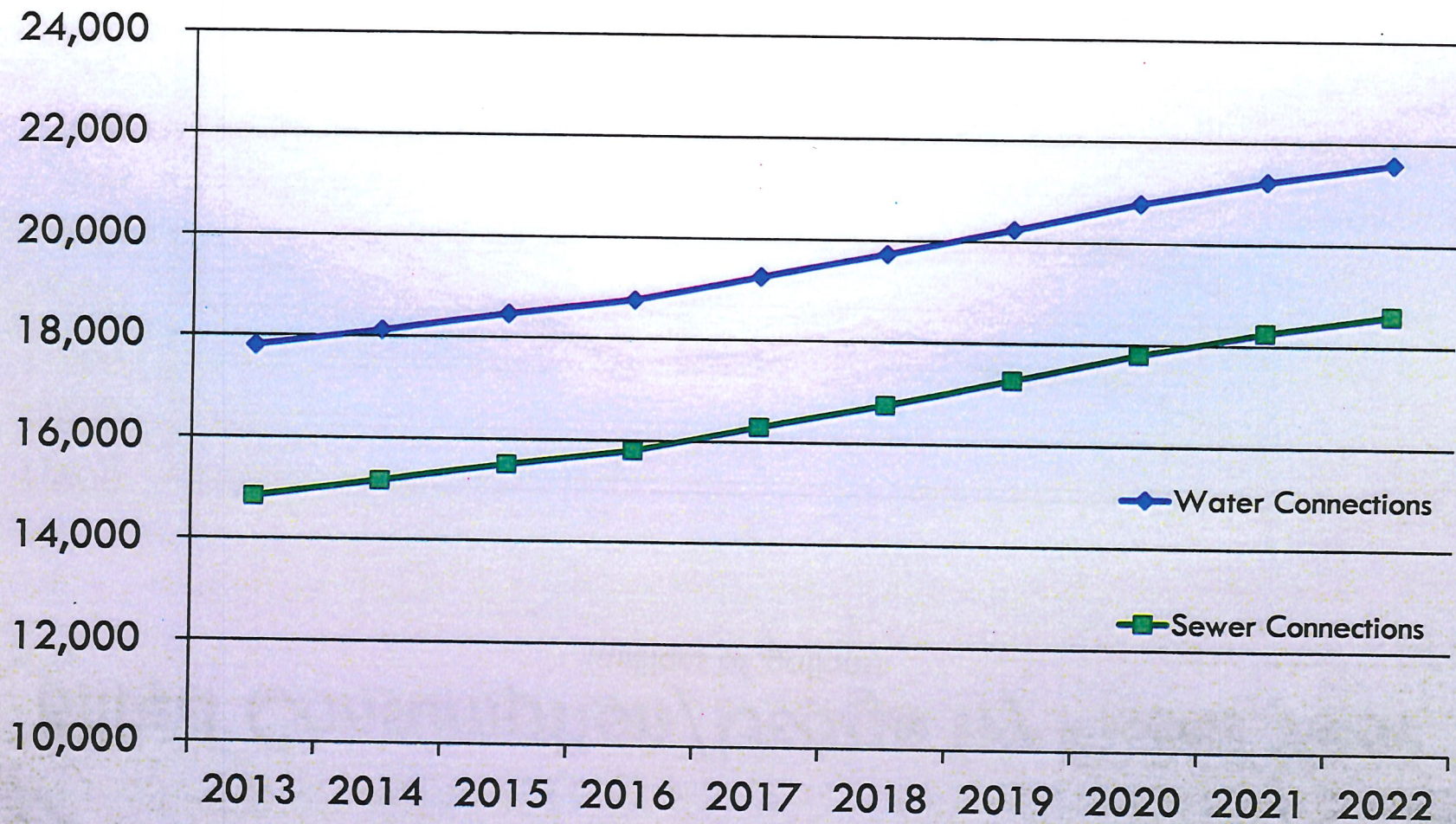
# Billed Consumption/Usage by Fiscal Year

(millions of gallons)





# Connections by Fiscal Year





## In Summary

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Even with impacts from COVID-19, the ACSA had a solid financial year, increasing net position by nearly 4%.

---

Operating revenues increased \$2,932,000 from FY 2021.

---

Capital contributions decreased by \$2,788,000 compared to FY 2021.

---

Operating expenses increased \$2,707,000 from FY 2021.

---





Charlottesville, Virginia

A large, dark, grainy photograph showing a landscape at night. A body of water, likely a lake or reservoir, is illuminated from below, creating a bright, glowing effect. The surrounding hills and forests are dark and silhouetted against the night sky. The overall tone is dark and atmospheric.

# **ANNUAL COMPREHENSIVE FINANCIAL REPORT**

**For The Fiscal Year Ended June 30, 2022**



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**ANNUAL COMPREHENSIVE FINANCIAL REPORT**  
**For the Fiscal Year Ended June 30, 2022**

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**CHARLOTTESVILLE, VIRGINIA**  
**ANNUAL COMPREHENSIVE FINANCIAL REPORT**

*For the Fiscal Year Ended  
June 30, 2022*

Prepared by:  
Department of Finance  
168 Spotnap Road  
Charlottesville, Virginia 22911  
(434) 977-4511



## ALBEMARLE COUNTY SERVICE AUTHORITY

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## **INTRODUCTORY SECTION**

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November 2, 2022

Board of Directors  
Albemarle County Service Authority  
Charlottesville, Virginia

Ladies and Gentlemen:

The Annual Comprehensive Financial Report of the Albemarle County Service Authority (Authority) is submitted herewith. With such modifications as apply to our status as an enterprise fund of governmental units, and as an independently chartered corporation, this report has been prepared in conformity with the reporting and accounting standards promulgated by the Governmental Accounting Standards Board (GASB) and the Government Finance Officers Association's (GFOA) *Governmental Accounting, Auditing, and Financial Reporting*.

Based upon a comprehensive framework of internal control that has been established for this purpose, the Authority management assumes full responsibility for the accuracy of the data and for the completeness and reliability of the information contained in this report. The information in this report is believed by Authority management to be sufficient to fully represent the financial result of the Authority's operations for the year ended June 30, 2022, and to provide an accurate and useful picture of the Authority's status as of that date.

State law and outstanding bond resolutions require an annual audit of the books and records of the Authority. This requirement has been satisfied by the engagement of independent certified public accountants, Brown, Edwards and Company, LLP, whose opinion is located at the front of the financial section of this report.

Management's discussion and analysis (MD&A), which provides a narrative introduction, overview, and analysis of the basic financial statements immediately follows the independent auditor's report. The MD&A complements this letter of transmittal and should be read in conjunction with it.

### ***Organization and Function***

Located in central Virginia, 100 miles southwest of Washington, DC and less than 65 miles west of Richmond, the Authority was established in 1964, pursuant to the *Virginia Water and Waste Authorities Act*, to provide water and sewer service to those jurisdictional areas in the County of Albemarle (County) designated by the County's Board of Supervisors. The current service areas include the urbanized ring around the City of Charlottesville (City), the communities of



### ***Organization and Function (continued)***

Crozet and Scottsville, Red Hill, and the Village of Rivanna. A six-member Board of Directors, appointed by the Albemarle County Board of Supervisors for renewable four-year terms, appoints the Executive Director and governs Authority operations and policies. We have determined, after an examination of the factors involved in the Governmental Accounting Standards Board's definition of "component unit" for financial reporting purposes, that we are not a component unit of the Albemarle County and will not be included in their financial report. Justification for this decision is outlined in Note 1 to the financial statements.

In June 1973, the Authority and the City entered into a Service Agreement with the Rivanna Water and Sewer Authority (RWSA), which wholesales finished water and sewer treatment services to the Authority and to the City. In 1975, the Authority purchased from the City the facilities to serve all current water and sewer customers outside the City limits; since then, it has been the sole public retailer of these services in the County.

In addition to retailing finished water distribution and sewer collection services, the Authority constructs pumping stations and line extensions; purchases, connects to the system, and upgrades private water systems; installs water supply and sewage collector systems; inspects water delivery and sanitary sewage systems installed and contributed to it by developers; and maintains these constructed and contributed facilities.

### ***Economic Conditions***

In the Albemarle Community Profile<sup>(1)</sup> most recent update, the Virginia Employment Commission's Economic Information Services Division (VEC) reported a decrease in the County's 2022 unemployment rate of 2.8% as compared to Virginia 3.0% and to the Country 3.8% as a whole with the decrease driven by the continued recovery from COVID-19 pandemic. The total number of jobs in Albemarle County was 53,639. The relative stability of the local economy is attributed to positive trends in the unemployment rate compared to State and National percentages. The housing market weakened compared to last year, with home sales decreasing 16% compared to a year earlier, while median home sale prices were up 11% from one year ago<sup>(2)</sup>.

Residential and commercial growth within the Authority's Urban and Crozet service areas remains robust. New connections to the Authority's system remain strong despite impacts from the COVID-19 Pandemic (2020 – 535 connections, 2021 – 451 connections, 2022 – 357 connections), with a three-year average of 450 new connections<sup>(3)</sup>.

<sup>(1)</sup> Virginia Community Profile – Albemarle County, Virginia Employment Commission, updated October 2, 2021;

<sup>(2)</sup> CAAR (Charlottesville Area Association of REALTORS) 2022 2<sup>nd</sup> Quarter and Mid-Year Market Report

<sup>(3)</sup> Albemarle County Service Authority Annual Financial Report 2018, 2019, 2020, Table 11

### ***Economic Conditions (continued)***

Like many other utilities across the State and Country, the Authority prepared for potential impacts from the COVID-19 pandemic both from an operational and financial perspective. Emergency response plans were enacted to ensure our customers continued to receive safe reliable water and wastewater services while mitigating the risk of virus contraction within the community. Similarly, proactive measures to ensure financial viability into the future were made to ensure the Authority remained financially viable.

### ***Major Initiatives and Accomplishments***

- ◆ Developed an operating and capital improvement budget for fiscal year 2022 that aligned with our strategic plan and considered current and future impacts of the COVID-19 pandemic. To that end, our goals were 1) to meet anticipated operating and capital improvement expenses by modestly increasing water and sewer volume charges, and to ensure that current operating expenses will be paid with current operating revenues; 2) to keep customer buy-in and connection charges constant while maintaining our policy of "growth paying for growth;" and 3) to maintain, improve, and extend system infrastructure through capital investments.
- ◆ The Authority proactively manages its investment in infrastructure with many projects in various stages of completion. Major capital improvement projects completed during the fiscal year include:
  - Re-paving of the ACSA's administrative complex and pump stations
  - Enterprise Resource Planning (ERP) financial system deployment
  - Sewer-line replacement/repair
- ◆ Future projects of the Authority include deployment of an automated metering infrastructure (AMI) system to benefit Authority customers; a computerized maintenance management system (CMMS) which will automate and enhance the Authority's ability to manage operating and maintenance responsibilities; continued addition to system redundancy and renewal; and a facility master plan.

### ***Operations***

For Fiscal Year 2022, Operating Revenues (\$32,956,463) from water and sewer sales and service connection fees increased by 9.8% as compared to Fiscal Year 2021. Associated operating expenses (\$35,309,116) reflected an increase of 8.3% as compared to Fiscal Year 2021, primarily driven by an increase in water/sewer treatment expenses from the Rivanna Water and Sewer Authority and departmental increases.

Unlike the revenues derived from customer buy-in and connection fees, the difference in projected and actual operating revenues and expenses is more predictable except for treatment plant charges. While weather conditions can play a large role in discretionary use of water,



### ***Operations (continued)***

such as irrigation usage, domestic usage is typically more predictable. Actual water, sewer and service charge revenues increased in comparison to the prior fiscal year as both consumption and rates increased. Please refer to Page 14 for detailed information related to operating and non-operating revenues and expenses.

### ***Accounting, Budgetary Controls, and Long-term Financial Planning***

The Authority's management is responsible for establishing and maintaining a system of internal accounting controls. The objectives of internal controls are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and financial records for preparing financial statements and maintaining asset accountability are reliable. The concept of reasonable assurance recognizes that estimates and judgements made by management are required to assess the expected benefits and related costs of internal accounting control procedures and that the cost of the control should not exceed the benefits likely to be derived. Management reviews internal controls on a continuing basis.

The Authority is required by Trust Agreements for its Bond to prepare and adopt an annual operating budget. On a fiscal year basis, department heads prepare preliminary operating budgets and submit them to the Executive Director for consideration. Rates are established based upon required revenue projections and associated costs, which include operating expenses, debt service, capital projects, and reserves. An adequate operating reserve is important to furnish funds for unplanned minor or significant repairs; it can also be utilized during unusually wet years, when anticipated revenues are reduced due to lesser than anticipated consumption levels. An adequate repair, replacement, and rehabilitation reserve (3R) is important to furnish funds for unexpected major repairs, as well as planned replacement or rehabilitation of equipment or other major capital assets. The Executive Director submits a proposed budget and rate recommendation to the Board of Directors for adoption.

After adoption, increases or decreases to the budget are made only upon Board approval, and the budget lapses at the end of the fiscal year for all accounts except multi-year construction projects and specific re-appropriations for funds committed at year-end for which goods and/or services have not been received. Department heads and the Board of Directors receive monthly reports on revenues and expenses.

### ***Awards and Acknowledgements***

Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Albemarle County Service Authority for its comprehensive annual financial report for the fiscal year ended June 30, 2021. This was the thirty-ninth consecutive year that the Authority has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an

***Awards and Acknowledgements (continued)***

easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

The preparation of this report would not have been possible without the help of the Authority staff and the Leadership and Management team at the ACSA; their dedication is very much appreciated. We would like to especially express our gratitude and appreciation to Ms. Deanna Davenport, Ms. Tonya Foster, Ms. Jennifer Bryant, and Ms. Theresa Whiting who have each made significant contributions to the Annual Comprehensive Financial Report, and to the Board of Directors for their interest in, and support of, the Authority's pursuit of financial reporting excellence.

Sincerely,

Gary B. O'Connell  
Executive Director

Quin G Lunsford  
Director of Finance





Government Finance Officers Association

**Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting**

Presented to

**Albemarle County Service Authority  
Virginia**

For its Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

June 30, 2021

*Christopher P. Morill*

Executive Director/CEO

**ALBEMARLE COUNTY SERVICE AUTHORITY****DIRECTORY OF PRINCIPAL OFFICIALS****June 30, 2022****BOARD MEMBERS**

Mr. Clarence W. Roberts, Chairman

Mr. Charles Tolbert, Vice-Chairman

Mr. Richard Armstrong

Mr. Nathan Moore

Dr. Lizbeth Palmer

Mr. John Parcels

**EXECUTIVE DIRECTOR**

Mr. Gary B. O'Connell

**DIRECTOR OF FINANCE**

Mr. Quin G. Lunsford

**TRUSTEE**

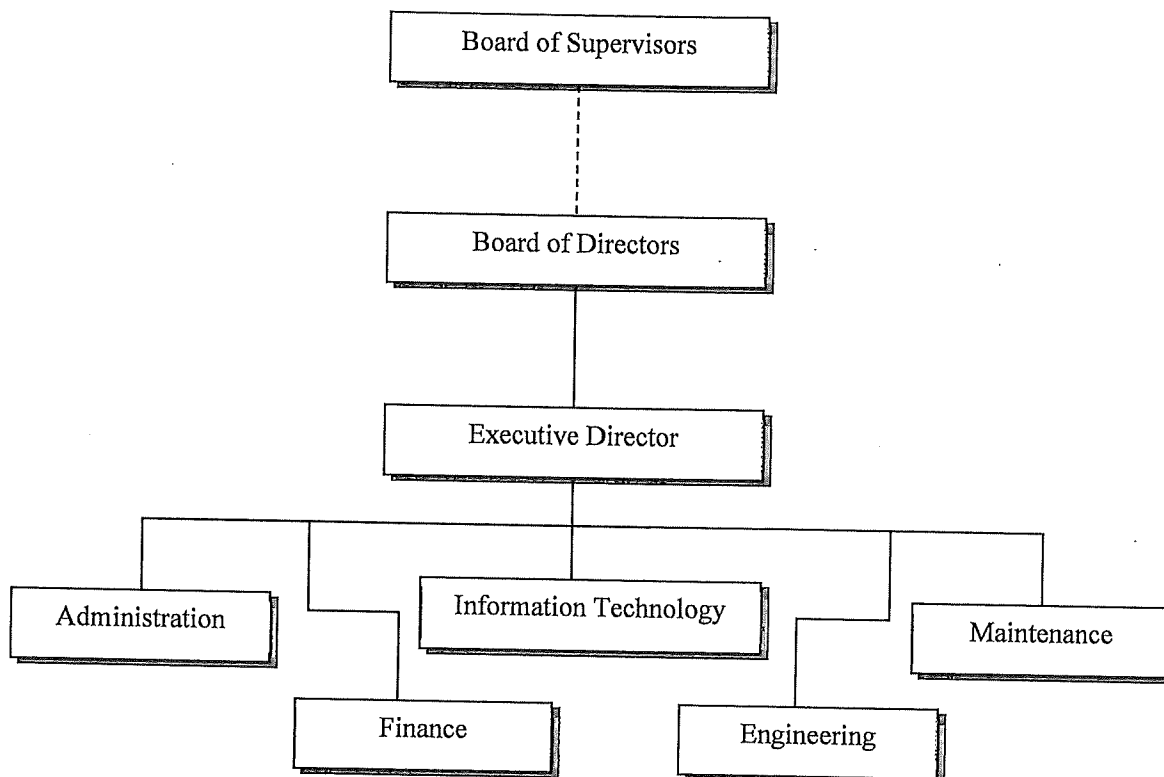
Bank of New York Mellon

**INDEPENDENT AUDITORS**

Brown, Edwards & Company, L.L.P.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**ORGANIZATIONAL CHART**



## **FINANCIAL SECTION**

---

**Financial Section contains the  
Basic Financial Statements.**





## INDEPENDENT AUDITOR'S REPORT

To the Honorable Members of the Board of Directors  
Albemarle County Service Authority  
Charlottesville, Virginia

### Report on the Audit of the Financial Statements

#### *Opinion*

We have audited the accompanying financial statements of the Albemarle County Service Authority (the "Authority") as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Albemarle County Service Authority, as of June 30, 2022, and the changes in financial position and, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

#### *Basis for Opinion*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America, the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, and *Specifications for Audits of Authorities, Boards and Commissions* issued by the Auditor of Public Accounts of the Commonwealth of Virginia. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Authority and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

#### *Responsibilities of Management for the Financial Statements*

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability continue as a going concern for twelve months beyond the financial statement due date, including any currently known information that may raise substantial doubt shortly thereafter.

### ***Auditor's Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Authority's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

### ***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and other required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.



### ***Other Information***

Management is responsible for the other information included in the annual report. The other information comprises the introductory and statistical sections but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

### ***Report on Comparative Information***

We have previously audited the Authority's 2021 financial statements, and our report dated October 27, 2021, expressed an unmodified opinion on those financial statements. The 2021 financial information is provided for comparative purposes only. In our opinion, the comparative information presented herein as of and for the year ended June 30, 2021, is consistent, in all material respects, with the audited financial statements from which it has been derived.

### ***Other Reporting Required by Government Auditing Standards***

In accordance with Government Auditing Standards, we have also issued our report dated November 2, 2022, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control over financial reporting and compliance.

*Brown, Edwards & Company, L.L.P.*

CERTIFIED PUBLIC ACCOUNTANTS

Harrisonburg, Virginia  
November 2, 2022

## Management's Discussion and Analysis

The management of the Albemarle County Service Authority (the "Authority") presents this analysis of the Authority's financial performance during the fiscal year ended June 30, 2022, as a supplement to the Authority's basic financial statements. This analysis should be read in conjunction with the basic financial statements that follow, as well as the Letter of Transmittal, which can be found on pages i through vi of this financial report.

### Overview of the Financial Statements

The annual financial report is presented in four sections: introductory, financial, statistical, and compliance.

The introductory section includes a letter of transmittal submitted by the Authority's Executive Director and Director of Finance, a listing of the Authority's Board of Directors and organizational chart as of the end of the past fiscal year, and a copy of the Government Finance Officers Association Certificate of Achievement for Excellence in Financial Reporting that has been awarded to the Authority for the fiscal year ended June 30, 2021.

The financial section consists of the Independent Auditor's Report, Management's Discussion and Analysis, and the Authority's basic financial statements, including notes to the statements and required supplementary information, which are discussed below.

The *Statement of Net Position* reports the Authority's assets and deferred outflows of resources and liabilities and deferred inflows of resources, providing information about the nature and amounts of investments in resources (assets), consumption of net position applicable to future periods (deferred outflows), obligations to creditors (liabilities), and acquisition of net position applicable to future periods (deferred inflows). These statements may be used to evaluate the capital structure, liquidity, and financial flexibility of the Authority. The *Statement of Revenues, Expenses and Changes in Fund Net Position* reflect revenue and expense activity of the Authority for the fiscal year. This statement allows the user to measure the Authority's profitability and credit worthiness by the financial performance of the Authority's operations, and to determine whether the Authority has successfully recovered its operating costs through user fees and other charges. The *Statement of Cash Flows* presents the Authority's inflows and outflows of cash during the financial reporting period, by reporting cash receipts, cash payments, and the net changes in cash. Cash flows are categorized by operating, non-capital financing, capital and related financing, and investing activities. The *Notes to the Financial Statements* and the *Required Supplementary Information* provide necessary disclosures that are essential to a full understanding of the data provided in the aforementioned basic financial statements.

The statistical section includes selected financial, operational, and demographic information presented on a multi-year basis.

The Authority operates as an enterprise fund. Enterprise funds are a type of proprietary fund and function similar to a private business in that user charges and fees are expected to cover costs. The Authority's basic financial statements are presented using the accrual basis of accounting, which provides for revenue recognition in the period in which water and reclamation services are provided and expense recognition when goods and services are received. Additionally, the Authority's basic financial statements utilize the flow of economic resources measurement focus, in which all assets and liabilities are reflected on the Statement of Net Position and the Statement of Revenues, Expenses and Changes in Fund Net Position includes all transactions, such as revenues and expenses that increase or decrease net position.



### Financial Highlights

- The assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources at the close of the most recent fiscal year by \$220,089,219 (*net position*). Of this amount \$47,742,894 (*unrestricted net position*) may be used to meet the Authority's ongoing obligations to customers and creditors.
- The Authority's total liabilities as a percentage of net position decreased from 8.01% at June 30, 2021, to 5.70% at June 30, 2022.
- Fiscal year 2022 operating revenues increased 9.76% to \$32,956,463 as compared to fiscal year 2021 while operating expenses increased 8.30% to \$35,309,116 during the same period.
- System development and capacity charges were robust during the fiscal year and totaled \$8,872,713 for fiscal year 2022. This is a decrease of \$1,195,200 or a decrease of 11.87% compared to the prior fiscal year. The Authority's service area continues to develop, and this activity is the main driver even through the COVID-19 Pandemic.
- The Authority realized a loss on investments in the current fiscal year, totaling \$631,795. This is a considerable decrease in comparison to the prior fiscal year due to a volatile market and the interest rate environment significantly impacting returns.

### Financial Analysis

The Statement of Net Position and the Statement of Revenues, Expenses and Changes in Fund Net Position report information about the Authority's activities to determine if, overall, the financial position improved over the year. These two statements report the net position of the Authority and changes in them. Analyzing the Authority's net position is one way to measure financial health. Non-financial factors such as economic conditions, COVID-19 impacts, population growth and new or changed government legislation need to be considered as well. The Authority improved its financial position in fiscal year 2022.

#### Net Position

The Authority's net position increased by \$8,128,512 during fiscal year 2022, which represents a 3.83% increase from the beginning of the fiscal year net position. At June 30, 2022, total net position was \$220,089,219 as compared to the prior year net position of \$211,960,707.

**FINANCIAL ANALYSIS (continued)**

The following table depicts the Authority's condensed summary of net position at June 30, 2022, and 2021.

**Condensed Statement of Net Position**

	<u>2022</u>	<u>2021</u>
Current Assets	\$ 28,757,624	\$ 27,255,685
Investments	29,391,611	29,436,196
Capital assets, net	<u>177,075,725</u>	<u>170,984,482</u>
<b>Total Assets</b>	<u>235,224,960</u>	<u>227,676,363</u>
<b>Deferred Outflows of Resources</b>	<u>1,187,861</u>	<u>1,856,772</u>
Current Liabilities	6,357,165	5,834,132
Long-term Liabilities	<u>7,086,179</u>	<u>11,154,160</u>
<b>Total Liabilities</b>	<u>13,443,344</u>	<u>16,988,292</u>
<b>Deferred Inflows of Resources</b>	<u>2,880,258</u>	<u>584,136</u>
Net investment in capital assets	172,031,606	165,640,741
Restricted for debt service	314,718	272,895
Unrestricted	<u>47,742,895</u>	<u>46,047,071</u>
<b>Total Net Position</b>	<u><u>\$ 220,089,219</u></u>	<u><u>\$ 211,960,707</u></u>



**FINANCIAL ANALYSIS (continued)**

The following table summarizes changes in revenues and expenses between fiscal year 2022 and 2021.

**Condensed Statements of Revenues, Expenses, and Changes in Fund Net Position**

	<u>2022</u>	<u>2021</u>
<b>Revenues:</b>		
Operating Revenues:		
Water Sales	\$ 17,545,859	\$ 15,919,103
Sewer Service	15,279,189	13,964,581
Other	131,415	141,043
Non-operating Revenue:		
Investment income (loss)	(631,795)	82,900
Rental income	18,357	15,539
Miscellaneous revenues	143,870	278,560
Fed. Grant – CARES Act/ARPA	215,925	159,657
Fed. Subsidy, Build America Bonds	3,774	94,730
<b>Total Revenues</b>	<u>\$ 32,706,594</u>	<u>\$ 30,656,113</u>
<b>Expenses:</b>		
Operating Expenses:		
Purchase of bulk water	\$ 12,403,735	\$ 10,667,369
Purchase of sewer treatment	9,520,032	9,191,140
Depreciation	4,114,076	3,898,244
Administration	1,026,017	993,444
Engineering	1,883,689	1,948,316
Finance	2,056,401	1,823,867
Information Technology	1,122,024	909,556
Maintenance	3,183,142	3,170,202
Non-operating Expenses:		
Interest Expense	235,937	287,044
Miscellaneous expenses	325,933	161,972
<b>Total Expenses</b>	<u>\$ 35,870,986</u>	<u>\$ 33,051,154</u>
Loss before capital contributions	\$ (3,164,392)	\$ (2,395,041)
Capital Contributions	11,292,904	14,080,638
Change in net position	8,128,512	11,685,597
Net position – beginning of year	211,960,707	200,275,110
Net position – end of year	<u>\$ 220,089,219</u>	<u>\$ 211,960,707</u>

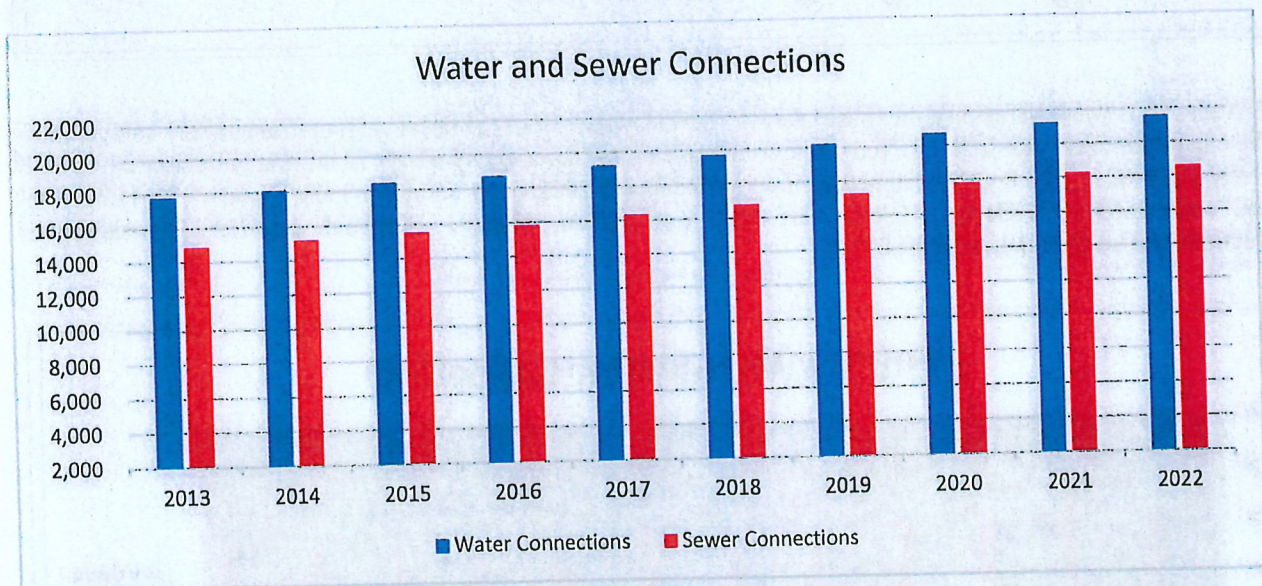
## Operating Revenues and Expenses

Operating revenues totaled \$32,956,463 in fiscal year 2022, a slight increase of \$2,931,736 from 2021. Operating expenses totaled \$35,309,116 in 2022, an increase of \$2,706,978 mainly due to increases in purchased water and sewer treatment costs from the Rivanna Water and Sewer Authority (RWSA).

## Review of Operations

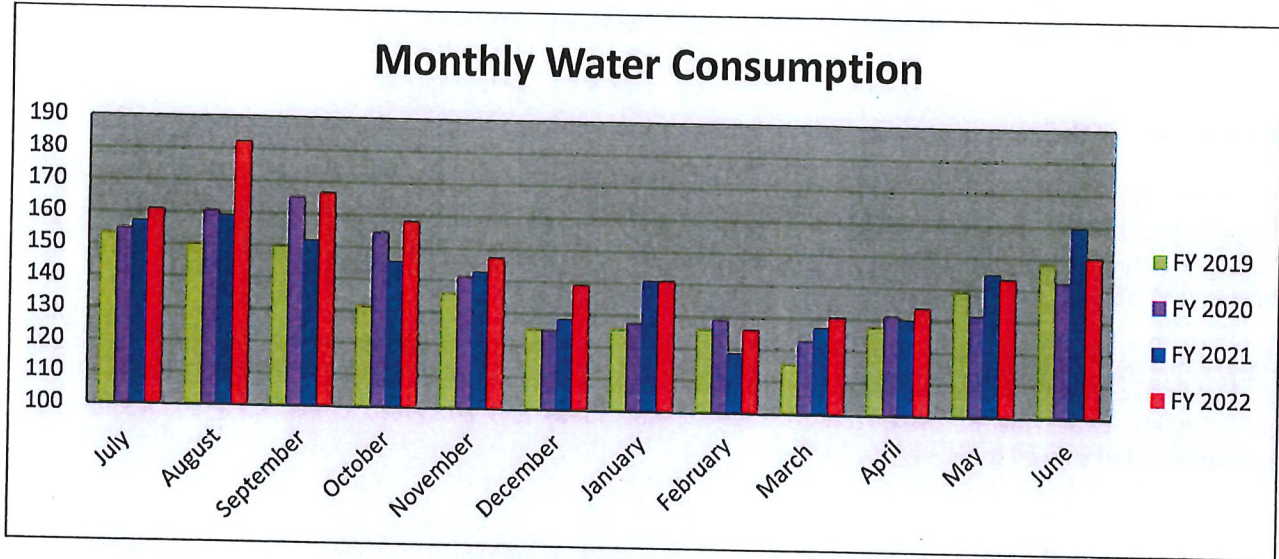
The Authority's water customer base grew to 21,595 accounts by the end of the 2022 fiscal year, an increase from the prior year total of 21,238. Considering multiple units behind master meters, as in apartment complexes, the Authority now serves approximately 35,096 housing units, businesses, industries, and institutions, which is an increase of 2.45%.

The Authority's system grew in water connections for 2022 with 357 new connections. The connections for 2022 are 13% lower than the Authority's ten-year average annual increase in new connections. Growth is attributable to the continued expansion of existing residential neighborhoods and continued commercial and multi-family development but slowed in fiscal year 2022.

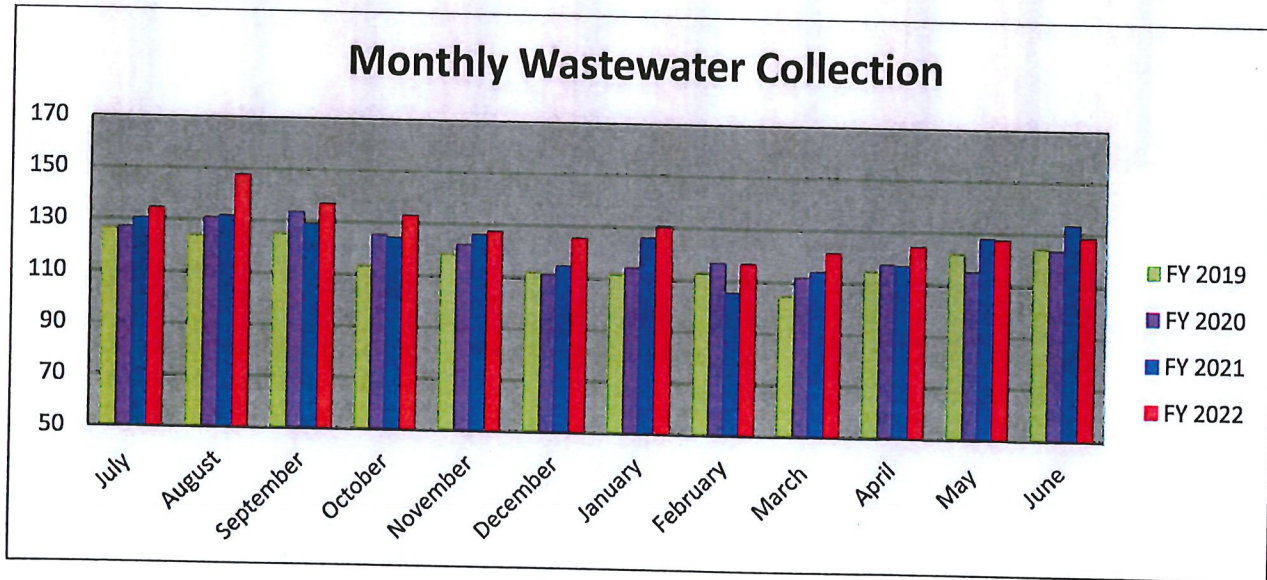




Billed water usage in fiscal year 2022 increased by 71 million gallons as compared to fiscal year 2021. Billed water usage in fiscal year 2022 was 1.78 billion gallons and was 4.19% more than billed water usage in fiscal year 2021 (1.70 billion gallons). Seasonal variations in water consumption can be seen in the chart below.

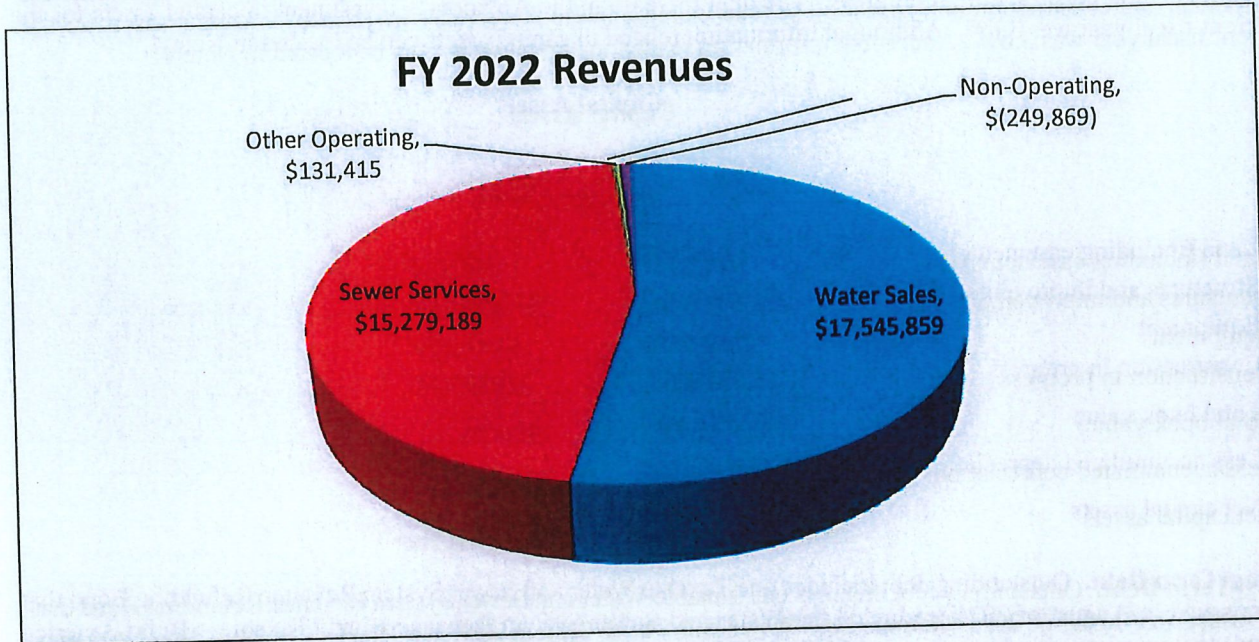


The Authority's wastewater customer base grew to 18,611 by the end of the fiscal year, up from 18,257 connections at the end of the fiscal year 2021. Billed wastewater collections increased by nearly 72 million gallons as compared to fiscal year 2021. Billed wastewater collections in fiscal year 2022 was 1.55 billion gallons and 4.87% more than billed wastewater collections in fiscal year 2021 (1.48 billion gallons). Seasonal variations in wastewater collections can be seen in the chart below.

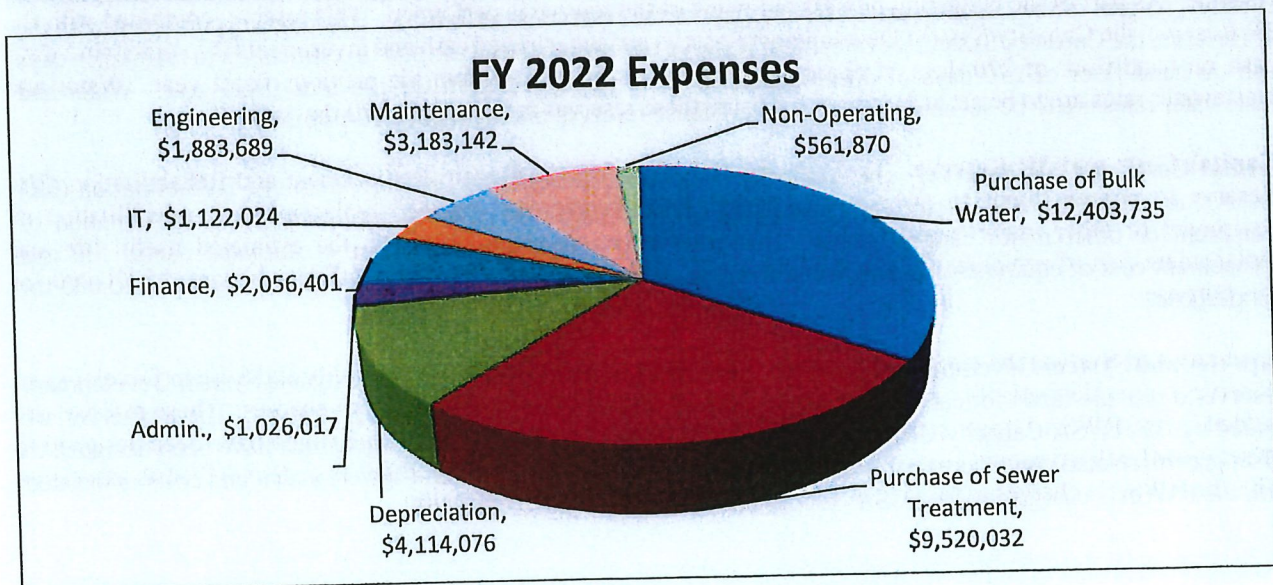




**Revenues.** Revenues for fiscal year 2022 increased in comparison with fiscal year 2021. Total revenues for 2022 were \$32,706,594 as compared to \$30,656,013 in 2021, a 6.69% increase year to year. This increase is due largely to increases in water/sewer rates charged to customers, increases in consumption, and slightly mitigated by investment losses in the current fiscal year when compared to the prior fiscal year.



**Expenses.** Total expenses for fiscal year 2022 were \$35,870,986 as compared to \$33,051,154 in 2021, an 8.53% increase, which was primarily due to increases in the cost of purchased water/wastewater treatment from the Rivanna Water and Sewer Authority and increases in departmental expenses. In 2022, the total cost of purchased water was \$12,403,735, which is 16.3% greater than the 2021 total of \$10,667,369. The total cost of sewer treatment in fiscal year 2022 was \$9,520,032 and increased 3.58% in comparison to fiscal year 2021. These costs are based on a variety of factors and can vary significantly based upon Authority consumption for a given period and the Authority's proportional allocation of costs based on our flow in comparison to the Authority's water/wastewater treatment provider's other customer. The increases in RWSA expenses were largely driven by RWSA's cost allocation which is calculated using Authority and the City of Charlottesville billed consumption, continued investment in water/wastewater infrastructure, and operational cost increases.





## CAPITAL ASSET AND DEBT ADMINISTRATION

**Capital Assets.** The Authority's investment in capital assets as of June 30, 2022, amounted to \$177,075,725 (net of accumulated depreciation). This investment in capital assets includes land, structures and improvements, equipment, and construction in progress. The total increase in the Authority's investment in capital assets for the current fiscal year was 3.6%. Additional information related to capital assets can be located in Note 4.

### Capital Assets

	<u>2022</u>	<u>2021</u>
Land (including easements)	\$ 1,914,876	\$ 1,914,876
Structures and improvements	218,693,300	215,920,750
Equipment	6,180,968	5,944,839
Construction in progress	<u>15,581,064</u>	<u>8,639,796</u>
Total book value	242,370,208	232,420,261
Less accumulated depreciation	<u>(65,294,483)</u>	<u>(61,435,779)</u>
Net capital assets	<u>\$ 177,075,725</u>	<u>\$ 170,984,482</u>

**Long-Term Debt.** Outstanding debt includes one Taxable Water and Sewer System Revenue Refunding Bond that was issued in August of 2021 (refunded the Water and Sewer System Revenue Bond (Taxable – Build America Bond) that was issued in November of 2010) for \$4,495,000. Revenue bond coverage, the ratio of gross revenues less direct operational expenses to debt service requirements, was 22.13 in fiscal year 2022. The minimum coverage required by outstanding bond indentures is 1.20. At June 30, 2022, outstanding long-term debt, including the current amount payable, totaled \$4,160,000. Details of this indebtedness may be found in Note 5 of the financial statements. The refunding issuance resulted in a realized net budgetary savings of \$1,242,262.

## RESERVES

**Operating Reserve.** The Authority has established an operating reserve to provide funds for unplanned minor repairs or significant cash outlays. This type of reserve is also valuable when less than anticipated water consumption occurs, during unusually wet years (less outdoor watering occurs), which generally results in less revenue. As part of the budgeting process, a review of the reserve is performed. This reserve, combined with the 3R Reserve, the Capacity/System Development Reserve and unrestricted cash and investments is to maintain a days cash on hand floor of 270 days of operating expenses as calculated from the previous fiscal year. Water and wastewater rates are to be set accordingly to ensure these reserves maintain this 270-day target.

**Capital Costs and 3R Reserve.** The Authority has established a Repair, Replacement and Rehabilitation (3R) Reserve to provide funds to pay for unexpected major repairs and planned replacement or rehabilitation of equipment or other major capital assets. This reserve is calculated based on the estimated useful life and replacement cost of equipment held by the Authority. For fiscal year 2022, the Authority budgeted \$320,000 for this purpose.

**Capacity and System Development Reserve.** The Authority has established a Capacity and System Development Reserve to provide funds for capacity or growth-related system development costs or charges. These reserves are funded by the RWSA Capacity Charge and the ACSA System Development Charge which have been designed to offset growth related capital costs of backbone capacity in the ACSA water and sewer system and costs associated with the RWSA's charges to the ACSA that are related to increases in capacity.

## LONG-TERM TRENDS

**Operations.** Careful planning and budgeting in combination with the use of established reserves has been a stabilizing factor in our rate-setting process for many years. This process has allowed our customers (through the years) to realize relatively low rates for the provision of their water and sewer service, particularly as compared to other regional utilities.

With new development, in combination with aging infrastructure, comes the challenge of meeting both the water supply and the sewer treatment needs and requirements of the growing Albemarle community. Since the Authority employs a "pay-as-you-go" methodology of recovering the costs of operations and most capital projects, increased costs will be passed on to our customers through higher rates and fees. Current customers bear the current cost of operations, while future customers, through new development, bear the cost of expansion through connection, development, and capacity fees.

The Authority team is actively engaged in the development of a long-term financial plan which will focus on financial sustainability and affordability for our customers while continuing to address infrastructure and operational needs.

**Capital Program.** Water capital improvement project cost projections per year for the next five years range from \$6,600,000 to \$9,600,000 and sewer capital improvement project cost projections per year for the next five years range from \$2,300,000 to \$4,500,000. The Authority intends to fund these projects using established reserves while evaluating possible debt funding opportunities.

**Requests for Information.** This financial report is designed to provide a general overview of the Albemarle County Service Authority's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Finance Department at 168 Spotnap Road, Charlottesville, Virginia 22911, through our website [www.serviceauthority.org](http://www.serviceauthority.org) or by telephone (434) 977-4511.



## **BASIC FINANCIAL STATEMENTS**

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## ALBEMARLE COUNTY SERVICE AUTHORITY

## Exhibit 1

STATEMENT OF NET POSITION  
June 30, 2022

	2022	(For Comparative Purposes Only) 2021
<b>ASSETS</b>		
<b>Current assets</b>		
Cash and cash equivalents (Note 2)	\$ 22,513,718	\$ 20,380,198
Accounts receivable (Note 3)	4,746,369	4,865,169
Inventory	546,056	461,178
Prepays	264,967	179,887
Cash and cash equivalents, restricted (Notes 1,2)	686,514	1,369,253
Total current assets	28,757,624	27,255,685
<b>Noncurrent assets</b>	29,391,611	29,436,196
Investments (Note 2)		
Capital assets: (Note 4)	17,495,940	10,554,672
Nondepreciable	159,579,785	160,429,810
Depreciable, net	206,467,336	200,420,678
Total noncurrent assets	235,224,960	227,676,363
Total assets		
<b>DEFERRED OUTFLOWS OF RESOURCES</b>		
Deferred charges on refunding	13,721	-
Deferred outflows related to pensions (Note 7)	994,725	1,620,172
Deferred outflows related to other postemployment benefits (Notes 8,9)	179,415	236,600
Total deferred outflows of resources	1,187,861	1,856,772
<b>LIABILITIES</b>		
<b>Current liabilities</b>	3,021,303	3,198,339
Accounts payable	92,572	86,166
Accrued liabilities	241,816	318,047
Customer deposits	35,533	125,783
Interest payable	100,232	92,807
Compensated absences (Note 5)	2,390,949	1,491,990
Unearned revenues	474,760	521,000
Current maturities of long-term debt (Note 5)	6,357,165	5,834,132
Total current liabilities		
<b>Long-term liabilities</b>	663,237	600,464
Compensated absences (Note 5)	695,494	3,659,743
Net pension liability (Note 7)	1,144,368	1,448,953
Net other post-employment benefits liability (Notes 8,9)	4,583,080	5,445,000
Long-term debt — due in more than one year (Note 5)	7,086,179	11,154,160
Total long-term liabilities	13,443,344	16,988,292
Total liabilities		
<b>DEFERRED INFLOWS OF RESOURCES</b>		
Deferred inflows related to pensions (Note 7)	2,170,200	18,843
Deferred inflows related to other postemployment benefits (Notes 8,9)	710,058	565,293
Total deferred inflows of resources	2,880,258	584,136
<b>NET POSITION</b>		
Net investment in capital assets	172,031,606	165,640,741
Restricted for debt service	314,718	272,895
Unrestricted	47,742,895	46,047,071
Total net position	\$ 220,089,219	\$ 211,960,707



## ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN FUND NET POSITION  
Year Ended June 30, 2022

	2022	(For Comparative Purposes Only) 2021
<b>OPERATING REVENUES</b>		
Water sales	\$ 17,545,859	\$ 15,919,103
Sewer service	15,279,189	13,964,581
Water and sewer connection fees	131,415	141,043
Total operating revenues	32,956,463	30,024,727
<b>OPERATING EXPENSES</b>		
Purchase of bulk water	12,403,735	10,667,369
Purchase of sewer treatment	9,520,032	9,191,140
Depreciation	4,114,076	3,898,244
Administration	1,026,017	993,444
Engineering	1,883,689	1,948,316
Finance	2,056,401	1,823,867
Information Technology	1,122,024	909,556
Maintenance	3,183,142	3,170,202
Total operating expenses	35,309,116	32,602,138
Operating loss	(2,352,653)	(2,577,411)
<b>NONOPERATING REVENUES (EXPENSES)</b>		
Miscellaneous revenues	143,870	278,560
Federal Grant Revenue - CARES Act/ARPA	215,925	159,657
Federal subsidy, Build America Bonds	3,774	94,730
Investment income (loss)	(631,795)	82,900
Rental income	18,357	15,539
Miscellaneous expenses	(325,933)	(161,972)
Bond interest charges	(235,937)	(287,044)
Total nonoperating revenues (expenses)	(811,739)	182,370
Loss before capital contributions	(3,164,392)	(2,395,041)
<b>CAPITAL CONTRIBUTIONS (Note 6)</b>	11,292,904	14,080,638
Change in net position	8,128,512	11,685,597
<b>NET POSITION – BEGINNING AT JULY 1</b>	211,960,707	200,275,110
<b>NET POSITION – ENDING AT JUNE 30</b>	<u>\$ 220,089,219</u>	<u>\$ 211,960,707</u>

## Exhibit 3

## ALBEMARLE COUNTY SERVICE AUTHORITY

STATEMENT OF CASH FLOWS  
Year Ended June 30, 2022

	2022	(For Comparative Purposes Only) 2021
<b>OPERATING ACTIVITIES</b>		
Cash received from customers	\$ 34,333,676	\$ 29,073,524
Cash paid for goods and services	(25,254,460)	(21,398,529)
Cash paid to employees	(6,709,273)	(6,820,008)
Other receipts	317,028	244,616
Net cash provided by operating activities	<u>2,686,971</u>	<u>1,099,603</u>
<b>NON-CAPITAL FINANCING ACTIVITIES</b>		
Federal Grant, CARES Act/ARPA	215,925	180,223
Federal subsidy, Build America Bonds	3,774	94,730
Net cash provided by non-capital financing activities	<u>219,699</u>	<u>274,953</u>
<b>CAPITAL AND RELATED FINANCING ACTIVITIES</b>		
Capital contributed by developers, customers, and local governments	8,437,028	9,632,228
Acquisition of capital assets	(8,057,639)	(8,343,637)
Proceeds from debt refunding	5,492,600	-
Payment to escrow agent on bond refunding	(5,966,000)	-
Principal paid on long-term borrowings	(335,000)	(506,000)
Interest paid on long-term borrowings	(439,668)	(297,712)
Proceeds from sale of capital assets	-	65,495
Net cash provided by (used in) capital and related financing activities	<u>(868,679)</u>	<u>550,374</u>
<b>INVESTING ACTIVITIES</b>		
Purchase of investment securities	(21,231,595)	(41,024,575)
Proceeds from sale and maturity of investment securities	19,960,519	14,878,927
Interest received	683,866	898,562
Net cash used in investing activities	<u>(587,210)</u>	<u>(25,247,086)</u>
Net increase (decrease) in cash and cash equivalents	1,450,781	(23,322,156)
<b>CASH AND CASH EQUIVALENTS</b>		
Beginning at July 1	21,749,451	45,071,607
Ending at June 30	<u>\$ 23,200,232</u>	<u>\$ 21,749,451</u>
<b>RECONCILIATION TO STATEMENT OF NET POSITION</b>		
Cash and cash equivalents	\$ 22,513,718	\$ 20,380,198
Cash and cash equivalents, restricted	686,514	1,369,253
	<u>\$ 23,200,232</u>	<u>\$ 21,749,451</u>

(Continued)



## ALBEMARLE COUNTY SERVICE AUTHORITY

Exhibit 3

STATEMENT OF CASH FLOWS  
Year Ended June 30, 2022

	2022	(For Comparative Purposes Only) 2021
<b>RECONCILIATION OF OPERATING LOSS TO NET CASH PROVIDED BY OPERATING ACTIVITIES</b>		
Operating loss	\$ (2,352,653)	\$ (2,577,411)
Adjustments to reconcile operating loss to net cash provided by operating activities:		
Depreciation	4,114,076	3,898,244
Excess of employer contributions over pension expense	(187,445)	387,817
Excess of employer contributions over other postemployment benefits expense	(102,635)	(53,439)
Other nonoperating revenues/expenses	1,464	83,791
Change in assets and liabilities:		
(Increase) decrease in:		
Accounts receivable	118,800	(864,433)
Inventory	(84,878)	(7,931)
Prepays	(85,080)	4,306
Increase (decrease) in:		
Accounts payable	(69,695)	243,208
Accrued liabilities	6,406	20,085
Customer deposits	(76,231)	(115,129)
Compensated absences	70,198	52,136
Unearned connection fees	1,334,644	28,359
Net cash provided by operating activities	<u>\$ 2,686,971</u>	<u>\$ 1,099,603</u>
<b>NONCASH CAPITAL, INVESTING AND RELATED FINANCING ACTIVITIES</b>		
Contributions of capital assets	<u>\$ 2,420,191</u>	<u>\$ 4,012,725</u>
Capital asset additions financed by accounts payable	<u>\$ 856,089</u>	<u>\$ 963,430</u>
Decrease in fair value of investments	<u>\$ (1,315,661)</u>	<u>\$ (815,662)</u>

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 1. Summary of Significant Accounting Policies**

**(a) Reporting Entity**

The Albemarle County Service Authority (the Authority) was created by a resolution of the Board of Supervisors (BOS) of Albemarle County, Virginia (the County) in April 1964. The Authority is chartered by the State Corporation Commission and is an independent public body responsible for undertaking projects as may be specified for the distribution and sale of potable water to retail customers and for the collection of wastewater from retail customers and delivery of such wastewater to the Rivanna Water and Sewer Authority (RWSA). The management of the Authority is vested in a board of six members appointed by the County's BOS.

To determine the appropriate reporting entity for the Authority, its relationship with the County was considered. Although the members of the Authority's Board of Directors are appointed by the Board of County Supervisors, the County is not financially accountable for the Authority. In addition, there is no potential for the Authority to provide specific financial benefits to, or impose specific financial burdens on, the County, and the Authority is not fiscally dependent on the County. Accordingly, based on these criteria, the Authority is not included as a component unit in the County's financial statements.

The following is a summary of the Authority's significant accounting policies:

**(b) Basis of Presentation and Accounting**

The accounting policies of the Authority conform to accounting principles generally accepted in the United States of America as applicable to enterprise funds of governmental units. An enterprise fund is a proprietary type fund used to account for operations that are financed and operated in a manner similar to private business enterprises. The Authority's intent is that the costs of providing goods or services to customers on a continuing basis be financed or recovered primarily through user charges. Periodic determination of revenues earned, expenses incurred, and/or changes in net position is appropriate for capital maintenance, public policy, management control and accountability.

The Authority follows the accrual basis of accounting. Under this basis of accounting, revenue is recognized when earned and expenses are recorded when incurred. Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations of the Authority. Operating revenues consist primarily of charges for water consumption and wastewater treatment. Operating expenses consist of bulk water purchases, sewer treatment, administrative expenses, and depreciation of capital assets. Non-operating revenues and expenses consist of those revenues and expenses that are related to financing and investing type activities and result from non-exchange transactions or ancillary services.

When an expense is incurred for purposes in which both restricted and unrestricted net assets are available, it is the Authority's policy to first apply restricted resources.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 1. Summary of Significant Accounting Policies (Continued)**

**(c) Cash and Investments**

Cash and temporary investments include amounts in demand deposits as well as short-term investments with an original maturity of three months or less.

Restricted cash and temporary investments include amounts held in money market funds as well as short-term investments with an original maturity of three months or less. These amounts consist of reserves for debt service and deposits from customers for service.

Investments include United States government, agency obligations of the Commonwealth of Virginia and its subdivisions, municipal bonds, and commercial paper. All investments are stated at fair value. Interest income from investments is recorded in the year earned.

**(d) Fair Value Measurements**

The Authority categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and are described as follows:

- Level 1 inputs are quoted prices in active markets for identical assets;
- Level 2 inputs are significant other observable inputs;
- Level 3 inputs are significant unobservable inputs.

**(e) Accounts Receivable**

All continuing service receivables are recognized when earned, net of an allowance for uncollectible accounts of \$90,020 at June 30, 2022.

An estimated amount has been recorded for services rendered but not yet billed as of the close of the fiscal year.

**(f) Inventory**

Inventory is valued using the weighted-average method. Inventories are recorded as an operating expense when consumed rather than when purchased.

**(g) Restricted Assets**

Restricted assets represent resources designated for specific purposes and include developers' advances and customer deposits.

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 1. Summary of Significant Accounting Policies (Continued)**

**(h) Capital Assets**

The Authority capitalizes all property and permanent right-of-way easements, equipment, and infrastructure assets with a cost greater than \$5,000 and an estimated useful life of more than one year.

Capital assets are stated at historical cost. Donated assets are recorded at acquisition value at the time received. Expenses for repairs and upgrading which materially add to the value or life of an asset are capitalized. Other maintenance and repair costs are expensed as incurred.

Depreciation and amortization for both purchased and contributed assets is recorded as depreciation and amortization expense on a straight-line basis over the following estimated useful lives:

Land improvements	10-20 years
Structures and improvements	10-60 years
Equipment	3-10 years

**(i) Construction in Progress**

Construction in progress includes design and construction costs that accumulate until completion of the respective project, at which time the total cost is transferred to depreciable capital assets.

**(j) Compensated Absences**

Authority employees are granted annual leave in varying amounts based on years of service. In the event of termination, an employee is reimbursed for accumulated annual leave in full. Annual leave is considered a liability and is accrued as earned. The Authority does not accrue sick pay when earned since its employees do not have vested rights to receive such pay except to the extent of time not worked due to sickness.

**(k) Unearned Revenues**

Unearned connection fees consist of advances to the Authority under prescribed conditions by developers in exchange for credit vouchers to be used to pay facility fees (both water and sewer) in order to connect to the Authority's system. The Authority recognizes the revenue when the credit voucher is redeemed. Also included in unearned revenues are over payments by customers that will be recognized as revenue as charges for water/sewer treatment are incurred.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 1. Summary of Significant Accounting Policies (Continued)**

**(l) Deferred outflows/inflows of resources**

In addition to assets, the statement that presents net position reports a separate section for deferred outflows of resources. These items represent a consumption of net assets that applies to future periods and so will *not* be recognized as an outflow of resources (expense) until then.

In addition to liabilities, the statement that presents financial position reports a separate section for deferred inflows of resources. These items represent an acquisition of net assets that applies to future periods and so will not be recognized as an inflow of resources (revenue) until that time.

The Authority has the following items that qualify for reporting as deferred inflows or outflows:

- Contributions subsequent to the measurement date for pensions and OPEB are always a deferred outflow; this will be applied to the net pension or OPEB liability in the next fiscal year.
- Differences between expected and actual experience for economic/demographic factors and changes of assumptions in the measurement of the total pension or OPEB liability. This difference will be recognized in pension or OPEB expense over the expected average remaining service life of all employees provided with benefits in the plan and may be reported as a deferred inflow or outflow as appropriate.
- Difference between projected and actual earnings on pension and OPEB plan investments. This difference will be recognized in pension or OPEB expense over the closed five-year period and may be reported as a deferred outflow or inflow as appropriate.
- Changes in proportionate share that will be recognized in the OPEB expense over the average expected remaining service lives of all employees provided with benefits. This may be reported as a deferred outflow or deferred inflow as appropriate.

**(m) Pensions and Other Postemployment Benefits (OPEB)**

For purposes of measuring all financial statement elements related to pensions and OPEB plans information about the fiduciary net position of the Authority's Retirement Plan and the additions to/deductions from the Authority's Plans net fiduciary position have been determined on the same basis as they were reported by the Virginia Retirement System (VRS). For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**(n) Net Position**

Net position is the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net investment in capital assets represents capital assets, less accumulated depreciation, less any outstanding debt related to the acquisition, construction, or improvement of those assets. Net investment in capital assets excludes unspent debt proceeds. Net position is reported as restricted when there are limitations imposed on its use either through the

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 1. Summary of Significant Accounting Policies (Continued)**

enabling legislation adopted by the Authority or through external restrictions imposed by creditors, grantors, or laws or regulations of other governments.

**(o) Capital Contributions**

Capital contributions are recorded for the receipt of funds, property, lines and improvements by developers, customers, or other governments.

**(p) Comparative Information**

The basic financial statements include certain prior year summarized comparative information in total, but not at the level of detail required for a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with the Authority's financial statements for the prior year from which the summarized information was derived.

**(q) Estimates**

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**(r) Accounting Pronouncements**

The Governmental Accounting Standards Board (GASB) has issued the following Statements which are not yet effective. The effective dates below are updated based on **Statement No. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*** due to the COVID-19 pandemic.

In May 2019, the GASB issued **Statement No. 91, Conduit Debt Obligations**. This Statement provides a single method of reporting conduit debt obligations by issuers and eliminates diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. The requirements of this Statement are effective for reporting periods beginning after December 15, 2021.

In March 2020, the GASB issued **Statement No. 94, Public-Private and Public-Public Partnerships and Availability Payment Arrangements**. This Statement improves financial reporting by addressing issues related to public-private and public-public partnership arrangements (PPPs). The requirements of this Statement are effective for reporting periods beginning after June 15, 2022.

In May 2020, the GASB issued **Statement No. 96, Subscription-Based Information Technology Arrangements**. This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users (governments). The requirements of this Statement are effective for reporting periods beginning after June 15, 2022.

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 1. Summary of Significant Accounting Policies (Continued)**

In April 2022, the GASB issued **Statement No. 99**, Omnibus 2022. The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees. The requirements related to extension of the use of LIBOR, accounting for SNAP distributions, disclosures of nonmonetary transactions, pledges of future revenues by pledging governments, clarification of certain provisions in Statement 34, as amended, and terminology updates related to Statement 53 and Statement 63 are effective upon issuance. The requirements related to leases, PPPs, and SBITAs are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter. The requirements related to financial guarantees and the classification and reporting of derivative instruments within the scope of Statement 53 are effective for fiscal years beginning after June 15, 2023, and all reporting periods thereafter.

In June 2022, the GASB issued **Statement No. 100**, Accounting Changes and Error Corrections. This Statement requires disclosure in notes to financial statements of descriptive information about accounting changes and error corrections, such as their nature. In addition, information about the quantitative effects on beginning balances of each accounting change and error correction should be disclosed by reporting unit in a tabular format to reconcile beginning balances as previously reported to beginning balances as restated. The requirements of this Statement are effective for accounting changes and error corrections made in fiscal years beginning after June 15, 2023, and all reporting periods thereafter. Earlier application is encouraged.

In June 2022, the GASB issued **Statement No. 101**, Compensated Absences. This statement updates the recognition and measurement guidance for compensated absences and amends certain previously required disclosures. The requirements of this Statement are effective for reporting periods beginning after December 15, 2023.

Management has not determined the effects these new GASB Statements may have on prospective financial statements.

**Note 2. Deposits and Investments**

**Deposits**

Deposits with banks are covered by the Federal Deposit Insurance Corporation (FDIC) and collateralized in accordance with the Virginia Security for Public Deposits Act (the "Act") Section 2.2-4400 et. seq. of the *Code of Virginia*. Under the Act, banks and savings institutions holding public deposits in excess of the amount insured by the FDIC must pledge collateral to the Commonwealth of Virginia Treasury Board. Financial institutions may choose between two collateralization methodologies and depending upon that choice, will pledge collateral that ranges in the amounts from 50% to 130% of excess deposits. Accordingly, all deposits are considered fully collateralized.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 2. Deposits and Investments (Continued)**

**Investments**

Statutes authorize local governments and other public bodies to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia or political subdivisions thereof, obligations of the International Bank for Reconstruction and Development (World Bank), the Asian Development Bank, the African Development Bank, "prime quality" commercial paper and certain corporate notes, banker's acceptances, repurchase agreements, and the State Treasurer's Local Government Investment Pool (LGIP).

The fair value of the position in LGIP is the same as the value of the pool shares. As the pool is not SEC registered, regulatory oversight of the pool rests with the Virginia State Treasury. LGIP maintains a policy to operate in a manner consistent with GASB Statement No. 79. Due to the nature of LGIP, it is considered a cash and cash equivalent on the Statement of Net Position.

The Authority's investments are subject to interest rate, credit, concentration of credit, and custodial credit risk as described herein.

The Authority has recurring fair value measurements as of June 30, 2022. Those include U. S. Bonds, Municipal Notes, and Commercial Paper classified in Level 2 of the fair value hierarchy and valued using prices quoted in active markets for those bonds.

**Interest rate risk:** Interest rate risk is the risk that the fair value of the securities in the portfolio will decline due to rising interest rates. Investments are limited to a maximum maturity of five (5) years from the transaction settlement date (with the exception of Agency Mortgage-Backed Securities ("MBS") which must have a weighted average life ("WAL") of no more than five (5) years). To manage the volatility of the Investment Portfolio, the Director of Finance shall determine an appropriate duration or weighted average maturity ("WAM") target for each component of the Investment Portfolio. At no time shall the duration or WAM of any component of the Investment Portfolio exceed three (3) years.

**Credit risk:** Credit risk is the risk of loss due to the failure of the security issuer or backer to repay its obligations and may also apply where there is a loss of fair value of the investment due to a deterioration of an issuer's credit rating.

**Concentration of credit risk:** Concentration of credit risk is the risk of loss attributed to the magnitude of investments held from a single issuer. The Authority's investment portfolio as of June 30, 2022, is concentrated in securities issued by the U.S. Treasury (40%), Federal Agencies (23%), Federal Agency Mortgage-Backed Securities (2%), Federal Agency Collateralized Mortgage Obligations (3%), Municipal Notes (3%), Commercial Paper (20%), Certificate of Deposit (5%), and Corporate Note (4%).

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 2. Deposits and Investments (Continued)**

The table below details the fair value and rating as determined by Standard & Poor's for each issuer of the Authority's investments as well as deposits, as of June 30, 2022:

	Deposits and Investments							
	<u>AAA</u>	<u>A-1+</u>	<u>AA+</u>	<u>AA</u>	<u>A-1<sup>1</sup>,A+<sup>2</sup></u>	<u>AAA<sub>m</sub>,AA-<sup>1</sup></u>	<u>Deposits</u>	<u>Total</u>
U.S. Treasury	\$ -	\$ -	\$11,626,391	\$ -	\$ -	\$ -	\$ -	\$11,626,391
Lcl Gov Inv Pool	-	-	-	-	-	13,397,047	-	13,397,047
Federal Agency	-	-	6,694,922	-	-	-	-	6,694,922
Fed Agency MBS	-	-	634,022	-	-	-	-	634,022
Fed Agency CMO	-	-	997,905	-	-	-	-	997,905
Municipal	243,507	-	287,748	248,302	-	-	-	779,557
Commercial Paper	-	597,307	-	-	5,366,486 <sup>1</sup>	-	-	5,963,793
Cert of Deposit	-	595,965	-	-	894,174 <sup>1</sup>	-	-	1,490,139
Corporate Note	-	-	-	224,508	284,242 <sup>2</sup>	696,132 <sup>1</sup>	-	1,204,882
Money Mkt Fund	-	-	-	-	-	39,521	-	39,521
Cash	-	-	-	-	-	-	9,763,664	9,763,664
Total Cash and Investments	<u>\$243,507</u>	<u>\$1,193,272</u>	<u>\$20,240,988</u>	<u>\$472,810</u>	<u>\$6,544,902</u>	<u>\$14,132,700</u>	<u>\$9,763,664</u>	<u>\$52,591,843</u>

Reconciliation of deposits and investments to Exhibit 1:

Cash and cash equivalents, unrestricted	\$22,513,718
Cash and cash equivalents, restricted	686,514
Investments	<u>29,391,611</u>
<b>Total Deposits and Investments:</b>	<u><b>\$52,591,843</b></u>

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 2. Deposits and Investments (Continued)**

Investment Type	<u>Investment Maturities</u>					
	<u>1 Year</u>	<u>2 Years</u>	<u>3 Years</u>	<u>4 Years</u>	<u>5 Years</u>	<u>&gt;5 Years</u>
U.S. Treasury	\$1,193,041	\$5,308,889	\$5,124,461	\$ -	\$ -	\$ -
Federal Agency	3,438,405	3,256,517	-	-	-	-
Fed. Agency MBS	-	-	-	-	-	634,022
Fed. Agency CMO	-	300,169	633,407	64,329	-	-
Municipal	248,303	531,254	-	-	-	-
Commercial Paper	5,963,793	-	-	-	-	-
Certificate of Deposit	1,490,139	-	-	-	-	-
Corporate Note	-	-	904,970	299,912	-	-
Money Market/LGIP	13,436,568	-	-	-	-	-
<b>Total Investments</b>	<u>\$ 25,770,249</u>	<u>\$9,396,829</u>	<u>\$6,662,838</u>	<u>\$364,241</u>	<u>\$ -</u>	<u>\$634,022</u>

**Custodial credit risk:** Custodial credit risk is the risk that the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of an outside custodial party. All of the securities purchased by the Authority are held in safekeeping by a third-party custodial bank or institution in the Authority's name, and therefore, the Authority is not exposed to custodial credit risk.

**Note 3. Accounts Receivable**

Accounts receivable net of allowance consists of the following:

	<u>Billed</u>	<u>Unbilled</u>	<u>Total</u>
Receivables, current:			
Water	\$ 1,430,426	\$ 1,154,116	\$ 2,584,542
Sewer	1,166,267	870,295	2,036,562
Other	125,265	-	125,265
	<u>\$ 2,721,958</u>	<u>\$ 2,024,411</u>	<u>\$ 4,746,369</u>

An allowance for doubtful accounts has been established at June 30, 2022, to recognize estimates related to bad debt. For Fiscal Year 2022 and 2021, the allowance for doubtful accounts totals \$90,020 and \$0 respectively.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 4. Capital Assets**

Changes in capital assets for the year are as follows:

	<u>Balance July 1, 2021</u>	<u>Additions</u>	<u>Reductions/ Reclassifications</u>	<u>Balance June 30, 2022</u>
Capital assets, not being depreciated				
Land and land rights	\$ 1,914,876	\$ -	\$ -	\$ 1,914,876
Construction in progress	8,639,796	7,878,634	(937,366)	15,581,064
Total capital assets, not being depreciated	10,554,672	7,878,634	(937,366)	17,495,940
Capital assets, being depreciated				
Structures and improvements	215,920,750	2,420,191	352,359	218,693,300
Equipment	5,944,839	71,664	164,465	6,180,968
Total capital assets, being depreciated	221,865,589	2,491,855	516,824	224,874,268
Less accumulated depreciation for:				
Structures and improvements	(57,481,245)	(3,747,232)	82,127	(61,146,350)
Equipment	(3,954,534)	(366,844)	173,245	(4,148,133)
Total accumulated depreciation	(61,435,779)	(4,114,076)	255,372	(65,294,483)
Total capital assets being depreciated, net	160,429,810	(1,622,221)	772,196	159,579,785
Total capital assets, net	<u>\$ 170,984,482</u>	<u>\$ 6,256,413</u>	<u>\$ (165,170)</u>	<u>\$ 177,075,725</u>

**Construction commitments:**

The Authority's active construction projects as of June 30, 2022, are as follows:

<u>Project</u>	<u>Spent-to-Date</u>	<u>Remaining Commitment</u>
Wastewater line rehabilitations or re-linings	\$ 254,004	\$ 323,359
Water line replacements	4,080,756	400,000
Other	624,541	494,951
	<u>\$ 4,959,301</u>	<u>\$ 1,218,310</u>

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 5. Long-Term Liabilities**

Long-term liability activity for the year ended June 30, 2022, was as follows:

	Balance July 1, 2021	Additions	Reductions	Balance June 30, 2022	Amounts Due Within One Year
Revenue bond	\$ 5,966,000	\$ -	\$ (5,966,000)	\$ -	\$ -
Refunding bond	-	4,495,000	(335,000)	4,160,000	375,000
Issuance Premiums	-	997,600	(99,760)	897,840	99,760
Compensated absences	693,271	464,130	(393,932)	763,469	100,232
	<u>\$ 6,659,271</u>	<u>\$ 5,956,730</u>	<u>\$ (6,794,692)</u>	<u>\$ 5,821,309</u>	<u>\$ 574,992</u>

A single revenue bond for \$10,357,000 was issued as a Build America Bond (BAB) on November 1, 2010. Proceeds from the sale were used to (1) provide new money funding for the North Fork Regional Pump Station project and to (2) pay the cost of issuance. This issuance was refunded on July 21, 2021, through the Virginia Resources Authority (VRA) and its 2021B Pooled Bond issuance. All water and sewer revenues are pledged equally and ratably to secure payment of the principal and interest on the revenue bond. This Bond bears interest at the rate of 5.125%, payable semiannually.

The revenue bond debt service requirements to maturity are as follows:

Fiscal Year Ending June 30,	Principal	Interest
2023	\$ 375,000	\$ 203,591
2024	395,000	183,859
2025	415,000	163,103
2026	435,000	141,322
2027	460,000	118,388
2028-2032	2,080,000	220,119
	<u>\$ 4,160,000</u>	<u>\$ 1,030,382</u>

**Current Year Refunding of Debt:**

In July 2021, the Authority issued a Refunding Bond totaling \$4,495,000 for the purpose of refunding \$5,966,000 of the outstanding series 2011 bond. The proceeds were placed in trust with an escrow agent to fund all future debt service payments. As a result, the partially refunded bonds are considered to be defeased, and the liability has been removed from the Authority's long-term debt. This refunding was undertaken to reduce total debt service payments by \$1,242,262, resulting in an economic gain of \$1,197,306.

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 5. Long-Term Liabilities (Continued)**

**Debt covenants and Federal arbitrage regulations:**

The Authority is required to deliver to the Trustee for deposit both interest and principal amounts as prescribed in the Agreement of Trust. The Authority is in compliance with these covenants.

The Authority is required to adhere to the rebate and reporting requirements of the federal tax code pertaining to arbitrage. The Authority is in compliance with federal arbitrage regulations. Any potential liabilities arising from arbitrage have been deemed immaterial in relation to the financial statements.

**Note 6. Capital Contributions**

Capital contributions for the year are summarized as follows:

Developer and customer contributions of capital assets	\$ 2,420,191
Crozet water and sewer – System/capacity fees	1,557,630
Urban water and sewer – System/capacity fees	7,229,542
North Fork Regional Pump Station -- Special rate district fee	<u>85,541</u>
	<u>\$ 11,292,904</u>

**Note 7. Defined Benefit Pension Plan**

**Plan Description**

All full-time, salaried permanent employees of Albemarle County Service Authority, (the “Political Subdivision”) are automatically covered by VRS Retirement Plan upon employment. This multi-employer agent plan is administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. Members earn one month of service credit for each month they are employed and for which they and their employer pay contributions to VRS. Members are eligible to purchase prior service, based on specific criteria as defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave, and previously refunded service.

The System administers three different benefit structures for covered employees – Plan 1, Plan 2, and Hybrid. Each of these benefits structures has different eligibility criteria. The specific information for each plan and the eligibility for covered groups within each plan are available at:

- <https://www.varetire.org/member/benefits/defined-benefit/plan1.asp> ,
- <https://www.varetire.org/members/benefits/defined-benefit/plan2.asp> ,
- <https://www.varetirement.org/hybrid.html> .



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 7. Defined Benefit Pension Plan (Continued)**

**Employees Covered by Benefit Terms**

As of the June 30, 2020, actuarial valuation, the following employees were covered by the benefit terms of the pension plan:

	<u>Number</u>
Inactive members or their beneficiaries currently receiving benefits	<u>39</u>
Inactive members:	
Vested inactive members	9
Non-vested inactive members	26
Inactive members active elsewhere in VRS	<u>15</u>
Total inactive members	50
Active members	<u>75</u>
Total covered employees	<u><u>164</u></u>

**Contributions**

The contribution requirement for active employees is governed by §51.1-145 of the *Code of Virginia*, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5.00% of their compensation toward their retirement.

The political subdivision's contractually required contribution rate for the year ended June 30, 2022, was 7.00% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2019.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan from the political subdivision were \$339,261 and \$313,643 for the years ended June 30, 2022, and June 30, 2021, respectively.

**Net Pension Liability**

The net pension liability is calculated separately for each employer and represents that particular employer's total pension liability determined in accordance with GASB Statement No. 68, less that employer's fiduciary net position. For political subdivisions, the net pension liability was measured as of June 30, 2021. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2020, rolled forward to the measurement date of June 30, 2021.

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**Note 7. Defined Benefit Pension Plan (Continued)**

**Actuarial Assumptions**

The total pension liability for General Employees in the Political Subdivision's Retirement Plan was based on an actuarial valuation as of June 30, 2020, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021.

Inflation	2.50%
Salary increases, including inflation	3.50 – 5.35%
Investment rate of return	6.75%, net of pension plan investment expense, including inflation

Mortality rates: General employees – 15% to 20% of deaths are assumed to be service related. Mortality is projected using the applicable Pub-2010 Mortality Table with various setbacks or set forwards for both males and females.

The actuarial assumptions used in the June 30, 2019, valuation were based on the results of an actuarial experience study for the period from July 1, 2012, through June 30, 2016, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study are as follows:

General Employees - Largest 10 – Non-Hazardous Duty and all Others (Non 10 Largest): Updated mortality table; adjusted retirement rates, adjusted withdrawal rates to better fit experience at each year age and service through 9 years of service; no change to disability rates; no change to salary scale, and no change to discount rate.

**Long-Term Expected Rate of Return**

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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**Note 7. Defined Benefit Pension Plan (Continued)**

**Long-Term Expected Rate of Return (Continued)**

The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

<u>Asset Class (Strategy)</u>	<u>Target Allocation</u>	<u>Arithmetic Long-Term Expected Rate of Return</u>	<u>Weighted Average Long-Term Expected Rate of Return</u>
Public Equity	34.00 %	5.00 %	1.70 %
Fixed Income	15.00	0.57	0.09
Credit Strategies	14.00	4.49	0.63
Real Assets	14.00	4.76	0.67
Private Equity	14.00	9.94	1.39
MAPS – Multi-Asset Public Strategies	6.00	3.29	0.20
PIP – Private Investment Partnership	3.00	6.84	0.21
Total	100.00 %		<u>4.64 %</u>
	Inflation		<u>2.50 %</u>
			<u>7.39 %</u>
* Expected arithmetic nominal return			

\*The above allocation provides for a one-year return of 7.39%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected rate of return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.94%, including expected inflation of 2.5%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation at that time, providing a median return of 7.11% including expected inflation of 2.50%.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
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**Note 7. Defined Benefit Pension Plan (Continued)**

**Discount Rate**

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Statutes, and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions, political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2021, the alternate rate was the employer contribution rate used in the fiscal year 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2017, actuarial valuations, whichever is greater. From July 1, 2021, on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

**Changes in Net Pension Liability**

	<u>Increase (Decrease)</u>		
	<u>Total Pension Liability (a)</u>	<u>Plan Fiduciary Net Position (b)</u>	<u>Net Pension Liability (a) – (b)</u>
Balances at June 30, 2020	\$ 19,378,313	\$ 15,718,570	\$ 3,659,743
Changes for the year:			
Service cost	337,400	-	337,400
Interest	1,287,748	-	1,287,748
Benefit changes	-	-	-
Assumption changes	264,750	-	264,750
Differences between expected and actual experience	(11,769)	-	(11,769)
Contributions – employer	-	303,643	(303,643)
Contributions – employee	-	222,626	(222,626)
Net investment income	-	4,326,251	(4,326,251)
Benefit payments, including refunds of employee contributions	(601,130)	(601,130)	-
Administrative expenses	-	(10,552)	10,552
Other changes	-	410	(410)
Net changes	1,276,999	4,241,248	(2,964,249)
Balances at June 30, 2021	\$ 20,655,312	\$ 19,959,818	\$ 695,494

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
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**Note 7. Defined Benefit Pension Plan (Continued)**

**Sensitivity of the Net Pension Liability to Changes in the Discount Rate**

The following presents the net pension liability of the political subdivision using the discount rate of 6.75%, as well as what the political subdivision's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (5.75%) or one percentage point higher (7.75%) than the current rate:

	<b>1.00% Decrease (5.75%)</b>	<b>Current Discount Rate (6.75%)</b>	<b>1.00% Increase (7.75%)</b>
Political subdivision's net pension liability (asset)	\$ 3,519,069	\$ 695,494	\$ (1,618,915)

**Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions**

For the year ended June 30, 2022, the political subdivision recognized pension expense of \$141,815. At June 30, 2022, the political subdivision reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 369,330	\$ 8,080
Change of assumptions	286,134	-
Net difference between projected and actual earnings on pension plan investments	-	2,162,120
Employer contributions subsequent to the measurement date	339,261	-
Total	<u>\$ 994,725</u>	<u>\$ 2,170,200</u>

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**Note 7. Defined Benefit Pension Plan (Continued)**

**Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions (Continued)**

The \$339,261 reported as deferred outflows of resources related to pensions resulting from the political subdivision's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the fiscal year ending June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<u>Year Ended June 30,</u>	<u>Reduction to Pension Expense</u>
2023	\$ (111,506)
2024	(260,585)
2025	(489,020)
2026	(653,625)
2027	-
Thereafter	-

**Pension Plan Data**

Information about the VRS Political Subdivision Retirement Plans is also available in the separately issued VRS 2021 Comprehensive Annual Financial Report (Annual Report). A copy of the 2021 VRS Annual Report may be downloaded from the VRS website at <https://www.varetire.org/pdf/Publications/2021-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**Note 8. Other Postemployment Benefits Liability – Virginia Retirement System Plan**

In addition to their participation in the pension plans offered through the Virginia Retirement System (VRS), the Authority also participates in a cost-sharing and agent multi-employer other postemployment benefit plan, described as follows.

**Plan Descriptions**

**Group Life Insurance Program**

All full-time employees of the Authority are automatically covered by the VRS Group Life Insurance (GLI) Program upon employment.

In addition to the Basic Group Life Insurance Benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life insurance coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insured program,



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**Note 8. Other Postemployment Benefits Liability – Virginia Retirement System Plan (Continued)**

it is not included as part of the GLI Program OPEB.

Specific information for the GLI is available at <https://www.varetire.org/members/benefits/life-insurance/basic-group-life-insurance.asp>

The GLI is administered by the VRS along with pensions and other OPEB plans, for public employer groups in the Commonwealth of Virginia. This plan is considered a multiple employer, cost sharing plan.

**Contributions**

Contributions to the VRS OPEB program was based on actuarially determined rates from actuarial valuations as of June 30, 2019. The actuarially determined rates were expected to finance the cost of benefits earned by employees during the year, with an additional amount to fund any unfunded accrued liability. Specific details related to the contributions for the VRS OPEB program is as follows:

**Group Life Insurance Program**

Governed by:	<i>Code of Virginia 51.1-506 and 51.1-508 and may be impacted as a result of funding provided to school divisions and governmental agencies by the Virginia General Assembly.</i>
Total rate:	1.34% of covered employee compensation. Rate allocated 60/40; 0.80% employee and 0.54% employer. Employers may elect to pay all or part of the employee contribution.
June 30, 2022 Contribution	\$27,102
June 30, 2021 Contribution	\$25,130

**OPEB Liabilities, OPEB Expense and Deferred Inflows and Outflows of Resources Related to OPEB**

The net OPEB liabilities were measured as of June 30, 2021, and the total OPEB liabilities used to calculate the net OPEB liabilities was determined by an actuarial valuation performed as of June 30, 2020 and rolled forward to the measurement date of June 30, 2021. The covered employer's proportion of the net OPEB liabilities were based on the covered employer's actuarially determined employer contributions for the year ended June 30, 2021, relative to the total of the actuarially determined employer contributions for all participating employers.

**Group Life Insurance Program**

June 30, 2022 proportionate share of liability	\$ 262,427
June 30, 2021 proportion	.02254%
June 30, 2020 proportion	.02233%
June 30, 2022 expense	\$ 15,932

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**Note 8. Other Postemployment Benefits Liability – Virginia Retirement System Plan (Continued)**

**OPEB Liabilities, OPEB Expense and Deferred Inflows and Outflows of Resources Related to OPEB (Continued)**

Since there was a change in proportionate share between measurement dates, a portion of the OPEB expense above was related to deferred amount from changes in proportion.

At June 30, 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources.

Group Life Insurance Program

	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 29,931	\$ 2,000
Change of assumptions	14,468	35,906
Net difference between projected and actual earnings on OPEB plan investments	-	62,636
Changes in proportionate share	18,619	-
Employer contributions subsequent to the measurement date	27,102	-
Total	<u>\$ 90,120</u>	<u>\$ 100,542</u>

The deferred outflows of resources related to OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net OPEB liability in the Fiscal Year ending June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense in future reporting periods as follows:

Group Life Insurance Program

<b>Year Ended June 30,</b>	<b>Reduction to OPEB Expense</b>
2023	\$ (7,747)
2024	(4,835)
2025	(5,053)
2026	(16,920)
2027	(2,969)
Thereafter	-



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**Note 8. Other Postemployment Benefits Liability – Virginia Retirement System Plan (Continued)**

**Actuarial Assumptions and Other Inputs**

The total OPEB liability was determined using the following assumptions based on an actuarial valuation date of June 30, 2020, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021:

Inflation	2.50%
Salary increases, including inflation:	
• Locality- general employees	3.50 – 5.35%
Healthcare cost trend rates:	
• Under age 65	7.00 – 4.75%
• Ages 65 and older	5.375 – 4.75%
Investment rate of return, net of expenses, including inflation	GLI: 6.75%

Mortality rates used for the various VRS OPEB plans are the same as those used for the actuarial valuations of the VRS pension plans. The mortality rates are discussed in detail at Note 7.

**Net OPEB Liabilities**

The net OPEB liabilities represent the total OPEB liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date of June 30, 2021, net OPEB liability amounts for the various VRS OPEB programs are as follows (amounts expressed in thousands):

	<b>Group Life Insurance Program</b>
Total OPEB Liability	\$ 3,577,346
Plan fiduciary net position	2,413,074
Employers' net OPEB liability (asset)	\$ 1,164,272
Plan fiduciary net position as a percentage of total OPEB liability	67.45%

The total liability is calculated by the VRS actuary and each plan's fiduciary net position is reported in the VRS financial statements. The net OPEB liability is disclosed in accordance with the requirements of GASB Statement No. 74 in the VRS notes to the financial statements and required supplementary information.



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**NOTES TO FINANCIAL STATEMENTS**  
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**Note 8. Other Postemployment Benefits Liability – Virginia Retirement System Plan (Continued)**

**Long-Term Expected Rate of Return**

Group Life Insurance

The long-term expected rate of return on VRS investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

<u>Asset Class (Strategy)</u>	<u>Target Allocation</u>	<u>Arithmetic Long-Term Expected Rate of Return</u>	<u>Weighted Average Long-Term Expected Rate of Return</u>
Public Equity	34.00 %	5.00 %	1.70 %
Fixed Income	15.00	0.57	0.09
Credit Strategies	14.00	4.49	0.63
Real Assets	14.00	4.76	0.67
Private Equity	14.00	9.94	1.39
MAPS – Multi-Asset Public Strategies	6.00	3.29	0.20
PIP – Private Investment Partnership	3.00	6.84	0.21
Total	100.00 %		4.89 %
	Inflation		2.50 %
	*Expected arithmetic nominal return		7.39 %

- \* The above allocation provides for a one-year return of 7.39%. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected rate of return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 6.94%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40<sup>th</sup> percentile of expected long-term results of the VRS fund asset allocation at that time, providing a median return of 7.11%, including inflation of 2.50%.

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**Note 8. Other Postemployment Benefits Liability – Virginia Retirement System Plan (Continued)**

**Discount Rate**

The discount rate used to measure the GLI OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that System member contributions will be made per the VRS Guidance, and the employer contributions will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2020, the rate contributed by the employer for the OPEB liability will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2020, on, participating employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the OPEB plans' fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total OPEB liability.

**Sensitivity of the Net OPEB Liability to Changes in the Discount Rate**

The following presents the net OPEB liabilities of the Authority, as well as what the Authority's net OPEB liabilities would be if it were calculated using a discount rate that is one percentage point lower (5.75% GLI) or one percentage point higher (7.75% GLI) than the current discount rate:

	1.00% Decrease (5.75%)	Current Discount Rate (6.75%)	1.00% Increase (7.75%)
GLI Net OPEB liability	\$ 383,415	\$ 262,427	\$ 164,723

**OPEB Plan Fiduciary Net Position**

Information about the various VRS OPEB plan fiduciary net position is available in the separately issued VRS 2021 Annual Comprehensive Financial Report (Annual Report). A copy of the 2021 VRS Annual Report may be downloaded from the VRS website at <https://www.varetire.org/pdf/Publications/2021-annual-report.pdf>, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

**Note 9. Other Post-Employment Benefits Liability – Local Plan**

**Plan description:**

The Authority offers other post-employment benefits (OPEB) under a single employer plan by allowing qualifying retirees to continue to participate in the Authority's health insurance plan. Retirees must pay the cost of the premium but receive an implicit rate subsidy by virtue of participating in the Authority's plan. No assets are accumulated in a trust to pay benefits to the plan.

The Authority's Voluntary Early Retirement Incentive Program (VERIP) provides an additional health insurance subsidy for up to five years for employees who retire and meet the requirements of the plan.



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**Note 9. Other Post-Employment Benefits Liability – Local Plan (Continued)**

**Plan description (Continued):**

VERIP participants may choose to apply this subsidy to Authority sponsored health insurance premiums or to purchase other insurance. For fiscal year 2022, the Authority's health and benefit contribution was \$554 per month. VERIP benefits are paid monthly for a period of five years after retirement or until age 65, whichever comes first.

Participants in the Authority's VERIP must meet the following requirements: employees must be eligible for early or full retirement under the provisions of the VRS, must have been employed by the Authority for 10 years prior to retirement, and must be at least 50 years of age. Any employees retiring under the disability provisions of VRS and/or Social Security will not be eligible for VERIP.

**Employees Covered by Benefit Terms:**

As of the June 30, 2022 measurement date, the following employees were covered by the benefit terms of the plan:

	<u>Number</u>
Inactive employees or beneficiaries:	
Currently receiving benefits	1
Entitled to but not yet receiving benefits	-
	<hr/>
Total inactive employees	1
Active plan members	<hr/> 79
	<hr/>
Total employees covered by benefit terms	<u>\$ 80</u>

**Total OPEB Liability:**

The Authority's total OPEB liability of \$881,941 was measured as of June 30, 2022 and was determined based on an actual valuation performed as of July 1, 2021.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
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**Note 9. Other Post-Employment Benefits Liability – Local Plan (Continued)**

**Actuarial Assumptions and other inputs:**

The total OPEB liability was determined using the following assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.50% per year
Salary increases, including inflation	3.50% plus the salary merit increases, which are based on the VRS actuarial valuation as of June 30, 2021
Healthcare cost trend rates	4.50% - 7.50%
Retirees' share of benefit-related costs	Retirees are responsible for the full cost of coverage less the VERIP subsidy for those who qualify
Mortality rates	Active employees and retirees: SOA Pub-2010 General Headcount Weighted Mortality Table fully generational using Scale MP-2021; Surviving spouses: SOA Pub-2010 Continuing Survivor Headcount Weighted Mortality Table fully generational using Scale MP-2021; Disabled employees and retirees: SOA Pub-2010 Non-Safety Disability Headcount Weighted Mortality Table fully generational using Scale MP-2021

The actuarial assumptions used in the July 1, 2021 valuation were based on the results of an actuarial experience study for the period from July 1, 2021 through June 30, 2022. There have been no substantive plan provision changes since the last full valuation, which was for the fiscal year ending June 30, 2022.

**Changes in assumptions and other inputs:**

- The Discount rate as of the Measurement Date has been updated from 2.19% as of July 1, 2021, to 4.09% as of June 30, 2022, based on a yield for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher (or equivalent quality on another rating scale). This change has caused a significant decrease in the Authority's liabilities. The discount rate will be updated annually to reflect market conditions as of the Measurement Date.
- The mortality improvement scales for all mortality tables were updated from MP-2019 to MP-2021. This resulted in a slight increase in liabilities.
- Health care trend rates have been updated to an initial trend of 7.5% decreasing by 0.5% annually to an ultimate rate of 4.5% according to the schedule in the Health Care Trend Rates section of the Actuarial Methods and Assumptions. This change caused an increase in the Authority's liabilities.

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
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**Note 9. Other Post-Employment Benefits Liability – Local Plan (Continued)**

**Actuarial Assumptions and other inputs (Continued):**

- The updated census data resulted in a decrease in liabilities, mainly due to early termination of active participants who were retirement eligible, and changes in coverage tiers that resulted in additional gains.

**Changes in the Total OPEB Liability:**

Balance at June 30, 2021	
Changes for the year:	
Service Cost	\$ 1,076,302
Interest	65,346
Benefit Changes	24,509
Assumptions or other input changes	-
Differences between expected and actual experience	(118,432)
Benefit payments	(120,515)
	(45,269)
Balance at June 30, 2022	<u>\$ 881,941</u>

**Sensitivity of the Total OPEB Liability to Changes in the Discount Rate**

The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (3.09%) or one percentage point higher (5.09%) than the current discount rate:

	<u>1.00% Decrease (3.09%)</u>	<u>Current Discount Rate (4.09%)</u>	<u>1.00% Increase (5.09%)</u>
Total OPEB liability	\$ 956,646	\$ 881,941	\$ 812,959

**Sensitivity of the Total OPEB Liability to Changes in the Healthcare Cost Trend Rates**

The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage point lower (6.50%) or one percentage point higher (8.50%) than the current healthcare cost trend rates:

	<u>1.00% Decrease (6.50%)</u>	<u>Current Healthcare Cost Trend Rate (7.50%)</u>	<u>1.00% Increase (8.50%)</u>
Total OPEB liability	\$ 777,870	\$ 881,941	\$ 1,005,362

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
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**Note 9. Other Post-Employment Benefits Liability – Local Plan (Continued)**

**OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB**

For the year ended June 30, 2022, the Authority recognized OPEB expense of (\$46,126). At June 30, 2022, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between expected and actual experience	\$ 28,916	\$ 506,409
Change in assumptions	60,379	103,107
Employer contributions subsequent to the measurement date	<u>N/A</u>	<u>N/A</u>
Total	<u>\$ 89,295</u>	<u>\$ 609,516</u>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

<u>Year Ending June 30,</u>	<u>Decrease to OPEB Expense</u>
2023	\$ (135,984)
2024	(163,302)
2025	(128,497)
2026	(29,150)
2027	(29,151)
Thereafter	(34,137)



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**Note 9. Other Post-Employment Benefits Liability – Local Plan (Continued)**

**Summary of Other Postemployment Benefit Elements**

Deferred outflows of resources - OPEB	
Differences between expected and actual experience	
VRS- Group Life Insurance	\$ 29,931
Local Plan	28,916
Changes in proportion	
VRS- Group Life Insurance	18,619
Employer contributions subsequent to the measurement date	
VRS- Group Life Insurance	27,102
Changes of assumptions	
VRS- Group Life Insurance	14,468
Local Plan	60,379
Net difference between projected and actual earnings on plan investments	
VRS- Group Life Insurance	
Total deferred outflows of resources - OPEB	<u>\$ 179,415</u>
Net OPEB liability	
VRS- Group Life Insurance	\$ 262,427
Local Plan	881,941
Total net OPEB liability	<u>\$ 1,144,368</u>
Deferred inflows of resources - OPEB	
Differences between expected and actual experience	
VRS- Group Life Insurance	\$ 2,000
Local Plan	506,409
Changes of assumptions	
VRS- Group Life Insurance	35,906
Local Plan	103,107
Net difference between projected and actual earnings on plan investments	62,636
Total deferred inflows of resources – OPEB	<u>\$ 710,058</u>
OPEB Expense/(Income)	
VRS- Group Life Insurance	\$ 15,932
Local Plan	(46,126)
Total OPEB Expense/(Income)	<u>\$ (30,194)</u>

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 10. Service Contracts**

The Authority purchases all water and sewage treatment services from RWSA. These purchases amounted to \$12,403,735 for water and \$9,520,032 for sewage treatment services for the current year.

RWSA was formed in 1972 as a joint venture of the City of Charlottesville, the County of Albemarle, and the Authority. The RWSA operates under the terms of a Service Agreement which was signed in 1973 and is expected to continue indefinitely. Under the terms of the agreement, as well as several supplemental agreements since that time, the City of Charlottesville and the Authority have covenanted to purchase water and sewer services from RWSA. RWSA constructs and maintains the capital assets necessary to provide these water and sewer services and has issued debt to fund these projects. RWSA's charges to the Authority included a component for operations as well as a component for current and future estimated debt service.

In the current year, the charges that were associated with debt service were \$10,727,292.

**Note 11. Risk Management**

The Risk Management Programs of the Authority are as follows:

The Authority is a member of the Virginia Risk Sharing Association (V.R.S.A.). The liability coverage includes: local government liability, auto, property, boiler/machinery, Cyber Liability, fidelity/crime, workers compensation and general liability coverages. VML Insurance program is a self-administered risk pool which, for premiums paid, protects Virginia State and local government entities. Settlement amount under these policies have not exceeded insurance coverage for the last three fiscal years.

The limits of the pools' liability to the Authority are as follows:

- Local Government Liability – \$1,000,000
- Auto – \$1,000,000
- Property – \$21,840,464
- Boiler/Machinery – \$15,000,000
- Cyber Liability - \$1,000,000
- Fidelity/Crime – \$250,000
- General Liability – \$1,000,000 (plus Excess of \$4,000,000)
- Workers Compensation – Specific excess limits as per statute, aggregate excess limits up to the limits of the Aggregate Excess Loss Fund. Employers' Liability: \$1,000,000 for each bodily injury accident for each employee.

The Authority continues to carry commercial insurance for all other risks of loss, namely employee health insurance. Claims have not exceeded coverage for the last three fiscal years.

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO FINANCIAL STATEMENTS**  
**JUNE 30, 2022**

**Note 12. Deferred Compensation Plan**

Since 1988 the Authority has offered its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The Plan, available to all Authority employees, permits them to defer a maximum of 100% of their salary or \$20,500 per year, whichever is less. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency.

**Note 13. Contingency – Off-Site Extensions**

Off-site extensions of water and/or sanitary sewer lines to serve new developments shall be the responsibility of the developer. An off-site extension is defined as an extension of a water and/or sanitary sewer line by a developer from the developer's property boundary as determined by the Authority to existing Authority facilities. Under specific circumstances, upon completion of the project and acceptance into the Authority's system, the Authority shall enter into a written agreement granting the developer credit against future water and/or sewer system development charges. The credit can only be used for the property for which the off-site extension is constructed. The credit does not constitute a priority for water or sewer service. As water and/or sewer connections are made, the developer must use its existing credit first. The credit shall expire ten years after acceptance of the off-site water and/or sewer line extension into the Authority's system. If all requirements for use of credits are met, the total amount of unrecorded but potential credits is \$1,030,944 at June 30, 2022.

**Note 14. COVID-19 Impact**

On January 30, 2020, the World Health Organization ("WHO") announced a global health emergency because of a new strain of coronavirus (the "COVID-19 outbreak") and the risks to the international community as the virus spreads globally beyond its point of origin. In March 2020, the WHO classified the COVID-19 outbreak as a pandemic, based on the rapid increase in exposure globally.

The full impact of the COVID-19 outbreak continues to evolve as of the date of this report. As such, the Authority's financial condition, liquidity, and results of operations for Fiscal Year 2022 were largely similar to those in Fiscal Year 2021. Management continues to actively monitor the impact of the global situation on its financial condition, liquidity, operations, suppliers, industry, and workforce.



## **REQUIRED SUPPLEMENTARY INFORMATION**

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## Exhibit 4

ALBEMARLE COUNTY SERVICE AUTHORITY  
 REQUIRED SUPPLEMENTARY INFORMATION  
 SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
 June 30, 2022

	2021	2020	2019	2018	2017	2016	2015	2014
<b>Total Pension Liability</b>								
Service cost	\$ 337,400	\$ 334,646	\$ 288,386	\$ 282,089	\$ 302,117	\$ 306,250	\$ 319,994	\$ 303,515
Interest on total pension liability	1,287,748	1,177,200	1,117,629	1,062,604	1,021,852	971,270	945,438	891,399
Changes in benefit terms	-	-	-	-	-	-	-	-
Changes in assumptions	264,750	-	511,046	-	(261,995)	-	-	-
Difference between expected and actual experience	(11,769)	713,793	132,308	19,186	57,961	(77,660)	(456,292)	-
Benefit payments, including refunds of employee contributions	(601,130)	(574,638)	(576,372)	(579,237)	(496,301)	(458,221)	(421,994)	(423,861)
Net change in total pension liability	1,276,999	1,651,001	1,472,997	784,642	623,634	741,639	387,146	771,053
Total pension liability – beginning	19,378,313	17,727,312	16,254,315	15,469,673	14,846,039	14,104,400	13,717,254	12,946,201
Total pension liability – ending	20,655,312	19,378,313	17,727,312	16,254,315	15,469,673	14,846,039	14,104,400	13,717,254
<b>Plan Fiduciary Net Position</b>								
Contributions – employer	303,643	245,116	234,877	244,563	235,653	330,458	317,575	326,450
Contributions – employee	222,626	219,505	207,077	188,757	181,895	177,386	171,283	170,882
Net investment income	4,326,251	297,306	983,842	1,024,636	1,516,452	217,142	535,330	1,576,735
Benefit payments, including refunds of employee contributions	(601,130)	(574,638)	(576,372)	(579,237)	(496,301)	(458,221)	(421,994)	(423,861)
Administrative expenses	(10,552)	(10,040)	(9,615)	(8,793)	(8,670)	(7,476)	(7,154)	(8,347)
Other	410	(354)	(620)	(913)	(1,352)	(91)	(110)	84
Net change in plan fiduciary net position	4,241,248	176,895	839,189	869,013	1,427,677	259,198	594,930	1,641,943
Plan fiduciary net position – beginning	15,718,570	15,541,675	14,702,486	13,833,473	12,405,796	12,146,598	11,551,668	9,909,725
Plan fiduciary net position – ending	19,959,818	15,718,570	15,541,675	14,702,486	13,833,473	12,405,796	12,146,598	11,551,668
Net pension liability – ending	\$ 695,494	\$ 3,659,743	\$ 2,185,637	\$ 1,551,829	\$ 1,636,200	\$ 2,440,243	\$ 1,957,802	\$ 2,165,586
Plan fiduciary net position as a percentage of total pension liability	97%	81%	88%	90%	89%	84%	86%	84%
Covered payroll	\$ 4,653,342	\$ 4,596,106	\$ 4,325,421	\$ 3,922,995	\$ 3,757,862	\$ 3,635,900	\$ 3,474,178	\$ 3,355,469
Net pension liability as a percentage of covered payroll	15%	80%	51%	40%	44%	67%	56%	65%

The plan years above are reported in the entity's financial statements in the fiscal year following the plan year - i.e., plan year 2014 information was presented in the entity's fiscal year 2015 financial report.

This schedule is intended to show information for 10 years. Since fiscal year 2015 (plan year 2014) was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

The Notes to Required Supplementary Information  
 are an integral part of this schedule.

## Exhibit 5

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF PENSION CONTRIBUTIONS**  
**June 30, 2022**

<b>Year Ended June 30</b>	<b>Actuarially Determined Contribution</b>	<b>Contributions in Relation to Actuarially Determined Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Contributions as a percentage of Covered Payroll</b>
2015	\$ 311,615	\$ 311,615	\$ -	\$ 3,474,178	8.97%
2016	330,458	330,458	-	3,635,900	9.09%
2017	235,653	235,653	-	3,757,862	6.27%
2018	244,561	244,561	-	3,922,995	6.23%
2019	234,877	234,877	-	4,325,421	5.43%
2020	245,110	245,110	-	4,596,106	5.33%
2021	313,643	313,643	-	4,653,342	6.74%
2022	339,261	339,261	-	5,018,813	6.76%

Schedule is intended to show information for 10 years. Since 2015 was the first year for this presentation, no earlier data is available. Additional years will be included as they become available.



## ALBEMARLE COUNTY SERVICE AUTHORITY

Exhibit 6

**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF CHANGES IN OPEB LIABILITY AND RELATED RATIOS - LOCAL PLAN**  
June 30, 2022

	<u>Plan Year 2022</u>	<u>Plan Year 2021</u>	<u>Plan Year 2020</u>	<u>Plan Year 2019</u>	<u>Plan Year 2018</u>
<b>Total OPEB Liability</b>					
Service cost	\$ 65,346	\$ 57,968	\$ 74,812	\$ 68,079	\$ 69,786
Interest on total OPEB liability	24,509	27,390	55,438	67,654	56,003
Changes in benefit terms	-	-	-	-	-
Difference between expected and actual experience	(120,515)	(4,522)	(632,618)	(250,714)	173,501
Changes in assumptions	(118,432)	39,416	36,551	41,846	(9,554)
Benefit payments	(45,269)	(31,166)	(102,307)	(102,268)	(106,141)
Net change in total OPEB liability	(194,361)	89,086	(568,124)	(175,403)	183,595
<b>Total OPEB liability - beginning</b>	<u>1,076,302</u>	<u>987,216</u>	<u>1,555,340</u>	<u>1,730,743</u>	<u>1,547,148</u>
<b>Total OPEB liability - ending</b>	<u>\$ 881,941</u>	<u>\$ 1,076,302</u>	<u>\$ 987,216</u>	<u>\$ 1,555,340</u>	<u>\$ 1,730,743</u>
 Covered employee payroll	 <u>\$ 5,262,437</u>	 <u>\$ 4,686,463</u>	 <u>\$ 4,583,540</u>	 <u>\$ 4,404,509</u>	 <u>\$ 3,899,735</u>
 Total OPEB liability as a percentage of covered payroll	 <u>16.8%</u>	 <u>23.0%</u>	 <u>21.5%</u>	 <u>35.3%</u>	 <u>44.4%</u>

This schedule is intended to show information for 10 years. Since fiscal year 2018 is the first year for this presentation, no earlier data is available. Additional years will be included as they become available.

The Notes to Required Supplementary Information  
are an integral part of this schedule.

## Exhibit 7

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF OPEB CONTRIBUTIONS**  
**June 30, 2022**

<b>Fiscal Year Ended June 30</b>	<b>Actuarially Determined Employer Contribution</b>	<b>Actual Employer Contribution</b>	<b>Contribution Deficiency (Excess)</b>	<b>Covered Payroll</b>	<b>Contributions as a percentage of Covered Payroll</b>
<b>VRS - Group Life Insurance - General Employees</b>					
2018	\$ 20,401	\$ 20,401	\$ -	\$ 3,922,995	0.52%
2019	22,492	22,492	-	4,325,421	0.52%
2020	23,898	23,898	-	4,596,106	0.52%
2021	25,130	25,130	-	4,653,342	0.54%
2022	27,102	27,102	-	5,018,813	0.54%

Schedule is intended to show information for 10 years. Since 2018 was the first year for this presentation, no earlier data is available. However, additional years will be included as they become available.

The covered payroll amounts above are for the entity's fiscal year - i.e. the covered payroll on which required contributions were based for the same year.

**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**REQUIRED SUPPLEMENTARY INFORMATION**  
**SCHEDULE OF EMPLOYER'S SHARE OF NET OPEB LIABILITY**  
**June 30, 2022**

<u>Entity Fiscal Year Ended June 30</u>	<u>Employer's Proportion of the Net OPEB Liability (Asset)</u>	<u>Employer's Proportionate Share of the Net OPEB Liability (Asset)</u>	<u>Covered Payroll</u>	<u>Employer's Proportionate Share of the Net OPEB Liability (Asset) as a percentage of its Covered Payroll</u>	<u>Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability</u>
<b>VRS - Group Life Insurance - General Employees</b>					
2018	0.02038%	\$ 307,000	\$ 3,757,862	8.17%	48.86%
2019	0.02063%	313,000	3,922,995	7.98%	51.22%
2020	0.02206%	358,975	4,325,421	8.30%	52.00%
2021	0.02233%	372,651	4,596,106	8.11%	52.64%
2022	0.02254%	262,427	4,653,342	5.64%	67.45%

Schedule is intended to show information for 10 years. Since 2018 was the first year for this presentation, no earlier data is available. However, additional years will be included as they become available.

The covered payroll amounts above are for the measurement period, which is the twelve months prior to the entity's fiscal year.



**ALBEMARLE COUNTY SERVICE AUTHORITY**  
**NOTES TO REQUIRED SUPPLEMENTARY INFORMATION**  
**June 30, 2022**

**Note 1. Changes of Benefit Terms**

Pension

There have been no actuarially material changes to the Virginia Retirement System (System) benefit provisions since the prior actuarial valuation.

Other Postemployment Benefits (OPEB)

There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

**Note 2. Changes of Assumptions**

The actuarial assumptions used in the June 30, 2020 valuation were based on the results of an actuarial experience study for the period from July 1, 2016, through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

**Largest 10 – Non-Hazardous Duty:**

- Update mortality table to PUB2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020.
- Adjusted retirement rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age from 75 to 80 for all.
- Adjusted withdraw rates to better fit experience at each year and service through 9 years of service.
- No change in disability rates.
- No change to salary scale.
- No change to line of duty rates.
- No change to discount rate.

**All Others (Non 10 Largest) – Non-Hazardous Duty:**

- Update mortality table to PUB2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020.
- Adjusted retirement rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age from 75 to 80 for all.
- Adjusted withdraw rates to better fit experience at each year and service through 9 years of service.
- No change in disability rates.
- No change to salary scale.
- No change to line of duty rates.
- No change to discount rate.

## STATISTICAL SECTION

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The statistical section of the Authority's comprehensive annual financial report presents detailed information as a context for understanding what the information presented in the financial statements, note disclosures, and required supplementary information say about the Authority's overall financial health. This information has not been audited by the independent auditor.

### Contents

#### ***Financial Trends***

***Tables 1-4***

These schedules contain trend information to help the reader understand how the Authority's financial performance and well-being have changed over time.

#### ***Revenue Capacity***

***Tables 5-6***

These schedules contain information to help the reader assess the Authority's most significant revenue sources.

#### ***Debt Capacity***

***Table 7***

These schedules present information to help the reader assess the affordability of the Authority's current level of outstanding debt and the Authority's ability to issue additional debt in the future.

#### ***Demographic and Economic Information***

***Tables 8-9***

These schedules offer demographic and economic indicators to help the reader understand the environment within which the Authority's financial activities take place.

#### ***Operating Information***

***Tables 10-17***

These schedules contain information about the Authority's operations and resources to help the reader understand how the Authority's financial information relates to the services the Authority provides.

**Sources:** Unless otherwise noted, the information in these schedules is derived from the Comprehensive Annual Financial Reports for the relevant year.

Table 1

ALBEMARLE COUNTY SERVICE AUTHORITY  
NET POSITION BY COMPONENT  
LAST TEN FISCAL YEARS  
(ACCRUAL BASIS OF ACCOUNTING)

	Fiscal Year									
	2013	2014	2015*	2016	2017	2018**	2019	2020	2021	2022
Business-type activities										
Net investment in capital assets	\$ 108,233,265	\$ 115,617,250	\$ 119,714,145	\$ 126,311,674	\$ 131,997,020	\$ 140,238,885	\$ 148,180,254	\$ 156,610,823	\$ 165,640,741	\$ 172,031,606
Restricted for debt service	223,963	229,688	234,890	240,591	247,015	255,835	264,343	269,790	272,895	314,718
Unrestricted	21,876,992	22,782,549	22,276,215	24,423,916	29,077,339	36,007,519	37,580,516	43,394,497	46,047,071	47,742,895
Total business-type activities net position	<u>\$ 130,334,220</u>	<u>\$ 138,629,487</u>	<u>\$ 142,225,250</u>	<u>\$ 150,976,181</u>	<u>\$ 161,321,374</u>	<u>\$ 176,502,239</u>	<u>\$ 186,025,113</u>	<u>\$ 200,275,110</u>	<u>\$ 211,960,707</u>	<u>\$ 220,089,219</u>

\* GASB Statement No. 68 was adopted in fiscal year 2015. Information from previous years presented is unavailable

\*\* GASB Statement No. 75 was adopted in fiscal year 2018. Information from previous years presented is unavailable



**ALBEMARLE COUNTY SERVICE AUTHORITY  
CHANGES IN NET POSITION  
LAST TEN FISCAL YEARS  
(ACCRUAL BASIS OF ACCOUNTING)**

Table 2

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Operating expenses</b>										
Operating expenses:										
Water	\$ 10,686,931	\$ 10,262,354	\$ 11,204,103	\$ 11,872,889	\$ 12,816,458	\$ 13,029,366	\$ 13,762,043	\$ 14,934,749	\$ 15,418,833	\$ 17,649,112
Sewer	9,490,588	10,111,833	9,130,743	9,766,413	9,613,692	9,664,393	12,468,623	12,201,559	13,285,061	13,545,928
Other	2,556,232	2,819,633	3,026,916	3,158,144	3,302,779	3,336,765	3,625,254	3,669,899	3,898,244	4,114,076
<b>Total operating expenses</b>	<b>\$ 22,733,751</b>	<b>\$ 23,193,820</b>	<b>\$ 23,361,762</b>	<b>\$ 24,797,446</b>	<b>\$ 25,732,929</b>	<b>\$ 26,030,524</b>	<b>\$ 29,855,920</b>	<b>\$ 30,806,207</b>	<b>\$ 32,602,138</b>	<b>\$ 35,309,116</b>
<b>Operating revenues</b>										
Charges for services:										
Water	\$ 10,701,103	\$ 10,665,192	\$ 12,173,073	\$ 12,564,711	\$ 13,916,547	\$ 14,221,088	\$ 14,365,666	\$ 15,839,848	\$ 15,919,103	\$ 17,545,859
Sewer	9,611,718	9,588,948	10,468,470	10,895,970	11,869,460	12,232,244	12,688,282	13,662,193	13,964,581	15,279,189
Connection	550,967	296,724	328,862	329,384	359,660	331,838	356,398	367,451	141,043	131,415
<b>Total operating revenues</b>	<b>\$ 20,863,788</b>	<b>\$ 20,550,864</b>	<b>\$ 22,970,405</b>	<b>\$ 23,790,065</b>	<b>\$ 26,145,667</b>	<b>\$ 26,785,170</b>	<b>\$ 27,410,346</b>	<b>\$ 29,869,492</b>	<b>\$ 30,024,727</b>	<b>\$ 32,956,463</b>
<b>Net (expense) revenue</b>	<b>\$ (1,869,963)</b>	<b>\$ (2,642,956)</b>	<b>\$ (391,357)</b>	<b>\$ (1,007,381)</b>	<b>\$ 412,738</b>	<b>\$ 754,646</b>	<b>\$ (2,445,574)</b>	<b>\$ (936,715)</b>	<b>\$ (2,577,411)</b>	<b>\$ (2,352,653)</b>
<b>Nonoperating revenues and expenses</b>										
Investment earnings	\$ 19,745	\$ 110,135	\$ 102,469	\$ 215,035	\$ 59,576	\$ 348,572	\$ 946,599	\$ 733,385	\$ 82,900	\$ (631,795)
Miscellaneous revenues	218,389	310,340	347,692	363,029	412,944	552,586	51,050	333,752	548,486	381,926
Capital contributions	7,680,924	10,739,627	7,466,312	9,468,629	9,717,312	15,173,477	11,632,967	14,334,718	14,080,638	11,292,904
Other expenses	(765,000)	(221,879)	(473,424)	(288,381)	(257,377)	(293,343)	(662,168)	(215,143)	(449,016)	(561,870)
<b>Total nonoperating revenues and expenses</b>	<b>\$ 7,154,058</b>	<b>\$ 10,938,223</b>	<b>\$ 7,443,049</b>	<b>\$ 9,758,312</b>	<b>\$ 9,932,455</b>	<b>\$ 15,781,292</b>	<b>\$ 11,968,448</b>	<b>\$ 15,186,712</b>	<b>\$ 14,263,008</b>	<b>\$ 10,481,165</b>
<b>Change in net position</b>	<b>\$ 5,284,095</b>	<b>\$ 8,295,267</b>	<b>\$ 7,051,692</b>	<b>\$ 8,750,931</b>	<b>\$ 10,345,193</b>	<b>\$ 16,535,938</b>	<b>\$ 9,522,874</b>	<b>\$ 14,249,997</b>	<b>\$ 11,685,597</b>	<b>\$ 8,128,512</b>

Table 3

**ALBEMARLE COUNTY SERVICE AUTHORITY  
WATER AND SEWER SOLD BY TYPE OF CUSTOMER  
LAST TEN FISCAL YEARS  
(IN MILLIONS OF GALLONS)**

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Type of Water Customer</b>										
Single-family residential	709.20	704.40	715.80	714.07	747.21	751.98	736.24	802.07	841.10	843.20
Multi-family residential	360.10	370.00	376.30	379.59	393.56	392.13	398.38	407.54	439.01	444.72
Commercial (Offices)	49.10	47.40	49.20	64.97	51.50	45.65	44.48	42.05	36.94	43.84
Commercial (Other)	246.40	238.10	246.40	240.93	283.17	269.28	264.36	254.80	224.13	263.78
Industrial	18.30	20.30	16.20	21.59	19.68	17.28	18.41	17.16	11.27	12.20
Institutional	164.80	154.40	172.10	189.99	207.49	203.02	164.35	159.91	151.73	167.90
<b>TOTAL WATER SOLD</b>	<b>1,547.90</b>	<b>1,534.60</b>	<b>1,576.00</b>	<b>1,611.14</b>	<b>1,702.61</b>	<b>1,679.34</b>	<b>1,626.22</b>	<b>1,683.53</b>	<b>1,704.18</b>	<b>1,775.64</b>
Residential & irrigation 0-3,000	\$3.44	\$3.33	\$3.69	\$3.80	\$3.99	\$4.11	\$4.27	\$4.48	\$4.48	\$4.70
3,001-6,000	\$6.88	\$6.66	\$7.38	\$7.60	\$7.98	\$8.22	\$8.55	\$8.98	\$8.98	\$9.43
6,001-9,000	\$10.32	\$9.99	\$11.07	\$11.40	\$11.97	\$12.33	\$12.82	\$13.46	\$13.46	\$14.13
Over 9,000	\$13.76	\$13.32	\$14.76	\$15.20	\$15.96	\$16.44	\$17.10	\$17.96	\$17.96	\$18.86
Multi-family & non-residential	\$6.43	\$6.43	\$7.12	\$7.33	\$7.70	\$7.93	\$8.25	\$8.66	\$8.66	\$9.09
	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Type of Sewer Customer</b>										
Single-family residential	553.00	556.90	565.35	570.61	600.29	604.03	600.17	650.95	689.17	685.30
Multi-family residential	332.90	339.80	347.75	355.89	366.04	366.63	375.80	390.51	418.86	448.24
Commercial (Offices)	41.90	41.40	42.53	58.43	47.37	41.32	39.78	36.40	31.90	36.11
Commercial (Other)	202.40	202.60	209.61	204.30	236.26	239.30	233.57	217.44	195.02	225.71
Industrial	16.70	15.40	15.49	17.45	15.19	15.97	13.60	13.32	10.22	11.64
Institutional	148.00	141.80	152.28	140.99	143.41	144.23	144.03	138.98	133.31	143.42
<b>TOTAL SEWER SOLD</b>	<b>1,294.90</b>	<b>1,297.90</b>	<b>1,333.01</b>	<b>1,347.67</b>	<b>1,408.56</b>	<b>1,411.48</b>	<b>1,406.95</b>	<b>1,447.60</b>	<b>1,478.48</b>	<b>1,550.42</b>
Rate per 1,000 gallons	\$7.49	\$7.49	\$7.86	\$8.10	\$8.50	\$8.67	\$8.93	\$9.47	\$9.47	\$9.94

**ALBEMARLE COUNTY SERVICE AUTHORITY  
WATER AND SEWER RATES  
LAST TEN FISCAL YEARS**

Table 4

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Monthly Service Charge<sup>1</sup></b>	\$ 6.15	\$ 6.15	\$ 7.18	\$ 7.40	\$ 7.73	\$ 7.92	\$ 8.16	\$ 8.57	\$ 8.57	\$ 9.00
<b>Water Volume</b>										
<b>Single-family/Non-Residential</b>										
0 - 3,000	3.44	3.33	3.69	3.80	3.99	4.11	4.27	4.48	4.48	4.70
3,001 - 6,000	6.88	6.66	7.38	7.60	7.98	8.22	8.55	8.98	8.98	9.43
6,000 - 9,000	10.32	9.99	11.07	11.40	11.97	12.33	12.82	13.46	13.46	14.13
Over 9,000	13.76	13.32	14.76	15.20	15.96	16.44	17.10	17.96	17.96	18.8
<b>Multi-family/Non-Residential</b>										
All Metered Consumption	6.43	6.43	7.12	7.33	7.70	7.93	8.25	8.66	8.66	9.09
<b>Sewer Volume</b>	7.49	7.49	7.86	8.10	8.50	8.67	8.93	9.47	9.47	9.94

<sup>1</sup> Monthly Service charge varies based on meter size. The amount represented here is for our standard 5/8 in meters.



Table 5

**ALBEMARLE COUNTY SERVICE AUTHORITY  
TOP TEN REVENUE PAYERS  
CURRENT YEAR AND NINE YEARS AGO**

Customer	Fiscal Year 2022			Fiscal Year 2013		
	Water Billed (in gallons)	Rank	Percent of Total Water Sales	Water Billed (in gallons)	Rank	Percent of Total Water Sales
University of Virginia	27,168,485	1	1.53 %	14,476,900	10	0.94 %
SEMF Charleston	22,579,303	2	1.27	-	-	-
Southwood Mobile Homes	21,831,000	3	1.23	37,074,000	1	2.40
Martha Jefferson Hospital	21,519,595	4	1.21	24,503,500	2	1.58
Abbingdon Crossing	20,913,323	5	1.18	20,113,700	3	1.30
Four Seasons Apts.	18,582,556	6	1.05	15,726,300	9	1.02
Old Salem Apts.	18,313,700	7	1.03	16,070,100	8	1.04
Westminster Canterbury	17,623,050	8	0.99	-	-	-
County of Albemarle	16,665,097	9	0.94	19,031,300	5	1.23
ACRJ	16,113,290	10	0.91	17,712,000	6	1.14
Trophy Chase Apts.	-	-	-	19,567,850	4	1.26
Turtle Creek Apartments	-	-	-	16,199,100	7	1.05
	<u>201,309,399</u>		<u>11.34%</u>	<u>200,474,750</u>		<u>12.95%</u>
Total water consumption:	<u>1,775,640,000</u>			<u>1,547,900,000</u>		

Customer	Fiscal Year 2022			Fiscal Year 2013		
	Sewer Billed (in gallons)	Rank	Percent of Total Sewer Sales	Sewer Billed (in gallons)	Rank	Percent of Total Sewer Sales
Southwood Mobile Homes	47,324,231	1	3.05 %	-	-	-
University of Virginia	26,199,487	2	1.69	13,062,200	10	1.01
SEMF Charleston	22,579,303	3	1.46	-	-	-
Abbingdon Crossing	20,913,323	4	1.35	20,113,700	2	1.55
Four Seasons Apts.	18,582,556	5	1.20	15,540,500	7	1.20
Old Salem Apts.	18,313,700	6	1.18	16,070,100	6	1.24
Westminster Canterbury	15,875,050	7	1.02	13,949,000	9	1.08
Turtle Creek Apts.	15,459,435	8	1.00	16,199,100	5	1.25
ACRJ	14,773,290	9	0.95	17,712,000	4	1.37
Westgate Apts.	14,731,875	10	0.95	-	-	-
Martha Jefferson Hospital	-	-	-	21,291,900	1	1.64
Trophy Chase Apts.	-	-	-	19,567,850	3	1.51
County of Albemarle	-	-	-	14,479,500	8	1.12
	<u>214,752,250</u>		<u>13.85%</u>	<u>167,985,850</u>		<u>12.97%</u>
Total sewer usage:	<u>1,550,420,000</u>			<u>1,294,900,000</u>		

**ALBEMARLE COUNTY SERVICE AUTHORITY  
OUTSTANDING DEBT PER CONNECTION, PER CAPITA,  
AND DEBT PER CAPITA AS A PERCENTAGE OF INCOME PER CAPITA  
LAST TEN FISCAL YEARS**

Table 6

Fiscal Year	Outstanding Revenue Bond	Number of <sup>1</sup> Connections	Debt per Connection (3) = (1)/(2)	Estimated <sup>2</sup> Population Served (4) = (2) * 2.5	Debt per Capita (5) = (1)/(4)	Income <sup>3</sup> per Capita	Debt per Capita as a % of Income per Capita (7) = (5)/(6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2013	\$ 9,623,000	17,818	\$ 540.07	44,545	\$ 216.03	\$ 56,979	0.3791 %
2014	9,212,000	18,132	508.05	45,330	203.22	56,851	0.3575
2015	8,788,000	18,466	475.90	46,165	190.36	58,603	0.3248
2016	8,352,000	18,764	445.11	46,910	178.04	60,294	0.2953
2017	7,903,000	19,257	410.40	48,143	164.16	60,964	0.2693
2018	7,440,000	19,738	376.94	49,345	150.78	67,630	0.2229
2019	6,963,000	20,252	343.82	50,630	137.53	74,613	0.1843
2020	6,472,000	20,787	311.35	51,968	124.54	74,613	0.1669
2021	5,966,000	21,238	280.91	53,095	112.36	77,657	0.1447
2022	5,057,840	21,595	234.21	53,988	93.69	77,606	0.1207

<sup>1</sup> Connections from Table 12

<sup>2</sup> The Virginia Department of Health estimates 2.5 residents per connection; this number is used in lieu of the population data in Table 8 which is representative of the entire county.

<sup>3</sup> Per capita income data from Table 8 (Source: U.S. Bureau of Economic Analysis, Charlottesville-Albemarle Area)

Note: The Authority is not subject to legal debt limitations, and has issued no debt which is overlapping with other jurisdictions during the last ten fiscal years.

Table 7

**ALBEMARLE COUNTY SERVICE AUTHORITY  
PLEDGED-REVENUE COVERAGE  
LAST TEN FISCAL YEARS**

<b>Fiscal Year</b>	<b>Gross Revenue</b>	<b>Direct Operating Expense<sup>1</sup></b>	<b>Net Revenue Available for Debt Service</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>	<b>Coverage</b>
2013	\$ 28,935,078	20,177,519	\$ 8,757,559	\$ 399,000	\$ 452,600	\$ 851,600	10.28
2014	31,851,830	20,374,187	11,477,643	411,000	443,993	854,993	13.42
2015	31,021,470	20,334,846	10,686,624	424,000	414,813	838,813	12.74
2016	33,965,596	21,639,302	12,326,294	436,000	395,056	831,056	14.83
2017	36,457,609	22,430,150	14,027,459	449,000	374,726	823,726	17.03
2018	42,975,439	22,693,759	20,281,680	463,000	353,776	816,776	24.83
2019	40,149,708	26,230,666	13,919,042	477,000	332,183	809,183	17.20
2020	45,373,703	27,136,308	18,237,395	491,000	309,946	800,946	22.77
2021	44,736,751	28,703,894	16,032,857	506,000	287,044	793,044	20.22
2022	43,999,498	31,195,040	12,804,458	335,000	235,937	570,937	22.43

<sup>1</sup>Excluding depreciation and amortization



**ALBEMARLE COUNTY SERVICE AUTHORITY  
COUNTY DEMOGRAPHIC AND ECONOMIC STATISTICS  
LAST TEN FISCAL YEARS**

Table 8

Calendar Year	Population <sup>1</sup>	Personal Income <sup>2</sup>	Per Capita Income <sup>2</sup>	Per Capita Income as Percent (%) of U.S. Average <sup>2</sup>	School Enrollment <sup>3</sup>	Unemployment Rate <sup>4</sup>
2012	102,251	\$ 7,609,998,000	\$ 52,687	124 %	13,122	5.2 %
2013	103,000	8,350,340,000	56,979	129	13,263	5.4
2014	104,489	8,420,079,000	56,851	128	13,677	4.7
2015	105,703	8,795,194,000	58,603	127	13,737	3.7
2016	106,878	9,182,721,000	60,294	125	13,792	3.5
2017	107,702	9,375,633,000	60,964	124	13,910	3.3
2018	108,718	10,531,351,000	67,630	131	14,013	2.7
2019	109,330	11,702,008,000	74,613	137	14,435	2.5
2020	112,395	12,160,701,000	77,657	138	13,532	5.4
2021	113,535	12,230,910,000	77,606	130	13,749	3.2

<sup>1</sup> U.S. Census Bureau (estimates based on July 1)

<sup>2</sup> U.S. Bureau of Economic Analysis, Charlottesville-Albemarle Area, Personal Income, Population, Per Capita Personal Income

<sup>3</sup> County of Albemarle, Department of Education

<sup>4</sup> Virginia Labor Market Information, [www.virginialmi.com](http://www.virginialmi.com)

Calendar year 2022 statistics for the table above are not yet available.

Table 9

**ALBEMARLE COUNTY SERVICE AUTHORITY  
TEN LARGEST EMPLOYERS (ALBEMARLE COUNTY)  
CURRENT YEAR AND NINE YEARS AGO**

Employer	Estimated Product/Service	(1) Estimated Employment in 2022	Rank in 2022	(1) Estimated Employment in 2013	Rank in 2013
University of Virginia/Blue Ridge Hospital	Higher education	1,000 - over	1	1,000 - over	1
Sentara Healthcare/Martha Jefferson Hospital	Health care	1,000 - over	2	1,000 - over	3
U.S. Department of Defense	National security	1,000 - over	3	500 - 999	6
County of Albemarle	Local government	1,000 - over	4	1,000 - over	2
State Farm Mutual Automobile Insurance	Insurance services	500 - 999	5	1,000 - over	5
Crutchfield Corporation	Electronic retailers	500 - 999	6	-	-
Piedmont Virginia Community College	Higher education	250 - 499	7	250 - 499	8
Wal-Mart	Department stores	250 - 499	8	250 - 499	10
Northrop Grumman Corporation	Computer & electronic mfg.	250 - 499	9	500 - 999	7
Pharmaceutical Research Association	Health care research	250 - 499	10	-	-
UVA Health Services Foundation	Health care	-	-	1,000 - over	4
GE Fanuc	Computer & electronic mfg.	-	-	500 - 999	9

Source: Virginia Employment Commission

(1) Actual number of employees not available

**ALBEMARLE COUNTY SERVICE AUTHORITY  
FULL-TIME EMPLOYEES  
LAST TEN FISCAL YEARS**

Table 10

Department	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Administration/I. T.	9	10	10	10	10	10	10	10	11	11
Finance	15	15	16	16	17	17	17	17	17	17
Engineering	16	16	16	16	16	17	17	17	17	17
Maintenance	28	31	32	33	33	33	33	34	34	34
Total	68	72	74	75	76	77	77	78	79	79



Table 11

**ALBEMARLE COUNTY SERVICE AUTHORITY  
OPERATING INDICATORS  
LAST TEN FISCAL YEARS**

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
New connections	306	314	334	298	493	481	514	535	451	357
Water meters read <sup>1</sup>	219,483	223,195	227,435	231,275	235,879	241,978	248,182	254,786	260,699	265,753
Service orders processed <sup>2</sup>	11,707	11,823	12,116	12,405	16,988	12,055	8,179	11,091	10,640	8,306
Water main breaks	14	14	16	6	5	11	12	6	9	6
Sewer overflows	-	11	2	3	2	4	7	2	6	8
Sewer blockages	5	7	5	3	2	5	8	2	5	1

<sup>1</sup> Number of meters read for billing.

<sup>2</sup> Includes new service requests, requests for disconnection, meter installations & exchanges, investigations, and miscellaneous customer requests.

**ALBEMARLE COUNTY SERVICE AUTHORITY  
CAPITAL ASSET STATISTICS  
LAST TEN FISCAL YEARS**

Table 12

	Fiscal Year									
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Number of water connections	17,818	18,132	18,466	18,764	19,257	19,738	20,252	20,787	21,238	21,595
Number of sewer connections	14,840	15,168	15,508	15,805	16,299	16,764	17,273	17,803	18,257	18,611
Miles of water lines	346.55	351.76	355.00	338.52	344.76	349.40	353.10	357.81	363.79	373.97
Miles of sewer lines	252.81	258.40	261.10	281.67	288.17	292.70	297.60	301.12	316.06	323.52
Fire hydrants	2,302	2,330	2,375	2,511	2,590	2,650	2,747	2,818	3,023	3,137
Water pumping stations	10	9	9	9	8	8	9	9	9	9
Sewer pumping stations	12	12	12	12	12	12	12	12	11	11
Water storage tanks	8	7	7	8	8	8	8	8	8	8

Table 13

**ALBEMARLE COUNTY SERVICE AUTHORITY  
REVENUES BY SOURCE  
LAST TEN FISCAL YEARS**

<u>Fiscal Year</u>	<u>Service Charges</u>	<u>Connection Charges</u>	<u>Rental Income</u>	<u>Interest/Investment Earnings(Loss)</u>	<u>Other</u>	<u>Total</u>
2013	\$ 20,312,821	\$ 102,275	\$ 43,656	\$ 19,745	\$ 836,157	\$ 21,314,654
2014	20,254,140	92,788	33,810	110,135	621,330	21,112,203
2015	22,641,543	96,992	33,437	102,469	680,717	23,555,158
2016	23,460,681	117,728	27,645	215,035	675,878	24,496,967
2017	25,786,007	138,553	17,213	59,576	738,948	26,740,297
2018	26,453,332	140,451	16,603	348,572	843,004	27,801,962
2019	27,053,948	135,007	16,603	946,599	364,584	28,516,741
2020	29,502,041	147,876	16,603	733,385	639,080	31,038,985
2021	29,883,684	141,043	15,539	82,900	532,947	30,656,113
2022	32,825,048	131,415	18,357	(631,795)	363,569	32,706,594



**ALBEMARLE COUNTY SERVICE AUTHORITY  
EXPENSES BY FUNCTION  
LAST TEN FISCAL YEARS**

Table 14

<u>Fiscal Year</u>		<u>Water &amp; Sewer Costs</u>		<u>Departmental Operating Expenses</u>		<u>Bond Interest Charges</u>		<u>Depreciation</u>		<u>Other</u>		<u>Total</u>
2013	\$	14,027,324	\$	6,150,195	\$	152,232	\$	2,556,232	\$	825,500	\$	23,711,483
2014		13,849,536		6,524,651		360,711		2,819,633		2,032		23,556,563
2015		13,901,732		6,433,114		414,813		3,026,916		193,203		23,969,778
2016		14,795,643		6,843,659		395,056		3,158,144		22,163		25,214,665
2017		14,928,569		7,501,581		374,726		3,302,779		4,761		26,112,416
2018		15,289,280		7,404,479		353,776		3,336,765		55,201		26,439,501
2019		18,154,657		8,076,009		332,183		3,625,254		438,731		30,626,834
2020		18,694,581		8,441,727		309,946		3,669,899		7,553		31,123,706
2021		19,858,509		8,845,385		287,044		3,898,244		161,972		33,051,154
2022		21,923,767		9,271,273		235,937		4,114,076		325,933		35,870,986

Table 15

**ALBEMARLE COUNTY SERVICE AUTHORITY  
SCHEDULE OF INSURANCE IN FORCE  
June 30, 2022**

Insurer	Type of Coverage	Policy Number	Policy Period		Annual Premium
			From	To	
Virginia Risk Sharing Association	Local Government Liability Boiler & Machinery Cyber Liability General Business Policy: Auto General Liability/Excess Property Fidelity & Crime Workers' Compensation	P-2021-2022-VRSA-0107-3	7/1/2021	6/30/2022	\$118,446

**ALBEMARLE COUNTY SERVICE AUTHORITY  
BILLED SERVICES AND CONNECTIONS  
LAST TEN FISCAL YEARS**

Table 16

<u>Fiscal Year</u>	<u>Water Connections</u>	<u>Water Billions Gallons</u>	<u>Consumption Ratio Water/Sewer</u>	<u>Sewer Billions Gallons</u>	<u>Sewer Connections</u>
2013	17,818	1.55	1.2	1.30	14,840
2014	18,132	1.53	1.2	1.30	15,168
2015	18,466	1.57	1.2	1.33	15,508
2016	18,764	1.61	1.2	1.35	15,805
2017	19,257	1.70	1.2	1.41	16,299
2018	19,738	1.68	1.2	1.41	16,764
2019	20,252	1.63	1.2	1.41	17,273
2020	20,787	1.68	1.2	1.45	17,803
2021	21,238	1.70	1.1	1.48	18,257
2022	21,595	1.78	1.1	1.55	18,611



Table 17

**ALBEMARLE COUNTY SERVICE AUTHORITY  
CONSTRUCTION ACTIVITY, PROPERTY VALUE, AND CASH EQUIVALENTS  
LAST TEN FISCAL YEARS**

<u>Fiscal Year</u>	<u>Construction</u>	<u>Property Value</u>	<u>Cash &amp; Cash Equivalents</u>
2013	\$ 19,677,628	\$ 97,096,463	\$ 21,163,973
2014	5,832,585	118,282,983	20,896,235
2015	8,531,307	120,017,051	23,466,968
2016	8,420,418	125,645,948	24,367,711
2017	11,673,410	127,628,676	30,010,727
2018	6,325,642	140,750,579	38,385,906
2019	9,392,718	145,137,081	40,275,478
2020	8,448,320	154,012,341	45,071,607
2021	8,639,796	162,344,686	21,749,451
2022	15,581,064	161,494,661	23,200,232

## **COMPLIANCE SECTION**



**INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL  
REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF  
FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH  
GOVERNMENT AUDITING STANDARDS**

To the Honorable Members of the Board of Directors  
Albemarle County Service Authority  
Charlottesville, Virginia

We have audited, in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the *Specifications for Audits of Authorities, Boards, and Commissions*, issued by the Auditor of Public Accounts of the Commonwealth of Virginia, the financial statements of the Albemarle County Service Authority (the "Authority"), as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Authority's basic financial statements, and have issued our report thereon dated November 2, 2022.

**Report on Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. **Given these limitations, we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.**



**Report on Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the Authority's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. **The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.**

**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Brown, Edwards & Company, L.L.P.*

CERTIFIED PUBLIC ACCOUNTANTS

Harrisonburg, Virginia  
November 2, 2022

**ALBEMARLE COUNTY SERVICE AUTHORITY****SUMMARY OF COMPLIANCE MATTERS****Year Ended June 30, 2022**

As more fully described in the Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*, we performed tests of the Authority's compliance with certain provisions of the laws, regulations, contracts, and grants shown below.

**STATE COMPLIANCE MATTERS***Code of Virginia*

Cash and Investment Laws

Local Retirement Systems

Debt Provisions

Procurement Laws

Uniform Disposition of Unclaimed Property Act

Conflicts of Interest

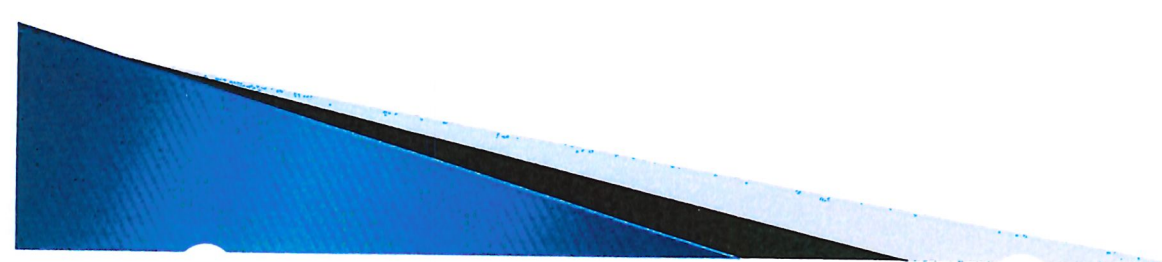
# Exclusion Meter Replacement Program

ACSA Engineering and Maintenance



# Agenda

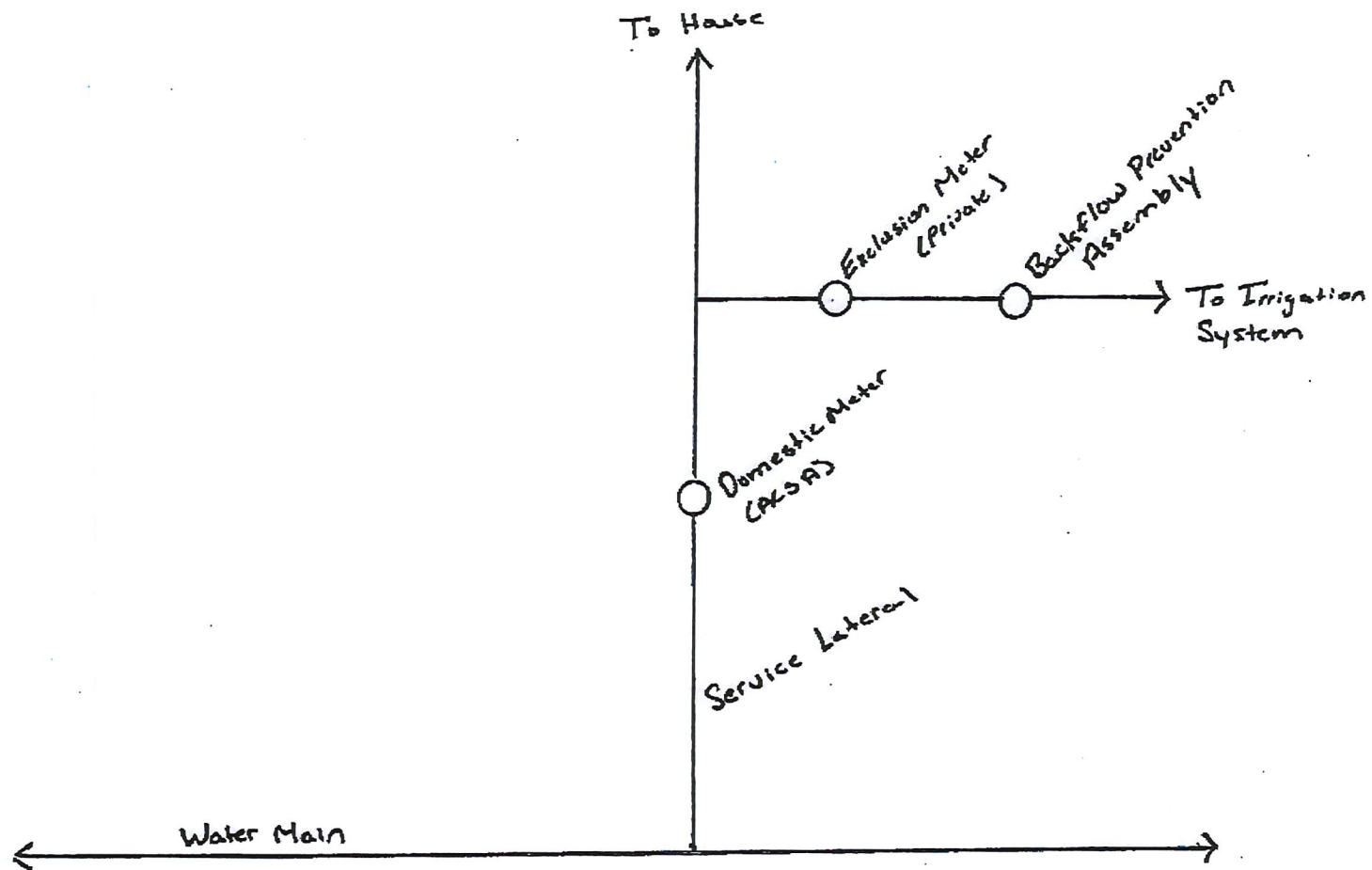
- ▶ Exclusion Meter – Definition, Policy and Installation Plan
- ▶ Auxiliary Meter – Definition, Policy and Installation Plan
- ▶ Program Details
- ▶ Project Pictures
- ▶ Challenges and Issues
- ▶ Questions



# Exclusion Meter – Definition and Policy

- ▶ **Exclusion Meter Systems.** With this design, the plumbing of the irrigation system branches off the private water service line feeding the house or facility. A second meter, called an exclusion meter, measures the amount of irrigation water used. There are no sewer charges on the irrigation water.
- ▶ Beginning January 1, 2006, the ACSA Rules and Regulations were modified to no longer allow the installation of exclusion meter systems. The ACSA is currently in the midst of a multi-year program to replace all exclusion meters with auxiliary meters.

# Exclusion Meter – Installation Plan



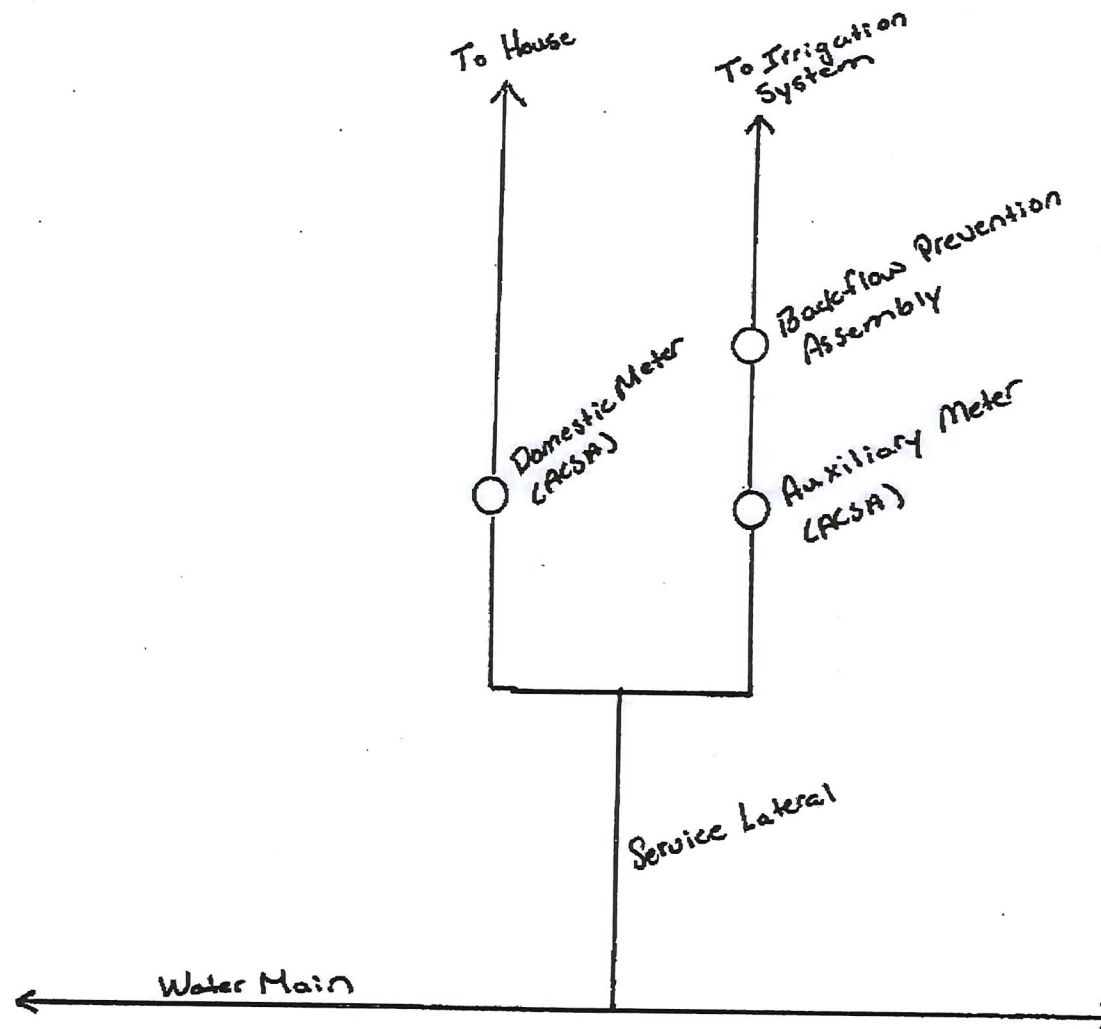


# Auxiliary Meter – Definition and Policy

**Auxiliary Meter** - A water meter dedicated to the service of an irrigation system when the property's non-irrigation water needs are supplied by a primary meter. [Added 01/01/06]

All irrigation systems shall be provided water by means of a dedicated service connection. The ACSA shall make all connections to its water mains and shall specify the location, kind, and quality of all materials at the service connection (per Section 7 - Application for Services and Section 10 – Meters).

# Auxiliary Meter – Installation Plan





# Program Details

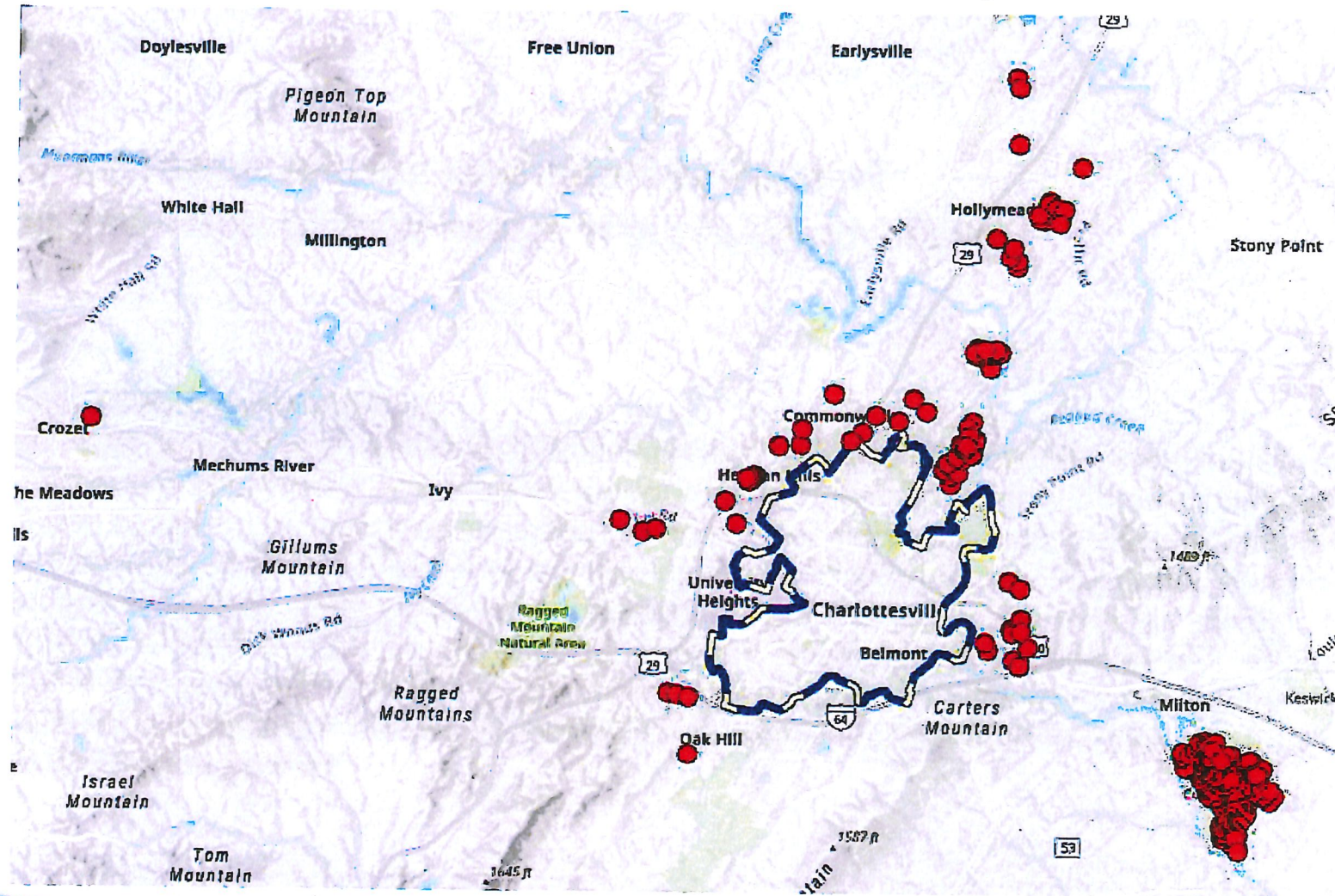
## **Irrigation Exclusion Meters**

Some irrigation systems are served by privately owned exclusion meters connected to the private water service line downstream of the ACSA meter. These meters measure the volume of water used by the irrigation system to exclude that amount from the calculation of the wastewater volume charge assessed the customer. The ACSA has established a program to convert all existing irrigation exclusion meters to an auxiliary meter or abandon them for customers who no longer want to maintain their irrigation system. The ACSA shall absorb all costs associated with this program. Customers who refuse to allow the conversion or abandonment of their irrigation exclusion meters shall be notified in writing that after 30 days from the date of notification the ACSA shall no longer reduce the wastewater volume charge on their monthly bill.

- ▶ 495 Exclusion Meters at the start of the program.
- ▶ 352 Exclusion Meters remaining to convert.



# Program Details (cont.)





# Program Details (cont.)





# Project Pictures





# Project Pictures (cont.)





# Project Pictures (cont.)





# Project Pictures (cont.)





# Project Pictures (cont.)





# Project Pictures (cont.)



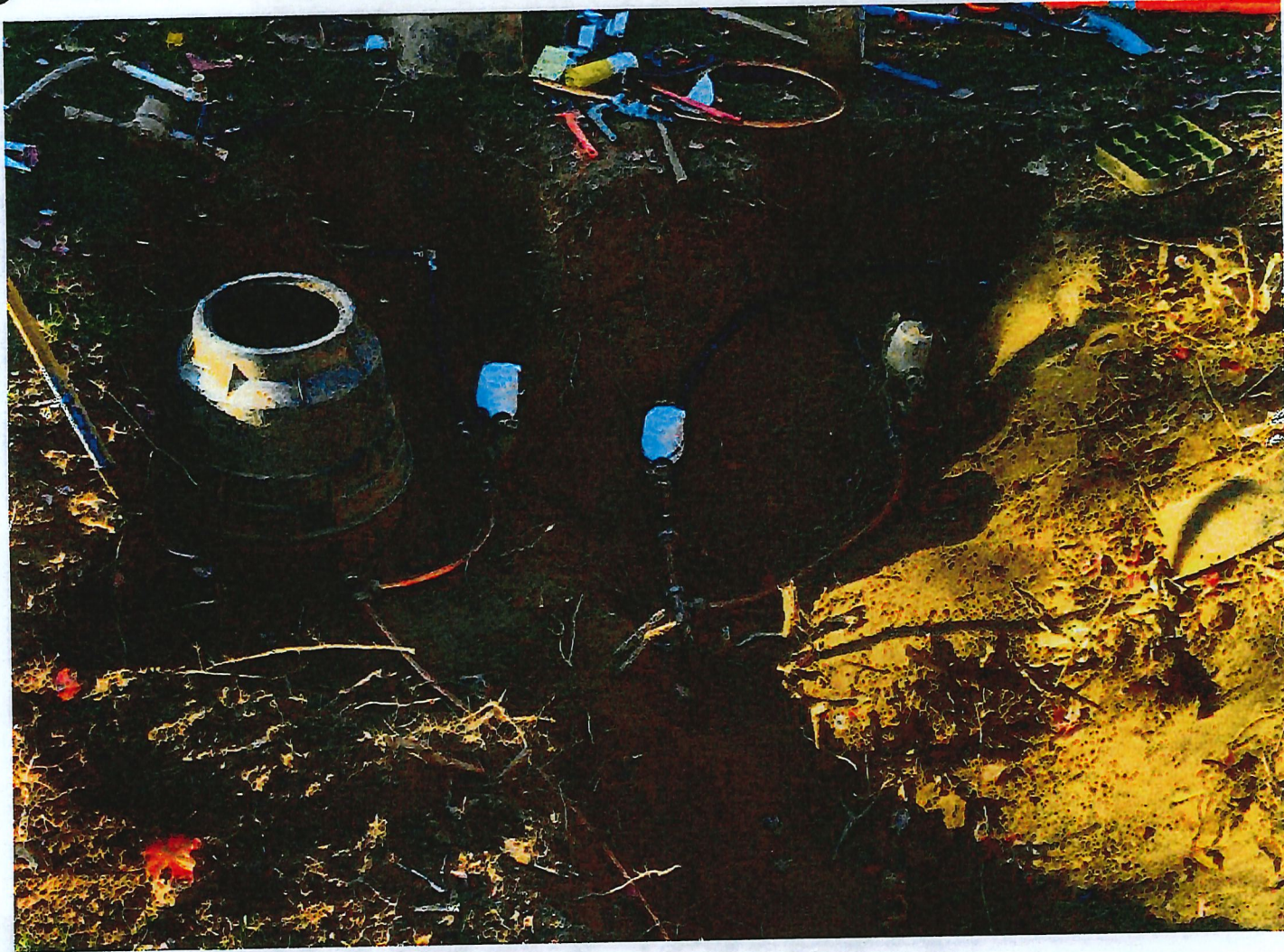


# Project Pictures (cont.)





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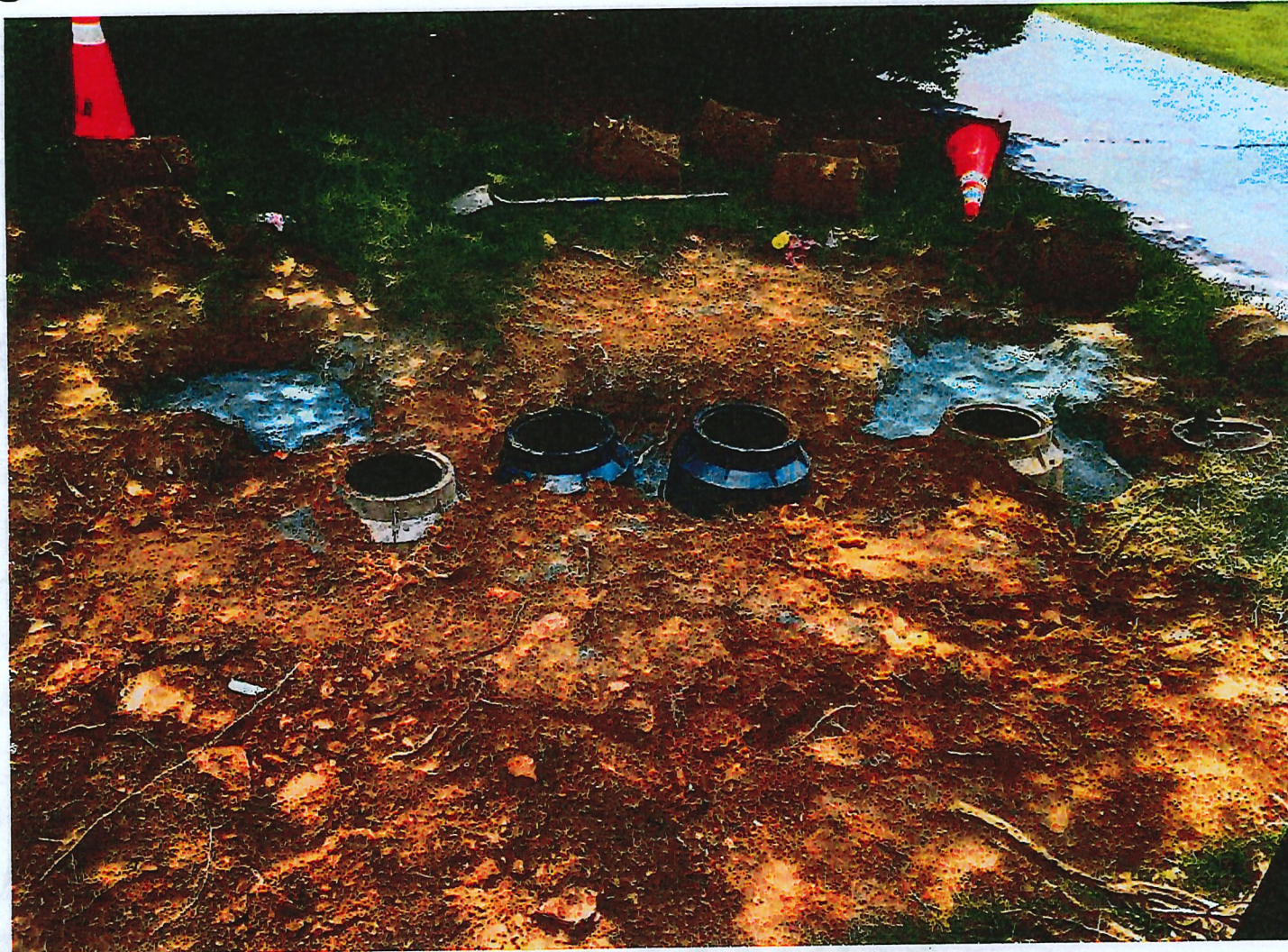


# Project Pictures (cont.)





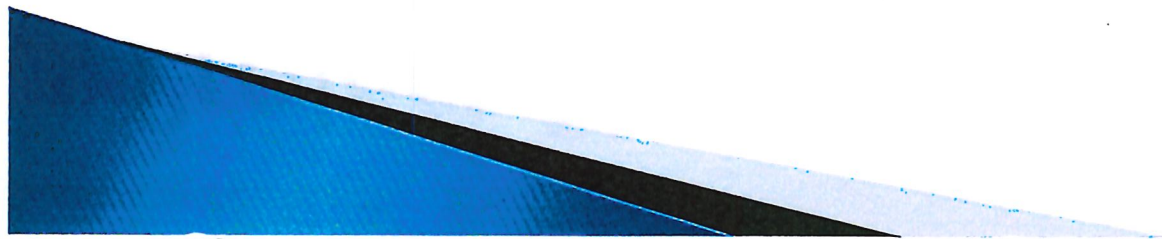
# Project Pictures (cont.)





# Challenges and Issues

- ▶ COVID
- ▶ Landscaping
- ▶ SOD
- ▶ Other utilities (power, telecommunications, gas)
- ▶ Private Irrigation
- ▶ Driveways/ Roads
- ▶ Traffic
- ▶ Weather
- ▶ Crew availability
- ▶ Meter availability
- ▶ Rock (underground)
- ▶ Property Owners
- ▶ Elevation change between services (vertical bends needed).
- ▶ Private side material (PVC)





**Photo Credits: Maintenance Department**

**Questions?**

## AGENDA ITEM EXECUTIVE SUMMARY

<b>AGENDA TITLE:</b> Water Audit Report	<b>AGENDA DATE:</b> November 17, 2022
<b>STAFF CONTACT(S)/PREPARER:</b> Jeremy M. Lynn, P.E., Director of Engineering	<b>ACTION:</b> <input type="checkbox"/> <b>INFORMATION:</b> <input checked="" type="checkbox"/>
	<b>ATTACHMENTS:</b> NO

**BACKGROUND:** As part of our 2020-2022 Strategic Plan, the ACSA identified the need to incorporate utility best practices to reduce water loss by utilizing tools to identify water leaks and performing annual water audits. Specifically related to water audits, ACSA staff began utilizing AWWA's Free Water Audit Software which is designed to help quantify and track water losses associated with water distribution systems and identify areas of improved efficiency and cost recovery. The water auditing process is an effective tool available to quantify consumption and losses that occur in the distribution system and improve the management processes of a water utility.

In addition to the Free Water Audit Software, AWWA has published the *Manual of Water Supply Practices M36 Water Audits and Loss Control Programs* with the specific focus of guiding utilities through the auditing process, understanding the results and providing guidance on next steps. The auditing process undertaken by the ACSA is considered a top-down approach – an initial desktop process of gathering information from existing records, procedures, data, and other information systems. The basis for this approach is the Water Balance Calculation, using the simple concept of water being neither created nor destroyed, therefore the volume of water entering the distribution system must leave the distribution system. With this methodology, it is important that the accuracy of source meters is verified, and any calibration issues be resolved as part of this top-down approach. Over time, bottom-up activities should be pursued to better audit and control apparent and real losses.

As defined by AWWA's auditing software, Water Losses are the difference between Water Supplied and Authorized Consumption. Water losses are broken into two categories, Apparent Losses and Real Losses.

- Apparent Losses – Water is not actually lost, but the ACSA loses track of the water and therefore is unable to collect revenue from it. Examples include customer metering inaccuracies, data handling errors, and water theft.
- Real Losses or Leakage – Water that escapes from the distribution system before it can be used.

# ALBEMARLE COUNTY SERVICE AUTHORITY

## AGENDA ITEM EXECUTIVE SUMMARY

Over the past two years, ACSA staff has been able to perform water audits on both our Crozet and Scottsville distribution systems. Below is a table outlining the results of each audit:

Distribution System	Audit Year	Water Supplied (MG)	Authorized Consumption (MG)	Water Loss (MG)	% Total Water Loss	Data Validity Score
Crozet	CY 2020	223.485	198.891	24.594	11%	64
Crozet	CY 2021	248.048	211.841	36.207	14.60%	71
Scottsville	FY 2021	18.775	15.722	3.053	16.26%	63
Scottsville	FY 2022	20.759	18.694	2.065	9.95%	76

### DISCUSSION:

- Results for both Crozet and Scottsville water audits indicate that retail costs charged to these customers are less than actual production costs. This reconfirms graphs included in the Monthly Financial Reports that demonstrate RWSA Billed Water Charges exceed ACSA Billed Water Revenues.
- AWWA Free Water Audit Software provides Priority Areas for improved data validity. Areas for the ACSA to focus on include:
  - Customer Metering Inaccuracies – Meter inaccuracy can occur because of meter wear, improper sizing or type of meter for customer usage, or improper meter installation.
  - Water Imported – The volume of imported water is the most important number in the water audit, and the reliability of all water audit calculations depends greatly on the accuracy of the production meter.
  - Unbilled Metered Authorized Consumption – Metered consumption that is authorized but is deemed by the ACSA as unbilled.
- A growing number of regulatory entities are requiring annual water auditing using the methodology presented in AWWA M36. Currently, Virginia does not require annual water auditing.
- According to U.S. EPA's website, national studies indicate that, on average 14 percent of the water treated by water systems is lost to leaks. Some water systems have reported water losses exceeding 60 percent.



**AGENDA ITEM EXECUTIVE SUMMARY**

- Based on the audit's Data Validity Score, the software also includes a Water Loss Control Planning Guide. Specific recommendations based on our scoring include:
  - Establish/revise policies and procedures for data collection
  - Establish ongoing mechanisms for customer meter accuracy testing, active leakage control and infrastructure monitoring.
  - Establish long-term apparent and real loss reduction goals.
- Given the interconnectedness and complexity of the Urban Water Distribution System, it is recommended that a collaborative effort with the Rivanna Water and Sewer Authority and City of Charlottesville be undertaken to conduct a combined water audit.

**BUDGET IMPACT:** None.

**RECOMMENDATIONS:** None.

**BOARD ACTION REQUESTED:** No Board action requested. Information only.

**ATTACHMENTS:** PowerPoint presentation – ACSA Water Auditing



# ACSA WATER AUDITING

CROZET AND SCOTTSVILLE DISTRIBUTION SYSTEMS

ACSA BOARD OF DIRECTORS MEETING

NOVEMBER 17, 2022



# PRESENTATION OUTLINE



**WHAT IS WATER  
LOSS?**



**WHY DO WE  
TRACK IT?**



**WHERE ARE WE?**

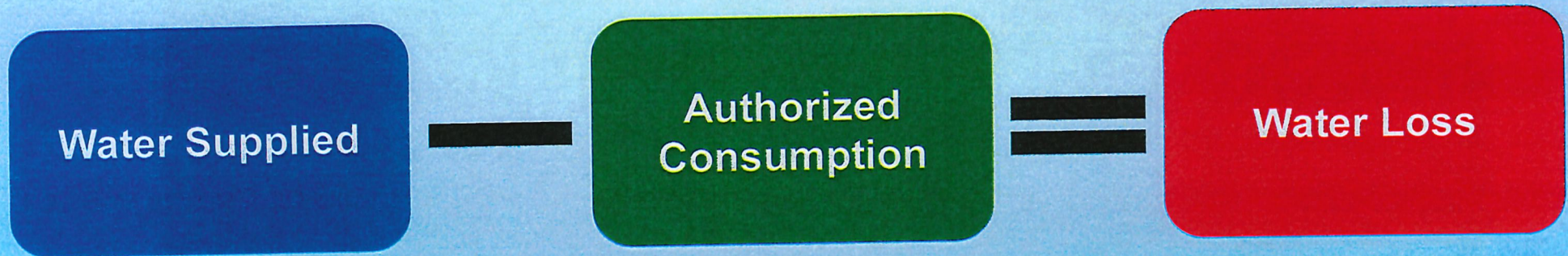


**FUTURE EFFORTS  
AND INITIATIVES**



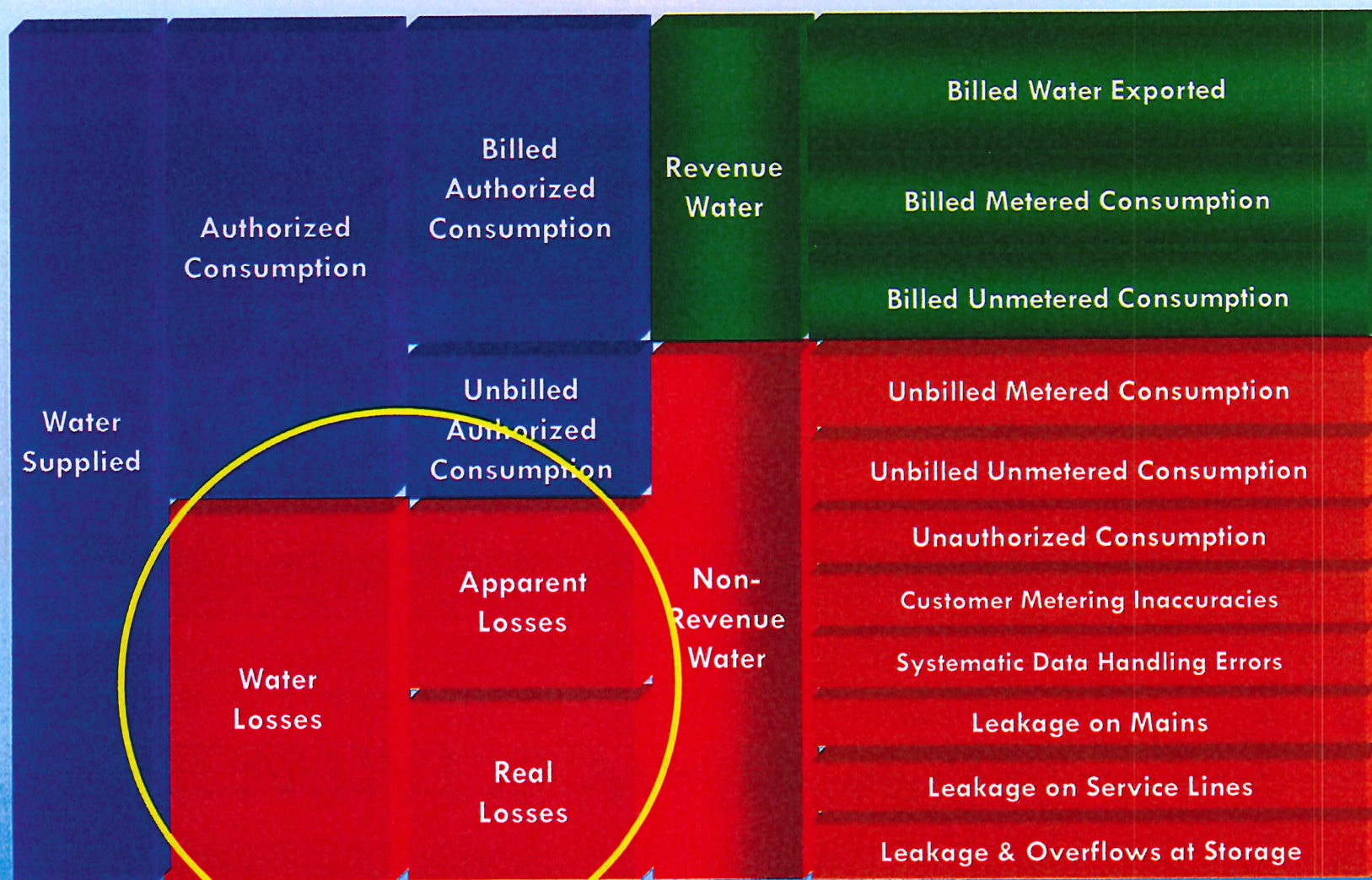
# WHAT IS WATER LOSS?

- THE DIFFERENCE BETWEEN THE VOLUME OF WATER SUPPLIED AND THE VOLUME OF AUTHORIZED CONSUMPTION





# AWWA M36 WATER BALANCE





# REAL VS. APPARENT LOSSES

- REAL LOSSES – WATER THAT ENTERS THE DISTRIBUTION SYSTEM BUT NEVER REACHES A USER
- EXAMPLES INCLUDE:
  - LEAKAGE ON DISTRIBUTION MAINS
  - STORAGE TANK OVERFLOWS
  - SERVICE LINE LEAKAGE BEFORE THE CUSTOMER'S METER
- APPARENT LOSSES – WATER THAT REACHES A USER, BUT ISN'T PROPERLY MEASURED OR PAID FOR
- EXAMPLES INCLUDE:
  - THEFT
  - CUSTOMER METERING INACCURACIES
  - DATA HANDLING ERRORS



# WHY TRACK WATER LOSS?

- **REDUCTION IN WATER UTILITY OPERATING COSTS**
  - ADDRESS REAL LOSSES TO REDUCE PRODUCTION COSTS
  - ADDRESS APPARENT LOSSES TO REDUCE WATER PRODUCED BUT NOT BILLED, INCREASES REVENUES
- **FITS INTO THE ACSA VISION STATEMENT**
  - SERVE AND CONSERVE TODAY, SUSTAIN FOR TOMORROW, AND PROTECT OUR RESOURCES FOREVER



# WHERE ARE WE?

Distribution System	Audit Year	Water Supplied (MG)	Authorized Consumption (MG)	Water Loss (MG)	% Total Water Loss	Data Validity Score
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# PRIORITY AREAS

- CUSTOMER METERING INACCURACIES – INCREASE METER TESTING AND ENSURE PROPER METER SIZING
- WATER IMPORTED - CONTINUE WORKING WITH RWSA TO ENSURE ACCURATE PRODUCTION METERS AT THE FILTER PLANTS
- UNBILLED METERED AUTHORIZED CONSUMPTION – EXPLORE OPPORTUNITIES TO REDUCE NON-REVENUE WATER BY OPTIMIZING USE OF AUTO-FLUSHERS



# FUTURE EFFORTS AND INITIATIVES

- CONTINUE ANNUAL WATER AUDITS FOR CROZET AND SCOTTSVILLE
- COLLABORATIVE EFFORT WITH RWSA AND CITY OF CHARLOTTESVILLE TO PERFORM URBAN SYSTEM WATER AUDIT
- ESTABLISH LONG-TERM APPARENT AND REAL LOSS REDUCTION GOALS



**QUESTIONS???**



**MOTION:**

**MEETING DATE:** November 17, 2022

**SECOND:**

## **RESOLUTION**

BE IT RESOLVED by the Board of Directors of the Albemarle County Service Authority that the Board needs to enter into Executive Session to consider the following matter:

1. Pursuant to Va. Code §2.2-3711 A (1) to discuss a personnel matter concerning the Executive Director's Mid-Year Review.

**VOTE:**

**AYES:**

**NAYS:**

(For each nay vote, the substance of the departure from the requirements of the Act should be described).

**ABSENT DURING VOTE:**

**ABSENT DURING EXECUTIVE MEETING:**

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Gary B. O'Connell, Secretary-Treasurer





**MOTION:**

**MEETING DATE:** November 17, 2022

**SECOND:**

**CERTIFICATION OF EXECUTIVE MEETING**

**WHEREAS**, the Board of Directors of the Albemarle County Service Authority has convened an executive meeting on this date pursuant to an affirmative recorded vote and in accordance with the provisions of The Virginia Freedom of Information Act; and

**WHEREAS**, §2.2-3711 A (1) of the Code of Virginia requires a certification by this Board that such executive meeting was conducted in conformity with Virginia law;

**NOW, THEREFORE, BE IT RESOLVED** that the Board hereby certifies that, to the best of each member's knowledge, (i) only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the executive meeting to which this certification resolution applies, and (ii) only such public business matters as were identified in the motion convening the executive meeting were heard, discussed or considered by the Board.

**VOTE:**

**AYES:**

**NAYS:**

(For each nay vote, the substance of the departure from the requirements of the Act should be described).

**ABSENT DURING VOTE:**

**ABSENT DURING EXECUTIVE MEETING:**

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Gary B. O'Connell, Secretary-Treasurer